

Trails Master Plan for Randolph Township Morris County



Randolph Township Trails Master Plan

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Randolph Organizations and Offices

Board of Health
Environmental/Landmarks Advisory Committee
Fire Department
Office of Emergency Management
Planning Board
Parks Advisory Committee
Police Department
Recreation Advisory Committee
Rescue Squad
Traffic Advisory Committee
Wildlife Management Advisory Committee

Outside Organizations

Boy Scout Troop 109 & Cub Scout Pack 109 of Randolph
Chester Township Environmental Commission
County College of Morris
Denville Trails Committee / Recreation Department
Freewalkers, Inc.
Jersey Off Road Bicycling Association
Mendham Township Open Space Committee
Morris County Office of Emergency Management
Morris County Park Commission
Morris County Planning Board
Morris County Municipal Utilities Authority
Morris Township Open Space & Trails Committee
New York-New Jersey Trail Conference
Roxbury Township Open Space Committee

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Chapter I

Executive Summary

Randolph Township has developed a wonderful trail system over the last 20 years. The Township has invested over \$1.5 million into the development of a network of multi-use, improved surface trails providing recreational opportunities for residents, while linking many of the Township's parks, municipal facilities and schools. The Trails Network was created using both local funding and grants. The 16 miles of existing trails are heavily used by the local population from both Randolph and surrounding communities. The network is seen by Randolph's residents as a community asset and an important part of what makes the Township a good place to live.



The Randolph Township Council commissioned a general Township-wide open space and recreation plan in July 2016. A survey conducted as part of that plan found that 71% of respondents identified walking and hiking trails as the most needed facilities in the Township's parks. An additional 54% felt that more trails or bike paths were required. The plan identified the potential for expansion of the existing trail system and the need for maintaining the existing system as important municipal goals. These findings led to the formation of a Township committee to explore the development of a trails master plan to meet the goals identified in the Open Space and Recreation Plan. The Township Trails Master Plan Committee, consisting of elected officials and interested residents, engaged the firm Greener by Design to develop a Trails Master Plan to help guide Randolph in developing a strategy for the maintenance, upkeep and expansion of the Randolph Trail System. The committee also sought to establish a rational approach for responsibly funding this undertaking over a period of years.

After a six-month process of community outreach, field work and research, The Randolph Trails Master Plan has been created. The plan provides direction to assist the current and future governing bodies of the Township with management of the trails system in a manner that will best meet the current and future needs of the Township's residents. This plan contains recommendations for the maintenance and upkeep of the existing system, improvements to the system, expansion of the system and funding mechanisms to undertake these actions.

The Existing System

Randolph Township currently maintains a system of 16 miles of multi-use trails. The trail system consists of mostly improved surface pathways. Significant portions of the system have either paved asphalt or crushed gravel surfaces and are 4 to 6 feet wide. The trails are in generally good condition, with limited erosion and drainage issues. A survey conducted in connection with the preparation of this plan found that 93% of those responding felt that the trail system is valuable asset for the Township.



The existing trails are centered on the Township's major recreational facilities at Freedom Park and Brundage Park. The trails connect to the Township's schools and municipal facilities and pass through most of the extensive public land holdings in the community. The Township has produced a clear and easy to interpret map of the trail system. Many of the routes have taken advantage of existing unpaved woodland roads when they were created. The existing trails are relatively level and accessible. A recent expansion into land surrounding the Clyde Potts Reservoir has provided an excellent opportunity for longer hikes and a direct connection to Mendham Township. However, while the trails themselves are easy to follow in terms of a clear well-defined walking path, navigation of the system as a whole can be confusing. Improvements to

the wayfinding and navigation system for the trails are recommended. The goal is to provide users with a level of comfort in using the trails network as well as a means for planning and navigating routes. This can be accomplished through the implementation of a few very basic measures outlined in this plan.

The current trail system has several issues:

- The geographic reach is limited.
- Many portions of the Township do not have direct connections to the trails.
- The core of the system is extensive but the utility is limited.
- Navigation of the system is hampered by a lack of loop routes and options and there is no uniform method of blazing or wayfinding. Links to other regional trails such as Morris County's Patriots' Path and the West Morris Greenway exist, but could be improved.
- There is no existing system for scheduled maintenance or monitoring of the trails network.

Goals for Expansion

Public outreach and research have identified a number of new trail routes or trail connections that can substantially expand the Randolph Trails System. This plan sets forth an ambitious strategy to bring the trail system to more neighborhoods, provide increased mileage and more interesting use options, and to connect the Randolph Trails with regional trails and neighboring communities. Using these connections to expand the reach of the trail system will provide opportunities for loop hikes, connect isolated parks and incorporate long distance hiking and biking opportunities that are not currently available. Some of these proposals are modest, others more ambitious. The proposed new trails take advantage of the existing core trail system, lands that are owned or otherwise controlled by the Township or other public entities, and existing trails outside the Randolph network.

Twenty-two (22) potential new trail segments were proposed during the outreach and investigation conducted to prepare this report. Those trail segments are depicted in a detailed map with descriptions that are found in the appendix 1 of this document. The length of each proposed segment and the estimated costs of constructing each section have been calculated as well. Additionally, land acquisitions, either in fee or through securing rights-of-way necessary to complete these segments have been catalogued and provided to the Township. The Randolph Township Trails Committee has prioritized the addition of these sections to the system based upon cost, utility, feasibility, and other factors, and categorized the additions into short-range, intermediate and long-term goals. Some of these additions can be accomplished easily, while others, although having high value, may need to wait until adequate funding or access to land is available to construct them.

Maintaining the System

The Trails System requires regular maintenance to keep it in safe and viable condition. With 16 miles of existing trails and plans for significant additions to the system, this responsibility will continue to grow. The network is comprised of improved surface trails, featuring either asphalt or crushed gravel for most of its length. The improved surfaces will reduce immediate maintenance needs and provide durable pathways with a significant lifespan. However they will also require considerable expense for repair or replacement in the future. Many routine tasks can be accomplished through the work of volunteers. Upkeep and maintenance of the more substantial improvements will need to be addressed by Township personnel or even outside contractors. Typical construction costs and maintenance tasks have been incorporated into this plan to allow the Township to forecast budgeting and staffing requirements in a rational and responsible manner.

The Parks and Recreation Department provides basic management support for the Randolph Township Trail System, with ongoing maintenance responsibilities shared broadly within the Parks and Recreation maintenance unit of the Department. As the Trail System has grown, the responsibilities of individual trail-section maintenance have been assigned to crews for the Township's specific destination parks- Brundage Park, Heistein Park and Freedom Park. These same crews have responsibilities for athletic field, turf, court, and building maintenance with seasonally high workloads during the months of April through November.



Currently, trail assessment for maintenance needs is not undertaken on a scheduled basis, but rather as these duties may periodically be assigned due to weather, project down time, or based on a citizen complaint. This is not to suggest any substandard level of attention, but trail system growth, as proposed in this plan, will place greater demands on available personnel resources for regular maintenance. Routine maintenance ensures user safety and security. A maintenance plan that incorporates regular trail inspection is also a prime defense against negligence claims. Additionally, creating a program to supplement the work of Township personnel with volunteer trail maintainers to perform routine inspection and minor maintenance and upkeep will be extremely valuable.

A more systematic management system is recommended in the future for planning, scheduling, conducting and evaluating trail maintenance activities. Such a system will allow for rational budgeting decisions and scheduled repeating maintenance actions. A systematic approach will also help reduce exposure to accidents related to trail conditions and potential exposure to liability claims. Such a system would be based on the above-stated goals and objectives and include:

- A trails inventory with physical descriptions and general maintenance needs for each trail.
- Inspection and conditions reports.
- Standard work orders.
- Labor completion reporting.
- A cost tracking system.
- Volunteer or staff inspection reporting.
- Tracking for outside maintenance contracts or invoices.
- Tracking of public complaints, comments and responses.

All for the above factors should be incorporated into a document that will guide the Department in developing inspection schedules for each trail segment.

Responsibly Financing Randolph Trails



One of the goals of the trails planning process was to establish a means of budgeting accurately for the maintenance, upkeep and expansion of the trail system. Municipal budgets are constrained by both policy and legal limitations that cap spending. Spending will be required to ensure the system is kept in a state of good repair. Budgeting for these expenditures needs to be undertaken in a thoughtful and fiscally responsible manner. This can be challenging when there are many different priorities competing for scarce public funds.

A Microsoft Excel budgeting tool has been created in connection with this Plan to guide the Township in the financial decision-making process. This document allows for projecting costs for both maintenance of the existing system and construction of new trail segments. It also

allows the user to forecast costs over multiple years. It is adaptable to changing priorities and will give the Township the ability to adjust spending when priorities change.

As a baseline, maintenance and expansion costs have been calculated over a ten-year period from 2017-2026. The resulting costs for maintenance activities can be extracted from the spreadsheet and built into the municipal budget on an annual basis. Investments in new construction should be similarly planned, once an affirmative policy decision to undertake any new project based on available resources.

The costs for expansion of the system can also be accurately forecast. Budgeting for the construction of new miles of trail proposed in this plan can be budgeted over time. Additionally, having a clear and rational plan for expansion can provide the basis for applications for trail construction grants. Meeting the expansion goals outlined in this plan will require a limited number of acquisitions, either outright purchase or obtaining easements or rights-of-way to create new trails. This plan provides the detailed information for both costs and actions necessary to implement the proposed additions to the system.

The Future of Randolph Trails

The Randolph Trails have become an integral part of the community. Over time, the creation of the trail system has proven to be an excellent investment for the Township's residents. Highly used and highly valued, Randolph's trails provide a myriad of recreational opportunities and

access to the Township’s extensive park system as well as to many public facilities. The Randolph Trail System would remain a valuable asset to the Township’s residents without any changes or improvements. However the future of the trails system will require the attention of the Township and continued investment in trails to insure they remain a valuable community asset. The Township has a responsibility to be good stewards of the trail system and to safeguard it for both current and future residents.

This Plan lays out a roadmap by which Randolph can responsibly plan to expand, improve, and maintain its Trails System. Community input on the subject of trails has provided the basis for a logical approach to establishing important trail connections, access points, information, and other facets of the system that will improve access to trails and the overall trail experience. How rapidly the Plan can be put in place and what aspects of it are possible in any given year will depend on when the community groups that should be responsible for planning, construction and maintenance can adopt the Plan’s recommendations and implement the steps it sets forth. They include the following:

- Establish a Permanent Trails Advisory Committee
- Develop a system to monitor the conditions on the trails.
- Implement the proposed fiscal management system
- Institute a program for performing routine maintenance and upkeep
- Create a plan to dedicate funds on a repeating annual basis for maintenance of the system
- Make improvements to the trails (blazing, signage & repairs to problem areas)
- Construct additions to the trails system over time in an orderly and fiscally responsible manner.
- Revisit the plan on an annual basis to assess progress and make adjustments as necessary

These are all achievable goals for the Township. Keeping the trail system in a state of good repair, making upgrades to the system where needed and expanding the reach of the system to serve more parts of the Township as well as to provide additional opportunities for use will allow for the Randolph Trails to remain an important and valued resource for the Township’s residents. The investments of the past need to be supported with a commitment to the future of the trail system. The recommendations contained in this plan are designed to provide the Township with the means to achieve these goals and fulfill that commitment.

Chapter 2

Introduction

Randolph Township is a suburban community, in northern New Jersey, with a variety of neighborhoods that have developed independently over time. The Township is home to both significant natural areas and wonderful parks. Over the past decade, Randolph has developed a sophisticated multi-use trail system to take advantage of its assets and provide recreational opportunities for its citizens and others. The existing network of 16 miles of multi-purpose trails has proven to be a well-used asset for the township's residents. The Township views its trail system as a means to tie the community together by connecting neighborhoods with Randolph's many parks, schools and municipal facilities. The Trails Network also affords a healthy outdoor experience, by providing options to Randolph's residents for walking, hiking and biking.

The Randolph Trails Master Plan (RTMP) has been created to explore the many options available for maintaining the core trail network, improving the utility of that network, and building on the existing trail system to bring its benefits to as many neighborhoods as possible. The Township also looks to take advantage of opportunities to tie its trail network to other trail systems, such as Morris County's Patriots' Path and to trails in neighboring communities. This document is designed to guide the Township's governing body in strategically planning to maintain the current system and expand that system to serve current and future residents of Randolph. It is also designed to provide budgeting support to assist with planning for financial commitments necessary to maintain and expand the network of trails. The vision contained in the Plan is fundamentally one of sustainability.

Trails Vision Statement

The vision guiding Randolph Township's Trails Master Plan was developed from input provided through public outreach and stakeholder consultations between January and April 2017. The vision reflects the general view of Township residents regarding the existing trail system and their priorities for improving and expanding the network. It also expresses what people agree needs to be retained and what should be added to the system.

The primary objectives identified through this process are:

- Respect for the natural resources of the New Jersey Highlands.
- Managing uses of the trails in ways that enhance the benefits to current and future residents.
- Achieving the goals of this plan in a fiscally responsible manner.

- Ensuring that the trail network will continue to be an asset to the Township.
- Protecting the ability of future generations to enjoy this wonderful resource.

By adopting an approach that protects the local ecology while providing recreational, social and health benefits, the local trail system can become a model of sustainable recreational trails management. At the heart of achieving this vision is a commitment to balancing environmental protection with recreational uses and activity. This commitment will be shared by all who are responsible for this asset—individuals using the area, partnering government agencies, surrounding private land owners, and other stakeholders. Common, sustainable strategies should emphasize awareness, education, safety and stewardship.



Randolph Township has a collaborative and systematic vision for implementing this Trails plan. How the Trails Network should be managed should be guided by a desire to minimize negative impacts on the environment and local residents, while maximizing community partnerships, education, habitat protection, or other positive outcomes. A permanent Trails Advisory Committee should be formed to assist the governing body and Township staff with trail planning, design, construction, and maintenance. This Committee should consist of members representing the governing body, related established municipal committees (such as the recreation committee), vested interest groups and the residents at-large.

The Trails Advisory Committee will have the key responsibility to develop and oversee a volunteer program for trail construction and maintenance and to make recommendations to the Township Council and Township Staff regarding prioritization of projects. The Trails Advisory Committee will also be responsible for updating this Recreational Trails Master Plan periodically (e.g. every 5-7 years) and presenting the update to the Township governing body for formal adoption. Township staff will lead project implementation activities, such as development of mapping and design details, review of deliverables from consultants, annual budget planning, bidding and assignment of trail construction contracts, public relations, and communications with partners.

Purpose

Trails provide opportunities for people to participate in outdoor recreation and outdoor adventure pursuits. Trails welcome all people regardless of age, income, ethnic background, or beliefs and provide benefits to a dramatically wider population than golf courses, soccer fields, tennis courts, and similar public facilities. Trails provide key access by allowing users to immerse themselves in

the natural flora and fauna of the area and experience the splendor of nature and beauty of the New Jersey Highlands and to have easy access to opportunities for exercise and physical activity. Trails can also be very cost effective in comparison to other recreational facilities. They occupy minimal land and may be located in floodplains, utility corridors, detention areas, along roads, and in other areas that cannot be developed.

The Recreational Trails Master Plan is intended to provide guidance to Randolph for the continued development of its recreational trails program, so it can effectively manage and maintain a formalized system of sustainable trails that will serve the year-round needs of area residents. The plan offers a formalized trails maintenance program that follows sustainable principles and best management practices for trail design, construction, and upkeep. It offers recommendations on developing a routine and remedial maintenance program that emphasizes visitor safety, sustainability, and documented safety inspections. The plan puts forward the results of a sustainability assessment of existing trails and provides recommendations based on the findings. It also identifies new trail opportunities within the township and presents cost estimates for these capital improvement projects. This plan is intended to evolve and should be periodically reviewed and updated every 5-7 years as necessary to meet changing development conditions, community needs, and on- going trails program evolution.

Methodology & Outreach

The Trails Master Plan is the product of a significant amount of input from members of the Randolph Township community and other important stakeholders. Ideas and consensus were obtained through interaction with the public; with organizations that create, manage and advocate for trails; with public safety officials; and through walking the trails themselves. The planning process was guided by the Randolph Trails Advisory Committee, consisting of municipal officials and interested citizens as well as members of the Randolph Township municipal staff. Significant technical support was provided by the Township Planner, Darren Carney, the Recreation Director, Russ Newman and the Township Manager, Steve Mountain. This plan is the product of a comprehensive effort to engage as many interested parties as possible and to create a vision that addresses their concerns and the long-term needs of the community.

Input was gained through meetings, a public hearing and a survey to which 400 residents responded. The survey provided input on the public's use of the trail system, its condition, any concerns, the experience relative to other trails, and recommendations for improvement (Appendix 8). A public hearing attended by more than 50 people provided valuable suggestions on the existing trail system and potential future additions. Input on the Plan was sought from a wide range of municipal, county, and regional organizations and agencies, including those responsible for planning and public safety (Appendices 6 & 7). Valuable information for the planning process was also obtained from organizations having expertise in trail planning, design

and construction of trail systems, and from those managing other trails that utilize Randolph's trails as part of their system (Patriot's Path, 9/11 Trail, Highlands Trail, Millennium Trail), and from entities that own property that provides the potential for future trail connections (Appendices 6 & 7). Finally, Greener by Design staff hiked the entire trail system and conducted a drone overflight of part of the system to experience the trails from the user standpoint and to document the existing condition of the trail system.

Statement of Principles

The principles listed below were developed in conjunction with the vision statement, with input provided from Town of Randolph staff and through the public consultation process. The principles express the range of basic concepts which are crucial to the development of a successful recreational trails management program and the realization of the vision.

Public Health, Accessibility & Recreation- To enhance the healthy outdoor recreational opportunities for Randolph residents. Provide access to public open space to be enjoyed by local residents and visitors, and accessibility to meet recreational needs must be achieved while maintaining the ecological integrity of natural areas through the creation of appropriate supporting amenities like trailheads/access points and regulations regarding use. This includes providing infrastructure to support legitimate access and to balance neighborhood livability with recreational uses.

Safety and Risk Management- Risks of use should be clearly communicated to trail users through appropriate trail signage and educational information. Implementation of an effective trail maintenance program also promotes good risk management. Keeping the system in a state of good repair, providing adequate means of navigation and wayfinding and being able to respond appropriately to emergencies on the trails are important elements of good trails management practices.

Financial Sustainability- This plan recognizes that limited budgets exist for all the Township's planned capital projects. A variety of initiatives can be explored to further develop and implement this plan. The long term success of the plan depends on reliable and sustainable funding strategies within the context of innovative partnerships, priority setting and cost/benefit considerations.

Stewardship and Responsibility- Responsibility, accountability and stewardship must be fostered at all levels including individual users, community groups, resource managers and other partner agencies. This shared responsibility begins with public and multi-agency involvement in the development of this plan, including development of policies and standards for managing the social, environmental and economic aspects of trail use in the area. Policies should include opportunities for stewardship and ongoing involvement by local volunteers in monitoring and implementation of the recreational trails program.

Leadership, Partnerships and Innovation- The challenges arising from growing recreational use present an opportunity for the Township to become a leader in effective, sustainable management of trails. Randolph's value as a destination must be matched by leadership through innovation, co-operation, and partnerships promoted by a comprehensive plan for long term management and sustainability of the natural environment. Randolph's recreational trail system is a regional as well as a local one. The Township can effectively optimize use of this system through partnerships with Morris County, surrounding municipalities and other stakeholders.

Awareness, Public Education and Advocacy- Awareness, education and advocacy are integral to establishing community support for the trail network. Fostering respect for the natural environment and an appreciation for the health benefits for system users will help to build a supportive constituency. Building respect and awareness of these issues through public education and advocacy is crucial. This can be accomplished through creating an organized volunteer program, performing public outreach and education by providing printed and electronic information, and partnering with local organizations to promote use of the trails, environmental education and awareness.

Tourism and Economic Considerations- Opportunities for marketing the availability of recreational trails should be considered. Trails that are easy to find and use and offer unique experiences for outdoor exercise and recreation will enhance property values for Randolph residents and provide the opportunity for local businesses to capitalize on Randolph becoming a destination for visitors looking to take advantage of the trails network.

Goals and Objectives

The existing system is a remarkable asset to the township's residents and is the product of a multi-year investment in creating the current 16 mile network of multi-purpose, improved surface trails. The Trails Master Plan seeks to achieve four overarching goals to maintain and improve upon this investment:

1. Enhance recreational opportunities for township residents.
2. Allow residents to safely access the Township's many parks and destination areas.
3. Promote health and fitness among Township residents through outdoor exercise.
4. Establish a rational fiscally responsible basis for planning the maintenance of the current trails system and for future expansion of the trails network

Enhance Recreational Opportunities for Township Residents

The RTMP will endeavor to best utilize the investment Randolph has made in their 2,700 acres of parks and open space and its 16 miles of trails. Township recreational resources range from large

municipal parks (Brundage Park Recreation Complex, Freedom Park, Randolph Park, Heistein Park, Tamarack Field, Hidden Valley Park, Cohn Farm Park, Combs Hollow Preserve, Clyde Potts Preserve) to pocket parks (Kiwanis Park, Timber Lane Park, VRW Memorial Park, and Rosenfarb Park). The State of New Jersey maintains more than 3,000 acres of the Black River Wildlife Management Area, a portion of which is located in Randolph. Additionally, there are two major Morris County parks: Hedden Park (390 acres) and James Andrew Memorial Park (589 acres) within the Township. Main trails can be found at Hidden Valley Park, Town Hall (Millbrook Avenue), Freedom Park, Brundage Park, Heistein Park, Combs Hollow and Clyde Potts Preserve. Randolph hosts sections of the Patriots Path, the West Morris Greenway and the Liberty-Water Gap Trail regionally connecting our residents with parks in neighboring Mendham, Chester and Roxbury Townships.

As good as the existing trail system is, there is room for improvement. There are significant opportunities to develop a more robust trail system in the northern and western portions of the Township that currently are not linked to the trails network. There are opportunities to make new connections between parkland and neighborhoods, and the development of trail ‘loops’ which help avoid backtracking over the same route which will enhance the utility of the system and the user’s overall experience. Newly created/improved trails will also account for the wide variety of today’s recreational uses, to include hiking, casual walking, birding, cycling, cross-country skiing, geocaching, and, possibly, horseback riding. Bringing the trail system to as many neighborhoods as possible and connecting that system to the region and beyond are attainable goals.

Allow residents to safely access the Township’s many parks and destination areas

Randolph Township hosts both a significant amount of open space and several major transportation arteries, such as Route 10, Sussex Turnpike, Morris Turnpike, and Dover-Chester Road. The safety of residents as they access local parks and trails is paramount and must be considered in the trails planning process. Careful planning should consider the need for marked road crossings and signage for both trail users and drivers. These protective measures will be augmented by educating residents, especially children, on how to safely navigate Township trails, pathways and roadways with pamphlets, school presentations and maps.

The trails connect with nearly every school in the Randolph Township School District. Additionally, the Township Municipal Building, the Community Center are linked to the trail network. The Township is planning to create a town center near the intersection of Sussex Turnpike and West Hanover Avenue. Connecting the trail system to this commercial and residential development should also be an objective of this plan.

Promote health and fitness among Township residents through outdoor exercise.

The Randolph Trails Master Plan will create a trail/pathway within safe walking distance of most residential neighborhoods in the Township, providing equivalent opportunity for healthy outdoor exercise. Trail routes will be attractive and accessible, properly maintained, and provide a viable alternative to motorized travel within the Township. Input on ways people measure exercise regimens (walking distance, time, steps) will be considered in designing signage and designating trail segments. The Township will sponsor and promote events that encourage awareness and use of these local trails.

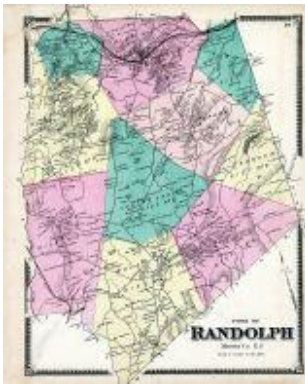
Maintenance, Upkeep and Expansion of the Trails Network

The creation of the Randolph Trails system has also meant the responsibility of the Township to keep the trails in good repair. The ability to maintain the network of trails in a fiscally responsible and orderly manner is an important part of long-term planning. Additionally, the system is not fully accessible to the entire Township. Opportunities exist for expanding the system to bring the trails to neighborhoods that are not currently connected to the trails and to link the Randolph Trails to other regional trails serving adjacent municipalities and the region at-large. These new trail connections will require a carefully planned investment for construction and will also add to the continuing maintenance responsibilities of the Township. The value to the community for the maintenance, upkeep and expansion of the trails network can be clearly demonstrated. However, the limitations of the municipal budget require the ability to chart a strategic multi-year investment to meet the targets contained in trails master plan.

Chapter 3

The Landscape of Randolph Township

Geography



Randolph Township is a mainly suburban community located approximately 30 miles west of New York City. It is situated in the heart of Morris County and is part of the greater New Jersey Highlands region. The Township covers approximately 21 square miles and features the rugged terrain typical of the New Jersey Highlands. Known for its scenic views, the Township has prominent ridges that run from southwest to northeast over most of its extent. The Lamington River Valley forms its western border. Elevations in the township range from just below 551 feet above mean sea level along the Lamington River to about 1080 feet just west of Mount Freedom. Most of the township lies at elevations above 800 feet

above mean sea level. The higher elevations within the township provide the opportunity to design trails to take advantage of scenic vistas and interesting terrain.

The Township is split between two major watersheds, the Raritan River and Passaic River watersheds. The southern and western portions of the Township drain to either the Lamington (Black) River, which is a major tributary of the South Branch of the Raritan, or to the headwaters of the North Branch of the Raritan River. The latter consists of two waterways, India Brook and Burnett Brook, both of which have their source in Randolph Township. The remainder of the Township drains to the Passaic River via either the Rockaway River or the Whippany River.

New Jersey state highway 10 is the main access way to the Township. It runs east to west across the length of the municipality. The route of the highway is lined by significant commercial development. Route 10 is a heavily traveled roadway and is 4 lanes with a median barrier and is signalized at major intersections. The roadway is a significant obstacle to pedestrian travel between areas to the north and to the south of its route. Other major roadways in Randolph such as Sussex Turnpike, Dover-Chester Road, West Hanover Avenue and Millbrook Avenue do not pose the same problems for pedestrian passage.

While the Township has developed over time in a decentralized pattern typical of suburban New Jersey, there are historic centers of development. In addition to the commercial development along Route 10, the Township anticipates future development in these locations. Mount Freedom, located along Sussex Turnpike near the intersections of West Hanover Avenue and

Millbrook Avenue, is the most significant of these centers and is planned to include substantial new mixed-use development. The historic community of Ironia is situated along Dover-Chester Road. Linking these historic centers through the trails system is an important goal of this trails plan. There are existing trails that currently serve the Mount Freedom area as well as the Ironia area and additional trails are proposed to enhance the utility of what is already in place.

Natural Resources

Randolph Township is located entirely within the environmentally important New Jersey Highlands region as designated by the New Jersey Highlands Water Protection and Planning Act. This is part of a greater geologic province that stretches from Pennsylvania to Massachusetts that has been recognized for over a century for its importance as a source of high quality drinking water for urbanized areas of the northeastern United States. Approximately 95% of the Township is within the Planning Area as designated by the Act with the remaining 5% within the Preservation Area and subject to strict constraints on development. The Township plays a significant role in providing drinking water for millions of New Jersey residents. The headwaters of the Raritan River and the watershed of the Clyde Potts Reservoir, both important sources of potable water, are located in the Township.



There are approximately 2,000 acres of preserved land in Randolph. This includes lands owned and managed by the State of New Jersey, the Morris County Park Commission, Randolph Township parks and 127 acres of privately-owned preserved farmland. Significant active recreational facilities are maintained by the Township at Freedom Park, Brundage Park and Heistein Park. A future recreation area is proposed for land currently referred to as “ninety acres” on Calais Road. Two

large county parks, Hedden Park and James Andrews Park, are owned by Morris County. A portion of the state’s Black River Wildlife Management Area is in Randolph. Additionally, the Morris County Municipal Utility Authority owns significant land buffering the Alamatong Well Fields which provide drinking water for approximately 35,000 customers. Taking advantage of these public resources to create new trails and identify opportunities for linking these facilities is a primary goal of this plan.

Randolph is rich in natural habitat, with 4,884 acres of Critical Wildlife Habitat (designated by the New Jersey Department of Environmental Protection as suitable for rare, threatened and endangered species) and 827 acres of Significant Natural Areas. There are nearly 13,800 acres of forest in the township, including 7,729 acres of “Forest Resource Areas” with notably high

ecological value given their vital role in maintaining ecological processes. The township hosts three State Natural Heritage Priority Sites – the Mt. Freedom, Black River Meadow, and Ironia sites – which host either critically imperiled state plants, rare state plants, and/or globally rare plants. Information on these sites is available through the N.J. Department of Environmental Protection’s Endangered and Non-Game Species Program

(www.state.nj.us/dep/fgw/ensphome.htm). The township boasts more than 3,200 acres of permanently preserved Open Space. In addition to its benefits to the important natural areas with the township, this open space provides significant opportunities for trails development, allowing the public to experience and learn about the township’s rich natural heritage.

Randolph is completely dependent on ground water for its water supply. Water comes from bedrock and sand and gravel aquifers, much of which are overlain by protected open space. The township is fortunate to overlay a high-yielding limestone bedrock aquifer. Protection of open space atop this aquifer is particularly important, due to its ability to produce water and vulnerability to pollution. Ground-water recharge areas also provide a source of water to Randolph’s stream. Flow from the ground-water system replenishes streamflow on a regular basis and is especially important during dry periods. Thus, open space efforts recognize important ground-water-recharge areas in assessing preservation priorities.

