

Creating Connections: Country Paths & Village Sidewalks

A Greenways, Trails, and Gateways Plan for West Bradford Township



An Amendment to the
West Bradford Township Comprehensive Plan

Adopted June 22, 2004

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A Greenways, Trails, and Gateways Plan*

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Dedication

The Board of Supervisors would like to dedicate this Plan to each of the numerous individuals who serve our community by providing countless hours of their time serving as Township volunteers.

Their dedication and perseverance is evident daily and not always recognized fully.

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INTRODUCTION



*“The goal of life is living in
agreement with nature.¹”*

Prologue...

Man can have a great impact upon his surroundings. We have the ability to quickly alter our natural environment for the better or worse. We don't have to go very far to see man's impact upon his natural surroundings. Nowhere is this more evident than in our Township.

Just three hundred years ago, our whole community was forested uplands inhabited by a few Native Americans. Less than two hundred years ago, agriculture dominated our landscape with a few cottage industries in our villages and along our streams. Just fifty years ago, we had only a few thousand residents and no “developments.” Today, we have over twelve thousand residents and many developments scattered all over the township.

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During these changing times, our community has struggled to retain its character and quality of life. We have been successful in many aspects when compared to other townships in Chester County. We have been able to slow and guide change. We proactively address issues associated with growth instead of being caught by them.

However, the preservation of our community character is an ongoing and unending process. The Township Board of Supervisors has continually demonstrated their commitment to retaining and enhancing our quality of life. They have established the policies and provided the resources to accomplish this. Through the development and implementation of this Plan, the Township seeks to continue to build a “green” legacy for our current and future residents.

The Township has preserved over 270 acres of open space in parklands, preserves, and restricted lands. Conservation organizations have preserved another 318 acres in our Township. We are continually seeking to retain large blocks of open space. However, the ability to preserve these areas, and the availability of areas to preserve, has decreased over time. Now is the time to alter our focus and put resources into linking the open spaces that we have preserved and protecting the natural features that are an integral part of our environment.

This Plan’s focus is to create a limited, achievable vision for linking our community and preserving its linear natural features: a vision that can adapt to changes in our landscape and be flexible enough to take advantage of opportunities as they present themselves.

Each of the three main sections of this Plan concentrates on a single topic. The recommendations of each section, when implemented as a whole, promote our overall, “green” vision for the community.

The Greenways Section concentrates on the identification and protection of linear corridors based primarily upon natural features, but also, to a limited degree, upon visual resources that break up the suburban development pattern. Greenways protect and enhance natural resources.

The Trails Section concentrates on the identification and enhancement of linear corridors that connect “activity centers” in the township. Trails provide recreational and, to a lesser degree, circulation opportunities to our residents.

The Gateways Section concentrates on creating a better “sense of place” for our community. It does not specifically address linear features, but it does address the enhancement of our village streetscapes and entrances into the township.

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Benefits...

It is unnecessary to dwell on the merits of greenways, trails, and gateways. Township policy for many years has recognized the quality-of-life benefits that they provide. It's an accepted fact among our residents that they are desirable features when created conscientiously, and maintained properly.

The Pennsylvania Greenways Plan discusses many of the specific benefits of greenways and trails. An edited summary of which follows for reference.²

Greenways and trails ...

- ... enhance the sense of place in a community or region.
- ... accentuate the scenic beauty and majesty of our state.
- ... protect our state's water resources by buffering non-point sources of pollution.
- ... provide opportunities to protect and manage wildlife, forests, and ecological systems.
- ... provide recreation opportunities for families and individuals of all ages and abilities.
- ... provide alternatives to automotive transportation, {sic} reducing traffic congestion.
- ... add positively to our economic climate.
- ... are a core component of strategies to foster health and wellness – especially as our population ages.

The Township is committed to promoting greenways, trails, and gateways for these specific benefits and for the more intangible, quality-of-life enhancement that accompanies them.

Other Township documents recognize these benefits and support the enhancement of open spaces and natural resources through the promotion of greenways, trails, and gateways.

Background Documents...

Many Township documents serve as a basis for this Plan. They promote many of the same overall goals that this *Greenways, Trails, and Gateways Plan* has. Yet, this plan differs from the others in that it has a specific focus on using linear corridors to achieve many of the same goals. The Plan takes aspects from each “parent” document.

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These “parent” documents are the West Bradford Township:

- Comprehensive Plan
- Open Space, Recreation, and Environmental Resources Plan
- Zoning Ordinance
- Subdivision and Land Development Ordinance
- Road Network Management Plan
- Official Township Map

The *West Bradford Township Comprehensive Plan*³ was last updated in 1989. It is the main policy document for the Township and outlines goals and objectives for land use, community facilities and services, natural features preservation, and infrastructure such as roads and sewers. As part of its Circulation Plan⁴ recommendations, it identifies potential trail corridors along the major stream corridors (East and West Branches of the Brandywine and Broad Run) with side connections to the Township’s activity centers (Marshallton, the elementary schools, Municipal Campus, parks, and links to adjacent municipalities).

The *West Bradford Township Open Space, Recreation and Environmental Resources (OSRER) Plan*⁵ was last updated in 1993. It expands upon the goals and objectives of the *Comprehensive Plan* and details specific parkland, facility, open space, and resource protection needs of the Township. Most of its parkland and facility acquisition goals have been met. The *OSRER Plan* identifies the linear natural features that will compose our greenways and trails network. In its Greenways Recommendations⁶ it also shows a network connecting the Township’s activity centers along watercourses and through Township owned, eased, and/or homeowners association lands. This plan also recommends the use of utility rights-of-way to facilitate these connections.

The *West Bradford Township Zoning Ordinance*⁷, created in 1977, has been continually amended since then. It is not a policy document, but rather the document that regulates the land use within the Township. It has provisions precluding development within floodplains, regulating development on steep slopes, fostering the creation of new developments retaining 60% open space, and encouraging greenways and trails in new subdivisions. Since the Zoning Ordinance is not a planning document, no policies on greenways, trails, and gateways flow from it. However, it will play a key role in the implementation of this Plan’s recommendations.

The *West Bradford Township Subdivision and Land Development Ordinance (SLDO)*⁸ was last revised in 1996, has been continually amended, consolidated in 2002, and currently being rewritten. It is a regulatory document. The *SLDO* contains the facility standards that developers must use. It can be amended to require specific standards for sidewalks, trails, and roads, which facilitate the creation of trails.

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The *West Bradford Township Road Network Management Plan* is currently being revised. It sets a defined, capital plan for Township owned roadway and pathway improvements. The Township seeks to create, improve, or rebuild approximately six miles of roadway per year. Some of these resources can be directed towards the development of paved trails, sidewalk improvements, and bikeways.

The *West Bradford Township Official Map* was initially adopted in 1997. It shows the official Township infrastructure including roadways, rights-of-way, easements, and lands that the Township seeks to utilize. The Township has the opportunity to use land for municipal purposes when it has been placed on an Official Map and a change in ownership is contemplated. This document can help protect and preserve corridors that the Township seeks to protect.

Chester County is also seeking to promote the preservation of open space and the development of greenways networks throughout the county. They encourage the preservation of open spaces, the protection of natural features, and inter-municipal cooperation through their “Landscapes” programs. The County’s comprehensive plan, *Landscapes*⁹, its open space plan, *Linking Landscapes*¹⁰, and its many grant programs do this. West Bradford Township supports these broader efforts by the County and looks to work with neighboring municipalities on their efforts.

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GREENWAYS



*“You will find something more
in the woods than you will find
in books. Trees and stones will
teach you that which you can
never learn from masters.”¹¹*

Defined...

The term “greenway” has evolved over the years. It has different connotations and different meanings to different people. The broadest description of a greenway could include ribbons of loosely linked open spaces and features wider than our whole township, which preserve not only “green” features but also man-made, cultural features as well. This broad definition does us no good. We use a simpler definition that better fits the landscape of our Township and our limited objectives.

West Bradford Township greenways are:

Linear corridors of protected open space that link and conserve natural features. They serve as both a bridge and buffer between man and nature. They may vary in scale, from narrow ribbons of green that run through village and suburban areas to wider

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corridors of several hundred feet that incorporate diverse natural and scenic features. They may include both public and private property.

Our greenways are both land and water based: running along stream corridors, ridgelines, woodland strips, and habitat and migration corridors. They conserve and link these features with other natural features and connect our Township's open spaces. They are managed primarily for conservation purposes, but may also offer passive recreational opportunities. Some greenways may also have secondary functions: serving to enhance our environment by visually breaking up the development pattern or as a host to recreational trails.

Our greenways differ in their location and function, but overall, the greenway network protects our natural, cultural, and scenic resources, provides recreational benefits, and enhances the natural beauty and quality of life in West Bradford Township.

The greenways identified in this study have particular importance to our community for their environmental values and their ability to improve the overall health, safety, and welfare of our residents.

They are characterized as being composed of one, or a combination of, the following linear features:

- Stream Valleys – including floodplains and wetlands
- Ridgelines – including plateaus and slopes
- Woodlands – including hedgerows
- Habitat – for both plants and animals, especially P.N.D.I.¹ areas
- Migration Corridors – for flora, mammal, reptile, avian, amphibian, and aquatic species

Map 1 shows the natural features and protected lands that our greenway network is based upon.

A **hedgerow** is a row of vegetation including trees, shrubs, and grasses that are planted along the edges of fields or other unused areas. They provide wind protection, slow runoff, reduce soil erosion, and are easily maintained. Ecologists have also found that they increase water permeability and filter runoff. They also visually screen and buffer adjacent land uses. *Linking Landscapes*, 18.24.

¹ Pennsylvania Natural Diversity Index - a State listing of significant and/or endangered natural habitat areas.

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Purpose...

From our definition, it is evident that greenways can have many purposes and that different types exist. However, they all have two characteristics that are required for them to be considered important to West Bradford Township.

1. A greenway must provide some public benefit to our community, but it does not necessarily have to be publicly owned or accessible.
2. A greenway must have the capability of being reasonably protected in some fashion for perpetuity, or for as long as its identified resources remain.

The main purposes of “Greenways” in West Bradford Township are:

- Natural Feature Protection;
- Landscape Buffer to Development; and
- Biodiversity Enhancement



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{INSERT MAP 1 HERE}

Map 1 - Township Natural Features Map

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Natural Feature Protection

Our greenways preserve the natural land and water features of our township. They serve the following functions:

- Protect water supplies by filtering pollutants and sediments and recharging groundwater;
- Reduce flood damage by allowing overflow outside of built up areas, preserving wetlands that absorb excess water, and reducing flood velocities by limiting channelization;
- Limit erosion by retaining natural vegetation;
- Protect steep slopes by reducing erosion and maintaining natural vegetation; and
- Conserve unique geological features.



Because of the linear nature of greenways and the fact that they run throughout the township, their protection of natural features is greater than their actual area would suggest. Greenways, because of their connectivity, enhance and protect a network of natural features. This is unlike the conservation of large blocks of open space that protect resources only in a single area.

Landscape Buffer

Our greenways provide a development buffer in addition to their natural feature protection and biodiversity enhancement. They serve the following functions:

- Improve our microclimate by acting as wind, light, and sound buffers;
- Retain our historical landscape by providing a green, visual backdrop on some of our most prominent natural features;
- Improve our quality of life by bringing nature closer to homes; and
- Enhance property values.

As we try to retain more of our open spaces, homes are developed on smaller lots. Greenways serve an important function in retaining the characteristic “country landscape” that West Bradford Township is known for. With greenways, natural features are protected and homes can be placed on smaller lots without creating an urban look. Instead of looking in a neighbor’s window - trees or a vista are seen. Preserving greenways throughout new subdivisions limits the possibility of a developer creating a “cookie cutter” subdivision. It forces developers to recognize the landscape and work with the natural features on the site.

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Biodiversity Enhancement

Greenways enhance our Township's biodiversity through their vegetation and physical characteristics. These provide habitat and migration corridors for flora and fauna. They enhance wildlife value through expanding and interconnecting our open space areas. With the protection and enhancement of natural habitat that greenways provide, species viability increases and so does biodiversity.

The value of a habitat is dependent upon many landscape characteristics. Greenways cannot be used as the sole method to increase biodiversity. Their ability to connect larger blocks of open spaces, with habitat characteristics that are very different from our narrow greenways, is the key to enhancing biodiversity. "Biological diversity is a complicated concept involving more than just numbers of species. In addition to species numbers (richness), biodiversity includes their relative abundance (evenness), genetic diversity, ecosystem diversity, and ecological and evolutionary processes."¹² In simplistic terms, the greenways in West Bradford Township provide "edge" habitat whereas the larger blocks of open spaces provide "core" habitat. The ability of greenways to connect to these larger open spaces and to provide a mechanism for plants and animals to travel between them is critical to providing a balanced ecosystem in Chester County.



A "core" habitat, in non-scientific terms, has uniform landscape characteristics, with limited landscape fragmentation, having a good spatial core of at least 25 acres. In Chester County, "core" habitats are the home of many of our P.N.D.I. sites, neotropical migrant birds, carnivorous birds, and large stands of Oak and Hickory trees. "Core" habitats in West Bradford Township are found in the larger open space parcels that our greenways connect, the areas around P.N.D.I. sites, and the Broad Run.

An "edge" habitat is an area where stands of trees meet open lawns, fields, or small hedgerows.¹³ For the most part, many of our greenways are considered narrow, in relation to normal biological habitats, and are therefore considered "edge" habitats. The type, composition, and shape of the woodlands and hedgerows in our greenways provide habitat for many of the usual generalist plant and animal species. These include cardinals, deer, red/gray squirrels, mockingbirds, rabbits, raccoons, opossum, woodchuck, muskrats, chipmunk, and fox.