Approximately 7% of the Township’s land mass is classified as wetlands, which contain dense stands of water tolerant vegetation. Seasonal high water tables occur along stream corridors and water bodies in lowland areas due to soils with poor drainage. Wetlands provide natural buffers to streams and storage areas for flooding. Though protected by state statute, permanent protection as open space brings significant benefits to township residents, downstream residents, and wildlife. The township also contains a significant number of vernal pools, which are seasonal water bodies that recharge aquifers and provide habitat for reptiles and amphibians in significant numbers. The state has classified 373 acres of township land as significant vernal pool protection buffers. These areas, too, should be part targets for protection.

Surface Waters

The major watersheds covering Randolph include the Rockaway River (provides 51% of drainage), Raritan River (37%) and Whippany River (12%) Basins. The Township includes smaller parts of other watersheds, including, Millbrook, the Lamington (Black) rivers, Den Brook, India Brook and Burnett Brook. There are three picturesque lakes surrounded by developed land: Shongum Lake (property owner association owned), Mendham Lake (privately owned) and Randolph Lake (municipally owned) – all provide recreational opportunities for residents.

The majority of the streams within the township are classified as Category One by the State of New Jersey. Category One is among the highest classifications assigned to surface water in the state and is assigned to pristine streams capable that provide high quality aquatic habitat to in-

stream organisms. Those streams located within the Highlands Preservation Area are assigned Category One status, but many streams outside the Preservation Area also qualify for this distinction. A regulatory buffer of 300 feet on each side is assigned to State Category One streams, providing significant protection to stream corridors. Activities that have the potential to impact such streams are highly regulated to protect their quality. It is possible to construct trails within these corridors, but certain restrictions to clearing and other activities, such as construction of bridges or installation of improved surfaces, can be difficult and involve an extensive permitting process.

Public Facilities

In addition to the public parks, there are a number of public facilities in Randolph Township that are currently served by the Trails system or proposed to be linked to the network. The Township municipal building is located on Millbrook Avenue and provides an access point for the trails. The township's Community Center is located on Calais Road and is accessible from the trails system but is also along a proposed new trail segment. The Randolph Township Board of Education operates six schools. Only Fernbrook Elementary School, which is located on the north side of Route 10, is not currently linked to the Trail system. The 222 acre campus of the County College of Morris is entirely within Randolph Township. It brings thousands of students to the Township each day. Incorporating access to the campus and linking the facility to the Randolph Trails network was identified as an important goal and is a feature of this plan.

Historic Sites

Randolph Township was incorporated in 1805 and was formerly part of Mendham Township. Richly steeped in history, the Township has 35 historic places and landmarks. Initially inhabited by Lenni Lenape Native Americans, Quakers eventually settled in the area. In 1713, Randolph established the first registered iron mine in New Jersey, which eventually supplied the materials for Revolutionary War weapons. As such, it was a supply point for General George Washington's army. Local rivers and streams attracted more colonists and provided power for industries like iron works, grist/saw mills and distilleries. From 1905 through the 1960s, Randolph was a popular summer vacation destination, replete with bungalow colonies and large hotels.

Three historical sites predate the Revolutionary War, including the Liberty Tree at Dell's Corner which is over 280 years old. At the highest level of historic recognition are six nationally-registered historic locations in Randolph: Mott Hollow Historic District, David Tuttle Cooperage, Randolph Friends Meeting House, Combs Hollow Historic Area, Mount Freedom Presbyterian Church and Daniel Drake House.

Other historic places acknowledged by the New Jersey State Register and the Highlands Historic, Cultural and Archaeological Inventory are the Samuel Allen House, Bailey Property, Bostrum Property, Bryant Cider Mill Historic District, Daniel Bryant Homestead, D.L. Bryant Distillery, Coe House, Griffin property, Pollard House, Henry Pool House, W.C. Pool House, and Millbrook School House. The Township's Environmental and Landmark Advisory Committee has identified 16 historically significant landmarks. These include early churches, cemeteries, grist/saw mills, and a variety of homes from grand houses to colonial homesteads. These historic sites should be incorporated into the trail system wherever feasible to provide points of interest and destinations for trail users.

Built Environment/Land Use

Randolph is predominantly a suburban residential community of single-family homes (44.6%). While the number of multi-family residences began increasing in 1990, they occupy only 2.8% of township land Used. There has been little new residential construction since 2010, which is reflective of larger trends in the real estate market. The Commercial and Industrial segments utilize 6.4% of the Township's land and are primarily concentrated along Route 10 and Sussex Turnpike, these include retail establishments, light manufacturing/distribution facilities, and offices.



Future development patterns in the township will be influenced to some degree by the New Jersey Highlands Water Protection and Planning Act rules. Nearly 13,000 acres of the township are located in the Highlands Planning Area and 560 are within Highlands Preservation Area. The highly restrictive nature of rules governing the Preservation Area preclude significant future development. If these rules remain in place, a significant amount of land will remain in it undeveloped state. In 2013

Randolph resolved to attempt to bring its municipal master plan in conformance with Highlands rules, providing certain regulatory advantages and funding for planning. The New Jersey Highlands Council has recently made funding available for open space projects that advance the goals of the Highlands Act. Randolph is well positioned to take advantage of this source of funding for open space.

There are 145 miles of roadways in Randolph; the main arteries are Route 10, Dover-Chester Road (County Road 513) and Sussex Turnpike (County Road 671). Of these thoroughfares: 120 miles are managed by the Township, 20 miles are County Roads, and 5 miles are state-owned.

Population Trends

Currently, there are 25,734 residents of Randolph, with a population density of 1,225 residents per square mile. This is slightly higher than the overall average for Morris County – 1069 residents per square mile. Population growth in the Township peaked with a 99% increase from 1940-1950. For the next 30 years it continued at a significant clip, growing in the range of 34 to 82% until 1980. Population increases averaged 17% from 1980-2000, eventually slowing down to 5% from 2000-2010. The greater trends identified in northern New Jersey that have resulted in a significant slowing, or even a reduction, in population growth in the outer suburbs with increased population growth in the urbanized portions of the state will likely continue, with a similar impact on Randolph, for the foreseeable future.

Demographics

The median age in the Township has increased from 36.5 years to 40.1 years from 2000 to 2010. In terms of age distribution, the largest group is 45-54 year-olds (19.2%), and then 10-19 year-olds (16.3%) and 35-44 year-olds (15.7%). Randolph closely mirrors Morris County, which has an overall median age of 41.3 years, with the majority of residents in the 45-64 year-old age bracket.

Of the 9,013 total households in Randolph, 79% are families and 42% have children under the age of 18. Over 71% of the available housing units are single, detached homes, with 17% being 10 or more attached units. Three-quarters of Township residents own and occupy their home. The housing construction boom in Randolph was from 1970-1979, and the majority of current households moved to the Township in the period between 2000 and 2009.

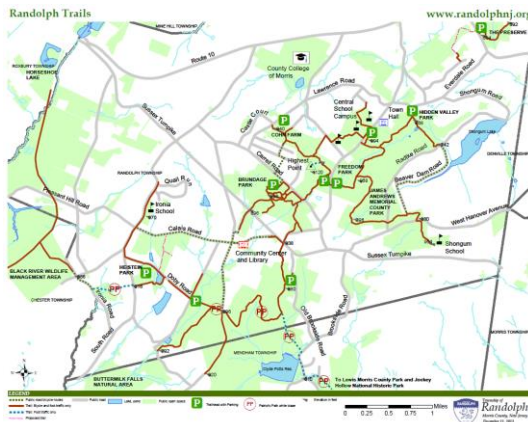
Randolph residents are highly educated; 97% have a high school degree or higher, 67% have a Bachelor's degree, and 29% have a Graduate degree. The median household income is an impressive \$123,578. To put this in perspective, Morris County is the sixth-wealthiest county in the United States with a median household income of \$91,469. These demographic factors reflect a population that is highly interested in use of the Township's recreational facilities and accounts for the high level of patronage of the Trails system. This was also reflected in the high response rate for the survey conducted in conjunction with this plan.

Chapter 4

The Trail System

The Existing Trails Network

Randolph currently has approximately 16 miles of mixed surface trails that accommodate hiking, biking, running, cross-country skiing and casual walking. The trail network was originally planned as part of a Rutgers University study conducted in 1976. It was revised as part of the Township's 1992 Master Plan Circulation Element, with changes and additions to the system taking place as new open space parcels have been acquired. In a survey conducted in 2016 as part of the Township's Parks and Recreation Master Plan, Randolph Township residents cited walking and hiking trails as their highest priority (71%), followed by support for bike trails (49%).



CURRENT RANDOLPH TRAIL SYSTEM

The walking courses are a combination of paved asphalt, crushed gravel, wood chips and natural surface. A number of the trails follow the path of old abandoned woods roads. These trails are easily followed with wide rights-of-way. The current trail system is based around a core of trails emanating from Freedom Park, the Township's main recreation area. Additional opportunities for expanding on and/or connecting existing trails within the current system exist. There are also chances to connect to other regional trails in and near the Township and to trails in the surrounding communities.

The Randolph trail system was developed over the past two decades. The Township has invested over \$1.5 million in design and construction of the trails over that period. These trails provide a significant amenity to the community, providing diverse and convenient recreation to township residents and other users. Continued maintenance of the trail systems will ensure a quality trail experience. Expansion of the trails network will open new recreational opportunities to residents. Additionally, connecting trail segments and new entrance points will serve to increase the utility of the system and provide direct access from neighborhoods throughout the township.



PROPOSED 9-11 MEMORIAL TRAIL NETWORK

There are also regional trails that pass through Randolph and connect the Township to neighboring communities and beyond. Morris County's Patriots' Path network utilizes portions of the Randolph Trail system and also provides additional trail miles within the Township that are linked to the Randolph network. A portion of the West Morris Greenway is located along the western border of the Township and offers a prime opportunity for new connections to the Randolph Trails. Connecting to the Greenway will

offer users options for expanded hiking and biking opportunities beyond the Township into Chester, Roxbury and eventually to Rockaway and Denville. Two new long distance trails, the Liberty Water Gap trail that will stretch from Jersey City to the Delaware River and the 9-11 Memorial Trail, a network of over 1,000 of hiking and multi-use trails travelling from New York City to Washington, D.C. and Somerset, PA, will both pass through Randolph. The first sections of these trails to be blazed are located in Randolph and use portions of the existing trails as part of their routes.

Access to the Trailheads

There are a number of existing access points for the trail system. These are marked by standard gates, signs that read "Randolph Trails" and kiosks that contain park information and trail maps. Trail Heads within the township include:

- **Hidden Valley Trailhead**-Located on Everdale Road, one quarter mile south of Millbrook Avenue. Parking is available at this location.
- **Town Hall Trailhead**-Located on Millbrook Avenue, directly opposite Randolph High School. Parking is available on the south side parking lot (right side) adjacent to Millbrook Avenue.
- **Freedom Park**-Located on Millbrook Avenue, one mile north of Sussex Turnpike. Parking areas are located on either side of Millbrook Avenue.
- **Brundage Park**-Located on Carrell Road. Parking areas can be found in several locations.
- **Heistein Park**-Located on Doby Road off of South Road. Parking areas are found at Heistein's Pond, just below the park on Doby Road. Access to Patriots' Path.
- **Combs Hollow Trailhead**-A small parking area is located at the intersection of Combs Hollow Road and Doby Road. Access to Patriots' Path, Liberty Water Gap Trail and the 911 Memorial Trail.
- **Clyde Potts Trailhead**- Located approximately one half mile south of Sussex Turnpike on Old Brookside Road. Patriots' Path Access.

There are several additional locations where the trail system can be accessed that do not provide parking opportunities. The end of Melanie Lane and the end of Lamalfa Road provide connections to the trail system at the Cohn Farm. There is access to James Andrews Park at the intersection of Radtke Road and Beaver Dam Road as well as at the end of Rickland Drive. Access to the core of the trail system that surrounds the Central Schools Campus and Freedom Park can be gained at the end of Brandywine Court. Access to trails in the Preserve can be found on Mountainside Drive just north of the intersection with Everdale Road and near the end of Skyline Drive. Finally, an access point for Patriots' Path can be found on Dover-Chester Road at Hugg Road near Bill's General Store. This section of Patriots' Path also leads to the West Morris Greenway. Some of these access points are improved, some are not. An evaluation of where upgrades to these trail heads with kiosks, signage and, if possible, parking should be conducted.

Key Areas

Randolph Township's existing trails network provides residents with substantial opportunities to circulate by foot or bicycle in the central and southern reaches of the Township. Open space acquisitions and existing parks have been linked by the extensive trail networks providing the ability to walk or ride nearly continuous pathways between Brundage Park, Freedom Park, Heistein Park, James Andrews County Park, Randolph High School, the Randolph Community Center and Library Complex, and the Randolph Township Municipal Building. Outlier links to this central system provide well maintained and marked connections to the Combs Hollow Historic District, the Patriots Path main trail, the West Morris Greenway, all to the south and west, and Hidden Valley Park and Shongum School to the east.

High Interest Trail Destination Linkages

The following potential new trail connections have been advanced by public comment and RTMP Advisory Committee discussion.

Mount Freedom Town Center to Community Center and Freedom Park

Ongoing redevelopment projects in Mount Freedom provide the option for new trail links in this historic resort and commercial center of the Township through sidewalks and pathways for pedestrian and bicycle use. Using preserved lands abutting the new developments allows for direct off-road connection to Freedom Park to the south and James Andrews County Park to the east. Redevelopment along Sussex Turnpike and Brookside Road brings the potential to link with existing trails connecting to Calais Road and the Community Center/Library Complex to the west, as well as the trail spur from Brundage Park by the Mt. Freedom Golf Center.

New Park on Calais Road to Heistein Park and Community Center

The park, currently advancing through the design phase, is slated for facilities with less intense uses such as a ½ mile walking path, a small entertainment amphitheater, community garden and picnic facilities. The property sits just to the west of the Community Center/Library complex and can provide direct connection to Heistein Park to the south. A proposed new trail segment will connect this park to the greater trails system. Development Plans should feature new connecting trails to these facilities. Pathway development along Calais Road from New Park on Calais Road to the Community Center Library Complex would require pathway development in the road right-of-way.

County College of Morris to Existing Trails Network South of Route 10

The central location of the County College of Morris Campus within a hub of road networks and close to the Center Grove Road commercial district presents opportunities to link the existing trails network and also to expand the trails and pathways system to new service areas. One option is to link the CCM campus with a trail to Wilkeshire Boulevard which loops through a residential neighborhood with an outlet on Center Grove Road close to the Cohn Farm Trail which directly links to the Freedom Park trails and close on-road neighborhood link to the Brundage Park trails. The County College of Morris will partner with the Township to connect the campus to the Randolph Trails System to provide additional access options for students and to create new recreational opportunities for both students and Randolph residents.

Hedden County Park to Center Grove Road

Hedden County Park sits in a most favorable location for the development of new trails to connect northern Randolph neighborhoods to both the park and to the Dickerson Mine Preserve that straddles the Randolph-Mine Hill Township border to the west with further through linkages to Roxbury Township trails at Black River Pond and Triple Lake and the West Morris Greenway in the Succasunna neighborhood. A long sought-after proposal to establish a new trail through open space along Reservoir Road and an adjacent sewer service road to the Gateway Apartment Complex has immediate potential. The route can be designed to reach Quaker Church Road and then proceed by sidewalk travel to the Center Grove Road commercial area. Center Grove Road provides a signalized crossing at Route 10 to continue south to the CCM Campus and the Township's existing trails network.

Hedden County Park to Dickerson Mine Preserve (Mine Hill Township)

The western corner of Hedden County Park Yellow Trail (Jackson Brook Trail) has a trailhead at West Randolph Avenue at the Randolph Township-Mine Hill Township boundary. An on-road connection on West Randolph Avenue in Mine Hill can intersect with Canfield Avenue adjacent to the Dickerson Mine Preserve where the Jersey Off-Road Bicycle Association (JORBA) local chapter has been developing an extensive network of mountain biking trails which are also available for hiking. The trails network extends to Randolph Township's Randolph Park Lake property and to the adjacent lands of Roxbury Township's Black River Park trails and future

connections to an extension of the West Morris Greenway north to Morris County's Hugh Force Park in Wharton Borough.

West Morris Greenway Connection to Roxbury and Mine Hill

The main branch of Patriots Path crosses Dover-Chester Road at the Randolph Township/Chester Township border in Ironia. Patriots Path heads west into the State of New Jersey's Black River Wildlife Management Area. Patriots Path connects to a cross trail that runs through the Management Area following the path of the former Chester Branch of the Delaware, Lackawanna and Western Railway. That trail has been officially designated the West Morris Greenway. From the intersection with the Greenway trail, the path runs north toward Roxbury Township crossing Pleasant Hill Road and entering properties of the Morris County Municipal Utilities Authority. The Greenway trail enters Roxbury Township and ends at the trails and pathways of Roxbury's Horseshoe Lake Park. Creation of parking facilities close to the trail crossing at Pleasant Hill Road would increase visitation to this segment of the trail system. Potential connections on Righter Road can be explored to Randolph's Tamarack Field open space on Park Avenue.

The West Morris Greenway also provides a direct connection to Patriots Path to the west, intersecting with the Columbia Trail in Washington Township and continuing to Califon and High Bridge in Hunterdon County. Morris County is working with local municipalities to extend the West Morris Greenway beyond its current terminus in Roxbury to the north and east including Hugh Force Park in Wharton Borough.

This is the first recommended addition to the existing trail system. Linking the West Morris Greenway to the Randolph Trails immediately provides access to a much larger network of trails and will give residents options to longer distance hiking and biking opportunities. Connection to the greenway can be accomplished by constructing approximately one mile of new trail following a mainly direct course that follows land owned or controlled by the township with the final connection being made over property owned by the Morris County Municipal Utilities Authority.

North/South Connection across State Route 10 –Dover Chester Road

The signalized crossing at Dover Chester Road presents a potential link for an on-road bicycle lane and sidewalk connection between the County College of Morris, the West Morris YMCA, and Hedden County Park to the Randolph Avenue/Canfield Avenue connection to the Dickerson Mine Preserve. This connection would provide access to the full trail system for residents living north of Route 10 and would also provide integration of the Randolph Trails into the existing system of hiking trails in Hedden Park. There are logistical issues that make this crossing problematic. Crossing Route 10 raises a number of safety concerns. Cooperation with the N.J. State Department of Transportation would be necessary. Other alternatives, such as a pedestrian bridge or culvert underneath the highway, would require a significant investment of

funds for both planning and construction. They may not be feasible. At best, this is a long-term option for the system.

The Preserve, Nitti Mountain and the Millbrook Valley Open Space

Somewhat overlooked in the Parks and Recreation Master Plan is the potential for expanding trails through the contiguous tracts of open space. While a multi-use trail exists in the Preserve with a trailhead and parking at Mountainside Drive, the adjacent Nitti Mountain tract is steeply sloped and would be a good match for less intensely surfaced hiking and mountain biking trails. One outlet on Skyline Drive on the Nitti Mountain tract allows a direct connection for neighborhood residents into this future trail system. The third tract heading west is the Millbrook Valley tract with more gentle slopes following the course of the Mill Brook and wetlands network heading to Center Grove Road in close proximity to the County College of Morris campus. The potential for a new hiking and mountain biking connection of close to 3 miles would be a major addition to the overall trails system.

Internal System Improvements

Loop Pathway at Freedom Park

While a major trailhead and parking access point for the Randolph Township Trail System, the trail is basically a “cut-through” opportunity to access the undeveloped lands in the system. The public is increasingly interested in a hard-surfaced walking pathway that would loop around the athletic fields through the site’s rise and fall terrain. This would provide an opportunity to provide walking and exercise stations within sight of the fields where many residents bring their children to play on the fields. Similar internal loop trails around athletic field complexes are recommended in the Parks and Recreation Master Plan for Heistein Park and Brundage Park.

Connecting Loops in Combs Hollow to Clyde Potts Reservoir

With trailheads at Combs Hollow Road, Dolly Bridge Road and Old Brookside Road, the existing trails are basically out-and-back trails. The abundance of open lands in Township ownership allow for the development of looping trails of varying distances. Steep terrain in some areas allows for planning trails of a variety of levels of difficulty. A particularly promising loop would connect the Combs Hollow Historic District mill area and Mendham’s India Brook Natural Area trails to a new loop connection along the southern reaches of the Township’s property connecting to the Patriots Path trail coming out of Clyde Potts Reservoir.

Hidden Valley to Freedom Park Loop Trail

The combined acreage of Freedom Park, Hidden Valley Park and the James Andrews County Park lands allow for the development of a looping trail system where only a single out-and-back trail opportunity currently is in place on a very popular trail. Loops of various distances from both Freedom Park and Hidden Valley Park can be constructed.

School/Neighborhood Links

Randolph High School, Randolph Middle School, Center Grove Elementary School and Shongum School all currently have direct connections to the existing trail system. Fernbrook Elementary School has a direct outlet to Center Grove Road and the suggested Hedden County Park to Center Grove Road Commercial District pathway. Ironia School can be linked to the planned New Park on Calais Road site along the sidewalks of Dover –Chester and Calais Roads creating access to the southern tier trails network from a connection with Heistein Park.

New Trails



Public outreach and research have identified a number of new trails or trail connections that can substantially expand the Randolph Trails network. These connections are designed to expand the reach of the trail system, connect Randolph trails with trails in surrounding communities, provide opportunities for loop hikes or access to additional neighborhoods, connect isolated parks or incorporate long distance hiking and biking opportunities that are not currently available to Randolph residents. Some of these proposals are

modest, others more ambitious. The proposed new trails take advantage of the existing core trail system, lands that are owned or otherwise controlled by the Township or other public entities and existing trails outside the Randolph network.

There were 22 potential new trail segments proposed during the outreach and investigation conducted to prepare this report. Those trail segments are depicted in a detailed map with descriptions that are found in the Appendix to this document. The length and anticipated expense of constructing each section is also detailed there. The Randolph Township Trails Committee has prioritized the addition of these sections to the system based upon cost, utility, feasibility and other factors. They have also been categorized into short-range, intermediate and long-term goals. Some of these additions can be accomplished easily, while others, although having high value, may need to wait until adequate funding or access to land is available to construct them.

Trail Segments

The new trail segments proposed include the following in the order they were proposed and without prioritization:

1. **Community Center Connector**- a connection from the Township Community Center to the trail leading from Patriot's Path to Brundage Park.
2. **Birchwood Road to Brundage Park**- a connection to the trail system in Brundage Park from the neighborhood at the end of Birchwood Drive through Township-owned land.
3. **West Morris Greenway to Dover-Chester Road**-A new trail leading from the West Morris Greenway, through land owned by the Morris County MUA and Township-owned property roughly parallel to the utility right-of-way to Dover-Chester Road near the intersection with Sussex Turnpike. This trail would cross Park Avenue at the utility right-of-way then follow Township owned land eastward towards Dover-Chester Road. This would include neighborhood connections to Nottingham Way and Old Yorke Road.
4. **Logan Road to West Morris Greenway**- extension of the route described in #3. The trail would cross Dover-Chester Road near the intersection with Sussex Turnpike and then enter land to be acquired by the Township behind Ironia School and Lake Cherokee to Calais Road and New Park on Calais Road.
5. **James Andrews Park to Hidden Valley Park**- A new trail roughly following a utility right-of-way. This trail has been informally blazed and can currently be followed. This will provide the opportunity for a two-mile loop in conjunction with existing trails.
6. **Hedden Park Apartments to Hawthorne Avenue**-short connector trail over sewer right-of-way connecting apartment complex to Hedden County Park.
7. **Dickerson Mine/Mine Hill**-Connection to JORBA trails at the Mine Hill border. JORBA trails are currently under construction.
8. **New Park on Calais Road** -Trails to connect the New Park on Calais Road with Heistein Park to the south and with the proposed West Morris Greenway Connection to the north.
9. **Hidden Valley Park to Rebecca Court**- Short connector trail on municipally owned land. Connects Rebecca Court neighborhood to the trail system at the Beaver Dam Road trail.
10. **Old Shunpike Road/Patriots' Path Connector**- New trail from the end of Old Shunpike Road connecting to the existing trail head on Old Brookside Road then continuing on the easterly side of Old Brookside Road on Township owned land to connect with the section of Patriots' Path leading to Clyde Potts Reservoir.
11. **Sussex Turnpike to James Andrews Park**-a new trail utilizing a sewer right-of-way from the new town center at Mount Freedom near the intersection with West Hanover Avenue to the trail system in James Andrews Park.
12. **Cohn Farm Connector**- New trail using Township owned land and sidewalks to connect the trails in the Cohn Farm property to the intersection of Morris Turnpike and Dover-Chester Road.
13. **Lawrence Road to Route 10**-New trail using Township-owned land and sidewalks to connect Lawrence Road at the intersection with Millbrook Avenue to the intersection of Center Grove Road and Route 10 near the campus of the County College of Morris. This would include short connections to neighborhoods at Cambridge Court, Woodruff Court and Edinburgh Drive.
14. **Hidden Valley Park to Bragman Road**- A new trail to be constructed in conjunction with trail segment #5. This trail would extend that proposed trail to the Bragman Road neighborhood on Township-owned land and connect that neighborhood to the greater trails network.

15. **Calais Road**-Connect bike path on Calais Road northward to trail system through publicly held land. Duplicates route of Logan Road connection in part.
16. **Lawrence Road to Skyline Drive**-Connection through municipally-owned land from Hidden Valley Park to the trails in The Preserve. This new trail would connect with the trail proposed in #13.
17. **Pierson's Hill Road to Skyline Drive**-Construct new trails in Nitti Mountain Tract and connection outside of Nitti Mountain property.
18. **Ariel Court to Blanchard Court (alt. Sylvia Place to Brookside Road)**- a short neighborhood connection through Township-owned property.
19. **County College of Morris to Wilkshire Boulevard**-A new connection to the Wilkshire Boulevard neighborhood using existing trails on the CCM campus and college-owned property.
20. **South Salem Street to Mount Pleasant Turnpike**-Utilize crossing of Route 10 to connect north side of Township with trail system through publicly held lands leading to the Preserve and Nitti Mountain
21. **Heistein Park to Bill's Luncheonette**-complete the route of Patriots' Path that currently follows public land to Ironia Road with approximately 1/3 mile of on street walking. Find new route that eliminates hazardous on street segment.
22. **Randolph Park Connector Trail**-Connection to trails around lakes at Randolph Park in Roxbury and to the trails in the Mine Hill Dickerson Mine/Rutgers Tract in conjunction with the construction of the JORBA trails.

New Trail Heads

During the course of the research conducted part of the investigation for this plan revealed several possible new access points. Short connecting trails from these access locations can link additional neighborhoods to the trail system. These new access points should be constructed with parking, where feasible, access gates that are of the standard design, kiosks and signage. New access points should be prioritized to coordinate with the construction of the recommended new trails. The new access points include the following:

- **Old Yorke Road/E. Logan Road**- Publicly-owned land at the cul-de-sac is available to construct a new access point. A short connecting trail on township owned land should be constructed in conjunction with the proposed West Morris Greenway connector. This would provide this substantial neighborhood with access to the greater trails system.
- **Nottingham Way/Sherwood Ct.**-Publicly owned land surrounding the detention basin. Parking potential for approximately 5 vehicles currently exists. This would be constructed in conjunction with the proposed West Morris Greenway connector. This would provide this substantial neighborhood with access to the greater trails system.
- **Rebecca Court**-Link to Hidden Valley/James Andrews Park. This would be constructed in conjunction with the addition of a new trail linking the Rebecca Court neighborhood to the trail system via a new trail constructed on publicly held land.

- **Bragman Road**-Constructed to connect the Bragman Road neighborhood to James Andrews Park via a new trail on primarily publicly held land.
- **Birchwood Road**-Constructed to connect the Birchwood Road neighborhood to Brundage Park via a new connecting trail on primarily publicly held land.
- **Old Shunpike Road**-Constructed in conjunction with a new proposed trail to connect with existing trails system at Old Brookside Road and Patriots' Path.
- **Town Center**-New trail head to connect the new town center at the intersection of Sussex Turnpike and West Hanover Avenue with James Andrews Park.

Land Acquisition

The proposed new trails and connections identified through the planning process would primarily take advantage of existing public lands. The land consists of current parkland, land acquired by the township as part of residential development, land owned by public entities like Morris County and the Morris Municipal Utilities Authority and utility rights of way. A number of small privately held parcels are located along the routes of proposed trail additions. Some of these are key tracts that are essential to creating key trail linkages or expansions. Others would facilitate easier or more convenient routes for the trail additions.

The plan has identified a number of potential acquisition parcels that would enable the construction of new trails or new access points. A comprehensive list of properties that can provide trail access or connections has been compiled for guidance in making strategic acquisitions. The Township's open space acquisition program should incorporate these parcels into the open space plan. The opportunity to secure these key linkages should be considered and prioritized in conjunction with the greater open space goals of the community. Additionally, the planning board should take notice of these parcels when considering future development approvals. Taking advantage of opportunities to secure access points or trail routes as part of the approval process, where appropriate, should be a standard element of the evaluation of land use applications. Development and re-development projects are prime occasions for acquiring trail accommodations.