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Our PNDI sites deserve special notice. The sites identified in the Pennsylvania Natural Diversity Inventory are areas of special importance for rare, threatened, and endangered species and of the highest quality natural areas.¹⁴ All of the identified P.N.D.I. sites in West Bradford Township are found in “core” habitats.²

Historical Landscape

West Bradford Township did not always have the same landscape and habitat that it does today. Before European settlement, Chester County was covered primarily with a large homogeneous, deciduous forest. This stable “core” landscape had not changed since the Ice Age. Various species lived in this forest; especially some unique species that needed certain conditions to live (e.g. plants with low light requirements, neotropical migrant birds that had specific food requirements, or carnivorous animals with specific den requirements).

As Europeans settled and cleared the land for farming, these “core” landscapes were fragmented and stressed. Species change occurred as the landscape became more heterogeneous. A new balance in the County’s ecosystem was reached where “core” habitats were shifted to those lands where farming was not economically feasible or those areas far from settlement concentrations.



Today, a similar change is occurring. Development has replaced farming as the engine behind landscape change. It can be debated as to whether our current development patterns are good or bad. However, change is inevitable and always presents opportunities. We have the opportunity to guide development to enhance habitat viability: or at least to consider its ramifications on our ecosystem. This opportunity was not recognized in Chester County’s early settlement period.

² See *A Natural Areas Inventory of Chester County, Pennsylvania*, as amended, for the particular characteristics of the sites identified herein.

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Goals and Objectives...

Our efforts to create a greenway network are guided by the principles mentioned above and by the following goals and objectives.

Goals and objectives provide direction to a plan. They make up a hierarchy with goals being on top, objectives in the middle, and implementation strategies on bottom. Goals are composed of objectives. Objectives are composed of strategies.

Goals ← Objectives ← Strategies

Goals are guiding principals and overall descriptions of one's aims. They are broad in scope and seek to establish long-term results. Objectives are more precise statements on how to accomplish goals. They are more quantifiable in nature and shorter in term than goals. Strategies are specific actions of limited magnitude taken to achieve objectives. They change frequently over the life of a plan as objectives are met. Strategies are found in the recommendation sections of this Plan.

Greenway Goals & Objectives

Protect the Township's natural features

- Conserve slopes, wetlands, woodlands, floodplains, and geologic features;
- Enhance already conserved natural features; and
- Encourage a holistic approach to protection measures.

Enhance the Township's development pattern

- Integrate greenways and landscape considerations into the development process;
- Improve landscapes of older subdivisions; and
- Cultivate awareness of green landscapes within our community.

Increase the Township's biodiversity

- Enhance natural habitat and wildlife value;
- Connect larger "core" open space habitats;
- Protect P.N.D.I sites; and
- Allow regional connections to our local network.

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Identification...

Greenways by their very nature are connectors. They serve as a balance to the built environment: acting as a link for native plants and animals to wider, regional habitats.

With this in mind, our greenway network interconnects with those of adjacent municipalities. Where adjacent municipalities have not yet designated a greenway, our network will allow for the future continuation into adjacent jurisdictions.

Chester County's Open Space Plan, *Linking Landscapes*¹⁵, recommends larger, regional greenways, which they call "Wildlife Biodiversity Corridors." These corridors extend throughout the county and link core habitats. A minimum width of 2,000 feet for these corridors is recommended. However, it is unlikely that the Township's greenways could ever achieve this width due to existing development constraints.

The County's two main regional corridors that traverse West Bradford Township are:

- East Branch of the Brandywine Creek
- South Chester Valley Hills

Additionally, the County shows a corridor in Newlin Township centered on the West Branch of the Brandywine Creek, the Embreeville County Park, and the King Ranch. While this corridor does not cross our Township, there may be an opportunity to link to it through the Embreeville County Park, which borders West Bradford Township.

During the planning of this document, the Comprehensive Plans, Open Space, Recreation, and Environmental Resources Plans, and Official Maps of our neighboring municipalities were reviewed.

East Bradford Township, East Caln Township, and Downingtown Borough have all planned in some fashion for a greenway on the East Branch of the Brandywine Creek. The recommended 2,000-foot width is achievable over time with some effort on the stretch between West Bradford and East Bradford Townships. This would come from a combination of protection measures such as existing and potential, public ownership, easements, and existing regulations limiting development within floodplains. West Bradford Township is currently in the process of recreating a riparian buffer on the portion of the greenway it owns in Brandywine Meadows Preserve through the Conservation Reserve Enhancement Program (CREP).

The viability of the County's proposed South Chester Valley Hills corridor is suspect as a regional connection. It does not have the recommended 2,000-foot width available due to existing development, and the area in Caln Township proposed for it is currently undergoing development. However, it is viable in West Bradford Township as a local greenway and will be examined as such.

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Pocopson Township has planned for a stream valley greenway along the West Branch of the Brandywine Creek.

After reviewing Township planning documents and those of the County and adjacent municipalities, a preliminary list of greenways was developed. The greenways were analyzed using resource mapping and aerial photography from our geographic information system. Field visits were conducted. The final list contained here represents the most feasible and important greenways in West Bradford Township.

We placed an emphasis on identifying and concentrating our preservation efforts on the most viable greenways instead of trying to protect every area that might be classified as such. The result represents a network of the highest value greenways that compliment each other and protect the most critical resources in our township.

We have identified thirteen greenways in our network. The longer greenways have been broken up into segments to assist in their implementation – for a total of 16 segments. Figure 1 identifies each greenway. Map 1 shows the Township’s greenways network.



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Figure 1 - Greenway Listing

Map Number	Greenway	Location
1	Broad Run – <i>Headwater Segment</i>	Northwestern portion of the Twp. along Broad Run Road
2	Broad Run – <i>Ridgeline Segment</i>	South central portion of the Twp. along Broad Run Road
3	Broad Run – <i>Bordley Segment</i>	South central portion of the Twp. along Broad Run Road near the Tattersall Golf Course
4	Broad Run – <i>Furling Mill Segment</i>	Southeastern portion of the Twp. adjacent to Pocopson and Newlin Twps.
5	Saw Mill	Northeastern portion of the Twp. running along Saw Mill Road
6	East Branch Brandywine	Runs along the eastern border of the Twp. and is shared with E. Bradford and E. Caln Twps.
7	West Branch Brandywine	Runs along the southern border of the Twp. and is shared with Pocopson Twp.
8	Lone Eagle	Located in the western portion of the Twp. crossing Strasburg Road
9	Tattersall - Embreeville	South central portion of the Twp. running through the Tattersall Golf Course and the Embreeville Complex
10	Telegraph	Runs through the eastern portion of the Twp. north of Marshallton and west of Copesville
11	Romansville-Anderson	Southwestern portion of the Twp. South of Strasburg Road and west of Stargazers Road
12	Shadyside	Eastern portion of twp. along Shadyside Road to E. Branch of the Brandywine Creek
13	Lower Poorhouse	Follows the stream along the northern portion of Poorhouse Road flowing into Caln Twp.
14	South Bailey	Runs along the western border of the Twp. and is shared with East Fallowfield Twp.
15	South Chester Valley	Follows the northern boundary of the Twp. and is shared with Caln Twp.
16	Stauffer Run	Follows stream along Embreeville Road to Caln Twp.

A summary of each greenway noting their general characteristics, purpose, and ownership is found in Figure 2.

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{INSERT MAP 2 HERE}

Map 2 - Township Greenways Map

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Figure 2 – Greenway Characteristics

			Characteristics					Purpose			Ownership	
Map Number	Greenway Name	Length (miles)	Stream Valley	Ridgeline	Woodlands	Important Habitat	Migration Corridor	Natural Feature Protection	Wildlife Migration & Habitat	Development Buffer	Public	Private
1	Broad Run – <i>Headwater Segment</i>	0.8	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
2	Broad Run – <i>Ridgeline Segment</i>	1.7	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
3	Broad Run – <i>Bordley Segment</i>	1.7	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>
4	Broad Run – <i>Furling Mill Segment</i>	2.3	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>
5	Saw Mill	2.7	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
6	East Branch Brandywine	4.0	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
7	West Branch Brandywine	2.1				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>
8	Lone Eagle	0.9	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
9	Tattersall - Embreeville	2.5	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
10	Telegraph	1.5					<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>
11	Romansville-Anderson	0.8	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>
12	Shadyside	1.8	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
13	Lower Poorhouse	0.9	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
14	South Bailey	0.7	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>
15	South Chester Valley	2.0		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
16	Stauffer Run	0.3	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>

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Priorities...

Each greenway was examined relative to its current protection, development susceptibility, resource importance, and viability. From these characteristics an overall priority ranking was developed for the entire network.

The existing protection rating was determined from the amount of land along the greenway that is in public ownership, has conservation easements placed on it, and the degree of existing land use regulation.



The development susceptibility was determined from historical development trends, owner characteristics, availability of existing infrastructure, and the actual ability of the ground to be built upon.

The resource importance was determined from a ranking of the actual number of natural resources present, the importance of each resource, and the ability of the greenway to connect larger open space areas.

A judgment of how easily the greenway could be created and protected; and the number of factors outside the direct control of the Township determined its viability rating.

The final overall priority established for each greenway in our network will assist in allocating resources for their protection. These priorities are established as a guide only. They are not set in stone. Protections must be accomplished as opportunities present themselves. Some protection measures may be more easily accomplished than others may. Some may take years of effort to accomplish.

Figure 3 shows the overall priority rating of each greenway.

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Figure 3 – Greenway Priorities

Map Number	Greenway	Existing Protection	Development Susceptibility	Resource Importance	Viability	Overall Priority
1	Broad Run – <i>Headwater Segment</i>	Limited	High	Very High	High	Very High
2	Broad Run – <i>Ridgeline Segment</i>	Moderate	Moderate	Very High	High	Very High
3	Broad Run – <i>Bordley Segment</i>	Substantial	Moderate	Very High	High	High
4	Broad Run – <i>Furling Mill Segment</i>	Moderate	Limited	Very High	High	High
5	Saw Mill	Moderate	Moderate	Very High	Very High	High
6	East Branch Brandywine	Substantial	Limited	High	High	High
7	West Branch Brandywine	Moderate	Moderate	High	High	Medium
8	Lone Eagle	Limited	High	Moderate	Moderate	Medium
9	Tattersall - Embreeville	Substantial	Moderate	Moderate	Moderate	Medium
10	Telegraph	Limited	Moderate	Low	Moderate	Medium
11	Romansville-Anderson	Limited	High	Low	Moderate	Medium
12	Shadyside	Moderate	Limited	Moderate	Moderate	Medium
13	Lower Poorhouse	Very substantial	Limited	Moderate	Very High	Medium
14	South Bailey	Limited	Moderate	Low	Low	Low
15	South Chester Valley	Limited	High	Moderate	Low	Low
16	Stauffer Run	Moderate	Limited	Moderate	Moderate	Low

Protection Measures...

A combination of protection measures is necessary to create and enhance our greenway network. Some of the measures apply to the Township as a whole, while others apply only to a particular greenway. Because this is a local plan, we concentrate on protection measures over which West Bradford Township has control. While we certainly welcome protection efforts of private individuals, organizations, or higher-level government bodies, we do not count on them to achieve our objectives.

Our list of protection measures fall within three broad categories:

- Regulatory
- Acquisition
- Awareness

The regulatory category includes measures that use the Township's legal controls on land use or general authority for fostering public health, safety, and welfare. The acquisition category not only includes measures such as the fee simple ownership of land, but also the creation of conservation easements and the use of funds to help improve natural resources and the development of planning studies. The awareness category includes measures such as public education, management plans, and techniques to promote community ownership of natural resources.

Protection measures are listed by category below.

Regulatory Protections

- Revise Township Subdivision and Land Development Ordinance (SLDO) to protect not only "champion" trees, but also native flora.
- Revise SLDO to require more detailed ecological habitat information in the Environmental Impact Assessment (EIA). This may require the use of a certified ecologist on high value sites. The required site specific information in the EIA should include:
 1. A delineation and location of all the plant communities on the site;
 2. A description of the species of wildlife supported or potentially supported by these plant communities;
 3. A description of the effects on animal and plant distributions of site soils, topography, geology, and hydrology;
 4. A description of the impacts that the proposed development will have on the resources outlined above;
 5. A description of how present and future land uses surrounding the site will affect the resources outlined above;

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6. A description of how the site relates to Township, County, and other inventories of important ecological elements.
- Revise the SLDO to include a listing of native plants that shall be used in landscaping plans, especially those that provide forage for wildlife.
 - Revise the SLDO to mandate a 50-foot buffer around identified wetland areas where no structures may be placed and natural vegetation must remain.
 - Revise the Zoning Ordinance's (ZO) floodplain regulations. Recommended amendments are:
 1. Specifically prohibit the construction of any structure or creation of impervious cover within the 100-year flood zone;
 2. Specifically prohibit any grading or soil disturbance other than for farming and horticulture (with an approved Soil Conservation Service management plan) within the 100-year floodplain; and
 3. Mandate that all structures within the 500-year flood zone be elevated above the flood elevation.
 - Revise the SLDO to mandate the creation of a protected forested riparian buffer of 100-feet on each side of a stream channel in a greenway. No development may occur and vegetation must be maintained in this area. The first 35' from the stream channel shall be left as undisturbed forest, the next 45' shall be managed woodlands, and the final 20' as filter grasses.
 - Revise the SLDO to mandate the creation of a protected buffer of 50-feet on each side of a stream channel without structures or impervious coverage for all other perennial streams in the Township.
 - Require in the ZO Open Space Management Plans for all commonly held open spaces (HOA lands) not just those using the Open Space Residential Design Option Standards. Ensure that a qualified ecologist has reviewed these plans for larger parcels or critical areas.
 - Review the steep slope provisions of the ZO (Section 810). Consideration should be given to more stringent steep slope protection methods within greenways.
 - Consideration should be given to the enactment of regulations that reduce the visual impact of development on our ridgelines. Regulations that either guide development away from ridgelines or require that buildings be placed below the tree line or crest of the hill should be established.
 - Create a Greenway Overlay zoning classification within the ZO.