Priority

The construction of new trails segments needs to be conducted in a cost-effective and efficient manner. While all of the identified additions to the existing network have value, a methodology of prioritization needs to be identified. Some of the segments are subject to obtaining funding to permit the construction. Other segments are subject to the acquisition of key properties along their proposed routes. The new additions should be categorized into high, medium and low priority for construction as well as into short-term, intermediate term and long-term priorities. Some segments may have high utility but also high cost and therefore be subject to securing

adequate funding. Other segments may not be nearly as valuable but are simple and relatively inexpensive to construct.

The trails plan committee has identified the top 10 trail priorities from the 22 candidate segments. These are detailed in Appendix 3 of this report. The segments have been listed in order of precedence. That prioritization is as follows:

1. The Hedden Park Connector (#6)
2. James Andrews Park to Hidden Valley Park (#5)
3. Randolph Park Connector (#22)
4. Birchwood Road Connector (#2)
5. New Park on Calais Road Connections (#8)
6. West Morris Greenway Connections-Eastern Portion (#4)
7. Town Center Connection (#11)
8. JORBA trails (#7)
9. CCM Connections (#19)
10. (tie) West Morris Greenway Connections-Western Portion(#3)
10. (tie) Old Shunpike Road Connection (#10)

These are the top candidate additions. The remaining segments should not be rejected but subject to periodic review. All proposed additions are subject to the availability of funding and other resources that would permit their construction.

Chapter 5

Way Finding, Signage & Trail Marking

Providing trail users with adequate guidance through the use of appropriate signs and directional methods is an important feature of any trail system. The Randolph trails system is unique. The trails are highly developed with only minimal segments of primitive natural walking trails. The trails have been developed for multiple uses and for a diverse set of users. Developing a system to mark the trails, provide directional assistance, allowing trail users to determine their location and to brand the trail network is an essential part of optimizing the experience of residents.









Currently the existing trails are not marked. Entrances to the trail system are signed as “Randolph Trails” with many of the entrances also having information kiosks and trail maps. The existing maps of the Randolph trail system are attractive, easy to read and extremely helpful in navigating through the Township’s parks. However, the absence of a consistent blazing system combined with the complex network of paths that lack unique identifiers such as names or colors provides

a challenge in way finding. Without these features selecting routes for a walk on the trails and establishing a user’s location with any precision is difficult. The latter issue can be important in cases of emergency. Past experience has shown that it is difficult for first responders trying to locate hikers who are lost or who may be in need of medical assistance.

These issues can all be addressed through a comprehensive system to mark the trails. A combination of trail marking, the establishment of trunk routes and spurs, the numbering of trail intersections keyed to an updated map will provide trail users with an enhanced ability to navigate the trail network. The proposed methodology is designed to allow for the expansion of the trail network and to allow for the establishment of uniquely identified main trails that will serve as the foundation of the trails system. Additionally, providing location assistance throughout the system by giving trail intersections unique numbers keyed to the trails map and distance information from trail heads will allow for more precise location determination for both users and first responders.

Finally, new signs branding the trail system have been designed. These will be placed throughout the trails network, primarily at entrance points. Increasing awareness of the system will increase usage and awareness of the trail system as a community asset. Informational materials such as trail maps and on-line sites related to the Randolph Trails would also carry this branding.

Blazing

CONTINUE STRAIGHT 	START OF TRAIL 	RIGHT TURN 
SPUR LEADING TO A DIFFERENT TRAIL 	END OF TRAIL 	LEFT TURN 

TRADITIONAL TRAIL BLAZING

Currently the majority of the trail system is unmarked. Directional signs and traditional trail markings have not been used to date. A detailed map of the trails is available online and at all major trail heads. Navigation is not difficult but users may have trouble determining their exact location. Planning loop hikes, navigating direct routes and general use of the trail system would be enhanced by establishing a consistent blazing scheme. Color coding the trails and providing regular marking is an important element in creating a means of following the trails and identifying

which trail a user is on. This becomes more essential as the trail system expands and becomes more complex.

The traditional system of blazing trails utilizes color rectangles or other markings on trees. There is an established method for indicating the trail route, the beginning and end of a trail and turns. There are issues with using this methodology on the Randolph Trails. Significant portions of the system cross open areas where blazes on trees are impossible. There is substantial maintenance required to keep the blazes current. Finally, the trails themselves are not particularly difficult to navigate from the standpoint of users knowing that they are still following a particular trail. The improved nature of the trails provides some assurance to users that they have not left the system. Frequent markings are not necessarily required. The establishment of unique color-coded routes necessitates the use of a trail marking system.



The use of composite posts is recommended. They are commercially available and are designed specifically for use on hiking trails. The State of New Jersey currently uses these posts in several state parks such as Wharton State Forest and Brendan Byrne State Forest where trails follow old woods roads. They are easily seen. They are relatively inexpensive and durable. They are easy to install. A single post can also be used to convey additional information beyond merely the color indicator of the trail. Other recommendations contained in this section call for the numbering of trail intersections and periodically indicating the distance from trailheads. These posts can be used to carry this additional information where appropriate. These posts require little or no maintenance and can be installed by Township personnel. One manufacturer's product can be ordered with color caps that can also serve as trail blazing. The limited need to install markers and to have increased intervals between markings would also limit the expense involved in utilizing this style of trail marker.

The color identification system is an important element of creating main trunk routes utilizing both established trails and proposed additions to the trails network. These major routes will be blazed in unique colors. These major routes are described in a map contained at Appendix 10 of

this report. Easily identifiable colors such as red, white, blue or yellow should be used for these routes. The trails should also be named to assist with differentiation of each trail. A number of spur trails will also be incorporated from both existing and proposed routes. Some of these spur trails will be substantial enough to warrant unique marking. Others that may only lead a short distance to a trail head or provide a connection between main trails should be marked in a systematic fashion which identifies them as connector trails and also indicates which trail they connect to. This plan calls for the establishment of a number of new trail heads in neighborhoods throughout the Township with connections to the main system. Logically and appropriately blazing these connections will become increasingly important as the trail network is expanded.

The improved surface trail network is fairly easy to follow. The main issue is identifying the particular trail a user is traversing. Because the existing trails follow obvious routes, staying on the trail is not an issue. To assist users with navigating the system, trail posts can be located at relatively long intervals apart. Placing posts every $\frac{1}{4}$ or $\frac{1}{2}$ mile along the trails would be sufficient to assist users in navigating the network. Costs could be minimized by utilizing paint blazes on trees where possible.

Navigation

There are three recommendations for additions to the trail system centered on improving navigation. The first is to identify and establish main trunk routes utilizing both established and proposed new trails. These main routes will be blazed as described in the previous section. The second recommendation is to create a numbering system for all trail intersections throughout the trails network. The numbers will be keyed to the trails map and provide the ability to precisely identify the location of a hiker through the unique identifying number. The third is to use the trail blazes to periodically carry distance information informing users of their location in relation to a trail head or trail origin point. These features will provide information to both system users and first responders in case of emergency. An updated Trail Map would need to be drafted to incorporate these features.

Main Routes

The establishment of primary trunk routes will improve both the utility of the trail system the ability of users to navigate the network. Creating main through routes will provide users with options for planning trips and to give organization and order to the current system. This route system would take advantage of both existing trails and proposed new trail segments and connections. These main routes would eventually traverse the Township from end to end and serve to connect the system to as broad an area as possible. These main trails would also link the

Township's parks and municipal facilities as well as provide connections with trails such as the West Morris Greenway and Patriot's Path. Spur trails would be related to these main routes to either provide loop hike opportunities or direct connections to trail heads and neighborhoods. A user entering the trail system at any point would have the ability to access these main routes in a relatively short distance.

The current recommendation is to designate three main through routes. The first, running roughly east to west, would begin on a new trail segment at the West Morris Greenway and connect to Ironia School, Heistein Park, the Combs Hollow section of trails, Freedom Park, James Andrews Park and end at Shongum School. This trail would stretch nearly the entire breadth of the Township from the Roxbury border in the west to the Denville border in the east. This route would further provide opportunities to connect with trails in these neighboring communities.

A second main route would be designated beginning at a new trail head at Bragman Road running through Hidden Valley Park, through Freedom Park to the Cohen Farm. This route would pass through the Central School Campus. A third route would run from the existing trails at The Preserve and head south through Freedom Park and end at Brundage Park. Other trails would feed into these main routes or branch from these routes. They are designed for future expansion should additional land be acquired or new routes laid out. Each of these main trails would be blazed with a unique color for ease of navigation. These main routes all intersect with each other at several locations will also provide the ability to link the new town center at Mount Freedom to the greater trail network.

Intersection Numbers

A simple system of identifying each intersection on the trail network with a unique number is a reliable method of providing location information. The recommendation is to utilize a number technique that is linked, to the greatest extent possible, to the geographic location of the intersection. The numbers would be keyed to the trails map available at all trail entrance points as well as online. Users would be able to precisely determine their location through these intersection numbers. Numbers would be assigned to each intersection based upon their location in relation to Freedom Park. A number of different methods were discussed during the public outreach effort. The consensus was that the numbers should provide the ability to understand the general area where the intersection is located. The numbering system would also need to have the ability to accommodate new intersections added as the system expands in a manner that is consistent with the methodology by which the numbers are assigned.

Single digits would signify intersections in immediate proximity to Freedom Park. Numbers in the teens and twenties would be assigned to intersections to the east of the park (James Andrews and Hidden Valley), thirties and forties would be assigned to the west of the park (Cohn Farm and Brundage) and fifty and higher assigned to more remote intersections heading towards the

West Morris Greenway. These higher numbers would include Heistein Park, the Clyde Potts property and the New Park on Calais Road. This numbering system has sufficient room for the addition of new intersection numbers as new trail segments are added to the network.

Distance Information

A recommendation was made by emergency services professionals to incorporate mileage markers along the trails. This suggestion was made in response to difficulties in locating lost or injured trail users in the past. This additional information would also assist users in navigating the trails network. Frequent distance marking is not required. Distance information at either ½ mile or ¼ mile intervals would be sufficient. This distance information could easily be posted on the markers used for trail blazing. They are not necessary on shorter trails. Distances should be indicated in a consistent manner. Distance should be shown from trail head to trail head. Additionally, signs could be added when necessary to indicate distances from destination locations like Freedom Park, Heistein Park or Brundage Park.

Branding



The final recommendation concerns establishing a recognizable brand for the trails network. A new trails sign has been designed. This symbol should be used consistently to mark all entrances to the trails network as well as with all materials produced to support the trail system. The Trail Maps, the trail heads and the web site should all feature this brand prominently. Additionally, any future additional materials, such as a web-based or mobile phone application should utilize this design for consistency and for identification purposes.

The Randolph Trails are a well-known unique asset of the Township.

Raising awareness of the existence of the trail system and providing the public with an easily recognizable symbol of that system will have help to increase usage and public support for the trails network. The proposed design also communicates the different uses for the trail system in a simple and clear manner.

Chapter 6

Trail Maintenance & Management

A Management System for Trail Network Maintenance

The creation of a trails system carries the responsibility for the maintenance of the network in a safe and appropriate manner. Randolph currently has 16 miles of existing trails with plans for significant additions to the system. Additionally, the network is comprised of improved surface trails featuring either asphalt or crushed gravel for most of its length. While this may reduce immediate maintenance needs, the periodic repair or replacement of these surfaces is more involved than the upkeep a natural trail surface and entails considerable expense and planning. The construction and incorporation of additional miles of trails will increase this obligation.

The Parks and Recreation Department provides basic management support for the Randolph Township Trail System, with ongoing maintenance responsibilities shared broadly within the Parks and Recreation maintenance unit of the Department. As the trail network has grown, the responsibilities of individual trail section maintenance have been assigned to crews for the Township's specific destination parks- Brundage Park, Heistein Park and Freedom Park. These same crews have responsibilities for athletic field, turf, court, and building maintenance with seasonally high workloads during the months of April through November.

Currently trail assessment for maintenance needs is not undertaken on a scheduled basis, but rather as these duties may periodically be assigned due to weather, project down time, or based on a citizen complaint. This is not to suggest any substandard level of attention to Randolph Township trails, but trail system growth, as proposed in this plan, will place greater demands on available personnel resources for regular maintenance. Routine maintenance ensures trail safety and adds to user security. A Maintenance Plan that incorporates documented inspection frequency for individualized trail segments is also a prime defense against negligence claims.

A more systematic management system is recommended in the future for planning, scheduling, conducting and evaluating trail maintenance activities. Such a system will allow for rational budgeting decisions and scheduled repeating maintenance actions. A systematic approach will also help reduce exposure to accidents related to trail conditions and potential exposure to liability claims. Such a system would be based on the above-stated goals and objectives and include:

- A trails inventory with physical descriptions and general maintenance needs for each trail.
- Inspection and conditions reports.

- Standard work orders.
- Labor completion reporting.
- A cost tracking system.
- Volunteer or staff inspection reporting.
- Tracking for outside maintenance contracts or invoices.
- Tracking of public complaints, comments and responses.

All for the above factors should be incorporated into an inspection frequency document that will guide the Department in developing inspection schedules for each trail segment.

The management system should also allow for information sharing with key trails system partners. In Randolph Township's case, coordination and cooperation with the Morris County Park System and the Morris County Municipal Utilities Authority should be an ongoing activity, due to shared responsibilities for management of surrounding lands, pathway maintenance on the established trail system, and in planning and implementing recommended trail extensions and loop trails on lands owned by those agencies. Ongoing communication on trail use visitation and maintenance needs should be established with Mendham Township, Mine Hill Township, Roxbury Township, Denville Township and Chester Township where longer distance trail connections are in place or proposed.

Inspection is the initial element of the Trails Maintenance Plan, followed closely by Routine Scheduled Maintenance. Due to the uniqueness of conditions on major trail segments of the Randolph Township Trails System, it is recommended that individual segments of the trails system be reviewed in developing the Plan. Geographic features, such as slope, wetlands, drainage, forest cover and soils need to be considered on a segment by segment basis. Surfacing differences (paved, gravel, dirt) and trail structures such as bridges, waterbars, hollows and drains all require inventory, an assessment of current condition, projected lifespan, and replacement cost. Visitation should be considered, particularly method of transportation – foot, bicycle, ski, or horse. Trail Segments planned to be suitable for individuals with mobility impairments should be maintained at a level of frequency that eliminates trail surface changes of greater than ¼ inch in the treadway.

Maintaining the Trail Network

Planning, designing and constructing trails is not the end of the story. The Township has invested over \$1.5 million in designing and constructing its trail system. Expansion of the trails network will open new recreational opportunities to resident and bring about associated construction, information and maintenance costs. Regular maintenance, along with associated costs, is required to keep trails open, ensure users can find and follow trails, address erosion and blockages, deal with trespass and dumping, and ensure trail surfaces remain viable for their intended use(s). These costs should be viewed in the context of offering Township residents

even more places to enjoy and appreciate the Township's natural beauty and heritage, and have access to more places to maintain fitness and offset the stresses of daily life.

Maintenance can be placed in three categories:

- Routine maintenance, which includes all the general activities, such as brush clearing, trash collection, and debris removal, that is needed on a regular basis.
- Minor Repairs, which usually can be expected every five years or so, such as amenity replacement, trail seal-coating, repainting, or restriping.
- Major Reconstruction involving significant expenditure such as resurfacing or reconstruction of trailheads and trails. These activities tend to be the costliest and should be planned for in advance.

Following is a list of trail maintenance activities that constitute good stewardship of the trail network:

- **Trailheads:** Trailheads should be inspected periodically to monitor parking conditions, check for dumping, ensure signs are in place, and ensure safe ingress and egress.
- **Signs:** Regulatory and directional signs should be inspected at a minimum of once per year by the municipality. This task should be monitored with the assistance of an overall signage placement schedule and mapping, and a maintenance record. Missing or damaged signs should be promptly replaced to maintain continuity of the signage system. Routine monthly inspections should note any major issues. Any safety concerns from missing or damaged signs should be corrected immediately. Since missing signs are a common occurrence on the existing trails system, maintenance crews should stock common signs and blazes and bring them along on maintenance inspections.
- **Trails:** A system that allows users to report problems with trail access and the condition of trails should be established. Improved trails should be inspected at least once per year to ensure viability for the intended use and the presence of hazardous conditions. Instances of trespass by vehicles and dumping should be documented and referred to Township Police for ongoing monitoring. Modifications may be needed to prevent future vehicle access. Trails should be maintained on a somewhat regular basis to prevent vegetation from obstructing the trail corridor. This can be accomplished with volunteers, but professionals may be needed for more significant obstructions, such as downed trees and overgrowth by woody vegetation.

A well-planned and responsive maintenance management system is crucial to success of any trail system and ensures many enjoyable years of multi-use trails activities. Safety and security for trails users is a prime concern when designing a trail system and opening the way for public use. Appropriately planning for periodic repair, upkeep and replacement of the trails infrastructure is an important element of maintaining the integrity and aesthetic qualities of the system. While initial construction of trails is generally accomplished through a combination of capital projects and cost-saving volunteer efforts, trail maintenance is often an afterthought to the initiation of a new pathway. This section is designed to provide guidance for the long-term preservation of the

trail system and for protection of the investment the Township has made in this community asset.

Documenting Trail Conditions

Establishing a system to document trail conditions and to report problems or issues that arise is an important function. The ability for Township personnel, volunteer trail maintainers and trail users to quickly, efficiently and accurately report on conditions requiring the attention of the Township needs to be created. A paper system is burdensome and would also result in either delays in reporting problems or the failure to report and document them at all. The advent of smartphone technology provides easy access to both the internet and to high quality cameras along with geo-location capabilities. A system that allows photographs of trail conditions to be transmitted with the precise geographic location of any problems is a relatively inexpensive and efficient means of providing responsible personnel with necessary information to address them.

There are a number of applications available that can provide this capability. One existing commercially available product is "[See Click Fix](#)", a smart phone application that enables the general public to report issues they encounter. This is currently in use in many municipalities for allowing members of the public to document and report issues such as potholes in roads, sidewalk defects, and other conditions that a municipal government might need to address. This application could easily be adopted and put to use for assisting with maintenance and upkeep of the Township's trail system. Utilizing a system such as SeeClickFix gives a paperless, quick reporting method to the general public with a simple tracking and reporting method for the municipality. Encouraging the public to participate in monitoring trail conditions and providing volunteer trail maintainers with a simple tool to report problems that require the attention of the Township will greatly enhance the ability to keep the trail system in optimal condition.

Routine Maintenance

Routine Maintenance should be incorporated into the duties of the Parks and Recreation Department maintenance staff and supplement by volunteers. Activities that should be considered as routine maintenance include:

- Periodic Inspections
- Yearly facility evaluation to determine the need for minor repairs and tree and brush clearing.
- Mowing.
- Map/signage updates.
- Trash removal/litter clean-up.

- Repair flood damage: over-wash or silt clean-up, culvert clean-out, etc.
- Patching, minor regrading, or gravel surface or asphalt repair replacement.
- Planting, pruning, and general beautification.
- Installation and removal of seasonal signage.

The yearly cost for routine maintenance depends on the maintenance capabilities already in place and the amount of volunteer labor used. In general, yearly routine maintenance costs can be estimated at \$6,000 per mile for performing the tasks described above. This figure will vary depending on the location of the trail, materials used and intensity of its use.

Regulatory and directional signs should be inspected at a minimum of once per year by the municipality. Trail inspection is a task that can be assigned to interested and dedicated volunteers. This task should be monitored with the assistance of an overall signage placement schedule and mapping, and a maintenance record. Missing or damaged signs should be promptly replaced to maintain continuity of the signage system. Routine monthly inspections should note any major issues. Any safety concerns from missing or damaged signs should be corrected immediately. Since missing signs are a common occurrence on the existing trails system, maintenance crews should stock common signs and blazes and bring them along on maintenance inspections.

Surface Condition

Randolph Township's trail network is predominantly a mix of asphalt paved surface on steeper slopes and trailheads mixed with screened gravel or natural gravel surfacing. Conditions of paved surfaces will vary based on the initial quality of construction and other environmental factors. For example, heavy forest cover can leave deposits of organic matter on the paved surface. This can result in very slippery conditions in wet weather or during periods when snow or ice are present. Paved sections should have holes patched, cracks filled and markings repainted as needed. Particular attention should be paid to pavement edges where cracking and chunk separation can be an issue. Stone surfaces need periodic replenishment. There are noticeable sections of the existing trails where the underlying landscape barrier fabric is exposed. Wear and tear from bicycle tire travel also results in displacement of gravel surfaces.

It is important to note that this is a trail system, not a pedestrian walkway. While efforts should be made to monitor trail conditions, the state of the trails will never be perfect or free from all hazards. Users will encounter and should expect conditions such as uneven surfaces, slippery surfaces, and treadways covered with leaves and debris. The township should not be expected to, and it is unreasonable to expect that, all trails will be clear and free from debris or defects at all times. Reasonable efforts should be made to maintain the system in a state of good repair on an ongoing basis, however, this should not be interpreted to be a requirement for constant inspection or clearing. Trail users must accept the risk of ordinary and expected hazards for the conditions present.

Vegetation

The existing trail system runs through miles of forest cover lands. Aside from routine tree and branch falls, Randolph Township's higher elevation within Morris County also results in comparatively more extreme snowfalls which increase the frequency of limb drops from snow weight or from weakened branches in wind storms. A regular inspection and maintenance program should anticipate frequent deadfall removal. The nature of the initial development of the trails system with wide corridors has reduced the amount of vegetative cutback required along the trails. Nearly every trail in the system is free from encroaching dense vegetation; however, some limb and shrub trimming will always be required. Recommended extensions to the trails system need to be evaluated for ongoing vegetative cutback needs. Both single tread hiking trails and single track mountain bicycle trails must be considered to need frequent cutbacks in the side-trail areas and overhead. Removal of vegetation in the treadway may also be needed depending on the frequency of use – more foot and tire traffic suppress treadway vegetative growth. Trees should also be kept clear of all drainage structures, bridges and walls that may be subject to mechanical damage by tree roots. Weed control along trails can be limited to areas in which certain weeds create a hazard to users, or where the potential encroachment of invasive plants can be suppressed. Environmentally safe weed removal methods should be used, especially along waterways, culverts and bridge crossings. Vegetation control should discourage poison ivy along the trail along with other noxious weeds and invasive plants.

Volunteer Maintainers

The Township should consider establishing a citizen volunteer program to assist with trails maintenance. There is a strong core of trail users in the Township evidenced by the participation in information sessions and response to the trails survey. The Township can model, at least in part, the system operated by the New York-New Jersey Trails Conference (NYNJTC). The Trails Conference maintains over 2,000 miles of hiking trails in the New York/New Jersey Connecticut region, primarily through the efforts of volunteer trail crew coordinators and maintainers. Minor routine maintenance and inspection responsibilities can be undertaken by a corps of residents leaving more substantial or complex tasks to the Township's paid employees.

The Trail Conference model involves assigning each volunteer a section of trail. Each section is roughly as long as can be reasonably maintained by a volunteer putting in 6 to 8 hours of work. Volunteers spend two days each year checking their section(s) of trail. A single volunteer coordinator often oversees the work of field volunteers. They clear debris, check blazes, and generally ensure their section is accessible. Volunteers then make notes and send brief trail reports to a central point of contact. Reports include notes about blow-downs, where trees or large branches have fallen across the trail, wash-outs, or any other maintenance work that requires a special trained crew. NYNJTC coordinates with these crews to get the work done. This method can be easily implemented by the municipality. Coordinating participants at the municipal level will allow the township to take advantage of residents who may be willing to

undertake responsibility for adopting a section of trail. Morris County currently employs volunteers to maintain the Patriots' Path trails system using a similar methodology. The county's volunteer maintainer program has been very successful.

Emerald Ash Borer

The advancing range of the Emerald Ash Borer should be considered with some urgency as forestry and natural resource professionals predict that the infestation of this insect pest will result in a 90 plus percent loss of untreated ash trees in Morris County. The Borer has made its first appearance in Morris County in 2017 in central Morris County. Untreated ash trees along trails and popular recreation facilities are a cause for a user safety concern as the dying ash trees become very brittle with major limb drops. The trees also become more dangerous to fell if left to die in place. It is recommended that within the next 6 to 12 months the Township shall inventory the location of ash trees within 50 ft. of the trail bed, trailheads, and parking facilities. Since Morris County generally has a high percentage of ash trees in forested areas, it is likely that hundreds of ash trees will be present along the trail system. Once the nature of the infestation's impact is understood along the trails system, the Township can assess removal or treatment options. In most instances leaving dead trees in forested areas provides cover for wildlife and it is ecologically beneficial to allow organic decay to improve the soil cover. It is likely that the Township will need to make a decision regarding the volume of dead ash trees that it can sustain on the forest floor without losing the aesthetic attributes of the suburban forest for trail users.

Erosion and Drainage

The trail network has minimal drainage and erosion issues. Most of the trails treadway has been engineered to reduce erosion and manage drainage. Significant investment has been made to bridge streams and wetland areas to reduce impacts of trail usage. Paved sections also minimize erosion. Despite the care taken to prevent erosion, there are sections needing drainage improvement.

One such problem area is on the side trail that starts on the Patriots Path section in Combs Hollow. There is significant erosion on the portion of the trail that leads south to the Combs Hollow Mill area and to the connection with the India Brook Natural Area in Mendham Township. This section should be considered for minor trail relocation and grade change. This area should also be evaluated for the addition of a section of asphalt surface to address washouts on the portions of the trail featuring steep slopes.

Construction of future trail segments should be designed based upon experience with the existing system. Installation of culverts or pipes to carry water under the trail at points where heavy precipitation will cause erosion, paving sections of steep slopes and proper design of high traffic areas should be standard practice for new trails. The cost of these construction methods

should be part of the planning for additions to the trail network. While the trail system has traditionally taken advantage of existing woodland roads and paths, the routes of future additions should avoid the conditions that have proven to be problematic on the existing trails.

Wildlife

The open space in Randolph Township is key to maintaining a healthy population of indigenous wildlife and to foster habitat diversity. Residential growth has fragmented some habitat within the Township, particularly in the eastern portion of the Township. The lands of the trail system serve to provide corridors for open space for wildlife migration, even along the trails themselves. Managing wildlife along the trail necessitates the maintenance of a peaceful co-existence between wildlife and trail users and neighbors, and ultimately the informed regulation of human activities on the trails. The Department of Parks and Recreation and core volunteers should be annually assessing the impact of human-wildlife encounters along the trails and seeking habitat improvements. Like much of the forested areas of Morris County, the explosion of the white-tailed deer population has decimated the original understory of native plants and tree seedlings, allowing non-edible invasive plants to dominate and preventing regeneration of the forest. The over-browse by white-tailed deer is very evident in almost every segment of the trails system. Efforts to reduce white-tailed deer by permit hunting should be continued. Restoration of native plants at select areas along trails corridors, with associated protection against browsing is recommended to begin restoring habitat diversity and wildlife cover. Additionally, periodic encounters with Black Bear should be expected. Information on appropriate precautions and behavior when coming into contact with bears should be posted at trail heads and included in informational literature on the trails network and on social media.

Trail Bridges and Culverts

Maintenance of the trail bridges and culverts is a critical component of the overall trail management program. Keeping them in a state of good repair is crucial to maintaining the integrity and aesthetic quality of the trail system. It is recommended that an initial inspection by licensed engineering professionals of those structures be conducted as part of a maintenance plan. This will provide a baseline of existing conditions and identify any necessary repairs. Periodic inspections of the trail bridges and culverts should be scheduled to identify any deficiencies that may exist and to allow for planning repairs or replacement where necessary. Other than the initial structural evaluation, inspection of the bridges and culverts can be assigned to volunteer trail maintainers. Most bridges and culverts within the Randolph Township Trails System are installed in areas where water flows are low. However, seasonally high volume flows must be considered and planned for. Bridge and culvert inspections should be completed annually and immediately following significant high rainfall events. If washouts occur around bridge abutments and foundations or culverts cannot handle high volume flows.

All culverts should be thoroughly cleaned a minimum of once each year. Maintenance and replacement costs will vary depending on the type, size, and location of the bridge or culvert structures. Trail operations personnel may perform routine, minor maintenance procedures; however, major operations, such as structural repair will generally require hiring a specialty contractor. The maintenance program for the bridges will also include the approach ramps, walls, and stairways.

Maintenance Costs



The cost for replacement, repair, or repainting of trail amenities should be closely tracked. The Parks and recreation department should maintain records of the general costs of trail amenities as a means of estimating future repair and replacement costs. Replacement of a portion of a trail may be necessary due to flooding, erosion, or weak soils. Most paved sections of the Township's trails do not appear to have received a seal-coating application since their installation. Seal-coating should be considered. This process can extend the

lifespan of current paved sections of the Randolph Township Trails System. Sealcoating asphalt segments will increase the longevity of the trail and provide a quality riding surface. When performed, sealcoating will cost approximately \$3,500 per mile for a 6-foot pedestrian trail. A periodic cost such as this should be included in the Township's operating budget to ensure that adequate funding is available. Sealcoating as a topic cannot skip one important safety matter. Sealcoating tends to be slippery. It is recommended that a flat section of trail be tested with sealcoating to see if there are any real slipping incidents associated with the application of the product. If there are legitimate slipping concerns, seal-coating may not be a viable option for extending the life of the asphalt.

Maintenance costs will vary greatly depending on the type of trail, amount of volunteer labor use, available services, and geographic location of the trail. These costs, however, must be considered during the trail planning process. Maintenance costs are rarely broken down into specific tasks such as those above. Most trails will be maintained by an existing agency, such as a local or state park, public works, or maintenance department. Estimated costs, therefore, are broken down by the type of maintenance performed. A matrix of estimated costs based upon distance and type of surface is included in this plan. This tool should be used as a guide for budgeting and planning for upkeep, repair and replacement of the trails and associated infrastructure.

Minor Repairs

The need for minor repairs should be determined by a yearly facility evaluation (see routine maintenance above). Minor repairs may include the following activities:

- Replacement, repair, or repainting of trail support amenities, such as restrooms, signage, benches, trash receptacles, or hitching posts
- Replacement of a portion of the trail
- Sealcoating of asphalt trails sections

Major Reconstruction

There are essentially two activities that are major reconstructions; resurfacing of asphalt trails and complete replacement, regrading, and resurfacing of all trails. The usable lifespan of an asphalt surface trail life is typically considered to be 10 years, depending on how well they have been maintained. Randolph Township's paved trail segments have been in place for greater than 10 years and still show good structural integrity. With a sealcoating process completed in the next 1-2 years, the Randolph Township Trail System paved trails should equal or exceed a lifespan of 20 years before resurfacing is required in most areas.

A resurfacing typically involves placing an asphalt overlay on an existing asphalt surface to erase cracks and bumps. It is not a perfect solution, as weak underlying soils or tree root penetration will eventually affect this top layer, but it does offer a lower cost means of extending a trail's life. Asphalt surfacing costs approximately \$1 per square foot for a 4-inch depth. Asphalt overlays should have a depth of 1 to 2 inches.

Complete replacement of a trail involves removing the existing trail, re-grading the trail base, and resurfacing the facility. This kind of comprehensive maintenance will be necessary approximately every 20-25 years, regardless of trail type. Even natural surface trails may need to be fully regraded after 20 years of use. Trail costs for reconstructions are the same as the cost of a new trail plus the cost of demolishing the existing trail. As with any major trail project, however, a detailed cost estimate should be performed during the project planning stages. The best guide for estimating the replacement cost of a trail is to consider the original construction cost.

Chapter 7

Action Plan

What makes this Plan most effective is its implementation strategy. Identification of priorities is an important first step. However, a rational and comprehensive approach to maintain the existing system, keeping the trail infrastructure in a state of good repair and strategically expanding the system is the plan's primary function. Having a tool that Randolph Township can use to make informed and rational budgetary decisions will insure that the trail system will continue to be an asset to the community's residents long into the future.

This section provides an overview of the recommendations for creating a methodology for decisions for both maintaining the current system and adding segments to the trail network to increase its utility to the public. Additionally there are upgrades to the system, mostly in the form of better trail marking, signage and trailhead construction that must also be factored into the costs for operating the trail network. Finally, there are segments of new trail that require either the acquisition of a right-of-way for a trail or the outright acquisition of the property. Planning for acquiring access to these properties needs to be factored into the decision making process.

Funding sources are available to supplement the Township's investment in the trail system. Randolph should take advantage of these resources in addition to partnering with organizations and agencies that can assist in trail construction. Providing context for each new addition and highlighting the enhanced value that each new project will provide to the public and how it will advance the goals of the plan will be a significant advantage in any competitive funding program. A Trail Management System has been designed as a part of this plan to assist the Township with planning the tasks necessary to maintain and expand the Randolph Trails and to plan for the expenses likely to be incurred in that undertaking. Once costs are identified and sections prioritized, the Township can dedicate and pursue resources needed to systematically implement the Plan.

Prioritization

The Township's trails advisory committee has created an initial hierarchy for new additions to the trail system. That ranking should be revisited periodically to ensure that it makes sense in terms of the order for implementation. There are a number of factors that should guide investments in the trail system. Prioritization of expenditures will require consideration of both new projects and maintenance of the existing system. The key is to have a rational and deliberate approach. The following factors should guide these decisions:

- Cost
- Necessity
- Utility
- Budget capacity
- Available supplemental funding
- Access to route
- Complexity/ease of completion
- Public interest/demand
- Consistency with plan

There are many other details that can enter into the choices that are made associated with these factors as well. The requirement for environmental permits, local opposition, opportunities to collaborate with other communities or other considerations can enter into the evaluations.

Finance & Budgeting

New Top Segment Tailor-Like Car										
		Unit			Unit			Unit		
		10,000	15,000	20,000	10,000	15,000	20,000	10,000	15,000	20,000
Components		Unit	Unit Cost	Unit	Unit	Unit Cost	Unit	Unit	Unit Cost	Unit
Body		Unit	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Engine		Unit	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Transmission		Unit	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Chassis		Unit	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Interior		Unit	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Exterior		Unit	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Paint		Unit	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Assembly		Unit	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Total		Unit	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Total Cost		Unit	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Total Revenue		Unit	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Total Profit		Unit	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Total Loss		Unit	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Total Break-Even		Unit	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Total Margin		Unit	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Total Return		Unit	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Total Risk		Unit	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Total Sensitivity		Unit	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Total Elasticity		Unit	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Total Correlation		Unit	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Total Covariance		Unit	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Total Variance		Unit	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Total Standard Deviation		Unit	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Total Coefficient of Variation		Unit	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Total Beta		Unit	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Total Alpha		Unit	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Total Gamma		Unit	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Total Delta		Unit	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Total Epsilon		Unit	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Total Zeta		Unit	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Total Eta		Unit	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Total Theta		Unit	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Total Iota		Unit	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Total Kappa		Unit	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000

BUDGETING TOOL

The financial obligations for the maintenance, upkeep and expansion of the trail system need to be carefully planned. Municipal budgets are constrained by both policy and legal limitations that cap spending. The existing system needs to be kept in a state of good repair. This needs to be undertaken in a thoughtful and fiscally responsible manner, which can be challenging when there are many different priorities that are competing for scarce public funds.

It is also clear after the public process and evaluation conducted in conjunction with the preparation of this plan that there are key additions to the system that are a priority for residents and other stakeholders. A comprehensive methodology for assessing how expenditures should be made will ensure that public funds for the Trails Network are expended in the most responsible manner possible.

A Microsoft Excel budgeting tool has been created to guide the Township in the financial decision-making process. This document allows for projecting costs for both maintenance of the existing system and construction of new trail segments. It also allows the user to forecast costs over multiple years. It is adaptable to changing priorities and will give the Township the ability to adjust to when priorities change.

As a baseline, maintenance and expansion costs have been calculated over a ten-year period from 2017-2026. The resulting costs for maintenance activities can be extracted from the spreadsheet and built into the municipal budget on an annual basis. Investments in new

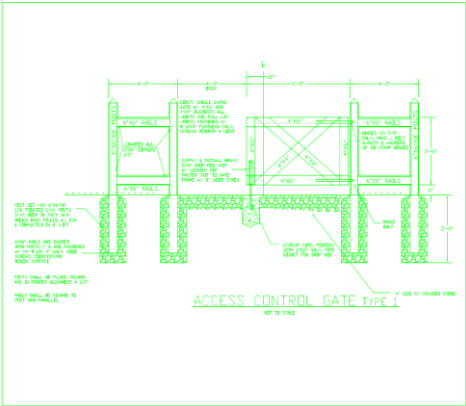
construction should be similarly planned, once an affirmative policy decision to undertake any new project based on available resources.

Maintenance

With 16 miles of trail, much of it improved surface, maintenance of the system is an important factor to consider to maintain the network in ideal condition. The trail surfaces that exist are durable and a survey of the entire trail network found most of the trails in good to excellent condition. There were some notable problem areas that need to be addressed in the short term. However, the most pressing maintenance issue is implementing a consistent program that will insure that the trails remain in a state of good repair. This involves planning both the necessary tasks on a regular basis and budgeting the financial resources necessary to complete them over an extended period of time.

Recurring maintenance tasks become increasingly burdensome as additions to the trail network occur. Implementing the Trail Management System provided in conjunction with this plan will enable the Township to identify the tasks needed and forecast expenses with a reasonable degree of accuracy. Allocating township personnel, volunteers, financial resources and, where necessary, outside contractors to perform required maintenance activities can be accomplished efficiently with a carefully planned approach.

Infrastructure



Trail infrastructure in Randolph consists of a number of different items. Trail surface, drainage structures, bridges, kiosks, trailhead structures and signs are all part of existing system. Wayfinding improvements are planned to be added in the near future. A standard design for trailhead and kiosk structures should be adopted. The costs for these structures has been calculated based upon design criteria provided by the Township's professionals. These are basic structures that should be budgeted for as part of the recurring costs for the trail system.

TYPICAL DESIGN TRAILHEAD STRUCTURE

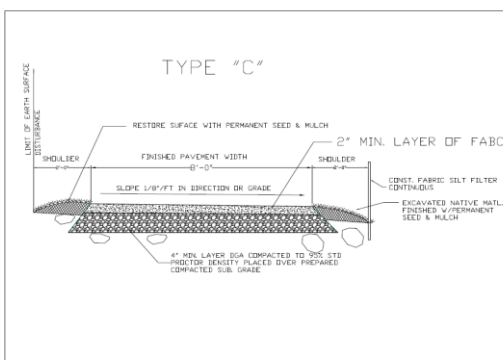
Other more complex and expensive installations, such as bridges, culverts, drainage structures and other

engineered infrastructure will require more thought and planning due to both the added expense and due to potential permitting requirements related to wetland crossing or other environmental considerations. These structures may be necessary for new trails that will cross streams or wetland areas. They will need lead time for construction and installation for design

and application to the state Department of Environmental Protection for approvals. Identifying the need for these structures should be a priority when making the decision to add trail segments and connection that will need these features. It is recommended that the Township's engineer be engaged to inspect each trail bridge structure and provide an estimated useful life for each. This data can then in turn be input to the Microsoft Excel Trail Management System to more accurately forecast on-going maintenance costs for the trail system.

Other items such as trail signs, trail markers, maps and other incidental items have lower cost but should nevertheless be part of the budget and planning process. Keeping an inventory of these items on hand for marking new segments, marking existing segments or for replacement of damaged items should be standard practice.

New Construction



CROSS-SECTION PAVED TRAIL

Each of the new trail segments recommended in this plan have been evaluated for cost. The Trail Management System itemizes each individual segment and projects the required cost for construction. Distance, surface, new infrastructure, easement/right-of-way acquisition and other related costs have been calculated. Depending upon the type of trail, construction will either be conducted by Township personnel or will need to be bid to an outside contractor. The 22 new trail segments have been evaluated for estimated costs that include the reasonably

anticipated items, including acquisition of land or access to land. This plan has identified approximately 13 miles of additional trail that would be added when fully implemented. This represents a major investment by the Township that will require significant preparation to complete.

The construction of all of the proposed trail sections would nearly double the trail miles in the network over a ten-year period. At the estimated cost per linear foot, this would require an investment of roughly \$2.7 million over that time. This is a major investment of public funds that would need to be carefully planned. The Township would need to make policy decisions regarding this investment. A significant portion (up to 80%) of this cost is potentially reimbursable from trail grant programs that currently exist. However, these grants are competitive and cannot be counted on until awarded. To expand the Network, the Township will need to prioritize spending and decide if it is preferable to bond for this expense and/or allot a portion of the Township's open space tax to this expense or construct these segments on a "pay as you go" basis dependent upon the municipality's general budget. This plan has

projected the construction of these segments over the next decade based upon identified priorities; however, the ultimate decision needs to be made by the Township Council with advice from the permanent Trails Committee.

Land Acquisition

This Plan has identified and mapped 22 new trail segments to supplement the current system. The trail segments can take a number of actual courses to complete their routes. The final route these trails will take and whether they realistically can even be constructed, will depend on acquiring the outright purchase of the land, acquiring a right-of-way or trail easement, or securing access through other means such as tax foreclosure, a condition of new development approvals or a land set-aside in conjunction with construction of a development. Gaining access to existing utility easements or rights-of-way can also be a means for completing a trail segment or securing trail access.

A summary of potential parcels for acquisition has been provided to the Township in connection with this plan. This list should be available to the Township's Open Space Committee and to the Township Planning Board. Development approvals that affect any of these key links should take the potential for gaining access through either a land set aside, acquisition or dedication of a trail right-of-way/easement as part of the approval process. Future open space acquisition projects should include parcels from this list as part of the overall open space strategy of the community. The Township's Open Space Tax and the County's Open Space Trust Fund are readily available financial resources that can assist with these acquisitions as well as the state's Green Acres program.

Chapter 8

Partners



There are many local and regional partners that can aid in evaluating, designing, enjoying and publicizing the Randolph Township Trail Network. These include township, county and state agencies, businesses, hiking clubs, and nonprofit organizations that have a role in promoting and managing trail systems, who can provide

knowledge regarding design and maintenance of trails. Partners can provide funding for land acquisition and trails development, cooperative planning assistance, opportunities for expansion of the Randolph Trail network and connections to the region. Working with partner agencies and organizations can increase the impact and capabilities beyond what Randolph Township can achieve on its own and offers the prospect for bringing added value to the Township's residents. A list and brief description of existing and potential partners follows.

Government Entities

Municipal Agencies

In addition to the Township Committee's role in setting policy, and the Trails Advisory Committee's role in incorporating expertise and public input into the design and management of the Trails Network, municipal entities, such as Randolph Township's, Parks, Recreation, Traffic, and Environment and Landmark Advisory Committees should have key roles in the design and upkeep of the Trail Network. Over and above the contributions they have made to date, each has a unique perspective to add to the overall design, key linkages and destinations, and signage that would make the network both a recreation and learning experience.

The Township Police staff and various Public Safety Committees also need to play a key role in ensuring that the public's trail experience is safe, and that emergency management and response systems are informed of specific needs related to the Trail Network and aware of how to respond should the need arise.

Valuable input can also be gleaned from interaction with neighboring communities, including Chester, Denville, Mendham, Mine Hill and Roxbury Townships, who also own and manage trail networks and whose cooperation will be needed to regionalize trails.

County Agencies



Morris County maintains one of the finest park systems in New Jersey. In addition to the thousands of acres of public land acquired, the county also administers a substantial Open Space and Farmland Preservation Trust Fund. The county collects a dedicated surcharge on real estate taxes that was authorized by voter referendum in 1992. Funds from the open space tax are administered by the Morris County Department of Planning. A substantial portion of those monies are distributed to Morris County Municipalities for assistance with the purchase of land for open space. The county has been a valuable partner for the acquisition of land, including significant purchases in Randolph Township.

Just since 2004, over \$161 million in open space funding has been distributed to preserve over 9,300 acres of land. In 2014, authorization was granted to spend open space trust fund monies on trails construction. In 2017 over \$868,000 was available for trail construction grants. This funding will continue to be offered for municipalities to create and improve hiking, biking and multi-use trails. Information on the preservation trust can be found at this link: <https://planning.morriscountynj.gov/divisions/prestrust/>. County agencies, including two municipal utilities authorities own significant lands within the Township. Finally, the Patriots' Path trail network stretches throughout Morris County with significant portions in Randolph.

The Morris County Park Commission- The Park Commission stewards more than 18,700 acres of parkland, which includes 38 facilities: historic sites, golf courses, outdoor educational and recreational facilities, arboreta, conservation areas, 150 miles of trails, and a sports/ice skating arena. More than 3.5 million people visit county parks each year. County holdings include Hedden Park located in Randolph which provides significant hiking opportunities, especially for residents living north of Route 10. The Park Commission oversees the Patriots' Path trail, comprised of 55 miles of main trails and 35 miles of spur trail located on 291.9 acres. Patriots' Path is a trail system of hiking, biking and equestrian trails, as well as green open spaces. It links several federal, state, county, and municipal parks, as well as watershed lands, historic sites, and other points of interest throughout Morris County.

A significant portion of Patriots' Path traverses the Township and provides connections between Randolph Trails and other municipalities as well as for loop hike opportunities within the Township. Additionally, Morris County supports a substantial volunteer trail maintenance program. They can be contacted at the following address: MCPC, P.O. Box 1295, Morristown, NJ 07960. Russell Nee (a Randolph resident) is the Assistant Superintendent responsible for trails. rnee@morrisparks.net (973)-631-5136.

<http://m66.siteground.biz/~morrispa/index.php/parks/patriots-path>

County College of Morris- CCM's 220 acre campus is located entirely within Randolph Township. Located along Route 10 between Dover Chester Road and Center Grove Road, the college brings thousands of students and employees to the Township each day. The scenic campus provides the opportunity to expand the trails network into CCM with a relatively simple connector trail. The College is anxious for chance to connect with its host community and to provide alternatives for students to reach campus via either bicycle or walking. CCM was engaged in the outreach process and has committed to working with the township to provide additions to the trails network onto the campus. www.ccm.edu, County College of Morris, 214 Center Grove Road, Randolph, NJ 07869-2086, phone (973) 328-5000.

Morris County Department of Planning and Public Works- The Department of Planning and Public Works for Morris County contains the Division of Planning & Preservation. Among the programs in this Division are: Farmland Preservation, Open Space Preservation, Historic Preservation, Long Range Planning and the Planning Board, Land Development Review and Transportation Management. They also administer the annual Morris County Open Space and Farmland Preservation Trust Fund Grants, from which Randolph Township has previously received money for land acquisition. This department is developing a bike and pedestrian plan for Morris County. This plan has called for shared roadways and multi-use paths in Randolph Township. The County's Open Space Trust Fund has also recently added funding opportunities for trails development on preserved land. 30 Schuyler Place, Morristown, N.J. 09763-0900, (973)-829-8120, Transportation Management Phone: (973)-829-8101. <https://planning.morriscountynj.gov>

Morris County Municipal Utilities Authority- The Morris County MUA owns substantial acreage in Randolph Township. Much of this land is restricted to provide protection to the water sources, mainly the Alamatong Well Fields located in the western portion of Randolph Township. During the outreach process, the MUA was engaged to discuss use of the authority's lands for trail connections. One of the proposed high priority connections, the West Morris Greenway Connector (trail segments #3 & 4) utilizes MUA property. The MUA was extremely supportive of providing access through land located along Park Avenue for this connection. The MUA's offices are located in Randolph Township on the campus of the County College of Morris. Securing access to MCMUA land is vital to the regionalization of the Randolph Trails network. www.mcmua.com, MCMUA, 214A Center Grove Rd, Randolph, NJ 07869, phone (973) 285-8390.

Southeast Morris County Municipal Utilities Authority- The SMCMUA owns and maintains Clyde Potts reservoir and surrounding buffer lands in Randolph and Mendham Townships. The two municipalities invested a significant amount of money in securing permanent conservation easements on the authority's lands. In conjunction with this purchase, limited access to the authority's property was obtained and provides hiking opportunities along Patriots' Path and for the portion of the Randolph trail system connecting to Doby Road and

the Comb's Hollow area. Additionally, a proposed new trail segment (trail segment #10) would provide access to SMCMUA land. Cooperation with the authority has resulted in a significant addition to the township's trails network. <http://www.smcmua.org> , The Southeast Morris County Municipal Utilities Authority, 19 Saddle Road, Cedar Knolls, NJ 07927, phone (973) 326-6880.

State Agencies



The State of New Jersey is a valuable partner for Randolph Township. The state's Green Acres program has partnered with the Township in the past on active and passive open space acquisitions. Recently, a stable source of funding this program has been established with a portion of revenue from the state's Corporate Business Tax being dedicated to open space acquisition and stewardship each year. The Division of Fish, Game and Wildlife owns lands within the Township. The state provides support for the acquisition and preservation of historic resources. They also administer competitive grant programs for stewardship and trails construction that can assist Randolph Township in implementing the goals set forth in this plan. The Department of Transportation provides funding for bikeways and trail construction. Randolph is able to take advantage of all of these potential partnerships with the state to provide improvements and additions to the trail system.

New Jersey Department of Environmental Protection, Green Acres Program- Green Acres administers the Planning Incentive program, which provides grants to municipalities for open space acquisition and preservation and loans for recreation facility development. Green Acres funding requires a one to one dollar match. Randolph Township has previously received funding for land preservation and recreation development from Green Acres. P.O. Box 412, Trenton, N.J. 08625-0412, Phone: (609)-984-0500, <http://www.state.nj.us/dep/greenacres/>

New Jersey Department of Environmental Protection, Division of Fish, Game & Wildlife- The Division of Fish, Game and Wildlife owns and maintains the system of Wildlife Management Areas throughout New Jersey. A portion of the Black River Wildlife Management Area is located in Randolph Township. The West Morris Greenway follows the abandoned Chester Branch of the DL & W railroad as it passes through the wildlife management area. The Randolph Township portion of Patriot's Path also enters Black River near Bill's General Store on Dover-Chester Road. The division permits use of hiking trails, both marked and unmarked, subject to restrictions during hunting season. Division land provides important connections for the Randolph Trails system to neighboring communities and beyond. <http://www.state.nj.us/dep/fgw/>, N.J. Division of Fish and Wildlife, Mail Code 501-03, P.O. Box 420, Trenton, NJ 08625-0420, Phone (609)-292-2965.

New Jersey Department of Environmental Protection, Historic Preservation Office- New Jersey's Historic Preservation Office, located within the Department of Environmental Protection, offers a staff of historians, researchers, planners, architectural historians, architects, engineers, and archaeologists that specialize in preserving historic resources and landscapes. Randolph Township contains many designated historic structures as well as part of the Washington Valley Historic District that may benefit from historic preservation efforts. P.O. Box 404, Trenton, N.J. 08625-0404, Phone: (609)-292-2023, <http://www.state.nj.us/dep/hpo/>

New Jersey Department of Environmental Protection, Recreational Trails Program- The New Jersey Trails Program was established with the passage of the New Jersey Trails System Act in 1974. Additionally, since 1993, the NJDEP has delegated funding from the National Recreation Trails Program. The Federal Highway Administration's Recreational Trails Program (RTP) provides financial assistance to states for developing and maintaining trails and trail facilities. The RTP funds come from the Federal Highway Trust Fund, and represent a portion of the motor fuel excise tax collected from non-highway recreational fuel use. Since the program's inception in 1993, New Jersey has awarded more than \$16 million to federal, state, county and local governments, and non-profit agencies. Projects are funded on an 80% federal share and 20% matching share basis. Funds are awarded through a competitive application process with a deadline normally set in mid- December. Brandee Chapman, Coordinator, NJDEP-Division of Parks & Forestry, N.J. Green Acres Program, PO Box 404, Trenton, NJ 08625-0404, (609)-984-1339. Trails@dep.nj.gov

New Jersey Department of Transportation- The New Jersey Department of Transportation has established funding, through the federal Transportation Equity Act for the 21st Century (TEA-21), to maintain and enhance New Jersey's transportation system and improve quality of life. The program focuses on projects that will preserve and protect environmental and cultural resources as well as promote alternative modes of transportation. Projects include land acquisition, bikeway and trail construction, historic preservation, and environmental mitigation to address water pollution and scenic or historic highway programs. Randolph Township has received funding for trails development through the NJDOT in the past, and Morris Township is eligible for future DOT funding. Division of Local Aid and Development, NJ Department of Transportation, 1035 Parkway Avenue, P.O. Box 600, Trenton, N.J. 08625. Contact: Joe Jagniakowski, (609)-530-3686. <http://www.state.nj.us/transportation/>

New Jersey Department of Community Affairs, New Jersey Historic Trust- The New Jersey Historic Trust was created by law in 1967 to preserve the state's historic resources. The mission of the Trust is to advance historic preservation in New Jersey for the benefit of future generations through education, stewardship, and financial investment programs that save our heritage and strengthen our communities. The Trust receives an allocation (historically \$6 million) per year for historic preservation projects, which are awarded in the

forms of grants for restoration projects. Morris Township contains many state important historic resources that may be eligible for funding through the Trust. P.O. Box 457, 06-508 E. State St., Trenton, NJ 08625, Phone: (609)-356-8856. <http://www.njht.org>

Business Partners

Business partners both involved directly in outdoor recreation constitute valuable partners, including Marty's Reliable Cycle, which has a bicycle supply and repair shop headquartered in Randolph. It sponsors regular bicycle rides through Morris County including the massive annual event each September called the Grand Fondo. <http://martysreliable.com/>

Recreational Equipment, Inc. (REI) is a company that not only sells outdoor recreation equipment, it sponsors adventure trips and provides funding for conservation and recreation throughout the United States. REI has four locations in New Jersey including one in East Hanover (Morris County). <https://www.rei.com/about-rei.html>

Nonprofit and Service Group Partners



Several nonprofit organizations have the capacity to assist Randolph with the acquisition of key open space parcels both within and adjoining the township, to help carry out this Plan, including making linkages to neighboring communities. Non-profits can provide access to volunteers, grant funding, planning and technical assistance to supplement the resources that Randolph Township can dedicate to trail construction and maintenance. Additionally, they can provide a constituency for support of the trail system and to advocate for improvements and investment in the Randolph Trail system. Public support is a key element for insuring that the trail system will remain a vibrant and valuable asset for Randolph Township residents long into the future.

Morris Trails Partnership members are avid hikers, bikers, and horseback riders who manage trails throughout Morris County. <http://www.morristrails.org>

New Jersey Recreation & Park Association (NJRPA) is dedicated to enhancing the quality of life by promoting recreation, parks, conservation, and leisure services through education, professional development, public awareness, legislative advocacy, and direct membership services. NJRPA supports park, recreation, and natural resources management programs through their 700 volunteer members that include professionals, citizens, government agencies, students and faculty, non-profits, and commercial suppliers of parks and recreation products and services.

The Association can provide valuable expertise for trails development.

<http://www.njrpa.org/home.cfm>

The New York-New Jersey Trail Conference is a nonprofit organization with a membership of nearly 10,000 individuals and 100 clubs committed to: Developing, building, and maintaining hiking trails, among other activities. The Trail Conference organizes volunteer service projects that keep these trails open, safe, and enjoyable for the public. Its Trail University program attendees contributed 1,132 hours of service in the state of New Jersey. Volunteers recruited through Trail University help maintain nearly 700 miles of hiking trails in New Jersey and over 1,400 miles in New York. <https://www.nynjtc.org/>

Jersey Off Road Bicycle Association (JORBA) is a 501(c)3 non-profit organization which is dedicated to serving off road cyclists as a member of equal standing within the trail user community. Its focus is to build and maintain sustainable multi-use trails, organize and encourage volunteerism and responsibility, and advocate and foster mountain biking as a healthy, environmentally sound, and sustainable activity. <http://www.jorba.org/node/12>

The Land Conservancy of New Jersey has assisted municipalities since 1997 to preserve land and plan trails in communities throughout Morris County. <http://tlc-nj.org/>

New Jersey Conservation Foundation is a statewide conservation organization that both preserves land and provides technical and financial support for land conservation projects. NJCF facilitates the Garden State Greenways program, which seeks to establish contiguous belts of preserved lands across New Jersey, including trails. NJCF's prime focus area is the New Jersey Highlands. <http://www.njconservation.org>

The Trust for Public Land-New Jersey (TPL) is in Newark and Morristown. TPL strives to protect "parks for people", such as urban parks and trails, and has the capacity to preserve large tracts of open space. <http://www.tpl.org>.