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Acquisition Protections

- Assume rail banking responsibility for any railroad rights-of-way that have filed for abandonment in the Township.
- Request an offer of continuing dedication from developers to the Township on greenways that cross through new subdivisions.
- Request that a developer offer a conservation easement to a conservation organization on important greenways.
- Attempt to acquire or ease portions of properties that cross greenways with high resource values, or those that serve as key links in the network.
- Remove invasive and exotic plant species from Township controlled properties. Replace with native species where feasible.
- Reforest riparian buffers and restore and stabilize streams owned by the Township.
- Develop a municipal Biodiversity Enhancement Program for West Bradford Township. The initial component of this plan would require that a qualified ecologist inventory our resources and landscape.
- Increase habitat for “specialist” species on Township controlled land, where feasible.
- Look into ways to assist wildlife safely cross heavily traveled roadways during the development of the *West Bradford Township Road Network Management Plan*.
- Develop maintenance plans for all Township controlled open spaces.



Awareness Protections

- Limit livestock and horse pasturing in streams and their buffers.
- Encourage developers to locate structures and impervious surfaces outside of greenway areas.
- Develop a public educational series. Get the word out through the Township’s newsletter, website, and programming. Specific educational needs are:

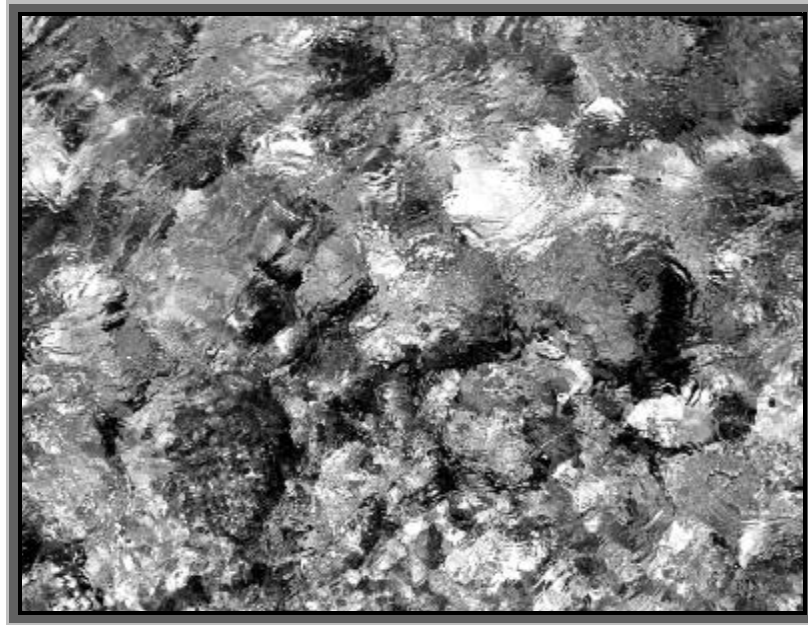
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1. Educate the public on the need to reduce fertilizer and sediment run off into waterways, especially in Exceptional Value watersheds and 1st Order streams³;
 2. Educate public on the harm that invasive and exotic species can do. Develop alternative plant list for the public; and
 3. Share with the public what biodiversity is, and how they can help protect and enhance it.
- Foster public and neighborhood stewardship of greenways through the following:
 1. Develop a greenway signage plan to increase public visibility;
 2. Develop a slogan for our greenways such as, “West Bradford Township Greenways - Protecting our environment - Enhancing our future;”
 3. Sponsor a contest in elementary schools for the best slogan or greenway mascot; and
 4. Name unnamed streams to promote identification and ownership.
 - Develop a program to assist existing homeowner’s associations in maintaining their open spaces. This may include:
 1. Development of an inventory of the natural features and ecological characteristics on their open space;
 2. Creation of a plan for improving open space maintenance to enhance ecological value;
 3. A comparison of yearly maintenance costs of standard landscaping versus ecological landscaping; and
 4. Possible assistance in reimbursing a portion of the maintenance plan’s costs after the new maintenance procedures have been in place for several seasons.
 - Consider providing assistance to private landowners in reforesting sensitive areas in greenways or restoring and stabilizing degraded streams.

³ 1st Order Streams are the headwater areas of streams where they begin from a spring, wetlands, or runoff.

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Greenways Summary...

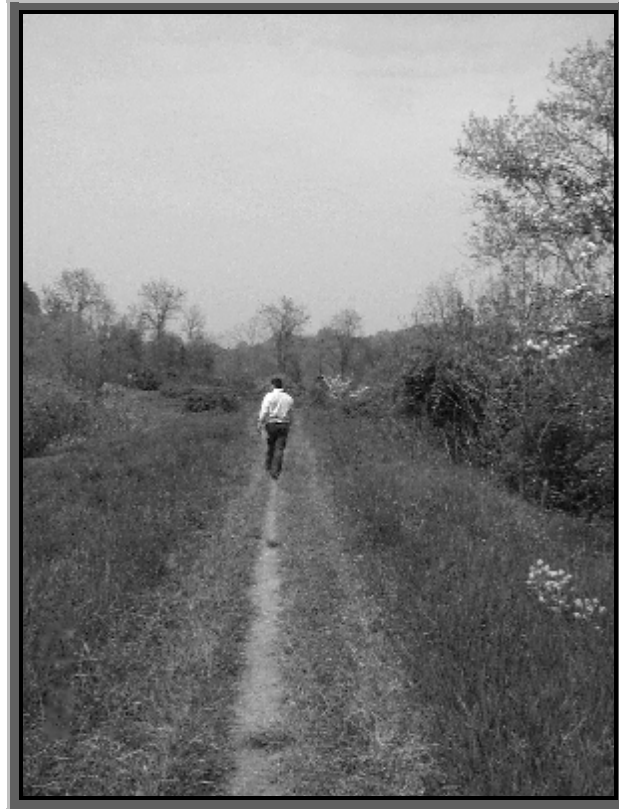


Mother Nature is resilient and mankind is persistent. A continually changing balance exists between them. In our past, we have not always fully recognized the importance of this balance. Today, we recognize our interconnection with the land. We have set out, in this Plan, steps to maintain a balance that benefits both man and nature.

We know that as our Township grows and time passes, stresses will be placed on this balance. Not every one of our Plan's objectives may be achieved. However, the Township is committed to recognizing the necessary equilibrium between our natural resources and needed development. Greenways shall have greater importance to our township in the future. They are the key in providing for the future balance between expected growth and the retention of West Bradford's characteristic landscape.

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TRAILS



*“Meandering pathways through Nature’s home,
cross babbling brooks and wooded vales.
Embracing the essence of nature, and that of man,
Lead us back to our own abode.”*

Defined...

Unlike the term “greenway,” everyone inherently knows what a “trail” is. Our Township has established a definition of trails that fits the needs and desires of our community.

In West Bradford Township trails are:

Linear recreation and transportation corridors that link community facilities, neighborhoods, and destinations. They are developed for non-motorized uses only. Township trails are open to the general public. Sidewalks are considered a type of trail.

Our trails are both land and water based. Land trails are used for walking, hiking, running, biking, roller-blading, horseback riding, cross-

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country skiing, and nature study. Water trails are used for canoeing and kayaking. Our land trails are managed for both recreational and transportation uses. Trail use depends greatly on trail surfaces and width, surrounding natural features and topography, and the destinations that they link.

Trail corridor widths are generally less than 20 feet wide: although the actual trail width is usually less than 10 feet. They are commonly constructed on public property, but may be located on private property when an easement agreement with a landowner can be attained. Physical separation from roadways is desirable.

Our trails differ in their types and uses, but overall our trail network serves to connect our township without the use of the automobile. It fosters interaction with our landscape on a human scale, while providing recreational and alternative transportation opportunities that enhance our quality of life.



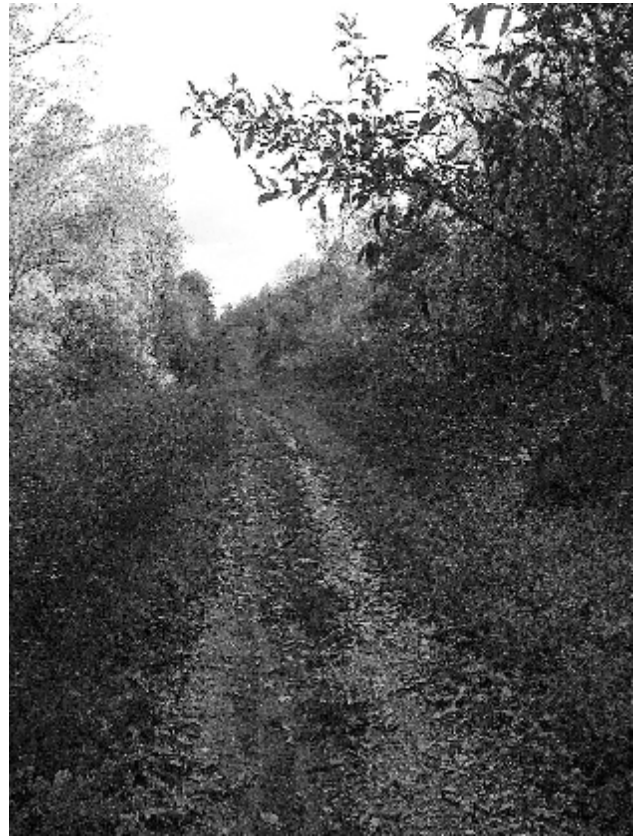
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Trail History...

Trails in our township began with the Native Americans. Both the Lenni-Lenape and Susquehannock Indians had traditional migration and trade routes through the township. Today's Brandywine Trail has its origins from the "Great Trail of the Minquas" that the Susquehannocks used to transport beaver pelts to Dutch and Swedish settlements along the lower reaches of the Schuylkill before 1670.¹⁶

This tradition continued during our Township's early settlement years. Farmers shared paths along their fields with each another. Horses, wagons, and pedestrians all used the same paths. As commerce and trade increased more formal routes were established and villages grew up around them. When traffic in the villages became too much to share between wagons and pedestrians, sidewalks were created.

With the invention of the automobile, an evolution took place. West Bradford, at this time, had a few villages where most of the population was located and surrounding disbursed farmlands. Our roads were paved, traffic increased, and more homes started to be built. Our rural landscape and population density did not suit sidewalks and trails well, so they were not built. Informal gentlemen's agreements still allowed the use of privately owned paths by most residents.



In the 1960's housing developments began to be built in West Bradford Township. Initially, they were disbursed and of low density. Neither sidewalks nor trails were required by Township ordinances. This trend continued into the 1970's. By then it had become more dangerous for residents to use our roadways – either on foot or by bicycle. In the 1980's new regulations, spurred by the realization that we were fast becoming a suburban municipality, mandated the creation of sidewalks and trails in larger developments. Children, living two blocks from their elementary school and having to be bussed, showed the need for this.

In the 1990's, the Township and School District started creating more public facilities - three community parks, a new municipal campus, and Bradford Heights Elementary School. Suburbia had arrived and in-fill developments filled up the farmland between the early subdivisions. It became very unsafe for pedestrians and bicyclists to share many of our roadways with vehicles due to heavier traffic.

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Our regulations now require sidewalks and trails. They foster smarter growth patterns. These patterns try to rely less on the automobile. Our regulations guide development so that it's more in tune with our traditional landscape and preserves our natural features. Still, today we face a problem caused by shortsightedness in the early years of suburban development. It is neither safe nor feasible to walk or bike throughout most of our community.

The Township hopes to correct this through the concepts outlined in this Plan. By regulating new development and by working with existing landowners as partners we hope to achieve a more “walkable” community that will benefit our residents.



Purpose...

From our trail definition, it is evident that trails have many uses and that different types exist. However, they all have two characteristics that make them important to West Bradford Township.

1. Township trails must be accessible to the public.
2. Township trails must connect “activity centers,” although they do not have to do so directly.

The purpose of trails in our township is for recreation and transportation. Recreation is considered the primary use of our trails: whether it is for family walks around the neighborhood or for a jog along the Broad Run. Alternate transportation uses are secondary, but these may become more pronounced as development patterns change, fuel costs increase, or better facilities are created. The types of uses associated with transportation could include walking to the local store for milk or riding one's bike to the train station to commute to work.

Local Loops – Our Township trail system comes from a concept we call the “local loops” notion. These paths belong to, and wind around each neighborhood. They connect to paths in adjacent neighborhoods – thus serving primarily each individual neighborhood, but also allowing for longer walks by traveling to an adjacent neighborhood.

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We have a vision for a trail network that enhances our quality of life. It connects our community through the creation and interconnection of a series of trail loops in each neighborhood. These “local loops” will provide recreational opportunities for local residents while allowing each neighborhood to connect to the larger community. These loops do not have to be highly developed. They may just include some signage and a commitment to mow the road shoulders more often in the summer. They could also be developed similar to the narrow, paved trail system that winds around the Victoria Crossing development. It would depend upon each neighborhood’s desires and needs.

Our trail network will also contain “core” trails. These main trails serve as the spine of the system. They connect the local trails to each other and to destinations in adjacent municipalities. These paved trails will be wider than the local trails. This is because they would be more direct and have heavier usage.