The **Morris Area Freewheelers Bicycle Club, Inc.** is a volunteer organization dedicated to promoting all aspects of road cycling. The members of the Club primarily reside in the following New Jersey counties: Morris, Sussex, Hunterdon, Essex, Somerset, Warren, Union, and Passaic. <http://www.mafw.org>

Finally, there are several hiking clubs that scheduled hikes in northern New Jersey that can be a source of feedback and volunteerism, to bring trail experience and expertise to the Randolph Trails Network. <https://www.njhiking.com/hiking-clubs-nj/>

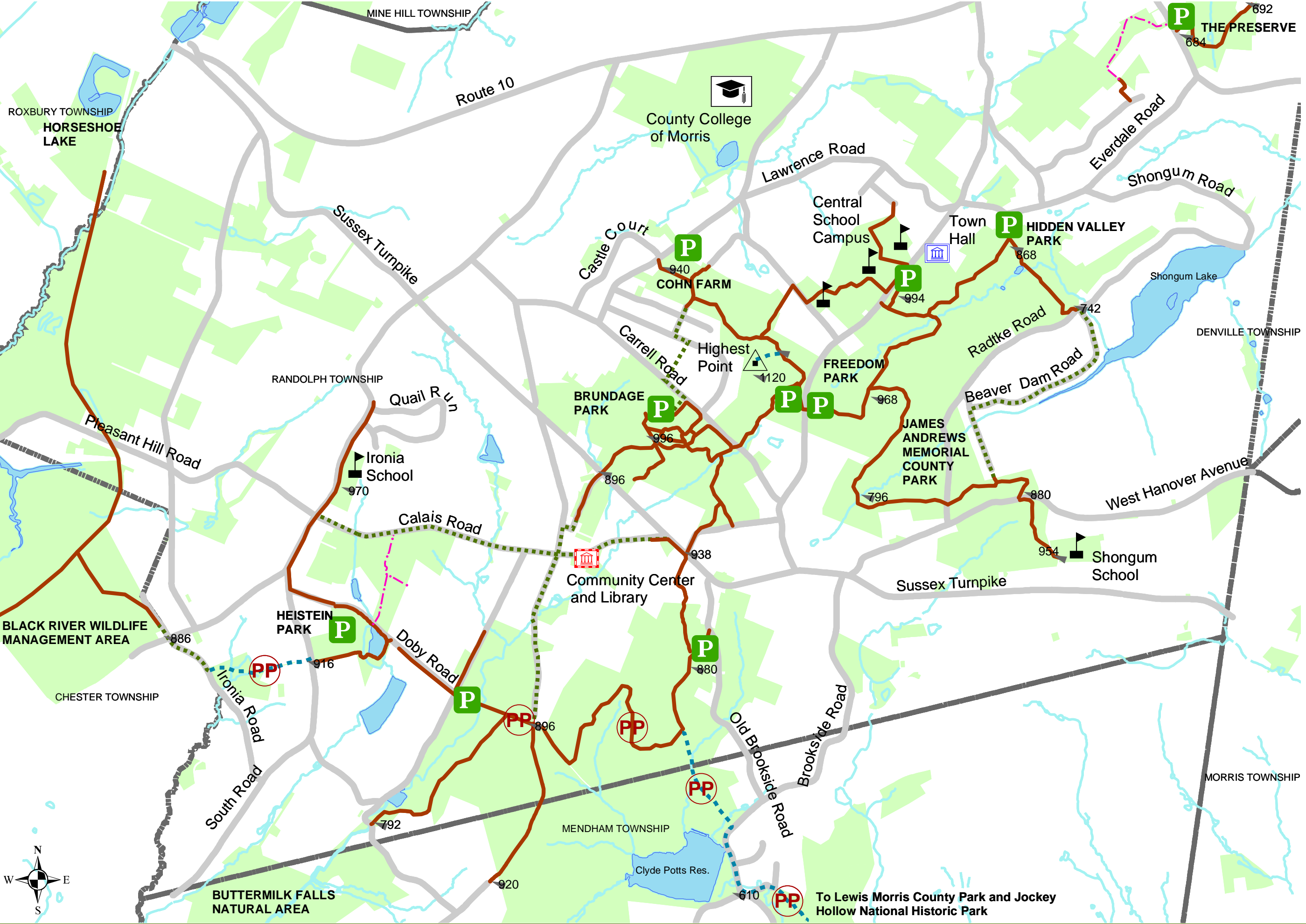
Appendix

1. Map – Existing Trail Network
2. Map – Proposed Trail linkages
3. Data Table – New Trail Sections-Short, Intermediate, and Long-Term Proposals
4. Graphics – Typical Trail Heads and Trail Surface Cross-Sections
5. Public Meeting Notes – Summary of attendees and comments
6. Public Meeting & Stakeholder Sessions – Attendee lists
7. Survey Results – Complete PDF Summary
8. Proposed Logo Designs
9. Map – Proposed main trunk routes of trail system
10. Map-Trail Intersection Numbering

Appendix

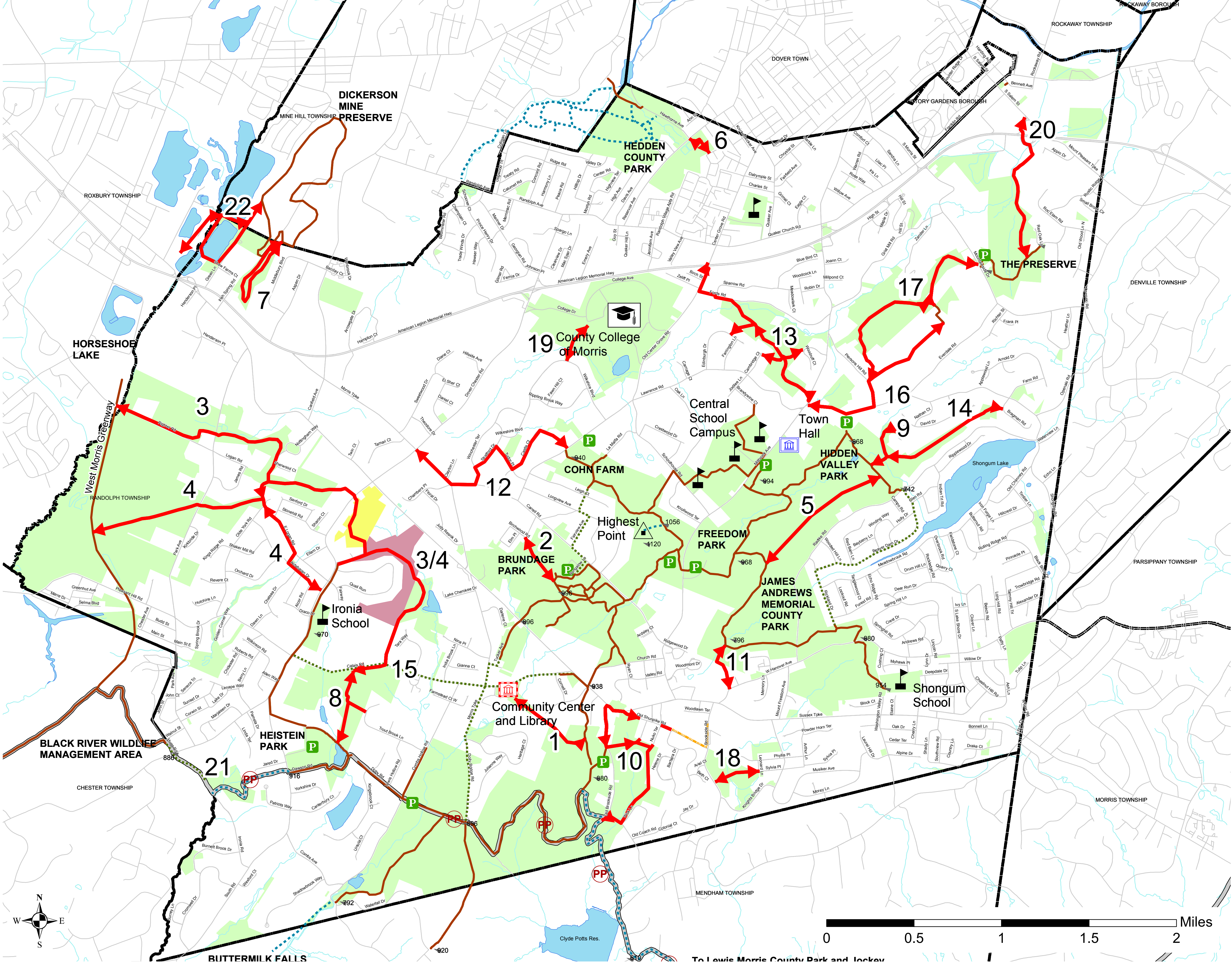
1. Map – Existing Trail Network
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10. Map – Trail Intersections

1. Map – Existing Trail Network



2. Map – Proposed Trail linkages

Randolph Trails- Final Report



- LEGEND**
- P** Trailhead with Parking
 - Elevation in feet**
 - PP** Patriots' Path white blaze
 - Recommended future trail**
 - Public road bicycle routes**
 - Trail: Bicycle and foot traffic only**
 - Trail: Foot traffic only**
 - Trail under construction**
 - Liberty Water Gap Trail**
 - Proposed Dedication**
 - Pending Acquisition**
 - Trail Easement**
 - Lake, pond**

Sources: Morris County Division of Geographic Information Systems
NJ Office of Information Technology
Township of Randolph, Division of Planning/Zoning Administration/GIS

3. Data Table – Short, Intermediate, and Long-Term Trail Segments

Trail Segment #	Location	What is Proposed?	Analysis/Notes	Priority (A,B,C)	Timeframe
#1	Community Center to Existing Trail	New trail to Community Center	This is an area south of the library, which has a very high elevation, fully wooded. Trail easements appear possible. Terrain would make for a difficult trail to hike; however, an important destination to make a connection.	A	20 + Years
#2	Birchwood Rd to Brundage Park	New trail connecting neighborhood to Brundage Park trails	Access via a 5 foot wide easement would make this trail immediately possible. There are two houses that meet tangentially at the bend in the road. If access can be gained a trail along the powerline or south of the powerline is possible connecting the neighborhood to the entire Brundage Park trail system.	A	0 - 3 Year
#3	West Morris Greenway to Calais Road	New trail idea	Access to property east of Dover-Chester Road needs to be secured. West of Dover-Chester Road will need access immediately west of the road. From that location, all westward lands are publicly owned.	A	20 + Years
#4	Ironia School to West Morris Greenway	New trail alternative to #7A	Access to property east of Dover-Chester Road needs to be secured. West of Dover-Chester Road public roads can serve as the trail until entering County lands off E Logan Road. All westward lands are publicly owned. A recommendation is to follow the powerline easements to enable a connection west of Park Avenue through the Alamatong Wellfield property.	A	10 - 15 Years
#5	James Andrews Park to Hidden Valley Park	New trail connecting trail around James Andrew Memorial County Park to trail between Hidden Valley Park and Beaver Dam Rd neighborhood	Blazed and marked yellow. This trail should be formally adopted into the trail system, maintained and marked appropriately. This will add approximately 2 miles to the trail system and provides a loop trail opportunity. Land is owned by Morris County.	A	0 - 3 Year
#6	Hedden Park Apts to Hawthorne Ave	New trail connecting apartments to Hawthorne Ave, crossing through Hedden Park	This trail is already utilized in an unofficial capacity. This is an important connection to Hedden Park from the Gateway Apartment Complex increasing the trail network on the north side of Route 10. A formal safe street crossing is needed on Reservoir Avenue. The land is owned by Morris County.	A	3 - 5 Years
#7	Dickerson Mine & Mine Hill trail networks	Connections to Dickerson Mine	This is an extension of existing trails in the Dickerson Mine property in Mine Hill Township. JORBA is already constructing these trail extensions.	A	0 - 3 Year
#8	90 Acre Property	New Trails within park	These proposed trails are planned for construction immediately. This will create a linkage to Heistein Park as well as Trout Brook Lane.	A	0 - 3 Year
#9	Hidden Valley Park to Rebecca Ct	New trail connecting Hidden Valley Park/Beaver Dam Rd trail to neighborhood	Rebecca Court can connect to Hidden Valley Park via a detention basin parcel owned by Randolph Township. To avoid acquiring an easement on private lands, the trail would need to route across County parklands before connecting to Randolph owned parkland and existing trails.	B	20 + Years
#10	Helene Dr to Trail End at Old Brookside Rd	New trail connecting neighborhood to trail system	This is a proposed new trail on existing open space. The trail would need to traverse wetlands necessitating a bridge and permitting. There may be a southern loop to avoid wetlands. Further investigation necessary.	B	5 - 10 Years
#11	West Hanover Ave. to James Andrew Park	New trail connecting West Hanover Avenue to trail going around James Andrew Park	The connection would run on eastern edge of the Heller property to connect West Hanover Avenue to James Andrews Memorial County Park. Trail can be constructed above the sewer line to minimize regulatory issues. Any additional development in town center area should consider trail easements to increase connectivity to trail system.	B	5 - 10 Years

#12	Dover Chester Rd to Carrell Rd	"Close the Loop" from Dover Chester Rd to Carrell Rd. Morris Turnpike inbetween. Also wraps around Wilkshire Terrace, Castle Ct connecting to Cohn Farm trail, down Lawrence Rd back to Carrell Rd (probably won't work)	This new trail extension will traverse neighborhoods via public roads and sidewalks, except for a short stretch directly opposite the Cohn Farm. It does involve "trail making" but more of a mapping and signage project.	B	3 - 5 Years
#13	Lawrence/Everdale/Millbrook to Fords Rd / Route 10	New trail	Most of this proposed trail extension traverses Randolph Township owned lands. However, a short section of the trail would require Fords Road right-of-way usage which is narrow and no sidewalks to make the connection up to Route 10.	B	20 + Years
#14	Hidden Valley Park to Bragman Road	New trail	This is an extension of proposal #9 and should follow its construction. This stretch is primarily through existing public lands; however, easements on four privately owned residential lots would be needed to connect to Bragman Road.	B	15 - 20 Years
#15	Calais Rd	Existing Public Road Bicycle Route	The Township has plans to acquire the land necessary to connect northward from Calais Road to additional open space lands that can connect to Dover-Chester Road.	B	10 - 15 Years
#16	Lawrence Rd /Everdale Rd intersection to end of Skyline Drive	New Trail from intersection/Hidden Valley parking lot to end of Skyline Dr, connecting neighborhood to proposed Nitti Mt Trail	This long connection would connect The Preserve with the remainder of the trail network. The terrain is difficult and the route is not entirely clear requiring a large investment. Access to Piersons Hill Road is less than ideal due to topography and narrowness of roadway. A more appropriate access point should be identified before pursuing this trail.	B	20 + Years
#17	Piersons Hill Road to Mountainside Drive	New Trails within Nitty Mountain	This will create a trail to connect The Preserve to Hidden Valley Park through the Nitty Mountain property. Terrain through this area is rough and heavily wooded.	B	20 + Years
#18	Brookside Rd to Sylvia Pl	New trail connecting neighborhood to trail system	A connection at the end of Sylvia Place is possible. Existing open space would make this possible. Wetlands may be an issue, possible stream crossing may require a bridge.	C	20 + Years
#19	County College of Morris to Wilkshire Blvd	New trail from County College to neighborhood	Access to County College is a high priority given the importance as a destination. However, access from this location and many others are limited due to environmental constraints. This connection has public lands contiguous to the College; however, wetlands need to be crossed, making this a difficult point of access.	C	20 + Years
#20	Rt 10, S Salem St, Mt Pleasant Turnpike.	High school students mention crossing by K-Mart / McDonalds – pretty far away, but not bad	This is the only possible grade-separated crossing on Route 10 using existing infrastructure. For these reasons, this is important. However, given the relatively remote location and low existing ties to Randolph's trail system, it is given a lower priority. Once connections to the Preserve and Hidden Valley Park are completed, this will become a higher priority.	C	20 + Years
#21	Heistein's to Bill's Luncheonette	Existing trails	Proposal is to find an alternative to the existing trail that follows Ironia Road. Currently no feasible alternative exists. If/when redevelopment occurs, that may present an opportunity.	C	20 + Years
#22	Randolph Park	Connection to Dickerson Mine Trails, loop trail west of lake	A connection from Roxbury lakes to Dickerson Mine / JORBA trails. Requires permission or sale from Black River Barn.	C	20 + Years

4. Typical Trailhead Graphic

4. Typical Trail Segments

Type 'S' for flat surfaces

Type 'C' for hilly terrain

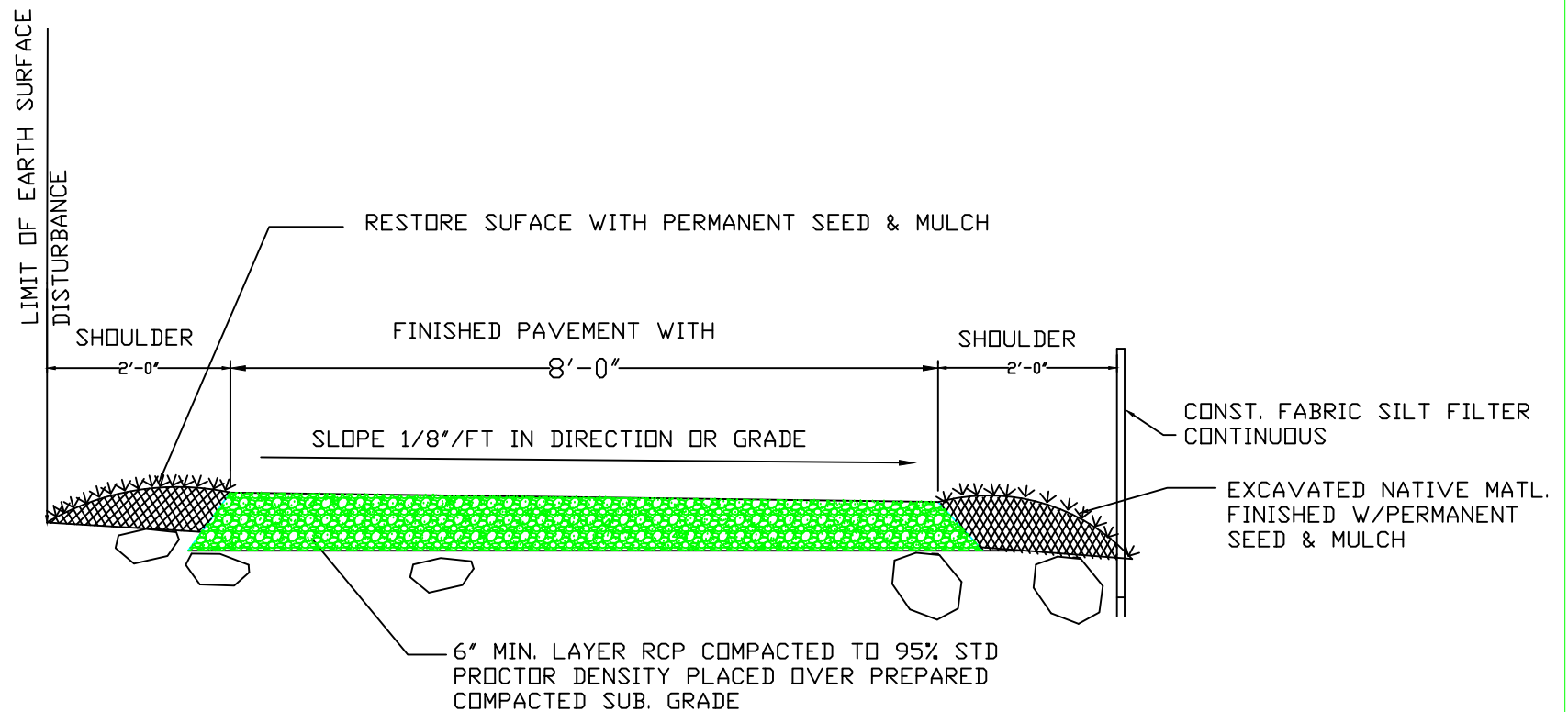
Trailhead Gate Standards



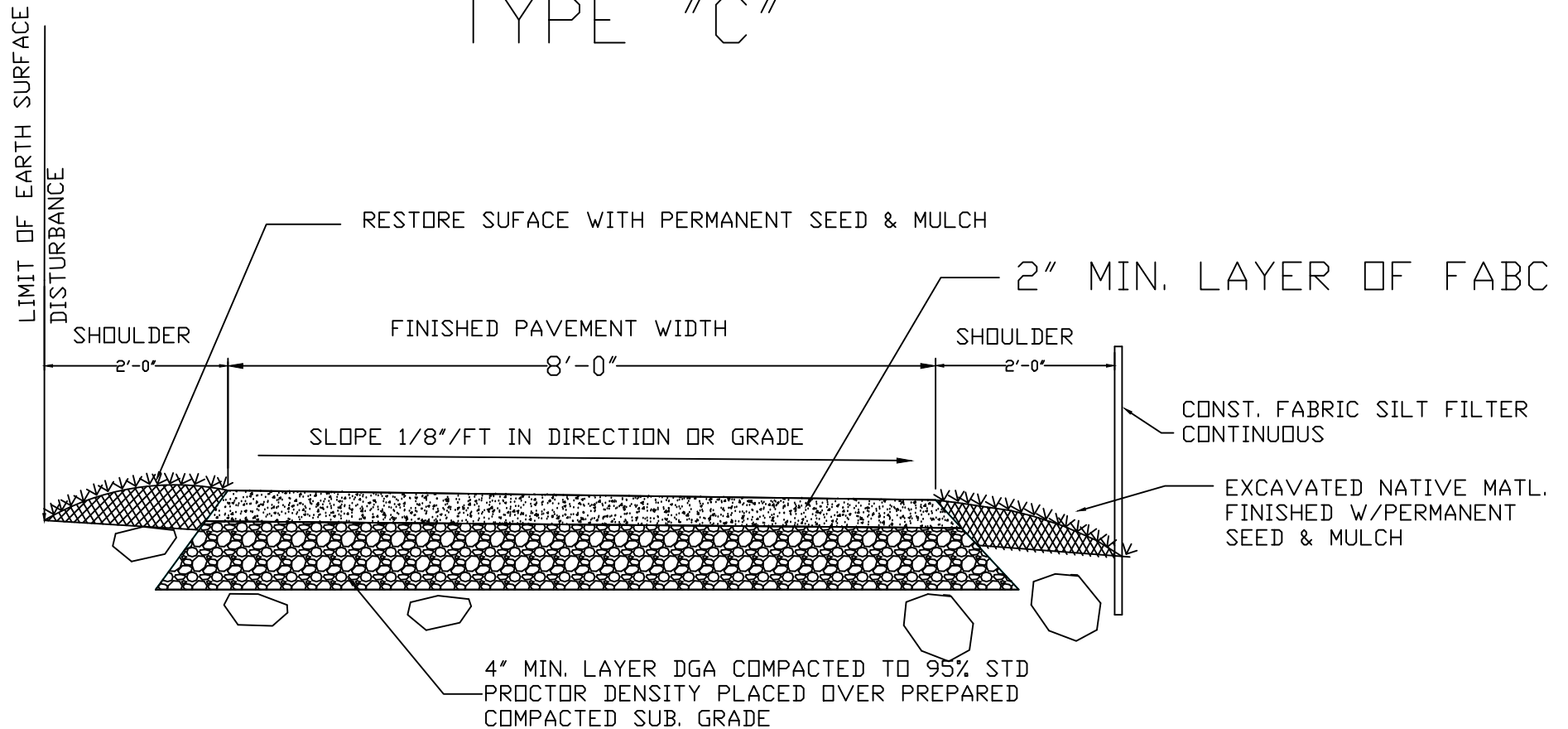
Randolph Trail System
Trailhead

Open Year Round - Dawn To Dusk

BIKEWAY PAVEMENT TYPE "S"
(STABILIZED REPROCESSED CONCRETE)



TYPE "C"



NOTES

AFTER TREE AND SHRUB CLEARING AND PLACEMENT OF FABRIC SILT FENCE IS COMPLETED.

- 1) PREPARE BIKEWAY SURFACE BY RAKING OR BLOWING LEAF LITTER FROM SURFACE.
- 2) REMOVE OR EXCAVATE PROJECTING ROCKS AND PLACE AT EDGE OF 2' SHOULDER.
- 3) EXCAVATE EXISTING MATERIAL TO A 3' +/- DEEP CREATING WINDROWS OF EARTH MATERIAL AT SHOULDERS.
- 4) COMPACT AND GRADE SUBGRADE TO A FIRM REGULAR SURFACE TRUE TO FINAL SURFACE GRADE
- 5) CONSTRUCT PAVEMENTS AS INDICATED.
- 6) UPON COMPLETION OF PAVEMENT , RAKE OUT SHOULDERS TO BE REGULAR CONDITION.
- 7) CONSTRUCT PERMANENT SEED AND MULCH ON 2'-0" SHOULDER (SEE SOIL EROSION AND SEDIMENTATION CONTROL NOTES).

BIKEWAY PAVEMENT TYPE "S"

CRUSHED STONE AGGREGATE 1"=1'-0"

PAVEMENT STABILIZATION NOTES:

- 1) REPROCESSED CONCRETE AGGREGATE MATERIAL CONFORMING TO DGA GRAIN SIZE ANALYSIS SHALL BE DELIVERED TO THE STAGING AREAS IN QUANTITIES ADEQUATE TO ENSURE CONTINUOUS SEAMLESS PLACEMENT ON PATH SECTIONS.
- 2) REPROCESSED CONCRETE AND PORTLAND CEMENT (1 1/2 BAG/C.Y.) SHALL BE MIXED IN A 2-5 C.Y. MINIMUM MOTORIZED DRUM MIXER.
- 3) DRY MIX PRODUCT SHALL BE DELIVERED IN A MASON DUMP TRUCK (MAX. SIZE VEHICLE). TYPE S BIKEWAY PAVEMENT SHALL BE PLACED WITH A SELF-PROPELLED PAVING BOX.
- 4) AS NECESSARY CONDITIONED UPON SURFACE MOISTURE OF AGGREGATE, THE CONTRACTOR SHALL APPLY WATER SUFFICIENT TO PRODUCE A VERY DRY MORTAR CONDITION DURING THE COMPACTING PROCESS.
- 5) THE AGGREGATE SURFACE SHALL BE GRADED SMOOTH AS NECESSARY AND COMPACTED WITH PASSES OF A VIBRATOR COMPACTOR SUFFICIENT TO PRODUCE A FLAT, SEAMLESS GLAZED SURFACE.

IN THE EVENT THAT THE BIKEWAY MUST REMAIN IN SERVICE, THE CONTRACTOR SHALL COMPLETE CONSTRUCTION UP TO BUT NOT INCLUDING STABILIZATION.

NOTE: BIKEWAY PAVEMENT TYPE S OCCURS IN ALL BIKEWAY SECTIONS EXCEPT WITHIN WETLANDS AND WETLAND TRANSITION AREAS AND ON STEEPLY INCLINED PORTIONS OF THE BIKEWAY (SEE PLAN SHEETS FOR SPECIFIC LOCATIONS)

5. Public Meeting Notes – Summary of attendees and comments

Randolph Trails Master Plan

Public Meeting #1 Notes – 1/30/17

General

- About 40-50 people
- Trails connect 5 municipal parks, 2,000 acres of preserved open space; regionally connect to the West Morris Greenway and to Patriot's Path
- Trail marking possibility – coding via access point, post every 1/10 of a mile, estimated approximately 200 posts, add 15-20 signs for trailheads and intersections, install from community volunteers and service groups
 - “Brand trails” with a logo for Randolph trails
 - Number all intersections
- Accessibility and access points, underserved parts of trails important to take note of
- Expansion – 90 acres on Calais Road; Dickerson Mine Property north of Route 10

People's Comments

Richard Raven - Cyclist

- Noted Jon Huston's vision for the trails system in the 1990s
- Nitti Mountain section – supposed to be done when development was done on Skyline Drive; need a trail extension to Skyline Drive to keep traffic off Everdale Road where there is no shoulder
 - Northwest section I think was left out (The other notes said NE section)
- Grendale = no shoulder
- Maintenance – ¾” quarry process stone is excellent choice, as it causes interlocking of rolled gravel
- Suggests right triangular gates at trailheads so bikers' handlebars don't hit them
- Concrete retaining wall where bridges connect to gravel; check for large bumps and holes there
- In favor of more signage on trails, suggests care in installation to avoid negative impacts on the trails

Julie Wood – walks, bikes, etc.

- Encouraged town to maintain good relationship with power companies to ensure continued proper maintenance of utility right of ways; also continued access to utility lines right of ways are important for the trail loops
- Trail markers should be up high because people destroy the posts
- Plastic water bottles not allowed on the trail system OR more garbage cans (garbage cans are not on the walkway during the winter)
- Dogs – dog park with turnstyle entrances and exits would be nice
 - The one near the municipal building is too small, not suite for large dogs
 - Hidden Valley from Everdale – right of message board headed down the hill; at the Hidden Valley trailhead there are two existing fields
 - Would be willing to help raise money for the infrastructure

Marylyn Hinden SP? – mountain bike + walk

- On a trail near Freedom Park, the stream has washed out the gravel – safety issue – maybe some raised wood there?
 - At upper end of trail at Radtke Road and Hanover Avenue behind Freedom Park there is a stream crossing at the base of a hill. There is little sign advising of loose gravel, but still a problem with a ditch caused by the regular overflow of the stream.

Lisa Briscoe

- Application to bring up trails, follow yourself; include a topographic map, a log of your miles, reporting issues, and education (tools for historical knowledge, tree knowledge, etc.)
- QR codes at intersection

Discussion

- Hotline for problems, Facebook

Russ Newman

- Reminded everyone to call the Department of Recreation to fix issues

Person 1

- Old Brookside – scrap metal off the side from an old vehicle, it is ugly

Pat Palmieri

- Color coding the trails would be a very good project
- Mile markers is a great idea, 1/10 he likes
- Signs for a big hill or a quick turn
- Wants the whole trail paved

Wendy Luther

- Lives in Combs Hollow area
- Can walk in at Dolly Bridge Road where there are 4 trails, but no loops
- Suggested extension of trails at Clyde Potts Reservoir and Combs Hollow Road to allow trail users to remain on trail as opposed to walking on the side of the road
- Hard to find the trailhead at Combs Hollow Road that connects to Buttermilk Falls
- Tough to follow trail extensions beyond Randolph Township border since those extensions into Mendham are not well maintained or blazed

Person 2

- Accessibility issue – hit more neighborhoods; additional trail connectors from neighborhoods to existing trails is recommended
- Lot of trails go nowhere, we should finish some loops or put the trails into more neighborhoods

Doug Benzan SP?

- There aren't many water fountains – only 2 that the person knows of – Brundage Park and Freedom Park
- Likes diverse surfaces for biking and running

Jim Beshkey – hiking, biking, XC skiing, snowshoe, walker

- Connection to new village center proposed for Mount Freedom
- Suggests the town invest in more of the road crossing signs that light when a button is pushed by pedestrians/bikers to alert drivers of the crossing at major roads. Like the sign at Righter Road in Roxbury.

J. Huston

- Trail loop – 2 miles from Freedom Park to Hidden Valley, easy build, no environmental permits because it is not swampy
 - Would connect Freedom Park, James Andrews Park, and the Hidden Valley Preserve
 - Trail is already worn from informal use/utility right of way
- Discussed a proposed “Three Miles of Trails” in eastern Randolph Township – he has plans to share

- Town purchased 4-5 properties for their trail, haven't used them
 - Greenhut Section, Pleasant Hill Road by the Black River was intended as a trailhead; trailhead on Pleasant Hill Road needs a parking area; close to Chester and Roxbury borders
 - Base of hill on Millbrook Ave, there is an easement there; trail development
 - Suggests trail be developed at property acquired by town (did not catch location) where house was demolished
 - Everdale Road – James Andrews Park – 15 acres, bought with open space, but no trail that creates a disconnect
 - Properties close to Nitti Mountain were purchased to add additional trail linkages
 - Suggests trail be developed on former Lee property now owned by the town on Mountainside Road - intended to connect to Millbrook Valley
- Suggests trail connector between Hidden Park and the Gateway Apartment Complex north of Route 10, goes into Dickerson Mine as well
- Get the Randolph Trails System onto Google Maps

Kelly Varga

- NW side, suggests development of a trail to connect Dover Chester Road with the existing trail system, perhaps a connection through the Quail Run subdivision

Kevin Loughman

- Former Randolph resident, current member of the Denville Trails committee
- Raised idea that both towns should be investigating some form of safe connector to get bikers/pedestrians across Route 10
- County College location was raised as a good possible location for crossing

Pat Loenard

- Vandalism is a concern for the markers
- Near where the trail crosses over Den Brook, the gravel is washed out; also in a couple of other places; in maintenance plan, maybe inventory and repair those areas
- Post office out to Dolly Bridge- more accessible, wants a little more paved

Person 3

- Asked question regarding the Tucker Avenue property; can the area be further developed? Darren Carney advised the area contains extensive environmental constraints which restricts further development

Person 4

- Suggests trail marking placed high enough to avoid vandalism
- Asked about whether the marking will be on the top of the post or side
- Asked about whether the public will have any further input prior to the markers being installed

Rachel Reid

- Current taxes or ready money?
- Open Space and Recreation Department Fund – we have access to that, it is ready

Richard Raven

- More trail loops and extensions
- Suggested if there is need to delay the implementation of the formal trail marking program to account for future changes that an interim program be utilized (additional blazing on trees)
- Requested intersection posts for locating map points

Other Comments Received Before or After the Public Meeting (Bill Foelsch)

- Connie Stroh from Environmental Committee – No comments on the trails, however she suggested captions on the video and making the production brighter; she had a hard time seeing the details of the video
- Marc Perez – Noted concerns about safety on paved sections of the trail – very icy and dangerous in the winter. Consideration should be given to making the steeper sections less difficult by switchbacks and re-routes.

General Takeaways (brought up a few times)

- Vandalism might be a problem with the posts
- Washouts are an issue
- Trail markers important – so don't get lost, so know where people are, so know when big or difficult obstacles are ahead
- Some new connections are important, many options
- Also, garbage cans and water fountains is something to think about

Craig Schlusberg – email sent to Russ Newman – biking and cross country skiing

- Improve the gravel trails on hills – pave it or hard-pack it for bike riding; kids have a rough time going uphill or downhill on loose gravel
 - Behind the Sussex-Brundage park or at the end of Dolly Bridge leading to the reservoir
 - Hard-packed dirt trails, paved trails, or even loosely graveled trails versus large, sharp gravel would be ideal
- Maybe a long, connected paved trail so that bikers could make their way all around Randolph

Adam Zyto – email sent to Russ Newman – dog walker

- Spends a lot of time on the trails with my big dog. Huge fan of trail system.
- Suggests a Freedom Park circular loop trail to make a big circle past the football field similar to one on the right side by the baseball field. Walkers like to walk in circles as opposed to going to a spot then turning around to go back.
- (NOTED that this suggestion has safety issues when turf field is active. Would require netting.)

Pat Leonard – post meeting email with details of his suggestions

At the public meeting on the Trails System last night, you asked me to email you with the suggestions I was making. Here's my top three:

- Drainage - There's a few places along the trails that become impassable after even just a moderate rain. The worst is the stretch just south of where the trail passes over Den Brook, in the segment between Radtke Road and Freedom Park. A few others that are not quite so bad include the stretch coming down the hill into Cohn Farm, the portion before the bridge that crosses India Brook, between Sussex Tpke. and Brundage Park, by the four bridges on the section between Brundage and Freedom Parks, and near the smaller bridge between Brundage Park and Church Road.
- Millbrook Crossing - Getting the trails connected through the Mt. Freedom area would be a great improvement to the system. With the new sidewalks that were recently installed along Sussex and W. Hanover, we're halfway there. A crossing on Millbrook, going from the entrance of Woodmont South over to the mouth of Valley Road, with appropriate crossing signs and a painted crosswalk, would be a big help, as would access through the

woods between Rosie's and Woodmont, connecting with the trail near the aforementioned stretch by Den Brook.

- Signage - Having seen the quarter-mile posts vandalized over the years, I'm concerned that the 200 posts mentioned during last night's presentation would get the same treatment. I do agree that better markings are in order, especially at intersections and forks, but I'd hate to see money wasted on poles that would become eyesores in a few months or years.

Also, as I mentioned, there is (or was yesterday) a tree down across the trail about midway between Freedom Park and where the trail begins to descend to the 9/11 marker.

Respectfully Compiled by:

Kenneth Campbell

Bill Foelsch

Stephen Mountain

6. Public Meeting & Stakeholder Sessions – Attendee lists



Randolph Trails Master Plan Stakeholder Outreach Meeting

Monday, March 6, 2017; 7 PM

Attendance Sheet

[illegible]



Randolph Trails Master Plan Stakeholder Outreach Meeting

Tuesday, March 7, 2017; 7 PM

Attendance Sheet

[illegible]



Randolph Trails Master Plan Stakeholder Outreach Meeting

Attendance Sheet

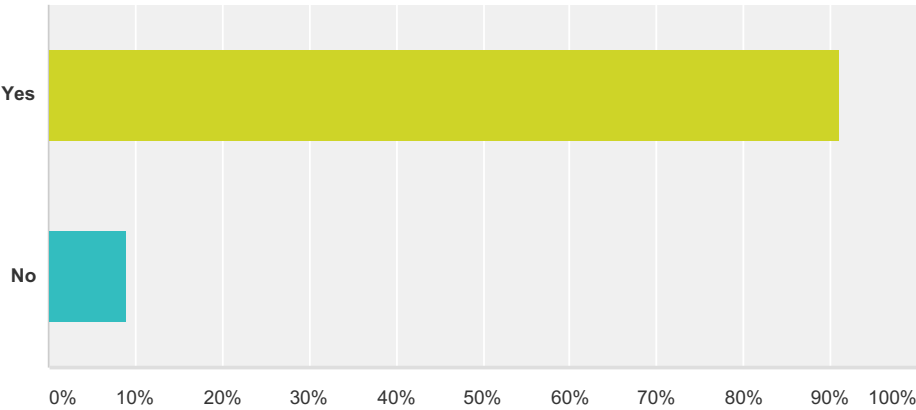
PUBLIC SAFETY Orgs - Tuesday 6 PM

[illegible]

7. Survey Results – Complete PDF Summary from Survey Monkey

Q1 Do you visit the Randolph Township trails system?

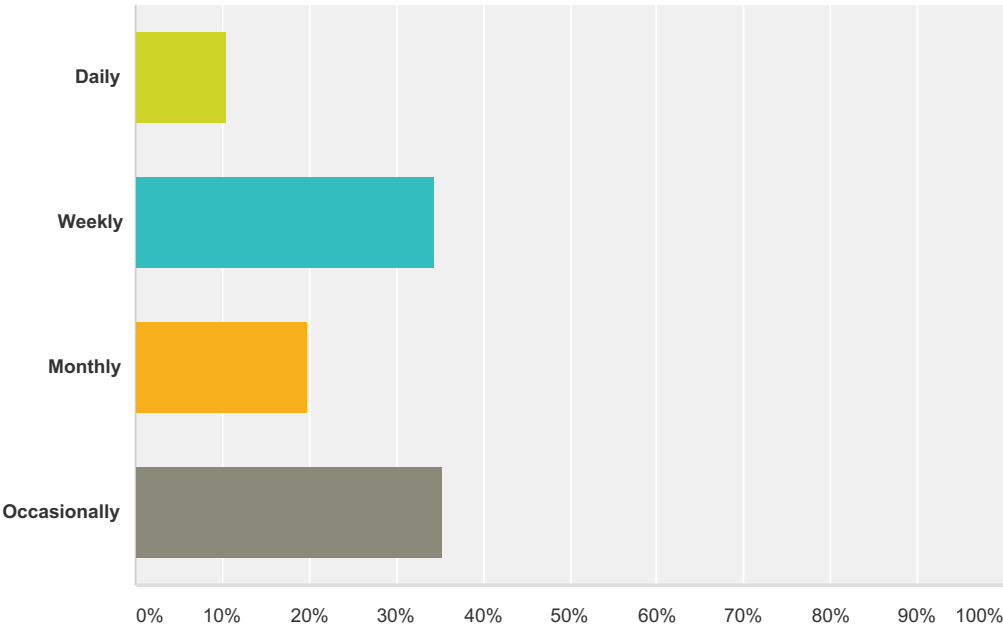
Answered: 425 Skipped: 0



Answer Choices	Responses	
Yes	91.06%	387
No	8.94%	38
Total		425

Q2 How often do you use the Randolph Trails?

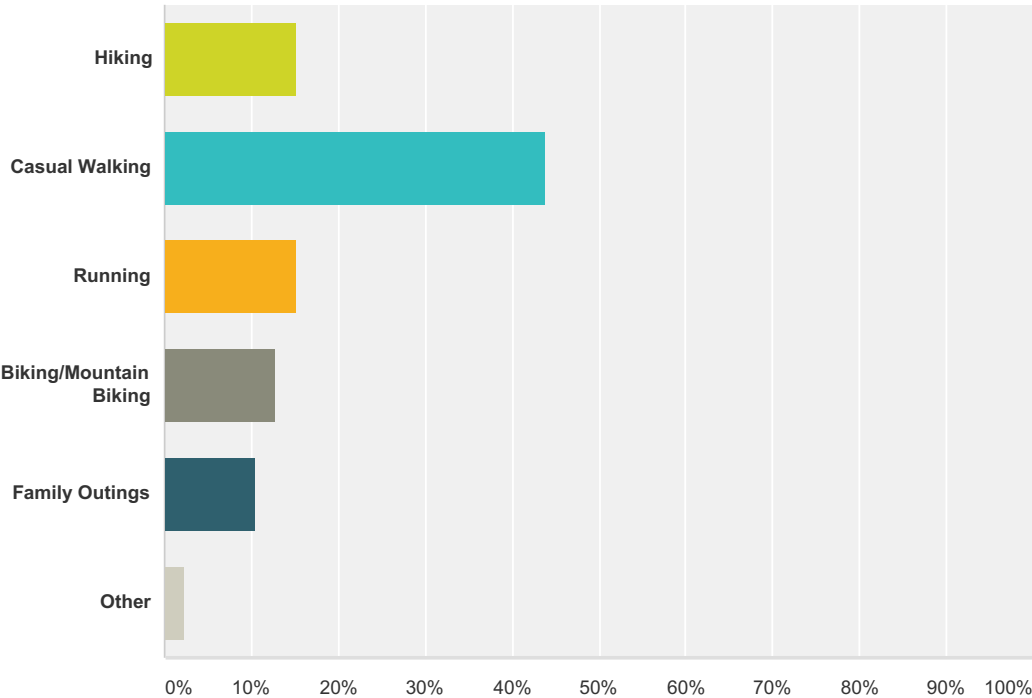
Answered: 393 Skipped: 32



Answer Choices	Responses	
Daily	10.43%	41
Weekly	34.35%	135
Monthly	19.85%	78
Occasionally	35.37%	139
Total		393

Q3 Which of the following describes your use?

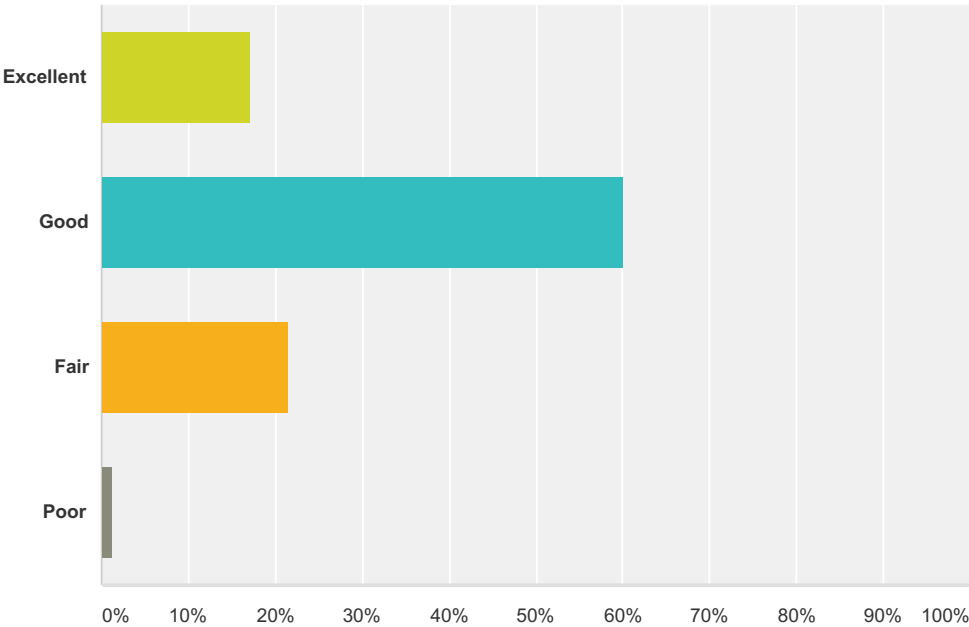
Answered: 399 Skipped: 26



Answer Choices	Responses	
Hiking	15.29%	61
Casual Walking	43.86%	175
Running	15.29%	61
Biking/Mountain Biking	12.78%	51
Family Outings	10.53%	42
Other	2.26%	9
Total		399

Q4 How would you describe the condition of the Randolph Trails?

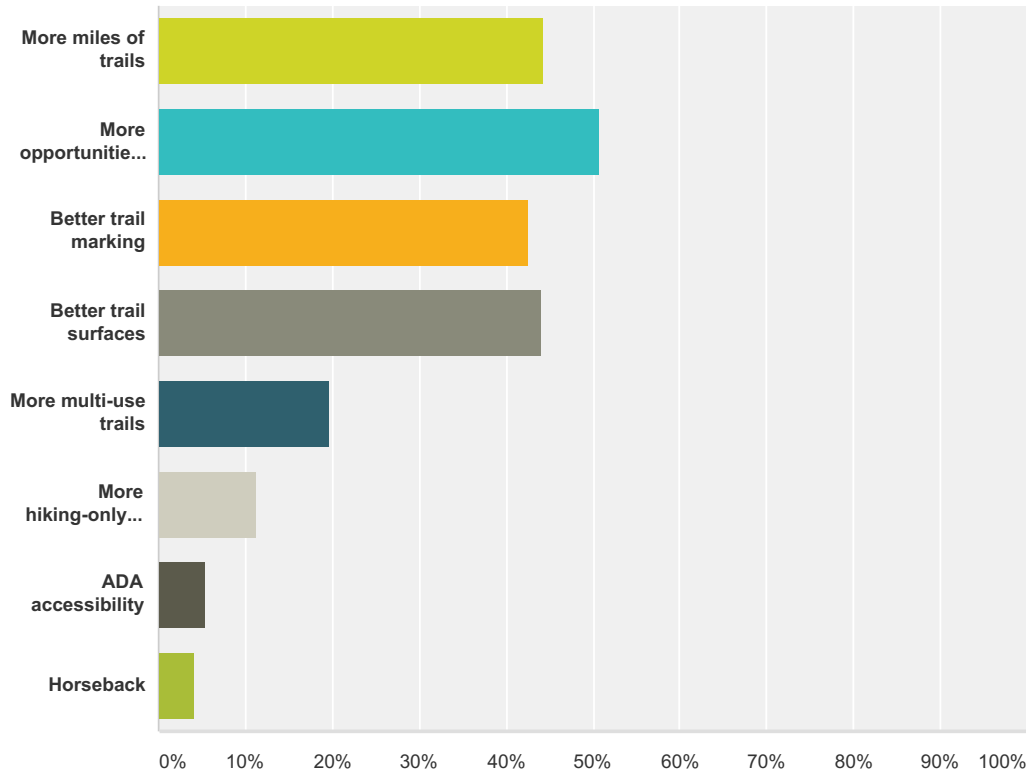
Answered: 401 Skipped: 24



Answer Choices	Responses	
Excellent	17.21%	69
Good	60.10%	241
Fair	21.45%	86
Poor	1.25%	5
Total		401

Q5 Which of the following additions to the Trails system would you recommend?
(Check all that apply.)

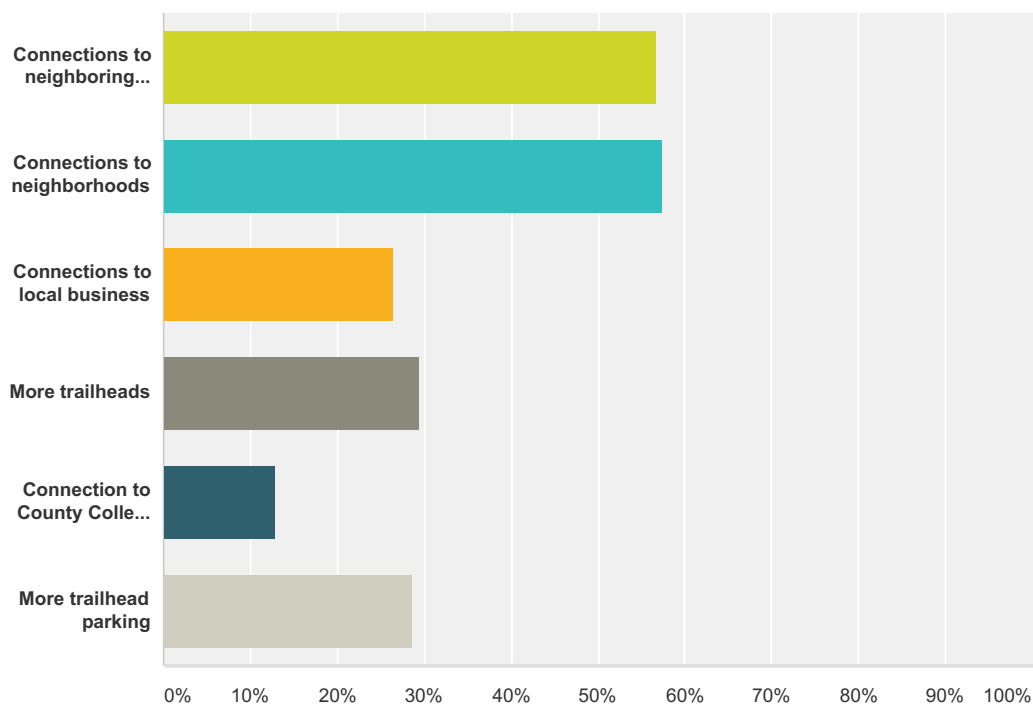
Answered: 393 Skipped: 32



Answer Choices	Responses	
More miles of trails	44.27%	174
More opportunities for loop hikes	50.64%	199
Better trail marking	42.49%	167
Better trail surfaces	44.02%	173
More multi-use trails	19.59%	77
More hiking-only trails	11.20%	44
ADA accessibility	5.34%	21
Horseback	4.07%	16
Total Respondents: 393		

Q6 Which of the following would you find valuable? (Check all that apply.)

Answered: 350 Skipped: 75



Answer Choices	Responses
Connections to neighboring town trails	56.86% 199
Connections to neighborhoods	57.43% 201
Connections to local business	26.57% 93
More trailheads	29.43% 103
Connection to County College of Morris	12.86% 45
More trailhead parking	28.57% 100
Total Respondents: 350	

#	Other (please specify)	Date
1	More opportunity for loop trails without having to walk on top streets.	5/12/2017 7:49 PM
2	more paved trails	5/12/2017 4:34 PM
3	More paved trails for little kids to ride on too that are somewhat level	5/12/2017 2:42 PM
4	Drainage improvement in several low-lying areas.	5/12/2017 11:42 AM
5	Fine as it is	5/11/2017 5:57 PM
6	More single track	5/11/2017 9:22 AM
7	more narrow natural trails for biking	5/11/2017 9:19 AM
8	Trash receptacles, dog bags for waste	5/9/2017 7:35 PM
9	Create a trail connection into the watershed at the foot of Wick Lane.	5/9/2017 9:01 AM

10	places to dispose of litter/dog waste at the trailheads; portajohns	5/8/2017 9:14 PM
11	more sidewalks along public streets	5/8/2017 12:01 PM
12	Well maintained garbage receptacles and dog waste bag posts at trailheads.Connection to Hedden trails.	5/8/2017 8:03 AM
13	Use less road-based connections between systems, as little walking on the road as possible. Trail fo Mt.Freedom Golf range to the Township Library. Upgrade connection from RT along Clyde Potts to Dismal Harmony. Upgrade connection from Combs Hollow Road (at one-lane bridge) to Buttermilk Fall area.	5/5/2017 12:30 PM
14	Using the trails for social/community events	5/5/2017 12:09 PM
15	None	5/5/2017 11:57 AM
16	More "singletrack" trails for mountain biking	5/4/2017 9:45 AM
17	Bike lane on Park Avenue!!!	5/3/2017 10:45 AM
18	shortest connection, connect schools, parks, library, business to neighborhoods	4/28/2017 1:05 PM
19	The parking lot at the intersection of Doby Rd. and Combs Hollow is too small - cars often have to park along the shoulder of one of the adjacent roads.	4/25/2017 5:55 AM
20	Nothing additional.	4/24/2017 11:06 AM
21	Connections to other Randolph trails. Many trails end without clear connections to other trails.	4/24/2017 1:10 AM
22	Trails north of Rt 10	4/23/2017 9:35 PM
23	We need bike lanes desperately on Park Ave as none of us can get anywhere safely. Tie the bike lanes onto Righter road like those on Calais so we have access somewhere! The Park Ave. and Kirkbride Road areas are an island of neighborhoods in west Randolph that are so close to the Horseshoe Lake trails but just Can't get there due to terribly unsafe roads!!! Please get us access from Park Ave. near the MuA fields	4/23/2017 8:53 AM
24	Bathrooms	4/21/2017 2:21 PM
25	more benches to sit and rest upon.	4/21/2017 10:41 AM
26	Distance Markers	4/21/2017 10:26 AM
27	If bike path / trails could be established on Radtke Rd from Briar Court to Shongum Rd, and on Shongum Rd from Radtke to Old Chimney, a long loop on relatively quiet roads would be the result. People circle the lake already, but these areas would be worth "quieting" from a traffic perspective, by narrowing the driving lanes and establishing trail ways.	4/20/2017 10:26 PM
28	Think we are doing just fine... nice work..	4/20/2017 6:35 PM
29	More benches on trails and bathroom facilities at trail heads	4/20/2017 5:28 PM
30	I would like "loops" that are 2 to 5 miles long.	4/20/2017 4:26 PM
31	Better marked trails, so I know where I am going. Need longer loops. Trails out in the open.	4/20/2017 4:12 PM
32	Connection to the Randolph Diner	4/20/2017 2:55 PM
33	more paved trails for biking	4/20/2017 12:59 PM
34	none we need city water and city septs, on center grove rd this is 2017 not 1817 trails are bullshit	4/20/2017 11:46 AM
35	Keep the current trails but blacktop them so it is easier to walk instead of expanding	4/20/2017 10:48 AM
36	Porta potties at more parking areas	4/20/2017 10:39 AM
37	Clear our trails from debris and better surfaces.	4/20/2017 10:12 AM
38	Patriots path is a great idea but it doesn't connect well from one spot to the next	4/20/2017 9:46 AM
39	Biking trails	4/19/2017 8:07 PM
40	Ease of access to trails from homes close to it. We're on Rebecca Ct with trails behind us across the big antennas but we can't get to them. Not sure of it would be our responsibility to create the access.	4/19/2017 7:03 PM
41	Would love for the trail to connect to my neighborhood, Birchwood road	4/19/2017 5:36 PM
42	Mountain biking only trails, and please please stop paving the trails. They are beautiful as is, and even laying down gravel is a little overkill and unnecessary. Paving them takes away from the experience.	4/19/2017 3:15 PM
43	Pet waste stations	4/19/2017 2:50 PM

44	Could there be benches every few miles?	4/19/2017 2:04 PM
45	Really good maps and trail markings I am terrible with directions and we get lost!	4/19/2017 1:41 PM
46	More trails that are flat for walking	4/19/2017 1:35 PM
47	There should be some maps at areas on the trails to show you are here. I've met numerous people who have asked me where the trail leads and exactly where they are because they were working and lost track of their location in relationship to the township roads as landmarks.	4/19/2017 1:05 PM
48	And entrance to the park on birchwood rd	4/19/2017 12:49 PM
49	Trail lighting in areas surrounding the existing parks (such as Freedom and Brundage).	4/19/2017 11:31 AM
50	Single track mountain vike trails.	4/19/2017 11:31 AM
51	Having areas that are not restricted during school hours would be nice too. On a day off, I can't walk the trails because of the school near me (Shongum) and the trail access point behind it. Frustrating	4/19/2017 11:26 AM
52	My home backs up to a trail. I would like to see some border/privacy landscaping take place. Many times it feels as if those on trail are in my yard. They can be clearly heard and seen.	4/19/2017 10:53 AM
53	Safe way to get to trails.	4/16/2017 10:11 PM
54	Safer roads: running and bike shoulders on roads	4/11/2017 1:38 PM
55	trail across route 10 on north dover side -- no trails there -- should connect to Heddon Park trails	4/9/2017 8:27 PM
56	Maintain what we have better.	4/9/2017 7:38 PM
57	We have enough trails.	4/9/2017 6:53 PM
58	More paved bike trails clearly identified on the trail map	4/7/2017 12:16 PM
59	parking lot at heisteins pond needs repair before the season begins	4/3/2017 6:17 PM
60	Family activities: scavenger hunts. Technological enhancements (smartphone app with maps and info). Summer activities to promote the trails system	4/3/2017 3:16 PM
61	ALL trails should be ADA accessible. The fact that we have parks in town, some fairly new or refurbished, sponsored by "civic organizations" that are NOT ADA accessible is a disgrace! "Randolph, where life is worth living" is a joke! Stop being so elitist! It's not welcoming nor does it speak well of this community.	3/31/2017 10:36 AM
62	More sidewalks to get to entrances	3/25/2017 2:46 PM
63	At brundage park by the rec buildings the trail ends and there is lots of dirt mud and becomes very slippery not sure why the trail ends. In addition there should be more trash cans	3/25/2017 9:00 AM
64	Sidewalks on Carrell Road from Center Grove to Brundage Park would be great!!	3/25/2017 7:38 AM
65	Sidewalks along Carroll rd	3/25/2017 7:15 AM
66	More dog waster trash cans and dog wate bags. These are located on some of the trail paths, but not all of them.	3/25/2017 6:31 AM
67	Sidewalks	3/24/2017 10:56 PM
68	Better trail markings	3/24/2017 1:27 PM
69	Sidewalks on busy roads to make walking to trail heads safer	3/24/2017 1:00 PM
70	Connection to Dover Hills section.	3/24/2017 12:59 PM
71	Carrell Rd is so busy, We need a side walk between CG Road and Brundage. Residents between Center Grove Rd and Farview do not allow our kids to walk to Brundage.	3/24/2017 12:22 PM
72	connections of trails	3/22/2017 7:51 AM
73	one that goes to acme	3/19/2017 11:40 AM

Q7 Do you have concerns about your safety when using the trails? If so, please explain.