Regional Trails

Trails are all about getting somewhere. From the earliest days of human history trails connected “destinations.” West Bradford does not exist in a vacuum. It is important that we develop our trails for our Township in the context of what those around us are doing with theirs. We have made the effort to consider the trail efforts of other municipalities and regional organizations. It is our policy to allow for the connection to trails located in adjacent municipalities wherever possible.

Chester County’s *Linking Landscapes Plan* recommends longer, regional trails, which it calls “Regional Recreation Corridors.” These corridors extend throughout the county and link population centers. The three regional corridors that traverse, or are immediately adjacent to, West Bradford Township are:

- Brandywine~Struble;
- Brandywine~Hibernia; and
- Chester Valley



The Brandywine~Struble Corridor extends along the East Branch of the Brandywine Creek in our township. It is planned to run from Honey Brook to Wilmington. It loosely follows the early Great Trail of the Minquas, or the current day, informal Brandywine Trail. The County has stated that this corridor is a “Regional Priority Trail Corridor.” This means that the County has placed a higher importance on this corridor and has committed to provide greater resources to ensure its development.

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The Brandywine~Hibernia Corridor extends along the West Branch of the Brandywine in our township. It is planned to run from Welsh Mountain near Honey Brook to Wilmington. It joins the Brandywine~Struble Corridor where the east and west branches meet.

The Chester Valley Corridor is planned to extend through the Great Valley connecting Atglen to Valley Forge Park. This corridor will ultimately also connect to the Schuylkill River Trail connecting to both Philadelphia and Reading. The corridor comes closest to West Bradford in Downingtown and Thorndale. The County has stated that this corridor also is a Regional Trail Priority Corridor.

The Commonwealth has established a network of bicycle touring routes throughout Pennsylvania. These routes use roadway shoulders on busier roads or travel lanes on less traveled roads. Bicycle PA Route “L” passes through West Bradford Township. It uses the shoulder of Route 322 (Downingtown Pike).

Chester County in its transportation plan, *Connecting Landscapes*, recommends a bikeway network for the County. Their network represents a more localized network throughout the County. It uses off road trails, the shoulders of busier roadways, and travel lanes of less traveled roads. It ties the most desirable local roadways together from a commuting and recreational standpoint. A figure showing both the State and County’s bike routes in West Bradford and adjacent municipalities is in the Appendix.

Adjacent Municipalities

With the exception of East Bradford Township and Downingtown Borough, our neighbors have not undertaken detailed trail planning efforts.

Downingtown Borough has provided a trailhead in Johnstown Park that connects through its downtown to the Struble Trail. East Bradford Township has planned for a trail network throughout its borders. Its Official Map proposes trails along the East and West Branches of the Brandywine Creek. The trail along the East Branch of the Brandywine generally follows the corridor of the old trolley line between West Chester and Downingtown. It could be accessed from West Bradford via Downingtown Pike, Harmony Hill Road, or potentially from an abandoned bridge just south of our Brandywine Meadows Preserve.

The remaining municipalities contain activity centers, destinations, and/or trails that our planning efforts should consider.

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**Figure 4 -
Trail Destinations
in Adjacent Municipalities**

Municipality	Destination
East Caln Township	Morrisville Cutoff Rail Corridor
Downingtown Borough	Downingtown Train Station
	Downtown
	Struble Trail Connection
East Bradford Township	Parkland Along Brandywine
	Municipal Trail System
Caln Township	Thorndale
	Thorndale Train Station
Newlin Township	Embreeville County Park
East Fallowfield Township	Mortonville

East Caln Township contains portions of the vacated, but not abandoned, Morrisville cutoff railroad line (the high “Trestle Bridge”). This may provide an opportunity for a spur link to the Chester Valley Trail. West Bradford may consider acquiring the portion of the line located in our Township if it’s ever formally abandoned.

Downingtown Borough has downtown activities, serves as a hub for regional trails, and has its own train station. Connections to Downingtown would most likely be made along Downingtown Pike or Bradford Avenue and Glenside Road.

East Bradford Township should be considered a partner in implementing the Brandywine ~ Struble Corridor.

Caln Township’s centers would provide shopping and transportation opportunities for our residents. Greater coordination between the two townships is necessary to make this a reality.

Newlin Township offers an opportunity to connect with Embreeville County Park and the Brandywine~Hibernia Corridor.



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Trails Goals & Objectives

Our efforts to create a trail network are guided by the principles mentioned above and by the following goals and objectives.

Establish a Trail Network throughout the Township

- Connect all neighborhoods and activity centers of the township;
- Commit to ongoing trail development and maintenance;
- Establish standards for trail use and design;
- Create a trail hierarchy based on a “*Local Loop*” concept;
- Promote neighborhood ownership of local loops; and
- Allow for regional connections to our local network.



Enhance the Township’s Development Pattern

- Integrate alternative transportation opportunities into the development process;
- Retrofit trails and sidewalks into older subdivisions, where appropriate;
- Cultivate awareness of green landscapes within our community; and
- Promote “walkability” throughout our township.

Increase the Recreational Value of the Township’s Parks & Open Spaces

- Enhance the safety and use of our trails through signage and proper design;
- Connect our community and neighborhood parks with trails;
- Establish “core” trails that form the basis for the interconnectivity of our network; and
- Promote connections to adjacent municipal and County parks.

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Trail Types...

Trails provide a safe, healthy, and inviting environment for recreation at your own pace. They encourage social interaction and help develop a sense of community.

Trails can be further broken down into particular types depending on their use. We use terminology similar to that the County uses in its *Linking Landscapes* Plan.

A “trail” is an off-road facility with a permanent alignment that is open to the public. It is designed, constructed and maintained as part of the Township’s park system and used for a variety of non-motorized forms of travel.

In our Township, trails are further categorized by their use and construction.

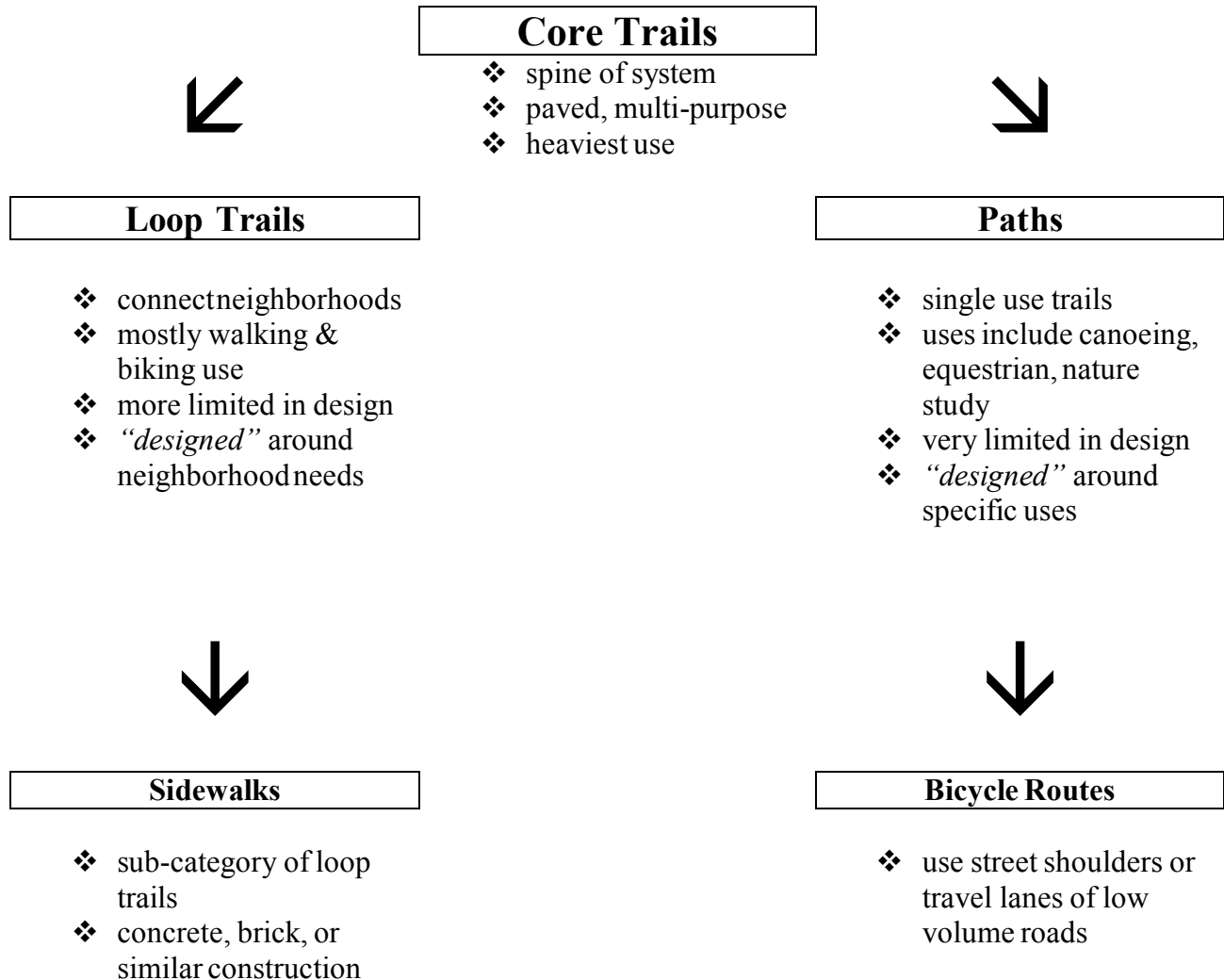


- “Paths” are trails designed and maintained primarily for one type of use. Thus, a “bike path” is an off road trail that has been designed and used primarily by bicyclists. A canoe path is a waterway primarily suitable for canoes.
- “Routes” are trails that utilize the shoulders of streets or the actual travel lanes on low volume roads. The State’s Bicycle PA Route “L” along Route 322 is an example of this.
- “Sidewalks” are general-purpose trails that are usually within the Township’s road right-of-way and maintained by individual homeowners for the community’s benefit.

Most core trails in West Bradford Township will be multi-use trails that serve a range of uses. For example, a shared-use, ten foot paved trail may accommodate rollerbladers, bicyclists, and walkers. A six foot crushed gravel or mulched path may accommodate both hikers and equestrians. Core trails will be formally designed, maintained, and controlled, as they will have higher usage.

Our loop trails will be of a more informal nature with less competing uses. They are located in areas where usage is low, or topography and natural features require special consideration. They do not directly connect destinations but still permit both young and old to walk, run, or bicycle between neighborhoods that would otherwise be separated.

Trail Hierarchy



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Identification...

Activity Centers

Our trail network is established around activity centers. Activity Centers are common destinations within our community linked by the trail system. The following Activity Centers serve as the basis for our network.

- Marshallton
- Romansville
- West Bradford Elementary School
- Bradford Heights Elementary School
- Leids Park
- Broad Run/Beacon Hill Parks
- Shadyside Park
- Municipal Campus
- East Branch of the Brandywine Creek
- United Sports Training Center
- Embreeville Complex



Loop trails through our neighborhoods, and the core trails connecting them, allow us to link all the activity centers in our community. These trails then connect to those in neighboring municipalities creating a usable, regional trail network.

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Trail Inventory...

This *Greenways, Trails, and Gateways Plan* shows recommended trail corridors – not actual trail alignments. The maps in this section are meant to give a generalized location for each proposed trail. While each trail corridor is mapped in a general proximity to its proposed location, this should not be taken as its actual final alignment. Our trail corridors are generally not wider than 20 feet and the scale of the mapping may exaggerate the actual extent and location of the proposed trail. Actual final trail alignment will depend upon many factors and will not occur without an individual trail feasibility study for each trail. Map 3 shows the Township trail network.

Core Trails



Our core trails serve as the spine of our network. They were determined mostly by their topography and their ability to link a number of neighborhood loop trails together. A majority of them have either been used as trails historically or are identified in regional planning documents. We have identified four core trails in the township. Figure 5 identifies each core trail.

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Figure 5 – Core Trail Listing

Map Identifier	Trail	Location
A	Broad Run Trail	Generally follows Broad Run Road from Broad Run Park to the East Branch of the Brandywine
B	Sawmill Trail	Generally follows Sawmill Road from Old Shadyside Road to Marshallton-Thorndale Road
C	Telegraph Trail	Generally follows the East Branch of the Brandywine along Waltz Road: connects Copesville to Marshallton via Telegraph and Sugars Bridge Roads
D	East Branch Brandywine Spur Trail	Generally follows the East Branch of the Brandywine along Downingtown Pike connects from East Bradford Twp. via Brandywine Meadows Preserve connecting to Johnstown Park using the Morrisville Cutoff rail bed

Loop Trails



Our loop trails serve as the heart of our network. They can be considered “neighborhood trails” in that they are open to the general public, but primarily are used by the residents of a specific area of the township. Figure 6 identifies the 19 loop trails in our network.

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Figure 6 – Loop Trail Listing

Map Identifier	Trail	Location
E	Victoria Crossing Trail	Follows existing path system around the development with a proposed extension along Marshallton-Thorndale Road
F	Brandywine Camp Trail	Follows existing path system connecting Bradford Heights Elementary School to Brandywine Meadows Preserve via Romig Road
G	Embreeville Trail	Connects Embreeville Center to the County's Embreeville Park and to Leids Park and Telegraph Preserve
H	Bright Glade Trail	Connects the Foxfire and Stonegate developments with the Bright Glade Farm using existing trails and sidewalks
I	Marshallton Copesville Trail	Connects Copesville to Marshallton generally following the south side of Strasburg Road
J	Highlands Trail	Connects Campus Park to Westminster Preserve via the Highlands development
K	Lower Poorhouse Trail	Connects Campus Park to Caln Township via the Poorhouse Preserve and the Downingtown Reservoir
L	United Sports Training Center Loop Trail	Connects the Campus Park via the USTC's internal trail system with a future expansion to Embreeville Road
M	Stock Grange Trail	Connects the northern portion of the Chestnut Ridge Estates (Orleans Homebuilders) development to its neighborhood park
N	Lone Eagle Trail	Connects Romansville to the Broad Run Preserve via the Strasburg Preserve, southern portion of the Chestnut Ridge Estates (Orleans Homebuilders) development, and the Bradley Tract
O	Sycamore Trail	Connects the Bally Moore development via the Sycamore Ridge development using internal paths and sidewalks
P	Romansville Trail	Connects Romansville to the Broad Run Preserve via the north side of Shadyside Road and to the Strasburg Preserve via the village expansion
Q	Mortonville Trail	Connects any new development west of the Foxtrail development to the Strasburg Preserve allowing for a connection to East Fallowfield
R	Ridgeline Trail	Loop trail connecting the Sawmill Trail via Old Shadyside Road, the Brandywine Green development, and the Sawmill Tract
S	Upper Shadyside Trail	Connects Shadyside Park to Beacon Hill Park via the Broad Run Preserve
T	Camp Linden Trail	Connects Marshallton and Camp Linden via Northbrook, Camp Linden, and Wawaset Roads
U	Bordley Run Trail	Connects Shadyside Park with Tattersall and the Broad Run
V	Orchard Trail	Connects Montvale Park through the center of the Township to the East Branch of the Brandywine Creek.
W	Tattersall Trail	Connects Embreeville Trail to Broad Run Trail

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A summary of each trail noting its general characteristics, purpose, and ownership is found in Figure 7.



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Figure 7 – Trail Characteristics

		Purpose		Characteristics				Connections	
Map Identifier	Trail Name	Type	Use	Length (miles)	Topography	In Greenway	Trailheads	Trail Connections	Destinations Linked
A	Broad Run Trail	Core	Multi-purpose	5.7	Flat	☑	Broad Run Park, Beacon Hill Park, Broad Run Preserve, Tattersall Golf Course	Victoria Crossing, Embreeville, Lone Eagle, Romansville, Camp Linden, Upper Shadyside	Broad Run Park, Beacon Hill Park, West Bradford Elementary School, Broad Run Preserve, Tattersall Golf Course, Pocopson Twp
B	Sawmill Trail	Core	Multi-purpose	2.8	Flat	☑	Sawmill Preserve, Sawmill Road at Utilities Plant	Bright Glade, Highlands, Ridgeline	Campus Park, Highlands Preserve, Sawmill Preserve
C	Telegraph Trail	Core	Multi-purpose	3.8	Flat	☑	Tattersall Golf Course, Copesville, East Bradford Twp Open Space	East Branch Brandywine, Broad Run, Marshallton-Copesville	East Branch Brandywine Creek, Copesville, East Bradford Twp
D	East Branch Brandywine Spur Trail	Core	Multi-purpose & Canoe	1.6	Flat	☑	Brandywine Meadows Preserve	East Branch Brandywine, Brandywine Camp, Waltz-Telegraph	Brandywine Meadows Preserve, Downingtown, East Bradford Twp Open Space, Gibson's Covered Bridge, East Caln Twp, East Bradford Twp
E	Victoria Crossing Trail	Loop	Walking & Biking	1.4	Rolling		Campus Park, Broad Run Park	Broad Run, Highlands, Lower Poorhouse, USTC	Broad Run Park, Beacon Hill Park, Campus Park, USTC, West Bradford Elementary School
F	Brandywine Camp Trail	Loop	Walking & Biking	1.1	Rolling to Hilly		Brandywine Meadows Preserve, Bradford Heights Elementary School	East Branch Brandywine Spur, Bright Glade	Brandywine Meadows Preserve, East Branch Brandywine Creek, Bradford Heights Elementary School
G	Embreeville Trail	Loop	Walking, Biking & Hiking	5.1	Rolling	☑	Leids Park, Strasburg Park, Embreeville County Park, Embreeville Center	Broad Run	Leids Park, Embreeville County Park, Strasburg Park, Newlin Twp
H	Bright Glade Trail	Loop	Walking & Biking	4.7	Rolling		None	Brandywine Camp, Sawmill	
I	Marshallton-Copesville Trail	Loop	Walking, Biking, Equestrian	1.3	Flat		Marshallton, Copesville	Camp Linden, Waltz-Telegraph	Marshallton, Copesville, East Bradford Twp
J	Highlands Trail	Loop	Walking & Biking	0.7	Flat		Campus Park	Sawmill	Campus Park, Westminster Preserve, Price Preserve
K	Lower Poorhouse Trail	Loop	Walking, Biking & Hiking	1.2	Hilly	☑	Campus Park	Victoria Crossing, USTC	USTC, Campus Park, Caln Twp

(continued on next page)

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Figure 7 (Continued)		Purpose		Characteristics				Connections	
Map Number	Trail Name	Type	Use	Length (miles)	Topography	In Greenway	Trailheads	Trail Connections	Destinations Linked
L	United Sports Training Center Trail	Loop	Walking	2.1	Flat to Rolling		USTC, Campus Park	Bradford Glen-Victoria Crossing	Campus Park, Caln Twp
M	Stock Grange Trail	Loop	Walking & Biking	9.0	Rolling		Chestnut Ridge Estates neighborhood park	Lone Eagle, Sycamore Tree, Broad Run	Broad Run Park, West Bradford Elementary School, Chestnut Ridge Estates neighborhood park
N	Lone Eagle Trail	Loop	Walking, Biking & Hiking	2.2	Rolling	<input checked="" type="checkbox"/>	Strasburg Preserve, Chestnut Ridge Estates neighborhood park	Broad Run, Stock Grange, Romansville	Romansville, Strasburg Preserve, Broad Run Preserve
O	Sycamore Trail	Loop	Walking & Biking	1.1	Flat		None	Stock Grange	Caln Twp
P	Romansville Trail	Loop	Walking, Biking & Hiking	3.7	Rolling	<input checked="" type="checkbox"/>	Strasburg Preserve, Romansville	Broad Run, Lone Eagle	Romansville, Broad Run Preserve, Strasburg Preserve
Q	Mortonville Trail	Loop	Walking & Biking	1.2	Rolling to Hilly		Mortonville	Lone Eagle	Mortonville, East Fallowfield Twp
R	Ridgeline Trail	Loop	Walking, Biking & Hiking	2.4	Rolling to Hilly		Sawmill Preserve	Sawmill	
S	Upper Shadyside Trail	Loop	Walking, Biking & Hiking	1.2	Rolling to Hilly		Beacon Hill Park, Shadyside Park	Broad Run	Broad Run Preserve, Beacon Hill Park, Shadyside Park
T	Camp Linden Trail	Loop	Walking	3.2	Rolling		Marshallton, Camp Linden	Marshallton-Copesville	Marshallton, Camp Linden, Pocopson Twp
U	Bordley Run Trail	Loop	Walking	1.0	Rolling		Shadyside Park, Tattersall Golf Course	Broad Run	Shadyside Park, Tattersall Golf Course
V	Orchard Trail	Loop	Walking, Biking & Hiking	2.4	Rolling to Hilly		Montvale Park	Waltz-Telegraph Trail	Appleville, Brandywine~Struble Trail, East Branch Brandywine Creek
W	Tattersall Trail	Loop	Walking & Hiking	1.2	Hilly	<input checked="" type="checkbox"/>	Embreeville Park, Telegraph Preserve	Embreeville, Broad Run	Tattersall Golf Course, Embreeville Park

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{INSERT MAP 3 HERE}

Map 3 - Township Trails Map

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Bicycle Routes

Chester County's *Connecting Landscapes – the Transportation Plan for Chester County* identifies a network of bikeways throughout the County. Several of these are located in or near West Bradford Township. They include both local and State roads. The County's Plan recommends improvements such as widening shoulders or resurfacing that can make these routes more conducive to bicycle use. A figure listing the routes are found in the Appendix .

The task force charged with overseeing the creation of this plan expressed uneasiness on the viability of some of the County's proposed routes. They also had overriding concern for the safety of low to medium skill bicyclists attempting to use the routes. It was felt that these riders make up the majority of users and that they would be better suited to using our proposed network of off-road, paved trails.



Therefore, the Township has decided not to actively promote or pursue the bikeways that the County has proposed. However, the plan recommends that County's roadway improvements be incorporated into the Township's Road Improvements Plan, where feasible and cost-effective. Additionally, this Plan will recommend the off-road realignment and improvement of those bicycle routes with a higher usage.

However, the plan does recommend the creation of limited bicycle routes within the villages of Marshallton and Romansville as part of the streetscape improvements proposed in the Gateways Section of this Plan.



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Canoe Paths

Waterways have always played an important role in the history of Chester County and West Bradford Township. The Brandywine Creek, in particular, has played a dominant role in the evolution of the County.

The Brandywine Creek has the required flow and water quality to be utilized for recreational canoeing. Both the East and West Branches are used for recreational canoeing and tubing. Our primary focus is on the East Branch as the Township's Brandywine Meadows Preserve can, with some minor improvements, serve as a trailhead and launch point. East Bradford Township's parkland along North Creek Road about four miles downstream could serve as a pickup point.



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Design Criteria...

It is important to develop and follow design standards when developing a trail network. This allows for uniformity and provides a better ability to forecast maintenance and development costs. It must be remembered, however, that the creation of a trail is as much an art as it is a science. Circumstances may require deviation from the recommended standards.

Aside from the specific design criteria outlined below there are three general design principals that guide our trail development.

1. Trails shall be created to become part of the surrounding landscape.
2. Safety is a paramount consideration.
3. Being a good neighbor to surrounding properties is important.

The exact design and alignment for each trail will be determined during the development of its master plan. These plans will be created before the construction of each trail. Each trail master plan will outline surrounding features, exact design standards, and considerations specific to each trail.

Our trails may evolve as resources become available, as we learn from actual resident use of each, and as newer technologies develop. A core trail may be recommended to be fully paved, but may actually begin as a crushed stone surface that until resources are available or use necessitates paving. Trails may be acquired and constructed in sections as funding becomes available.

General Trail Guidelines

- Physical separation from roadways is desirable
- Use of fencing is acceptable where appropriate
- Minimize road crossings
- Trail visibility should be stressed
- For safety purposes, avoiding blind curves and the provision of railings adjacent to drop-offs are necessary
- Most supporting facilities are to be located at trailheads - in public parks wherever feasible
- Barriers preventing motorized vehicular access are needed on core trails



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Core Trails are designed as multi-purpose trails serving a wide variety of uses. Serving a larger number of users, they are wider and straighter than loop trails. They are more visible and have wider sightlines. Figure 8 outlines their design criteria.

Figure 8 - Core Trail Design Characteristics

Function	Multi-use	Regional
Surface	3" crowned asphalt	
Width	10' ideal	6' minimum
Grades	8% maximum	Majority below 5%
Sightlines	85' minimum	200' ideal
Curve Radii	35' minimum	
Vertical Clearance	10' minimum	
Side Clearance Zones	2' per side minimum	4' per side ideal
Trail Base	6" compacted crushed stone with fabric underlayment	extending 1' from surface to minimize cracking
<i>Vehicular barriers are needed</i>		
<i>Must be mostly handicapped accessible</i>		



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Loop Trails, designed around the neighborhood they belong to, are less formal and have more character. Serving a limited number of users and uses, their design does not have to be as stringent as Core Trails. Figure 9 outlines their design criteria.

Figure 9 - Loop Trail Design Characteristics

Function	Use varies with trail characteristics	Local
Surface	grass, concrete, crushed limestone, mulch, or asphalt	
Width	8' ideal	4' minimum
Grades	10% maximum	mostly below 5%
Sightlines	50' minimum	200' ideal
Curve Radii	25' minimum	
Vertical Clearance	10' minimum	
Side Clearance Zones	2' per side minimum	4' per side ideal
Trail Base	varies	



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While most trails have minimal physical impact on their surrounding landscape, support facilities are needed for all but the most primitive trails. These facilities vary with the type and characteristics of each trail. The guidelines for these general support facilities follow.

Support Facilities - Recommended Design Characteristics	
Barriers and Fencing	Minimum height of 42"
Road Crossings	90 degree intersection with clear sight triangle
Erosion Control	Cross-slopes and swales where needed
Signage	Uniform signage and mile markers are required
Parking	Should occur at existing parks. Where new facilities are developed for trailheads they should be designed for a low volume and have a pervious surface
Rest Rooms	Should be provided at existing parks unless other specific needs are identified
Benches	Should be placed along the trail corridor, where appropriate, at specific intervals
Trash & Recycling Cans	Should be placed at trailheads



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Priorities...

Each potential trail corridor was examined relative to its current development, comparative importance, ease of creation, and funding availability. From these characteristics, an overall priority ranking was developed for the entire network.

The current development rating was determined by how much of the trail has already been constructed or reserved. Trails that are almost complete, but

missing a small critical link were rated higher than trails that need to be constructed in their entirety.



The comparative importance is an indicator representing the number of projected users, the number of linkages it fosters and destinations it connects, and how critical the trail is to the surrounding neighborhood.

The ease of creation rating was determined from topography and other natural features, owner characteristics, and a judgment of how easily the trail corridor could be secured and created and the number of factors outside the direct control of the Township.

Funding availability was determined from the amount, source, and types of funding available for trail creation. Regional trails generally have greater ability to be funded through State and County programs. Developers, at the behest of the Township, usually create trails within proposed subdivisions. More funding is also available when more than one municipality works together on a project.

The final overall priority established for each trail corridor will assist in allocating resources for its reservation and creation. On longer trails, development may be broken into segments. These priorities are established as a guide only. It must be understood that trail creation requires time and patience. It is critical to be able to vary priorities as needs and opportunities present themselves.