Answered: 236 Skipped: 189

#	Responses	Date
1	no, but don't hike	5/31/2017 3:06 PM
2	no	5/31/2017 3:05 PM
3	yes, ticks	5/31/2017 3:04 PM
4	yes, ticks	5/31/2017 3:04 PM
5	yes, fear someone is hiding	5/31/2017 3:03 PM
6	no	5/31/2017 3:03 PM
7	no, I carry my cell phone	5/31/2017 3:01 PM
8	yes, not safe for seniors to walk in wooded area, also need better surfaces	5/31/2017 3:00 PM
9	no	5/31/2017 2:59 PM
10	yes	5/31/2017 2:59 PM
11	no	5/31/2017 2:58 PM
12	yes	5/31/2017 2:56 PM
13	no	5/31/2017 2:55 PM
14	yes	5/31/2017 2:54 PM
15	yes, ticks and snacks	5/31/2017 2:54 PM
16	yes	5/31/2017 2:53 PM
17	no	5/31/2017 2:53 PM
18	no	5/31/2017 2:52 PM
19	no	5/31/2017 2:51 PM
20	no	5/31/2017 2:49 PM
21	walk with cane or walker, not easy to navigate trails, needs to be made more accessible	5/31/2017 2:49 PM
22	Yes, if I used the trail I would be concerned about my safety if I walked alone	5/31/2017 2:47 PM
23	Yes, age	5/31/2017 2:39 PM
24	Unleashed dogs, bears, lack of communication in emergencies	5/15/2017 10:03 PM
25	one large dead limb over trail, will call in.	5/15/2017 6:48 AM
26	I always take my cell phone	5/13/2017 10:14 AM
27	If I have an emergency how would I describe my location to 911? Better trail marking would help. Off leash dogs are also a problem.	5/13/2017 10:01 AM
28	Not when using the trails. However, getting to the trails (without driving) requires walking along busy roads with no sidewalks. More access points/trail heads would alleviate this problem.	5/12/2017 8:37 PM
29	Yes. I am concerned about black bears and the fact that there is sometimes hunting going on when I am told to stay on the trail, which I always do	5/12/2017 3:30 PM
30	Some of the trail surfaces (mainly those paved) are a damaged	5/12/2017 1:32 PM
31	I worry about bears.	5/12/2017 1:25 PM
32	Mostly wild animals	5/12/2017 1:22 PM
33	Not at all.	5/12/2017 11:42 AM

34	As a woman, I would never go alone on the trails, walking, running or even biking. Some areas are just too remote for help.	5/12/2017 10:39 AM
35	No, other than bears.	5/11/2017 5:57 PM
36	I am on the look out for bears. I go Coombs Hollow/Doby to Calais. About the middle it's too far to get away either way if I saw one.	5/11/2017 9:36 AM
37	no	5/10/2017 4:34 PM
38	None	5/9/2017 9:01 AM
39	No	5/8/2017 11:55 PM
40	perhaps strategically placed call boxes would be helpful in the event of bear sightings or other emergencies	5/8/2017 9:14 PM
41	Bears	5/8/2017 8:58 PM
42	No	5/8/2017 8:03 AM
43	BEARS!! Maybe some emergency call boxes	5/7/2017 11:48 AM
44	no	5/6/2017 11:42 AM
45	Never see a police officer - do they patrol the trails occasionally?	5/6/2017 9:55 AM
46	I live along trail from Pleasant Hill to Righter Road. There seems to be more motorcycle activity and even some vehicles. I would like more police monitoring.	5/5/2017 4:58 PM
47	Wish we can safely walk to the trails without needing to drive, use sidewalks instead.	5/5/2017 1:56 PM
48	The trail on Dolby Rd does not feel safe to me. I have seen often rowdy people park there car and turn on the loud music.	5/5/2017 1:38 PM
49	I used the trails when first completed, but they are too desolate and was almost hit several times by bicyclists flying up over hills. Most of the places where you must cross a road are by the crest of a hill making it difficult for cars to see walkers or to stop. Would rather drive to Horseshoe Lake paths in Succasunna. They are safer.	5/5/2017 1:17 PM
50	No.	5/5/2017 12:31 PM
51	I hear coyotes close to the trail in the Coleman's Hollow area.	5/5/2017 12:30 PM
52	No	5/5/2017 12:09 PM
53	No.	5/5/2017 11:54 AM
54	concern about walking alone; concern about bears	5/5/2017 11:35 AM
55	Only that I might come across a bear on the trail, which has happened.	5/4/2017 9:44 PM
56	Wild rabid animals although very rare are a concern.	5/4/2017 1:21 PM
57	too many rocks	5/4/2017 11:58 AM
58	cross walks are a joke	5/4/2017 7:40 AM
59	MORE BIKE LANES ON ROADWAYS, I.E., ON PARK AVENUE.	5/3/2017 10:45 AM
60	Bears	5/2/2017 8:43 AM
61	No lighting Paving is buckling in areas - difficult to run. More dog clean up supplies &. Garbage cans needed	5/1/2017 10:25 PM
62	Roots that cross some of the trails are difficult to navigate in the fall when leaf covered.	5/1/2017 8:16 PM
63	We live on Farview Ave, and love the idea of going to the park with our kids, but often decide not to because of the danger of crossing Carrell at the Farview crosswalk. Cars come flying over the hill coming from the direction of Millbrook. They have limited visibility of the crosswalk, and walkers have limited visibility of the cars coming from that direction. It's a shame to have a park so close, but feel uncomfortable walking our children to it because of that dangerous crosswalk.	5/1/2017 1:01 PM
64	No.	5/1/2017 10:56 AM
65	NO	5/1/2017 8:56 AM
66	It would be nice to have a loop trail that could be plowed in the winter.	4/28/2017 1:33 PM
67	yes	4/28/2017 12:25 AM

68	No. I feel safe.	4/27/2017 9:23 PM
69	I never use the trails. Concerned about ticks and about security. Anyone could be in there.	4/27/2017 3:12 PM
70	No, we always feel safe.	4/27/2017 8:19 AM
71	Bears	4/26/2017 10:54 PM
72	I've never had an issue on the Randolph trails, and I've been using them regularly for about 10 years. However, I've heard many other residents (usually parents) voice concerns, sometimes about crossing paths with wild animals. I think a little education would probably help. Personally, I feel a lot safer on the trails than I do running/biking/walking on the roads, and I've had more close encounters with wildlife in my backyard than on our trails.	4/26/2017 9:51 PM
73	Yes. Very isolated.	4/25/2017 9:41 AM
74	no	4/24/2017 12:59 PM
75	Nothing unusual.	4/24/2017 11:06 AM
76	I'm a woman so I'm always cautious.	4/24/2017 9:32 AM
77	no	4/23/2017 9:35 PM
78	A minor concern regarding bears, which doesn't prevent us from using the trails.	4/23/2017 9:38 AM
79	no	4/23/2017 9:33 AM
80	Animals (Bears!). Safety of kids riding bikes. Surfaces are not the greatest. Is there any patrolling of trails? Police/emergency service if needed	4/23/2017 9:03 AM
81	Yes. No one I know wants more bike trails in the middle of the woods with bears and strangers/no public sight. We really want to connect our neighborhoods in broad daylight so kids can bike around, safely. Please consider adding safe bike trails along the major corridors, like Park ave. And Sussex. Really important roads that will make a bigger impact to more people than paving bike paths in the woods.	4/23/2017 8:53 AM
82	none.	4/22/2017 7:26 AM
83	No I find the trails very safe and run there alone often (I am female).	4/22/2017 7:14 AM
84	No, but I carry my cell phone.	4/21/2017 11:10 PM
85	Bears	4/21/2017 9:45 PM
86	Hunting season is a bit frightening. Afraid of an inexperienced/bad weapon operator.	4/21/2017 4:10 PM
87	No	4/21/2017 3:35 PM
88	Trails seem excellent, but the fear of ticks keeps us out of the wooded areas. Is there any way for protection from ticks such as spraying?	4/21/2017 3:02 PM
89	no	4/21/2017 2:44 PM
90	No	4/21/2017 2:21 PM
91	Far too many hikers bring dogs with them and allow the dogs to go off leash. This creates a hazard for cyclists, other hikers and the dogs themselves. Leash laws need to be enforced!	4/21/2017 1:23 PM
92	So-so, I have heard stories about bear sightings. I have yet to run into one, but I know a lot of people have seen them	4/21/2017 12:40 PM
93	bears or other animals	4/21/2017 12:32 PM
94	Yes I am concerned they seem so secluded	4/21/2017 12:30 PM
95	No	4/21/2017 11:43 AM
96	Not really (only bears!)	4/21/2017 11:08 AM
97	no	4/21/2017 10:41 AM
98	No	4/21/2017 10:39 AM
99	No.	4/21/2017 10:31 AM
100	No, very safe and always have a good line of sight.	4/21/2017 10:26 AM
101	There has been a lot of broken glass on the trails. I walk my dogs and hate that we have to be so careful.	4/21/2017 10:26 AM
102	I would like to know if bears have been active on the trails, where and when.	4/21/2017 10:01 AM

103	Only concerned about running into a bear	4/21/2017 10:00 AM
104	no, only during hunting season	4/21/2017 9:57 AM
105	Definitely... I don't consider the trails safe with the animals that are in the woods. Also, the hunters during hunting season, including bow and arrow, don't make the trails safe to walk through.	4/21/2017 9:52 AM
106	Over the past 7 years or so, maintenance of the trails has not been at the same high level as in the past.	4/21/2017 9:38 AM
107	No other then bears	4/21/2017 8:28 AM
108	yes, but I don't think there is anything you can do about it - it simply feels uncomfortable to me to be alone on a trail in the woods.	4/21/2017 5:30 AM
109	Yes my kids like to hike and I'm always concerned - no way to identify where they are if something should happen	4/21/2017 12:15 AM
110	Not personally, but would not allow our daughters to use them without adults present.	4/20/2017 10:26 PM
111	Sometimes.....back behind the police station you feel you're alone	4/20/2017 10:24 PM
112	Safety given how desolate trails get	4/20/2017 9:55 PM
113	I wouldn't walk on the trails by myself. I usually have one of my daughters go with me. That is why I like the trails at Horseshoe Lake. I feel safer alone when the trails are out in the open.	4/20/2017 8:41 PM
114	No.. except for ticks	4/20/2017 6:35 PM
115	Worry about hunters; worry when I am alone very early in the day	4/20/2017 5:28 PM
116	No	4/20/2017 5:01 PM
117	I have seen a bear once near the trails, but fortunately I was able to turn around without incident; also many dog owners unleash dogs on the trails by me - also without incident so far.	4/20/2017 4:26 PM
118	Yes, as a woman walking alone I am afraid of 2 things: bears/wild animals and running into someone with bad intentions.	4/20/2017 4:12 PM
119	I don't think the trails are unsafe but I am always concerned for my safety alone in the woods.	4/20/2017 3:32 PM
120	no	4/20/2017 12:04 PM
121	no there are no concerns	4/20/2017 11:46 AM
122	No	4/20/2017 11:36 AM
123	No	4/20/2017 11:01 AM
124	rough surface	4/20/2017 10:48 AM
125	Needs more frequent trail markers for users to identify their location in case of emergency.	4/20/2017 10:45 AM
126	I have never felt unsafe on the trails but I do not use the trails alone. Bears are some what of a concern. Also I always carry a cell phone with me.	4/20/2017 10:39 AM
127	I hesitate to use the trails because of ticks and the trails are not smooth. I prefer a place like Loantaka in Morristown or the Bergen County trail because the trails have smoother surfaces and wider for bikers, strollers, and groups of people walking.	4/20/2017 10:12 AM
128	Yes, police,fire and first aid have limited access and with poor marking of the trails and no turnarounds for there vehicles, I feel that if anything were to happen they can't help	4/20/2017 9:51 AM
129	Bears, coyotes : Z	4/20/2017 9:46 AM
130	People do not follow the rule of dogs staying on leashes and this should be enforced and fines given..it is not safe	4/20/2017 9:43 AM
131	Yes, I feel there should be security boxes along trails so in case of emergencys police can be called	4/20/2017 9:14 AM
132	always when there is wooded areas that are dark	4/20/2017 6:58 AM
133	people need to pick up their dogs poop...propose \$10,000 fine if they don't	4/20/2017 2:22 AM
134	No, except for fear of bears.	4/19/2017 10:26 PM
135	Not at all.	4/19/2017 10:03 PM
136	Animals and debris	4/19/2017 9:43 PM
137	The loose rocks on the trail has caused a few twisted ankles.	4/19/2017 8:30 PM

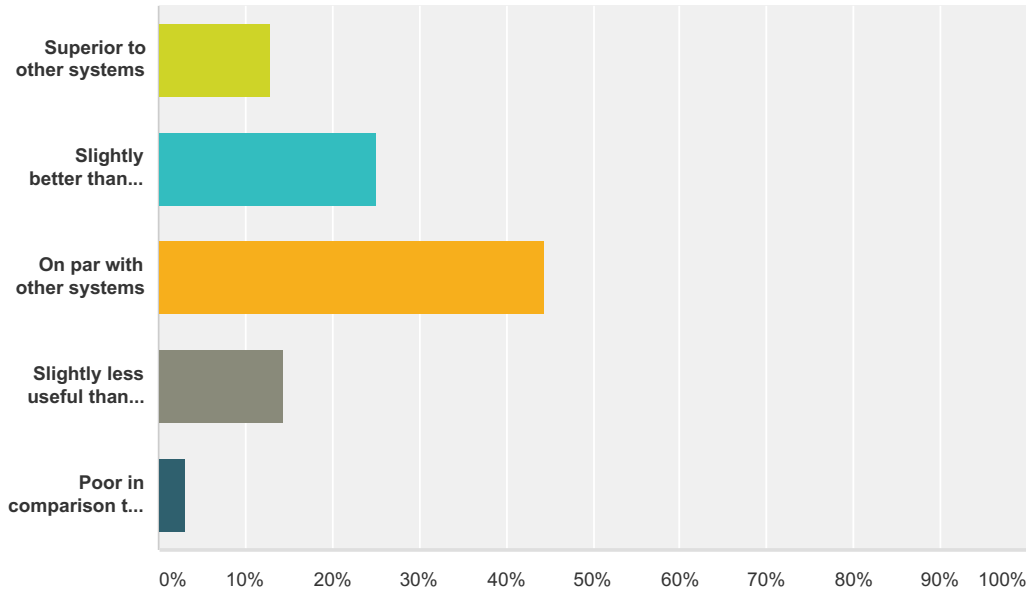
138	Steepness and trail surface are safety concerns. As well as sidewalk access to walk to trails.	4/19/2017 8:26 PM
139	I think having too many trail heads is worrisome. I like to know which trails meet up or have an idea of who I might run into in the middle of the woods based on what I see in the parking lot	4/19/2017 8:15 PM
140	Bears!	4/19/2017 5:11 PM
141	yes anytime walking in a dark wooded area always a risk	4/19/2017 5:04 PM
142	No	4/19/2017 4:37 PM
143	No	4/19/2017 3:32 PM
144	I do not go in the trails alone.	4/19/2017 3:24 PM
145	I do not use the more secluded trails alone.	4/19/2017 3:20 PM
146	Trails get slippery for biking in sections where they are paved. Please stop paving the trails.	4/19/2017 3:15 PM
147	only early morning and late night when I'd be concerned for my safety in any low traffic area if I were alone.	4/19/2017 3:11 PM
148	I keep an eye out for bears but not terribly worried.	4/19/2017 2:50 PM
149	Bears, foxes, wild animals Also of others possibly "lurking"	4/19/2017 2:29 PM
150	Sometimes. It seems foolish to walk alone (female)	4/19/2017 2:04 PM
151	I see bears often.	4/19/2017 1:44 PM
152	When I use the trails i rarely see other people.	4/19/2017 1:10 PM
153	No, not at all.	4/19/2017 1:05 PM
154	Lack of communication ability in emergencies	4/19/2017 12:53 PM
155	Yes, somewhat. I am by myself when walking, most of the time, so tend to walk in more open areas (Horseshoe Lake, for example). I live in Randolph though and love the trails. I plan to use them more. So pretty.	4/19/2017 12:39 PM
156	No I walk with my dogs	4/19/2017 12:30 PM
157	Hunting season is the only unsafe time Please ban hunting in perks.	4/19/2017 11:35 AM
158	It is probably unfounded, but as a woman I am leery of walking the trails alone in the early morning or evening.	4/19/2017 11:31 AM
159	No.	4/19/2017 11:31 AM
160	yes, but no different than any other trail in the woods. Need to be aware of surroundings, wildlife, etc.	4/19/2017 11:23 AM
161	would like to be better able to explain location on a trail should their be an emergency. signage, trail names, distance markers, GPS system...something to make location more accurate.	4/19/2017 11:18 AM
162	Possibly put in solar LED lights on the trails.	4/19/2017 10:58 AM
163	no, other than feeling that trail users will come into my yard.	4/19/2017 10:53 AM
164	No concerns	4/19/2017 10:52 AM
165	No.	4/16/2017 10:11 PM
166	no	4/13/2017 3:49 PM
167	Some people have BIG dogs off leash and its scary.	4/11/2017 6:09 PM
168	No. I am never concerned about safety	4/11/2017 1:38 PM
169	Sometimes. When alone can be scary so now only use during busier days/times	4/10/2017 3:30 PM
170	A little nervous when deep in woods.	4/9/2017 7:38 PM
171	In some areas, yes. The trails can be secluded in some areas. In addition, washed out areas and encroaching overgrowth makes me worried about catching my foot and falling.	4/9/2017 6:53 PM
172	I was a frequent trail user, as a walker, but am now so concerned about running into a bear that I no longer use them. Also, I feel too out of touch in any type of emergency.	4/8/2017 7:55 AM
173	No	4/7/2017 8:12 PM
174	Not really, but I usually go with my husband or dog. I would hesitate to go completely alone.	4/7/2017 5:25 PM

175	It would be helpful if there were more trail maps along the way so you could identify your location.	4/7/2017 1:45 PM
176	No	4/7/2017 1:37 PM
177	The presence of bears	4/7/2017 1:09 PM
178	Bears	4/3/2017 7:24 PM
179	Yes, they are confusing, end up on major roads with no looping, and are not clearly marked.	4/2/2017 12:05 AM
180	I'm concerned for my safety when walking on Sussex Turnpike near Brundage Sussex. I'd like to see a trail inside the street barrier connecting Brundage to Brundage Sussex near the bridge.	3/31/2017 6:54 PM
181	Yes. I always have my cellphone 'on' & cognizant of what's around me.	3/31/2017 10:36 AM
182	No. I feel safe on the trails.	3/29/2017 11:23 AM
183	no	3/29/2017 10:18 AM
184	sidewalk on Carrel Road in order to get to the trails.	3/27/2017 6:14 PM
185	No concerns about safety just as long as you don't go alone.	3/27/2017 4:27 PM
186	At times yes Perhaps installation of cameras may be a good idea	3/25/2017 10:12 PM
187	Yes, bears.	3/25/2017 2:46 PM
188	We could really use some sidewalks along carrol Rd. at Brundage park as well as a flashing lights at the crosswalk as it is located in a very big blind spot for oncoming traffic.	3/25/2017 10:19 AM
189	Yes there needs to be a sidewalk on Carroll	3/25/2017 9:00 AM
190	The crosswalk on Farview Avenue and Carrell Road has very low visibility to cars coming up the hill (from the direction of the pond). My children and I have almost been struck on more than one occasion buy cars that just simply didn't see us. Several other residents have expressed the same concern. I think a flashing crosswalk would aid in this problem. Sidewalks on Carrell Road would also make it much safer!	3/25/2017 8:47 AM
191	I feel like I take my entire family's life into my hands every time we cross from Farview Ave to Brundage park because people come blazing over the crest of Carrell.	3/25/2017 8:41 AM
192	Yes only with bears	3/25/2017 7:38 AM
193	Hard to walk to the park without sidewalks	3/24/2017 10:56 PM
194	no	3/24/2017 10:47 PM
195	Yes on Carrell Road. We need sidewalks to connect trails. It's very dangerous not having the sidewalks on the road especially with the Brundage Park location.	3/24/2017 10:21 PM
196	I love to walk but it can be a little scary being out there alone.	3/24/2017 10:18 PM
197	No	3/24/2017 9:20 PM
198	I do have concerns aout bears. Maybe there shoukd be bill horns at certain points to ward off bears if you happen to come across one.	3/24/2017 5:38 PM
199	Concerned about safety getting to the parks - most are next to major roads with no walkways.	3/24/2017 5:36 PM
200	Front of Brundage Park is a disaster ... sidewalks are needed big time. People are almost getting run over especially as there is a hill coming down Farview that doesn't let cars see pedestrians. THIS IS A MAJOR ISSUE	3/24/2017 4:53 PM
201	Yes; when no sidewalks connecting trails like on Carrell Road	3/24/2017 4:53 PM
202	Always see dogs off leash	3/24/2017 4:13 PM
203	yes-hard to easily identify location if help is needed especially if responder is not familiar with trails	3/24/2017 3:49 PM
204	No	3/24/2017 3:14 PM
205	yes	3/24/2017 2:42 PM
206	Not really	3/24/2017 2:23 PM
207	No, Feel very safe on the trails during the day.	3/24/2017 1:24 PM
208	Yes, I think the trails should have cameras.	3/24/2017 1:00 PM
209	Lights.	3/24/2017 12:56 PM

210	Sometimes the footing is a little rough - lot of water, branches, etc.	3/24/2017 12:32 PM
211	Yes, where the bike trail is incorporated into Calais road, it is very dangerous. Cars travel too quickly on Calais.	3/24/2017 12:30 PM
212	Getting to then from home because of no sidewalk	3/24/2017 12:22 PM
213	Hunters. Bears.	3/24/2017 12:19 PM
214	having line of site	3/22/2017 7:51 AM
215	Bear	3/20/2017 11:10 AM
216	there are lots of bumps on the pavement,and the rock trails should be paved.	3/19/2017 11:40 AM
217	Yes	3/19/2017 9:02 AM
218	No	3/10/2017 2:53 PM
219	Occasionally	3/10/2017 2:52 PM
220	Yes	3/10/2017 2:52 PM
221	No	3/10/2017 2:51 PM
222	No	3/10/2017 2:50 PM
223	Occasionally	3/10/2017 2:49 PM
224	No	3/10/2017 2:48 PM
225	No	3/10/2017 2:47 PM
226	Yes -- bears	3/10/2017 2:47 PM
227	No	3/10/2017 2:46 PM
228	Occasionally	3/10/2017 2:45 PM
229	Yes	3/10/2017 2:44 PM
230	Occasionally	3/10/2017 2:43 PM
231	No	3/10/2017 2:42 PM
232	No	3/10/2017 2:40 PM
233	Occasionally -- animals	3/10/2017 2:39 PM
234	Occasionally	3/10/2017 2:37 PM
235	No.	3/10/2017 2:34 PM
236	Occasionally	3/10/2017 2:29 PM

Q8 If you have used other trail systems, how does the Randolph Trails system compare?

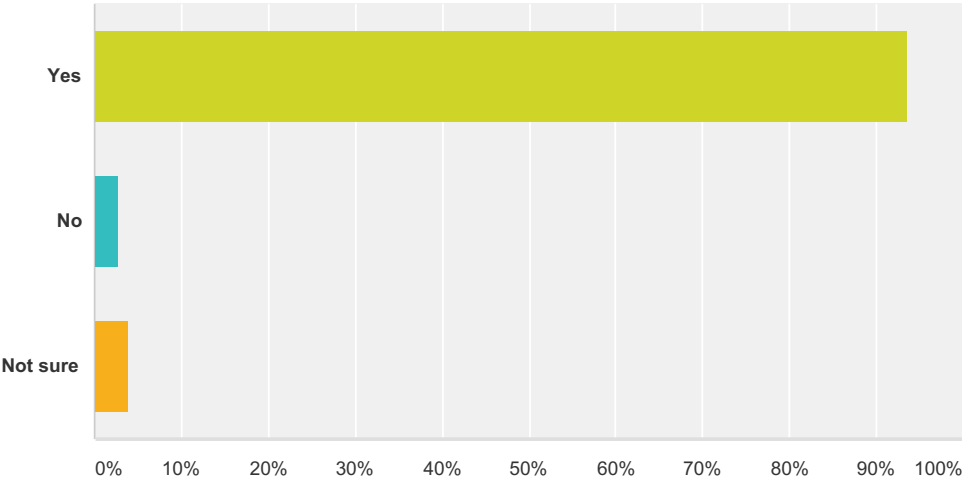
Answered: 326 Skipped: 99



Answer Choices	Responses	
Superior to other systems	12.88%	42
Slightly better than other systems	25.15%	82
On par with other systems	44.48%	145
Slightly less useful than other systems	14.42%	47
Poor in comparison to other systems	3.07%	10
Total		326

Q9 Do you believe the Randolph Trails system is a valuable asset for the community?

Answered: 413 Skipped: 12



Answer Choices	Responses	
Yes	93.46%	386
No	2.66%	11
Not sure	3.87%	16
Total		413

Q10 Is there anything else you'd like to tell us about the Randolph Trails system?

Answered: 178 Skipped: 247

#	Responses	Date
1	keep up the good work. if I could hike, I'd love them	5/31/2017 3:06 PM
2	repair and update before extending trail system	5/31/2017 3:01 PM
3	need to resurface parking area at Heisters Pond asap	5/31/2017 2:58 PM
4	monitor dead trees along the trails	5/31/2017 2:51 PM
5	Have never used nor planned to use trails	5/31/2017 2:47 PM
6	I'm glad Randolph has them	5/31/2017 2:47 PM
7	I think it's great for those who use them	5/31/2017 2:45 PM
8	improve parking lot	5/31/2017 2:39 PM
9	Don't loose this terrific asset	5/15/2017 10:03 PM
10	I use trail for multiple purposes - walking, running, and biking - its a significant addition to the quality of life in Randolph!	5/15/2017 6:48 AM
11	Should be patrolled by police on bikes	5/13/2017 7:52 PM
12	Please maintain what we already have. Heistein Pond was once a beautiful facility. You have not kept it up. The pond is discusting and the parking lot is all pot holes. Maintain the existing before constructing new trails and parks.	5/13/2017 10:14 AM
13	Dog clean up remains a problem despite the availability of poop bags and garbage cans.	5/13/2017 10:01 AM
14	great to have doggie bags, maps, and garbage cans (encourages no littering) available at trailhead	5/13/2017 8:47 AM
15	Would it be possible to use smaller stone on the trails that are not paved? The current size of the stone used on the trails are too big and are very difficult to hike and run on. Makes ankles twist! Ouch! Thanks!	5/13/2017 6:42 AM
16	Thank you. Walking on the trail in the woods is wonderful. It helps to make up for the fact that there is no town center	5/12/2017 3:30 PM
17	Morris County & Randolph Township do a great job protecting wooded areas while still allowing the public access to enjoy them. I am all for more miles and interconnecting the trails. I love the fact that is easy to find a paved path, mountain bike specific trail or hiking trail anywhere around town. I know it might be difficult but a dog friendly area where dogs are allowed off leash would be awesome.	5/12/2017 2:47 PM
18	Perhaps doing community activities in the trails so that people know more about them.	5/12/2017 1:32 PM
19	The Randolph Trails system is one of the township's shining jewels. I typically walk between two and four miles on the trails at least twice a week, except when we've had significant rain and parts of the trail become impassable on foot. A comprehensive marking system would be a nice addition, if it can be made relatively vandal-proof. I'd also like to see a connection made through the Mt. Freedom area, from the trail near Den Brook up through the old Saltz Hotel property, to Millbrook, then crossing Millbrook (painted crosswalk) to Valley Road to Ryan Court, where the trail picks up across Church Road. Thanks for the opportunity to comment.	5/12/2017 11:42 AM
20	On trails that have a crushed stone surface, the size of the stones is too big. It needs to be a finer crush. I have twisted my ankle several times (and I am a very agile, active person), and going downhill on a bicycle can be dangerous if you hit a larger stone. I think they were originally supposed to be flattened with compacting equipment, but on most trails, that doesn't seem to have happened. Perhaps as part of yearly maintenance, surface compacting with a roller could be incorporated. Otherwise, love the trail system!	5/12/2017 10:39 AM
21	People with dogs are polluting the section of trail between Dolly Bridge and Coombs hollow. When I run there, there are a lot of dog walkers and piles, some are from the dog rescue shelters with multiple dogs (and volunteers,) who I suspect are leaving these dogpiles on and along trail.	5/11/2017 5:57 PM
22	If it had a bike lane, that would be excellent!	5/11/2017 9:36 AM
23	JORBA is a nonprofit volunteer Trail design and building organization that would love to help with more trails! http://jorba.org/	5/11/2017 9:19 AM

24	Over the past few years, several stretches of the trails I use have been paved. I prefer the trails unpaved.	5/8/2017 9:14 PM
25	Would like more paved areas for biking with family	5/8/2017 8:58 PM
26	The trail system is excellent, however the lack of sidewalks along many streets means it is hard to connect to businesses and other services	5/8/2017 12:01 PM
27	One of the gems of Randolph.	5/8/2017 8:03 AM
28	We walk the trail at the end of Doby Rd & turn right where it intersects with end of Morris Tpke. The surface becomes more and more difficult to walk on. The initial coating is gone leaving uneven rocks and also flooding after rains. Also, for about the last 10 years, we have been trimming back the weeds and when we stopped last year, there were sections of that trail almost impassable with week overgrowth. I think it would be a major improvement if something could be done with the surfacing of this trail. I've lived in Randolph for almost 40 years, and the trails have been the BEST enticement for us to remain living in Randolph!	5/7/2017 11:48 AM
29	Better markings at street crossings and more enforcement. Permanent maps posted at all trail heads and street signs at street crossings. More enforcement of the leash law and other dog related ordinances.	5/5/2017 7:50 PM
30	My daily hike on the Randolph trails is the highlight of my day.	5/5/2017 12:30 PM
31	Please do not spend tax dollars on more trails	5/5/2017 11:57 AM
32	I am very proud of our Trail system. Might there be a way to map pot points of interest, and to provide some history re: it's origins & those who worked to create it, e.g. Eagle Scouts, scout troops	5/5/2017 11:35 AM
33	Would love to see more trails like the Morris County Greenway. Also, I like the finely crushed rock or asphalt surface.	5/4/2017 1:21 PM
34	pave the trails	5/4/2017 11:58 AM
35	Mountain Biking is now an official High School sport in which we will soon develop in our own team here at Randolph. http://www.nationalmtb.org/ To add more singletrack which is great for mountain biking and hiking will be a great asset knowing that the trail system is accessible from the High School!	5/4/2017 9:45 AM
36	REMOVE ALL THE NO TRESPASSING SIGNS PLEASE....THEY ARE AN EYESORE!!!!	5/3/2017 9:23 PM
37	Create bike lane on Park Avenue!!!	5/3/2017 10:45 AM
38	I am a trail runner from Rockaway Township and log about 20-30 miles per week. I've given up trying to run on the Randolph Trails due to the condition of the trails: pounding on the 3/4" gravel that covers the majority of the trails is very uncomfortable. I also strongly recommend switching to a color-blaze system (https://en.wikipedia.org/wiki/Trail_blazing#Systems) which is easier to navigate when you're going thru the trails at a higher speed (e.g., running or biking). The trails in the Tourne in Boonton, and in Lewis Morris and Jockey Hollow in Morris/M'twn are good examples of the use of color blazes. If Randolph were to improve the marking and surface conditions on the trails, I would be more likely to run there regularly and also more likely to recommend the trails to other runners. Thank you for the opportunity to comment.	5/1/2017 10:56 AM
39	More paved trails	5/1/2017 10:26 AM
40	Love them just the way they are, but if you want to improve them, great. Love how quickly fallen trees are removed from paths. How do you stay on it so quickly? Trails are a HUGE asset to our town!	5/1/2017 9:41 AM
41	The connections to neighborhoods is really important for walkers and bikers. It's not as convenient or fun to DRIVE to walk/bike ride.	4/30/2017 6:55 PM
42	would like to see more natural single track paths for both hiking and mountain biking. There is too much pavement in the woods.should be able to drain without having to lay down pavement. paths are to wide.	4/28/2017 8:30 PM
43	I use the Loantonka Trails in Chatham. They are wide and cleared back from the path.	4/28/2017 1:33 PM
44	I would like to walk from my home in the Shongum area to Freedom Park, in my opinion the trail should be a short cut, 1/2 mile walk not a 5 mile journey, no loops	4/28/2017 1:05 PM
45	would like paved trail for biking	4/28/2017 12:25 AM
46	Great trail system. Adds value to the community	4/27/2017 9:23 PM
47	I'd rather see the funds used for the library or to create a community garden where individuals could grow vegetables and/or flowers and compost	4/27/2017 3:12 PM
48	I love the Randolph trail system. It was an important consideration for my family moving into the town and we would be very happy for it to be expanded and/or improved!	4/27/2017 12:53 PM
49	Favorite part of the township is the trails. The more the better. I'd request a track, or short trail with lights for nighttime exercise.	4/26/2017 10:54 PM