Figure 10 shows the overall priority rating of each trail.

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Figure 10 – Trail Priorities

Map Number	Trail Corridor	Current Development	Comparative Importance	Ease of Creation	Funding Availability	Overall Priority
A	Broad Run Trail	Limited	Very High	Moderate	High	Very High
D	East Branch Brandywine Spur Trail	Moderate	Very High	Moderate	Very High	Very High
B	Sawmill Trail	Limited	High	Very High	High	High
E	Victoria Crossing Trail	Substantial	High	Moderate	Low	High
G	Embreeville Trail	Limited	High	Moderate	Moderate	High
M	Stock Grange Trail	Substantial	High	Moderate	Very High	High
N	Lone Eagle Trail	Moderate	High	Moderate	High	High
S	Upper Shadyside Trail	Limited	High	Low	High	High
C	Telegraph Trail	Limited	High	Moderate	Moderate	Medium
F	Brandywine Camp Trail	Moderate	Moderate	Moderate	Low	Medium
I	Marshallton Copesville Trail	Limited	Moderate	Moderate	Moderate	Medium
L	United Sports Training Center Trail	Moderate	Moderate	High	Very High	Medium
O	Sycamore Trail	Substantial	Moderate	Very High	Very High	Medium
P	Romansville Trail	Limited	Very High	Low	Moderate	Medium
R	Ridgeline Trail	Limited	Moderate	Moderate	High	Medium
T	Camp Linden Trail	Moderate	Moderate	Moderate	Moderate	Medium
W	Tattersall Trail	Moderate	Moderate	High	Moderate	Medium
H	Bright Glade Trail	Limited	Low	Moderate	High	Low
J	Highlands Trail	Moderate	Low	High	Low	Low
K	Lower Poorhouse Trail	Limited	Low	Low	Low	Low
Q	Mortonville Trail	Limited	Low	Low	Low	Low
U	Bordley Run Trail	Limited	Low	High	High	Low
V	Orchard Trail	Limited	Moderate	Moderate	Low	Low

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Implementation Measures...

Many methods will be used to create the trail network that is envisioned in this Plan. The final results will depend upon many factors. Some of these factors are funding sources, development patterns, and the willingness of landowners work with the Township. Our trail network will not be created over night. Patience is not only a virtue - it will also be a requirement to see the network take shape. Some of the recommended trails will never be created. Others may evolve beyond what is envisioned in this Plan. The willingness of our Township residents and leaders to embrace the vision that is outlined here will ultimately define how the network evolves.

Specific implementation measures follow. They are broken up into a general category and a trail specific category.

Our list of implementation measures fall within three broad categories:

- Acquisition
- Design
- Awareness

The acquisition category outlines methods needed to secure the land necessary for a trail. The design category outlines methods done to create the actual trail and maintenance thereafter. The awareness category includes education, use regulation, and measures needed on an ongoing basis to be a “good neighbor” to adjacent properties.

Acquisition Implementation Measures

- Concentrate implementation efforts on a few higher priority trails – or those with unique implementation opportunities - at one time
- Require developers to provide public trail facilities within their developments
- Work with Homeowners’ Associations to expand or create new trails and sidewalks in existing developments
- Consider placing portions of the Township’s proposed trail network on its Official Map
- Seek matching funding from various sources for trail acquisition
- Work jointly with adjacent municipalities, where feasible
- Work with PECO and other utility companies to explore the possibility of the shared use of rights-of-ways
- Secure the fee simple ownership of trails where possible when creating new trails
- Acquire or ease lands along the East Branch and West Branch of the Brandywine Greenways to facilitate recreational uses, where appropriate
- Railbank or acquire the Morrisville Cutoff line if it is formally abandoned
- Acquire or ease Camp Linden for a trailhead should it ever be proposed for development

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- Expand the Brandywine Meadows, Westminster, Broad Run, and Poorhouse Preserves to facilitate trail connections
- Acquire the restricted open space at the intersection of Broad Run and Shadyside Roads and other lands within the Broad Run Corridor which may become available
- Incorporate trails and sidewalks into the proposed Romansville village expansion
- Acquire the portion of the Strasburg Landfill (a.k.a. Strasburg Preserve) within West Bradford Township for open space and trailhead use

Design Implementation Measures

- Ensure that new trails connect to adjacent developments with existing trail systems
- Provide for adequate funding within the Parks and Recreation Department's annual budget for ongoing maintenance of trails and their facilities
- Develop master plans for each trail before construction
- Minimize impacts of trails on adjacent landowners
- Work with adjacent landowners to mitigate any concerns that they have by using appropriate design criteria
- Design safety into the trail system
- Make trailheads safe and visible gateways to the trail system
- Develop maintenance logs and capital replacement plans as part of all trail master plans
- Seek matching funding from various sources for trail development
- By design, limit uncontrolled trail access points
- Incorporate Chester County's suggested roadway improvements on their recommended bikeway network into the Township's Road Improvements Plan, where feasible and economical
- Design motorized vehicular barriers and bicycle speed calming measures into all core trails and in loop trails, where necessary
- Ensure access for physically challenged users to all core trails and to loop trails where feasible
- Expand and develop Brandywine Meadows Preserve into a trailhead with limited amenities, gravel parking, and canoe launch facilities
- Design the proposed Strasburg Corridor and Romansville Corridor wastewater irrigation fields so that trails may be a joint use of the open space



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- Work with the State, County, and Newlin Township to provide a link to the Embreeville County Park
- Explore the possibility of restricting traffic on Sawmill Road
- Actively participate with East Bradford and East Caln Townships in the creation of a trail along the East Branch of the Brandywine Creek
- For lower intensity loop trails, ask adjacent landowners to move their fence lines to the edge of the road right-of-way
- Work with East Bradford Township to facilitate the use of our parklands as canoe launch areas along the East Branch of the Brandywine Creek
- Physically separate trails from roadways wherever possible

Awareness Implementation Measures

- Promote citizen awareness of the our trail network
- Encourage neighborhood ownership and adoption of local trail loops
- Develop a uniform signage system for our trails, including mileposts
- Develop public use rules to support and enhance safety
- Place share-the-road signage where substantial, on-road bicycling occurs.
- Prohibit motorized vehicular use of all Township trails

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Trails Summary...



Trail development is an art - one that requires equal parts design, diplomacy, and opportunity to flourish. The Township's ultimate vision is providing a trail system that connects our community both physically and intangibly through the varied community benefits it provides. Our trail network will provide recreation and transportation opportunities: safely and characteristic of the landscape that is distinct to West Bradford.

There are many ways to achieve our overall vision. This Plan should be viewed as a starting point. Methods and design may change with the times, but ultimate success will depend on flexibility and the bridging together of many viewpoints.

Our Township is committed to a long-term effort in planning, creating, and maintaining our trail system. Resources will be provided to achieve our vision with the recognition that this network will take many years to be fully realized.

GATEWAYS



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Radnor Township, Delaware County

*Our village bodes you welcome.
A greeting to our neighbors,
A greeting to our friends,
A welcome to the traveler,
Where soon you will find friends.*

Defined...

The dictionary defines the word gateway as “a place through which you have to go to get to a particular area.”¹⁷ In this Plan gateways represent the physical features that define the boundaries of a geographic area and represent its characteristics.

In West Bradford Township gateways are specifically defined as:

Natural and man-made features that help define both the boundaries of our community and unique places within it. They welcome people into the township by evoking a sense of place and a connection to the fabric of our community. They enhance our

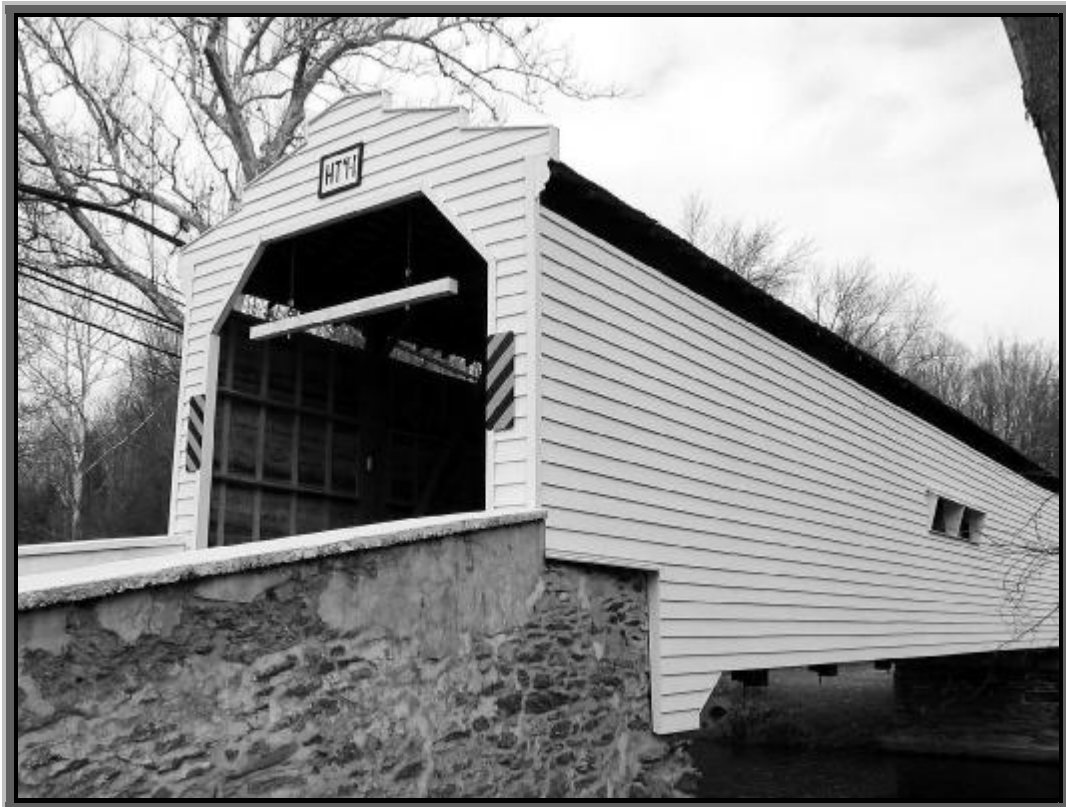
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community by creating or improving features that embody its natural, historical, and cultural aspects.

These physical enhancements foster community pride and create community identity. They may include appropriate signage, landscaping, lighting, art, and streetscape and traffic calming improvements.

Typical gateways in our township are located along its major road entrances, villages, pocket parks, and historical sites.

The gateways identified in this study are judged to have particular importance to our community for their scenic and cultural values.

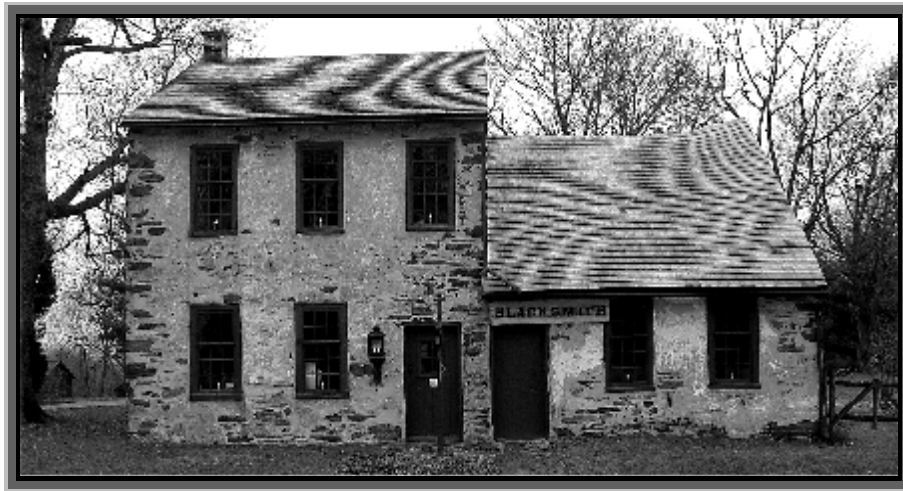


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Purpose...

From our gateway definition, it's evident that gateways serve a many faceted purpose. However, they have two primary characteristics that are required for them to be considered important to West Bradford Township.

1. A gateway must evoke a sense of place to the public and create a connection to the larger "West Bradford" community.
2. A gateway must be able to be visually seen by members of the general public.



The main purposes of "Gateways" in West Bradford Township are to:

- Evoke a Sense of Place;
- Create a Community Connection; and
- Improve Property Values



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Gateway Goals & Objectives

Our efforts to create gateways are guided by the principles mentioned above and by the following goals and objectives.

Evoke a Sense of Place for West Bradford Township

- Create entrance “features” on major roads entering the township
- Enhance village, park, and school entrances
- Foster resident connections to “West Bradford” as an entity
- Develop measures to improve community pride
- Tie natural, historical, and cultural features together



Create Connections to our Community through Physical Improvements

- Develop streetscape plans for our villages and landscaping plans for new developments.
- Integrate historical characteristics into village improvements
- Establish uniform sign standards for Township facilities.
- Include art and landscaping into improvements
- Promote sustainable and appropriate plantings in landscaping

Increase Property Values through Gateways

- Enhance the streetscape of Marshallton and Romansville
- Establish standards for uniform, characteristic commercial signage in the villages
- Develop aesthetically pleasing traffic calming measures in the villages
- Expand and improve the “village core” of Romansville
- Reflect community cultural standards in the improvements
- Support the creation of gateways formed around historical sites or pocket parks by non-profit organizations



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Identification...

There are three types of gateways found in West Bradford Township:

- Roadway Entrances,
- Village Streetscapes, and
- Feature Enhancements

Roadway Entrances



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Radnor Township, Delaware County

Roads are the way that most people entering the township arrive. Today, however, even long time residents may be hard pressed to identify the boundaries of the Township. By creating defined landmarks at our major entrances, we can not only better identify where our community begins and ends, but also convey a sense of who the people that live here are and some of the characteristics of our community.

Unlike street signs, whose primary purpose is to provide direction and to allow non-residents to know where they are, gateways serve functions for both visitors and residents. Gateways provide visitors a sense of where they are. They provide residents with a sense of community and place.

Each roadway gateway must have a unifying characteristic with that of the others. For example, this could be a specific sign or slogan. This allows each gateway to serve as a

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representation of West Bradford Township. However, each gateway should be individual: having a unique design. For example, one may have a landscaped garden, another a fountain, and another a sculpture. Each design should represent one facet of our community - be it historical, cultural, or natural.



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We have identified nine prominent roadway entrances and two villages that should contain gateways. Figure 11 identifies each gateway. Map 4 shows the Township's gateways network



Figure 11 – Gateway Identification

Map Number	Gateway Location
1	On Downingtown Pike near Sugars Bridge Road
2	On Downingtown Pike near Bradford Avenue
3	On Marshallton-Thorndale Road near Boulder Drive
4	On Strasburg Road near Township's western boundary
5	On Strasburg Road near Copesville
6	On West Chester Road near South Bailey Road
7	On Northbrook Road near bridge and Lucky Hill Road
8	On Telegraph Road near Embreeville Center
9	On Poorhouse Road near the Township's northern boundary
10	Marshallton Village
11	Romansville Village

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{INSERT MAP 4 HERE}

Map 4 - Township Gateways Map

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Village Streetscapes

Our villages represent incredible assets to the Township. They have evolved naturally, retaining their character. Their look and feel is real. This character cannot be replicated by a developer's 21st Century "Main Street" design. Their character should not be changed, but improvements should be made to keep them as the core of our community. They should be enhanced to make them viable places for people to live, shop, and work far into the future. This is not to suggest that infill dwellings and village expansions are not viewed as favorable. Only that they should be done appropriately with both the market and existing village character in mind.

With public sewage becoming available, some long standing problems in the villages will be corrected. Now is the time to develop streetscape improvement plans that enhance Marshallton and Romansville. These plans would review the existing features in each village and indicate their specific needs and opportunities. Figure 12 shows some possible improvements that could be recommended by a village streetscape plan.



Figure 12 – Streetscape Enhancements

Possible Streetscape Enhancements
Uniform signage
Improved street lights
Brick sidewalks
Bike lanes
Benches
Informational kiosks
Improved landscaping
Recommended tree plantings
Banners
Accessory facilities – water fountains, bike racks, trash containers, fountains
Traffic calming improvements
Sculptures
Pocket parks
Historical markers

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Feature Enhancements

Feature enhancements represent a catchall category. These secondary enhancements will be identified after the main gateway projects are completed.

These enhancements could vary from establishing a uniform sign type for all public facilities – schools, parks, and fire companies - to providing informational kiosks at historical sites. They may also involve hosting public events in a village or having community-wide holiday decorating contests.

Our Recreation Commission and Parks Director with input from residents will be instrumental in determining the feature enhancements.



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Priorities...

Each gateway location was examined relative to its availability for use, visibility, existing infrastructure condition, and community importance. From these characteristics an overall priority ranking was developed for each.

The final overall priority established for each gateway in our network will assist in allocating resources for their protection. These priorities are established as a guide only. Protections must be accomplished as opportunities present themselves.



Figure 13 shows the overall priority rating of each gateway.

Figure 13 – Gateway Priorities

Map Number	Gateway Location	Priority
1	On Downingtown Pike near Sugars Bridge Road	High
2	On Downingtown Pike near Bradford Avenue	High
10	Marshallton Village	High
3	On Marshallton-Thorndale Road near Boulder Drive	Medium
4	On Strasburg Road near Township's western boundary	Medium
5	On Strasburg Road near Copesville	Medium
6	On West Chester Road near South Bailey Road	Low
7	On Northbrook Road near bridge and Lucky Hill Road	Low
11	Romansville Village	Low
8	On Telegraph Road near Embreeville Center	Low
9	On Poorhouse Road near the Township's northern boundary	Low

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Implementation Measures...

Many different improvements need to be made to make our gateway concept a reality. Most of these are tangible, physical improvements, but others involve non-tangible things that evoke community spirit and a sense of belonging to the West Bradford community.

Our toolbox of implementation measures fall within three broad categories:

- Physical Improvements
- Regulation & Planning
- Community Awareness

These implementation measures may be revised upon the completion of specific streetscape plans for the villages or specific design plans for each roadway entrance. The current list was developed to give a general idea of the types of improvements that could be used to achieve the gateway “concept.”



The physical improvements category includes items that when completed have the most visual impact, but also the highest costs. They are tangible gateway components and serve as a catalyst for the greater community awareness that we promote.

Physical Improvements

- Acquire land or easements for the roadway entrance gateways
- Install uniform signage for all public and quasi-public facilities
- Replace existing streetlights in the villages with ones that are more efficient and appropriate to their setting
- Work to incorporate culturally appropriate sculpture into our gateways and parks
- Create entrance gateways that have unique elements, but emphasize a uniform “West Bradford” theme
- Examine existing sidewalk conditions in the villages and consider establishing a consistent “brick” sidewalk
- Consider establishing a street tree program for the villages
- Create traffic calming devices in the villages
- Create pedestrian friendly accessory facilities in the villages (e.g. benches, trash receptacles, kiosks, and bike racks)
- Consider creating bikeways along the main village roadways

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Regulation and Planning

- Undertake Streetscape Plans for Marshallton and Romansville
- Revise Township sign regulations to allow for the gateway concept and mandate uniform signage in the villages
- Create defined village boundaries as an overlay in the Township Zoning Ordinance
- Revise Township Zoning Ordinance to allow for the expansion of Romansville and its integration with the historical village
- Mandate double-frontage sidewalk creation in the villages
- Work with PennDOT to plan for traffic calming measures in the villages
- Revise Subdivision and Land Development Ordinance (SLDO) to have better landscape and streetscape requirements in villages
- Consideration should be given to promoting the adaptive reuse of historical structures within designated National Register Districts in the Township
- Create “village green” pocket parks in the villages, where appropriate



Community Awareness

- Seek local sponsorship of roadway entrance gateways to help defray the costs of their creation and maintenance
- Involve the local elementary schools in the gateway concept: instilling a sense of ownership in township youth which reduces vandalism
- Develop handouts for local residents on appropriate and native landscape shrubs and trees
- Have a contest to develop a Township slogan or motto
- Sponsor a contest(s) for best holiday lights or decorations for both villages and the remainder of township



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Gateways Summary...



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“Community” is hard to define and impossible to artificially create. Yet, community is what we are trying to foster with our gateways. These physical improvements can serve as a catalyst for community identity and togetherness.

It is important that we build on both our historical village character and natural landscapes with our gateways. They provide a bridge between West Bradford’s past and future: fostering a sense of belonging, identity, and ownership in our community.

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APPENDIX

Figure 14 – Chester County Bikeways in West Bradford Township

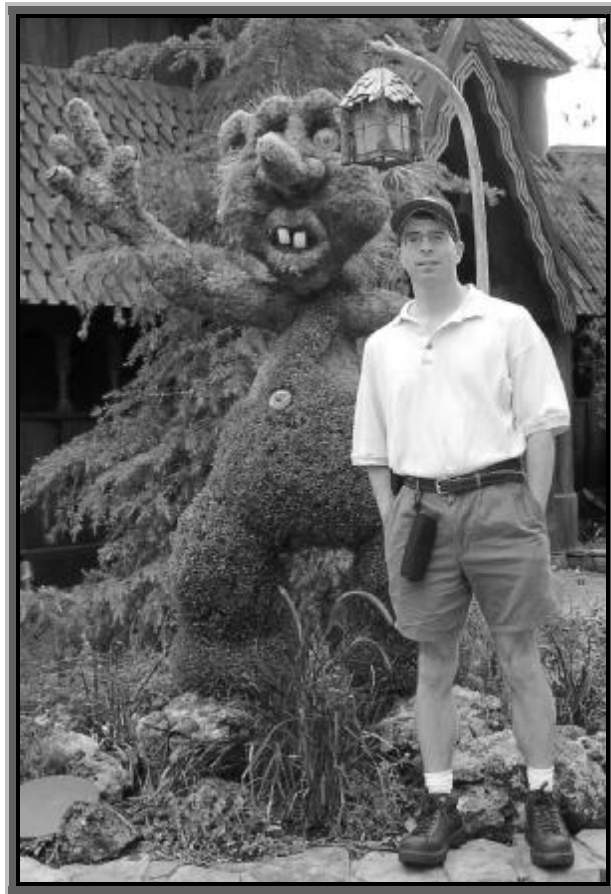
Road Name	Type	To/From
Downingtown Pike (Route 322)	Advanced	Entirety
Telegraph Road	Intermediate	Entirety
Sugars Bridge Road	Intermediate	Entirety
Chestnut Lane	Intermediate	Entirety
West Chester Road	Intermediate	Entirety
Beacon Hill Road	Intermediate	Entirety
Poorhouse Road	Intermediate	Entirety
Embreeville Road	Intermediate	Entirety
Broad Run Road	Intermediate	Chestnut La to West Chester Rd
Stargazers Road	Intermediate	Entirety
Glenside Avenue	Intermediate	Beacon Hill Rd to Shadyside Rd
Shadyside Road	Intermediate	Glenside Rd to Strasburg Rd
Leids Road	Intermediate	Stargazers Rd to Broad Run Rd
Northbrook Road	Intermediate	Camp Linden Rd to Strasburg Rd
Northbrook Road	Beginner	Brandywine Dr to Camp Linden Rd
Camp Linden Road	Beginner	Northbrook Rd to Wawaset Rd
Wawaset Road	Beginner	Camp Linden Rd to Hunting Hill La
Broad Run Road	Beginner	Northbrook Rd to Chestnut La

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Endnotes



¹ Zeno, from *Diogenes Laertius*, Lives, bk. VII, sec. 87

² *Pennsylvania Greenways: An Action Plan for Creating Connections*, June 2001, Pennsylvania Greenways Partnership Commission, pg 1.

³ *West Bradford Township Comprehensive Plan*, December 1989, Brandywine Conservancy & Chester County Planning Commission.

⁴ *Ibid*, pg 141.

⁵ *West Bradford Township Open Space, Recreation and Environmental Resources Plan*, May 1993, Natural Lands Trust

⁶ *ibid* pg 75.

⁷ *West Bradford Township Zoning Ordinance*, 1977 as amended, West Bradford Township

⁸ *West Bradford Township Subdivision and Land Development Ordinance*, 1996 as amended, West Bradford Township

⁹ *Landscapes: Managing Change in Chester County 1996-2020*, July 1996, Chester County Planning Commission.

¹⁰ *Linking Landscapes: A Plan for the Protected Open Space Network in Chester County, Pennsylvania*, February 2002, Chester County Planning Commission.

¹¹ St. Bernard, *Epistle*, 106

¹² *Enhancement of Biological Diversity in Chester County, Pennsylvania*, Mark L. Shumar, December 1992, thesis, Department of Geography and Planning, West Chester University, page 1

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¹³ *Linking Landscapes: A Plan for the Protected Open Space Network in Chester County, Pennsylvania*, February 2002, Chester County Planning Commission, 3.32.

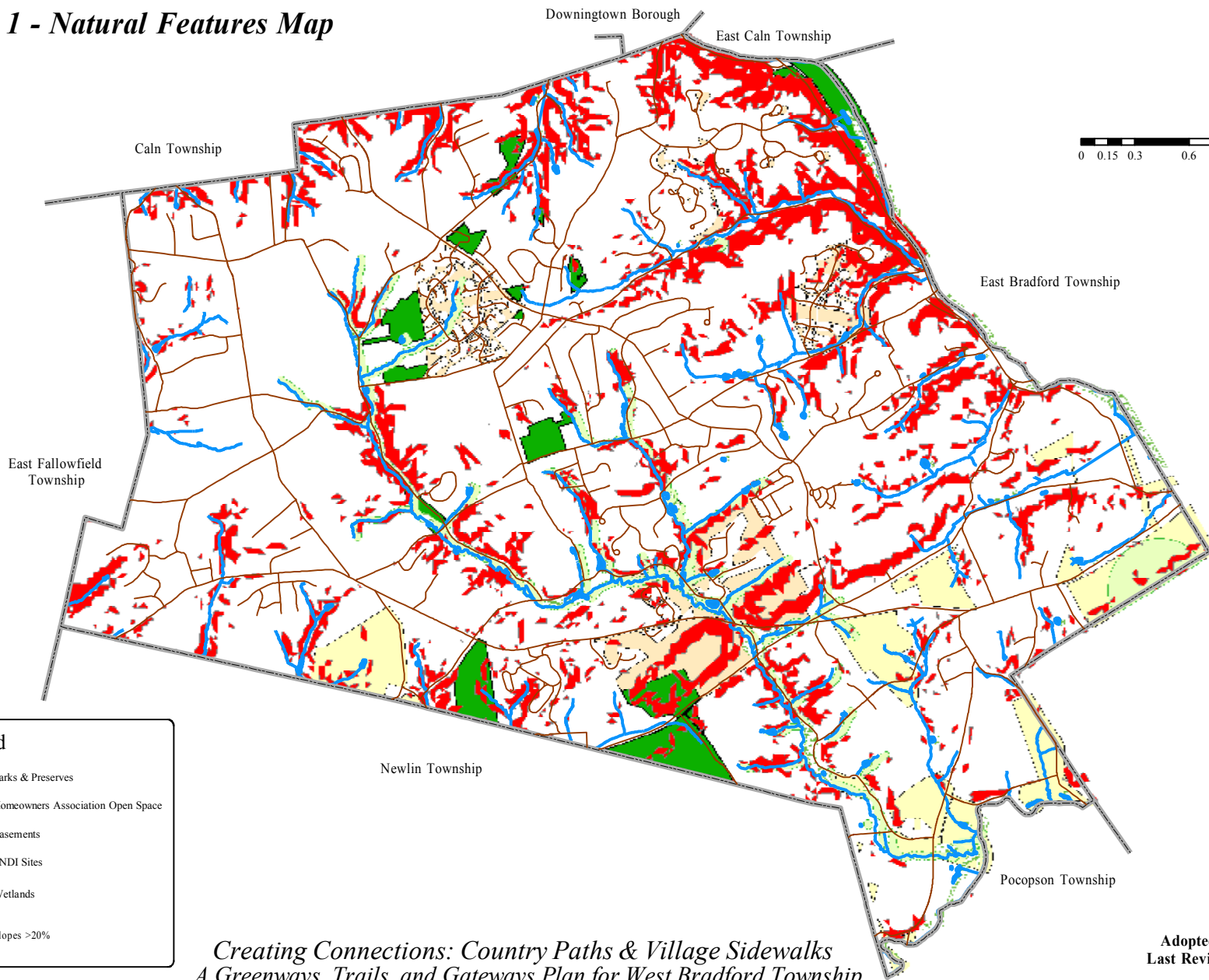
¹⁴ *Chester County Natural Areas Inventory*, The Nature Conservancy, 1994 as updated, i.