50	A suggestion: perhaps the Township could organize some group trail walks for seniors, for families, for fitness walkers, etc. as a way to bring people together and also get them comfortable on our fabulous trails. Could also be a good project for the Boy Scouts/Girls Scouts, Key Club, and other service-oriented youth groups.	4/26/2017 9:51 PM
51	A self-guided nature trail with plant IDs would be good. Perhaps this could be done in cooperation with an Eagle Scout or the Morris County Master Gardener group.k	4/26/2017 7:34 AM
52	Great work so far.	4/25/2017 9:41 AM
53	I love the trails. Great for dog walking.	4/25/2017 9:35 AM
54	I would be interested in helping with trail maintenance. Perhaps there are other likeminded residents or users. It would be interested if the town could provide some way to coordinate potential volunteers to assist with basic maintenance.	4/25/2017 5:55 AM
55	We have enjoyed the trails very much.	4/24/2017 12:59 PM
56	Please do not pave anymore of the trail system unless it is for safety purposes. Gravel (where necessary) and packed dirt offer the most opportunity for mixed use.	4/24/2017 8:07 AM
57	I think the Randolph trails are great. We use them for hiking, biking and cross-country skiing. As part of the master plan, I'd like to see the following: 1) Better surfaces for biking, meaning either paved or just packed dirt surfaces. Gravel is too tough to ride on and causes flats. Cyclists can't connect to many of the trails b/c of the gravel surface. I think there would be a significant pickup in family bicycling if folks could more easily ride on the trails. 2) Connections with neighboring trails, like Patriot's Path. Again, for cyclists, to be able to ride a good distance via trail connections would be great. Thanks!	4/24/2017 1:10 AM
58	Before the restricted access to the trail to Clyd Potts reservoir, I enjoyed hiking the loop via the woods road and trail down to it and back on the power line. I'd like to see that made available again for hiking.	4/23/2017 8:26 PM
59	Would like to see park bathrooms open all year round. I think the Randolph trail system and our parks are one of the most compelling reasons to live in Randolph.	4/23/2017 9:38 AM
60	My wife and I hike, bike and run on a just about a daily basis on the trails. The best aspect to us are the unpaved portions of the trails. I understand the need for some paved portions for younger families and elderly but I believe that those portions should be kept closer to Brundage, Freedom or Hiesteins park. The uniqueness of the trails to me is the unimproved portions. The other area that I believe would enhance the trail system is offshoots of singletrack trails for trail running, hiking or biking that could take the person on a more secluded hike/bike/run. There are some portions behind Cohn Farm and in and around Freedom Park that have some interesting rock formations. Nature trails that shoot off from the main trails winding through some of these vistas that wind back to the main trail or to another portion of the trail in my mind make the system even more unique. Examples of what I am trying to describe is what Mine Hill has done in the Dickerson Mine property. I believe they have been helped in building these trails with the help of JORBA (Jersey Off Road Biking Assoc). I am on those trails as well and find a respectful mix of Bikers, Hikers, and Trailrunners which I believe would serve well in Randolph in promoting the trail system to those interested in serving these growing outdoor activities. There is one portion of a trail that I am describing that is in the James Andrew Park it runs about a mile leaving the top of Freedom Park running parallel with Radtke road and linking back up with the trails on top of the entrance located at Radtke/Beaver Dam. I have gone up and have maintained the trail myself over the last several years, clearing fallen trees with my chainsaw. If you would like me to show you the example feel free to contact me at 973-632-0189. ... Thanks Chris Jones	4/23/2017 9:33 AM
61	I am happy to talk live. Cheryl Thomas, tctomas@mac.com. Sent in a 50 person petition to support trails on and around Park Ave. Over a ago, but never heard back...there is support to do this. 201.400.3756.	4/23/2017 8:53 AM
62	Would like to see more trails and better trail pruning especially near Bill's luncheon. Keep up the good work!	4/22/2017 4:59 PM
63	have some sign not to litter on the trail system. people don't clean after their pet.	4/22/2017 7:26 AM
64	One of the main draws for us moving to the town was the trail system. All of us in the family enjoy the trails either for running, biking or walking. Would love to see more trails!	4/22/2017 7:14 AM
65	Paved trails are good. For the sake of cost, it's fine to use stone gravel but very small stones instead of the large stones which are hard on the foot and bikes.	4/21/2017 11:10 PM
66	Enforce dogs on leashes.	4/21/2017 4:10 PM
67	We would use the trails more if there could be some protection from ticks.	4/21/2017 3:02 PM
68	A great asset, appreciate having it!	4/21/2017 2:21 PM
69	It seems to be common for high school students to walk from RHS to Freedom Park after school. It would be great if there was a trail for them to walk on.	4/21/2017 2:15 PM
70	It wouldn't hurt to trim back the poison ivy later this summer once it starts growing into the trail.	4/21/2017 1:23 PM

71	More paved trails to accommodate seniors	4/21/2017 11:43 AM
72	I don't want my taxes to increase b/c of changes made to the trail system. The trails are great as is.. no need to spend any money to change them!	4/21/2017 11:13 AM
73	Very fortunate to have these trails right on our backdoor.	4/21/2017 11:08 AM
74	It would be helpful if a map of a given trail and the distances each covers could be posted at the start of each trail. For those who are not especially physically fit, the difficulty of the terrain (flat, mountainous, mountain-goat, etc.) might also be interested.	4/21/2017 10:41 AM
75	Thank you so much for all of you efforts!	4/21/2017 10:31 AM
76	Would love more garbage cans throughout the trails. I walk two large dogs and always pick up after them however I am stuck holding the bags until we get back to the end of the trail. More posts to bag and drop off would be ideal and will encourage more people to pick up after their pups.	4/21/2017 10:26 AM
77	Question 3 should allow multiple responses. I run and bike on the trail.	4/21/2017 10:01 AM
78	More paved surfaces would be wonderful to be able to ride something other than a mountain bike... roller skates, skate boards, kids on razor scooters	4/21/2017 10:00 AM
79	I'm glad we have it! Thank you.	4/21/2017 9:38 AM
80	none	4/21/2017 8:28 AM
81	My opinion of Randolph changed dramatically when the trail system went in, mostly because so many neighborhoods lack sidewalks and it was unsafe to really walk anywhere. Anything you can do to continue expanding, improving and linking Randolph through trails will be a boon to the community. Thanks for asking. Really, that's important! Good luck with this venture!	4/21/2017 5:30 AM
82	Berkeley Heights had a nice system of connecting cul de sacs with short trails, to create walking loopson quiet streets. Because they are close to houses, they felt safe for youths to use. By leveraging existing roads, plus short trails, the loops were very cost efficient.	4/20/2017 10:26 PM
83	No	4/20/2017 8:44 PM
84	I think it is great to have these trails. If I had someone to walk with on a daily basis, I would use the trails.	4/20/2017 8:41 PM
85	Any additional trails should be as natural as possible... no need to make them so wide ... better markings is desirable.	4/20/2017 6:35 PM
86	Love them and want more. Need mile markers to know how far I have gone so I know when to turn back half way. Would like more away from traffic including air traffic so its quiet. Hard to find real quiet.	4/20/2017 5:28 PM
87	More parking at more trail heads. Better signage with easy to read maps that have reference points and clearly marked landmarks. Concerned about horses due to, well, you know what.... I enjoy the natural surfaces and am opposed to more paved sections unless there is a safety concern. Create a hotline so users can report unsafe conditions (downed trees, washed out sections).	4/20/2017 5:03 PM
88	I would like more trails to be cleared in the winter of snow so they can be used year round.	4/20/2017 4:26 PM
89	Need more open, safer trails. Better marking/mapping. Better connectivity for longer walks.	4/20/2017 4:12 PM
90	It's the best!!	4/20/2017 2:55 PM
91	If you haven't already done so, would be good to assign "Trail Stewards" for all sections of the trail, like for example in 1 mile increments. Then post signage to the effect: "Thanks to JOE SMITH for being a trail steward for this section of the red trail". And as mentioned, would be good to have more signage and typical trail indicators with color coding and/or shapes for different segments/sections of the trail system.	4/20/2017 12:04 PM
92	forget about the trails and get in city water and city septs in town	4/20/2017 11:46 AM
93	I consider them a municipal asset that make Randolph an attractive town to live in	4/20/2017 11:36 AM
94	Just add more	4/20/2017 11:01 AM
95	A flatter bike trail would be awesome.	4/20/2017 10:48 AM
96	I would like to see more paved surfaces and raised walkways over wetland areas, plus more bathroom facilities.	4/20/2017 10:39 AM
97	If the trails were cleared bit more and had smoother surfaces I'd consider going. But for now, I prefer other trails. We have a huge tick issue in our community and those trailers are lined in trees and bushes with little room to move when there are bikers, strollers and bigger groups of walkers. If you go to the Bergen County trail system, they are a bit more open and cleaned up. It's a more pleasant walk.	4/20/2017 10:12 AM

98	pave more of the trails since walking on rocks and gravel cause trips and falls	4/20/2017 6:58 AM
99	Please keep some money in the budget to maintain and expand this trail system...thanks	4/20/2017 2:22 AM
100	I think Randolph should focus on sidewalks not trails. Can't walk on most roads. Absolute shame. In basket no ridge, you can walk on every road via sidewalk.	4/19/2017 10:26 PM
101	No	4/19/2017 9:43 PM
102	A paved trail for rollerblading	4/19/2017 9:12 PM
103	It would be nice if all neighborhoods could access trails without having to drives in a car. We live on Pamela drive and we are isolated from the system as well as walking anywhere in town. We have no sidewalks in Dover Chester road . We cannot walk to south road and diver Chester without putting our lives in danger. My children could not use the trails as they had no connections available. Please figure this out. I would be happy to discuss it with any planners	4/19/2017 9:11 PM
104	Love the peaceful Doby Trail!	4/19/2017 8:15 PM
105	Would like to see the town organize some trail runs or races to promote trail use.	4/19/2017 5:21 PM
106	I would love to see the trail system expanded. Walking in natural setting has been shown to have beneficial effects in mood and spirit, in addition to the effects of physical exercise. The more/easier access Randolph citizens have to trails in a natural setting, the healthier it is for our community on several levels.	4/19/2017 4:37 PM
107	Dogs should be kept on leashes.	4/19/2017 3:24 PM
108	Love the trails. Great value.	4/19/2017 3:20 PM
109	They are the reason my family moved to Randolph, and add so much to the community. I wish they were more accessible from my part of town (dover chester road area) but i understand that there are a lot of roads there, making it difficult. Adding mountain biking connector single-tack dirt trails such as the one between freedom park and ted's pond would be fantastic, and i know many people and kids who would love to see more of them.	4/19/2017 3:15 PM
110	I can't get to a trail without driving to one, if one connected to CCM I'd use them more!	4/19/2017 3:11 PM
111	It needs to have a definitive trail marking system so that the emergency services can respond quickly to a medical emergency !	4/19/2017 3:01 PM
112	Thank you for such a valuable community-building asset. Very important.	4/19/2017 2:04 PM
113	I wish there were more garbage cans and a supply of bags for ani and waste. Also, where do you get maps of the trials? Every post for maps is empty. Is there a map that shows how Randolph trails connect to other towns' trails? I would love to get these answers: cecalaa@gmail.com	4/19/2017 1:44 PM
114	Seems underutilized, so I would not be in support of adding more trails.	4/19/2017 1:10 PM
115	I have met many people, young and old, that have mentioned it would be nice to have Porta potty's at some of the trailheads. Also garbage cans to put water bottles or bags of their dog waste that they collect while walking the dog	4/19/2017 1:05 PM
116	I would use them more if there was better parking. There are areas to leave your car but I am not sure if I will get a ticket.	4/19/2017 12:53 PM
117	I don't like that there is hunting allowed in the area. The signs that say stick to the trail freak me out a bit. I have run into bow hunters on the trails. Don't think it's a safe mix.	4/19/2017 12:30 PM
118	If possible fine gravel path instead of big stones. The pats in horseshoe park at Roxbury is ideal for walking.	4/19/2017 11:35 AM
119	I would like to see a trail running parallel to W. Hanover Ave, that could be used by the religious community that must walk to services. I feel this would be much safer for both walkers and drivers. It would also allow the local teens in the Shongum area to ride their bikes more safely.	4/19/2017 11:31 AM
120	I run most days in the trail system and have quite a few loops i can do. I wish there was mountain bike trails. Most times I drive to Lewis Morris Park and use the trails there.	4/19/2017 11:31 AM
121	More paving or better rock/gravel maintenance would be nice. There is a lot of broken glass around Shongum that gets mixed in with the gravel and makes walking my dogs on the trail hazardous. Paving would make it easier to get rid of the broken glass (i think school kids are being destructive on the trails after school).	4/19/2017 11:26 AM
122	more paved paths!	4/19/2017 11:23 AM
123	Should also have a good trail map App for folks to know exactly where they are on the trails. If there is one then the community should be notified.	4/19/2017 10:58 AM
124	My home backs up to a trail. I would like to see some border/privacy landscaping take place. Many times it feels as if those on trail are in my yard. They can be clearly heard and seen. I live off the Pleasant Hill Road trail.	4/19/2017 10:53 AM

125	The trails are better as unpaved, gravel surfaces.	4/19/2017 10:49 AM
126	More trash cans	4/17/2017 12:29 PM
127	A Trail that can be used year around.	4/16/2017 10:11 PM
128	looking forward to 90 acre park having additional trails	4/13/2017 3:49 PM
129	Keep it as natural as possible.	4/11/2017 1:38 PM
130	paved trail loop should be part of it -- would be more useful for kids learning to bike and for walkers if plowed in winter	4/9/2017 8:27 PM
131	Maintain what we have better before adding more miles.	4/9/2017 7:38 PM
132	We have enough trails but I'm disappointed in their maintenance. In fact, parks in general are now in poor condition. Spend less on land and more on maintaining what we have in better condition.	4/9/2017 6:53 PM
133	My preference would to to maintain and improve the existing trails before adding more trails. While some people make use of the trails, in my experience the existing trail system is under utilized.	4/8/2017 10:30 AM
134	I think more and better measure to improve security will attract more trail users.	4/8/2017 7:55 AM
135	Bring something to Arrowgate. We are highway locked. I would love to have something that connects to Jackson Brook / Hedden Park.	4/7/2017 8:12 PM
136	Some portions of the trails have gone from gravel to paved in the past few years. For mountain biking, this is often less fun.	4/7/2017 4:54 PM
137	It would be nice if there stations with interesting facts along the way.	4/7/2017 1:45 PM
138	Would be great if the trails led to stores, eateries, etc. It would make a very large town feel more connected.	4/7/2017 1:09 PM
139	I'd like to see trails north of Route 10.	4/7/2017 12:43 PM
140	We need to have more paved trails to bike on.	4/7/2017 12:16 PM
141	Promoting the trails system by organizing family-oriented activities would be great. Partnering with our middle and high schools to learn more about our natural environment (trees, ecosystems, etc). Please contact me at gerlando@termini.family .	4/3/2017 3:16 PM
142	sidewalks on Carrell Rd from Center Grove to Brundage	4/2/2017 7:36 PM
143	More, more, more. Keep up the good work.	3/31/2017 6:54 PM
144	ALL trails should be ADA accessible. The fact that we have parks in town, some fairly new or refurbished, sponsored by "civic organizations" that are NOT ADA accessible is a disgrace! "Randolph, where life is worth living" is a joke! Stop being so elitist! It's not welcoming nor does it speak well of this community.	3/31/2017 10:36 AM
145	Develop longer unpaved trail loops.	3/29/2017 11:23 AM
146	I don't know how to use the mile markings to know distances traveled.	3/27/2017 4:27 PM
147	Allowing the children to get from the trails to sidewalks in town would be fabulous!	3/26/2017 9:46 PM
148	They are good	3/26/2017 5:40 PM
149	Dog walkers should be more considerate especially picking up after the dog. It's disgusting to be walking or biking over dog droppings!	3/25/2017 10:12 PM
150	Sidewalks around Brundage park. And well makred crosswalks over from Longview and Farview.	3/25/2017 2:46 PM
151	I would like to see signs on the trails that are easy to understand because many of are not marked and the maps are a little bit confusing. When first moving to the community it was difficult to become familiar with with them. I feel like most Trail systems are better marked.	3/25/2017 8:47 AM
152	Thank you!	3/25/2017 7:38 AM
153	Stop using Roundup on the trails. Roundup is defined as 'probable carcinogen' as stated by the International Agency for Research on Cancer. They are natural environments with head waters to downstream rivers. Weeds along the edges are fine. If they become a problem, give some high school kids a summer job and an electric weedwacker to deal with the issue.	3/25/2017 6:49 AM
154	Sidewalks!	3/24/2017 10:56 PM
155	Good job. I appreciate the effort the town is putting into this.	3/24/2017 10:47 PM
156	PLEASE INCREASE SIDEWALKS!	3/24/2017 10:21 PM

157	The trail system and picturesque trees are a huge asset to Randolph. It is why people move out here. I would like to see the least amount of trees taken down to do any improvements. If you connect the neighborhoods there would be less need for parking lots that would end up clearing out trees. Save the trees please! I was saddened about the huge trees that were taken down to widen the intersection at west hanover ave. The stumps are still there and I feel that those trees could have been kept.	3/24/2017 5:38 PM
158	Front of Brundage Park is a disaster ... sidewalks are needed big time. People are almost getting run over especially as there is a hill coming down Farview that doesn't let cars see pedestrians. THIS IS A MAJOR ISSUE	3/24/2017 4:53 PM
159	Looking forward to the expansion. It is a wonderful system. They don't all have to be paved or gravel. Loops that include more primitive trails through wilderness areas would be a welcome addition.	3/24/2017 4:33 PM
160	lighted areas emergency access/phone	3/24/2017 2:42 PM
161	Need to clear fallen down trees faster	3/24/2017 2:23 PM
162	Sidewalks !!!	3/24/2017 2:15 PM
163	It would be very helpful to have a sidewalk on Center Grove Rd and Carrel Rd, to be able to walk to Brundage Park and use the trails there. We do not do it because there is a lot of traffic and it's dangerous.	3/24/2017 2:11 PM
164	More sidewalks to the trails. -on everdale to the trails and carrell to brundage.	3/24/2017 2:04 PM
165	Provide better map/ app with distance of trail.	3/24/2017 1:33 PM
166	Carrell road needs sidewalks from Center Grove road to Brundage Park. I used to ride there from Birchwood as a kid, but would never let my kids ride on Carrell now especially at rush hour time. Even with the speed limit at 30 and police posted there, people drive way too fast. A sidewalk would link many neighborhoods and all the houses on Carrell to Brundage and the trail system.	3/24/2017 1:24 PM
167	Sidewalks would be WONDERFUL on Carrell Road from Center Grove to Brundage. Brundage is such a fabulous park but the road is too busy to walk on.	3/24/2017 1:17 PM
168	Please connect the trails better, especially the mountainside trail that currently leads to nowhere. Please try to hook that up to the everdale trailhead.	3/24/2017 1:00 PM
169	The trail system is a great asset of Randolph!	3/24/2017 12:30 PM
170	I've lived her since 1974, and we always walked to Brundage, its one of the best parts of my childhood. I wish I could allow my kids to walk there now that Carrell has turned into a highway! Or so it seems! Please consider a sidewalk	3/24/2017 12:22 PM
171	there should be more water fountains along the trails. pave all the rock trails connect the trails to Acme market,randolph library, make the trail continue when Melanie lane ends at longview ave going in to the woods the connecting to carrel rd then to the trail where it goes to the basketball hoops.	3/19/2017 11:40 AM
172	There should be more signs and bathrooms would be helpful	3/10/2017 2:51 PM
173	No	3/10/2017 2:50 PM
174	I enjoy them	3/10/2017 2:49 PM
175	We should have food festivals in the open field near the lake	3/10/2017 2:42 PM
176	More signs for navigation	3/10/2017 2:40 PM
177	Should connect to all elementary schools, all major parks in town and all major outpoints in Randolph if possible	3/10/2017 2:37 PM
178	Could use more signs.	3/10/2017 2:29 PM

8. Proposed Logo Designs



Randolph Trail System Trailhead



Open Year Round - Dawn To Dusk

Randolph Trail System



Trailhead



Open Year Round - Dawn To Dusk



Randolph Trail System Trailhead



Open Year Round - Dawn To Dusk

Randolph Trail System



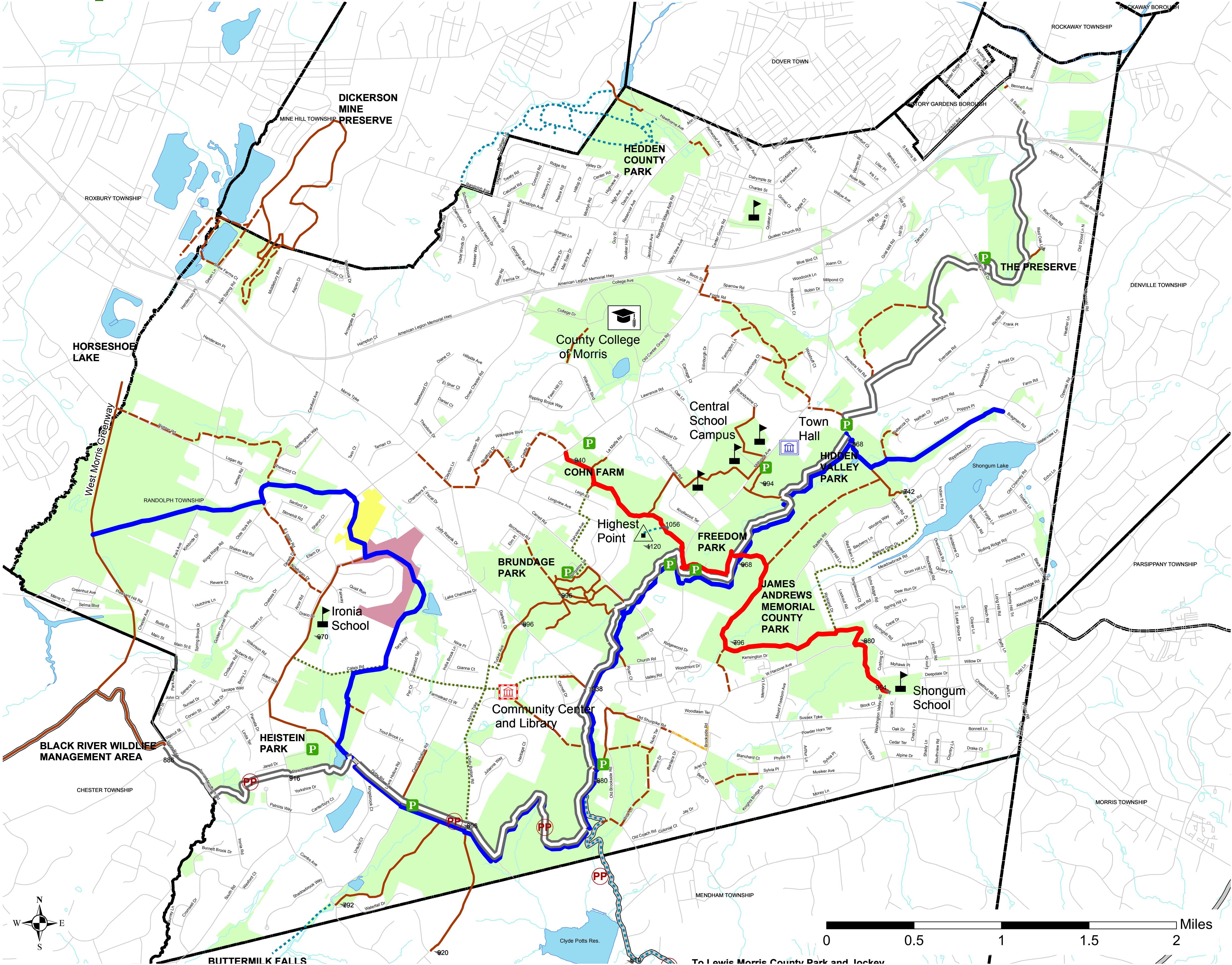
Trailhead



Open Year Round - Dawn To Dusk

9. Map – Red, White and Blue main trunk routes of trail system

Randolph Trails- Main Trail Routes



LEGEND

Trailhead with Parking

Elevation in feet

Patriots' Path white blaze

Main Trail Routes

Red Trail

White Trail

Blue Trail

Trail Types

Recommended future trail

Public road bicycle routes

Trail: Bicycle and foot traffic only

Trail: Foot traffic only

Trail under construction

Proposed Dedication

Pending Acquisition

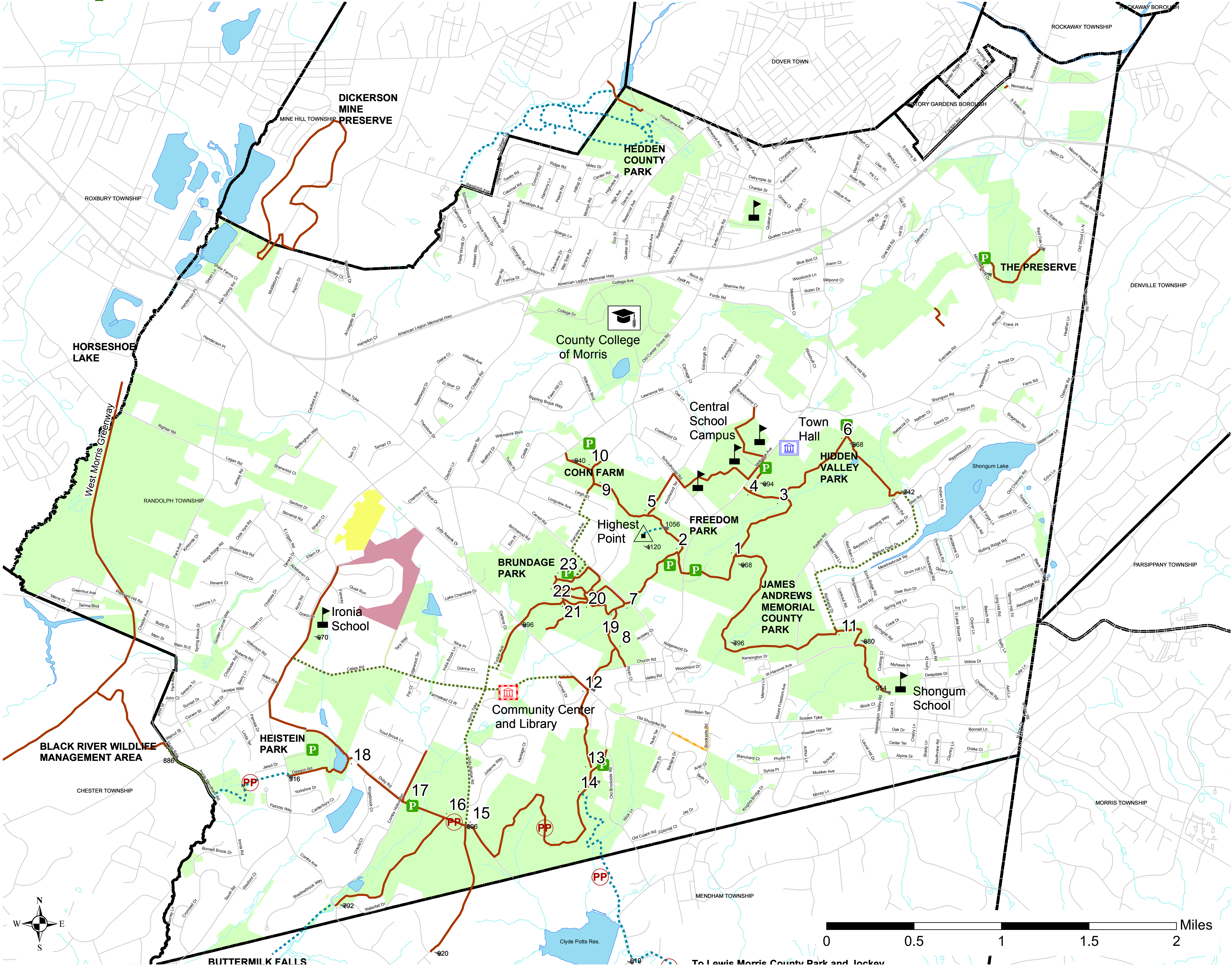
Trail Easement

Lake, pond

Sources: Morris County Division of Geographic Information Systems
NJ Office of Information Technology
Township of Randolph, Division of Planning/Zoning Administration/GIS

10. Map – Trail Intersections

Randolph Trails- Intersections



LEGEND

Trailhead with Parking

Elevation in feetPatriots' Path white blaze

Sources: Morris County Division of Geographic Information Systems
NJ Office of Information Technology
Township of Randolph, Division of Planning/Zoning Administration/GIS