¹⁵ *Linking Landscapes: A Plan for the Protected Open Space Network in Chester County, Pennsylvania*, February 2002, Chester County Planning Commission.

¹⁶ Chesco Linking Landscapes

¹⁷ *Cambridge Advanced Learner's Dictionary Online*, <http://dictionary.cambridge.org>

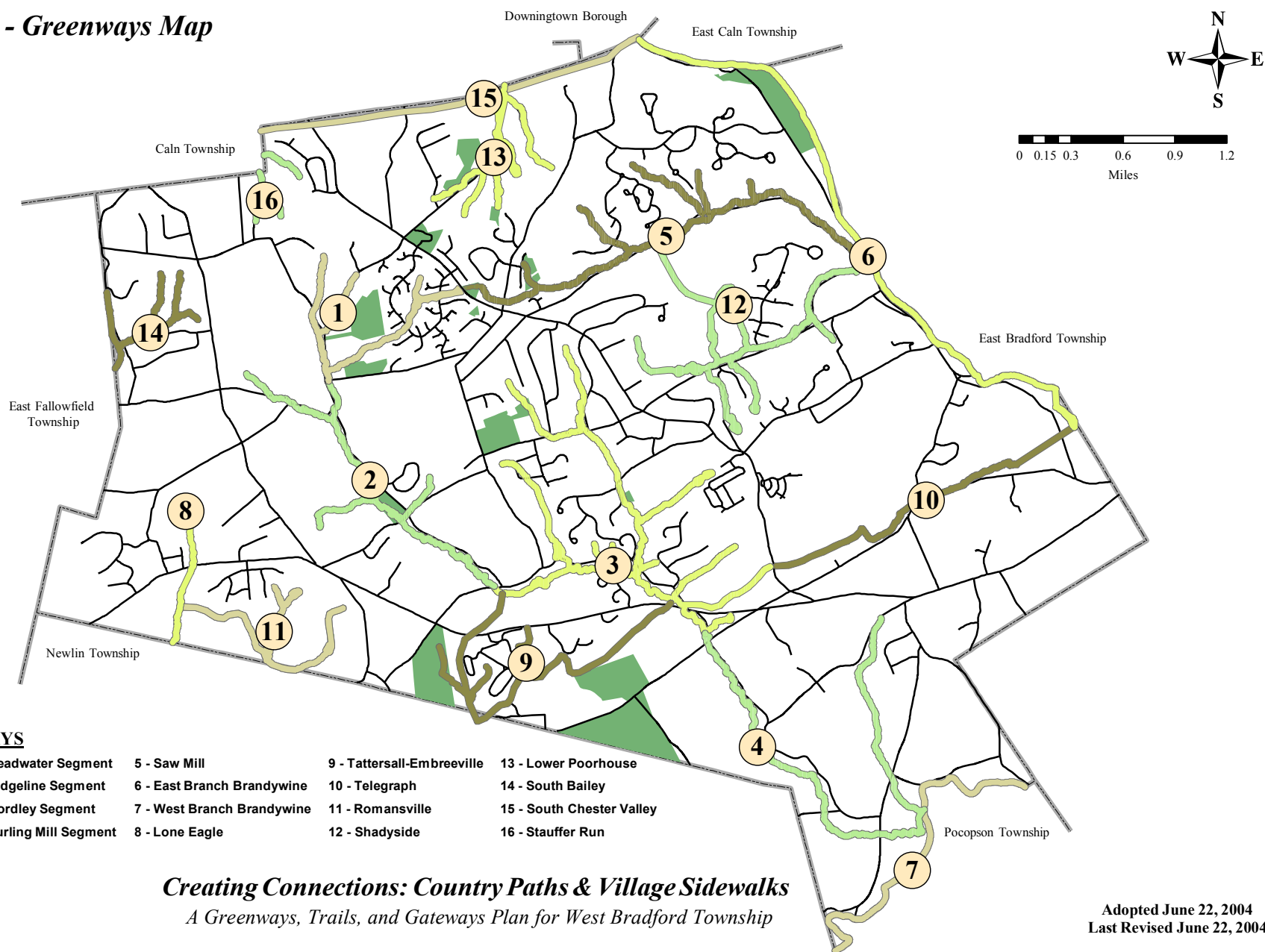
Map 1 - Natural Features Map



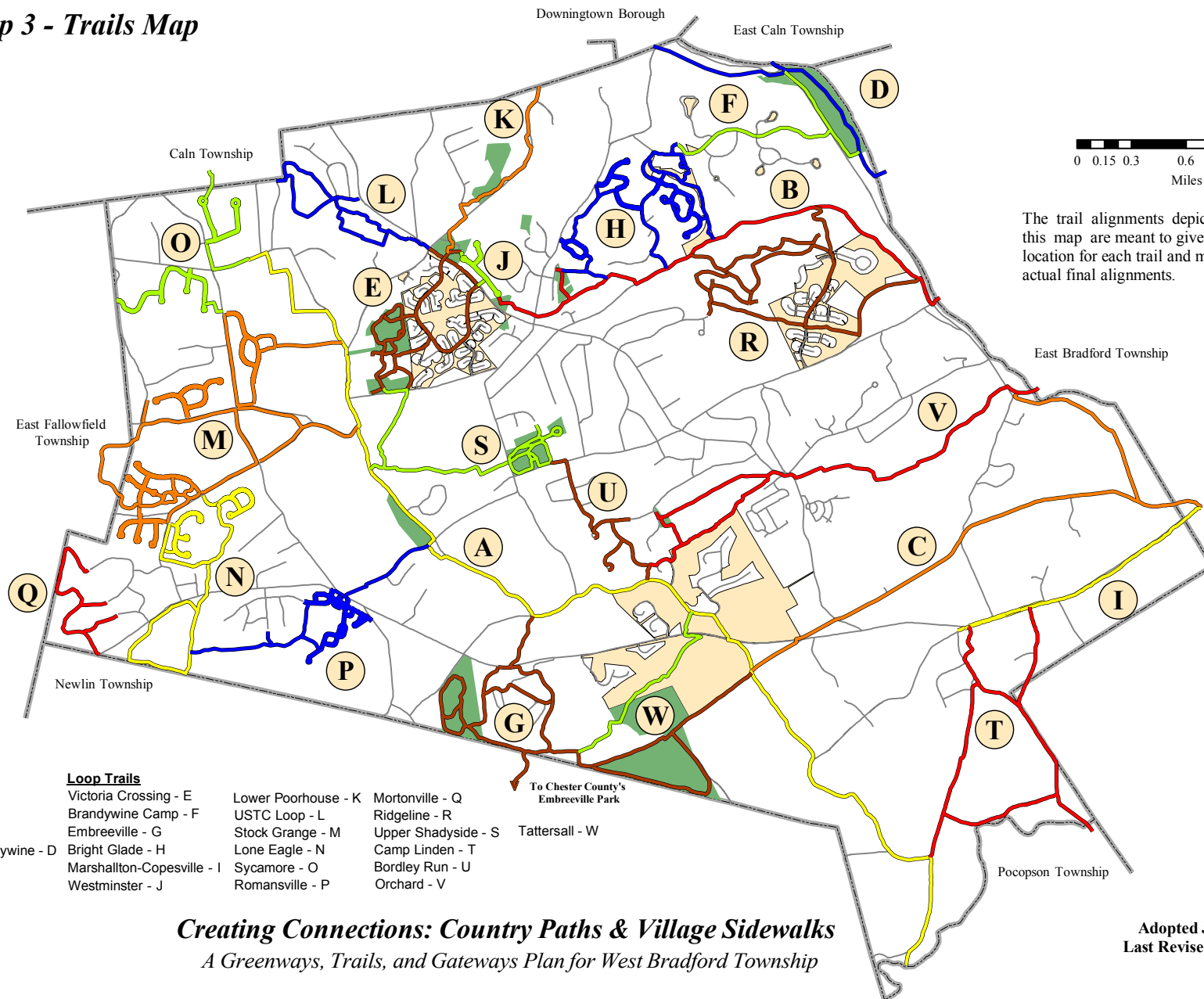
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Last Revised June 22, 2004

Map 2 - Greenways Map



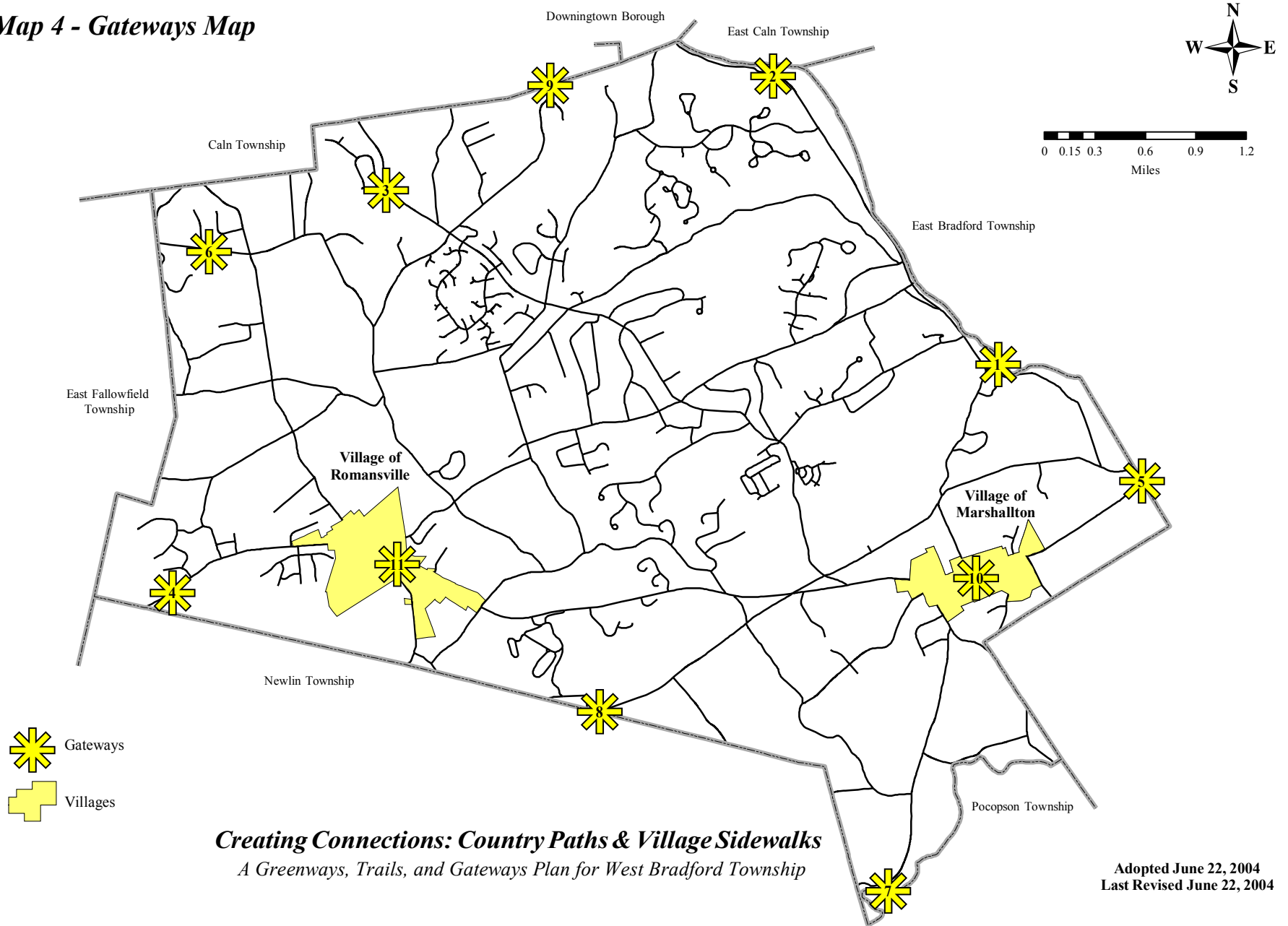
Map 3 - Trails Map



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Map 4 - Gateways Map



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