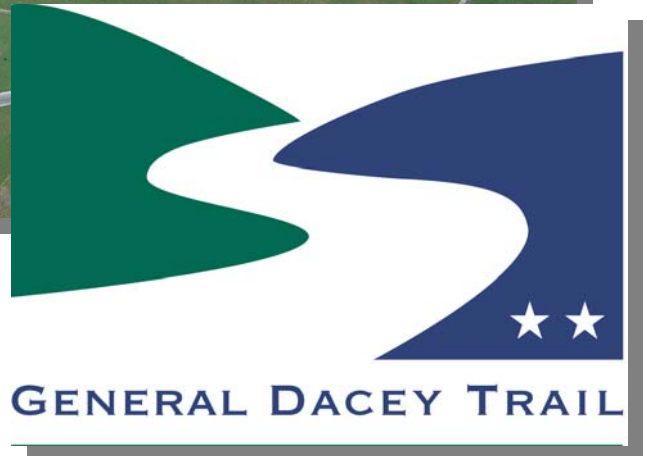




Lake Shelbyville, IL



General Dacey Trail Plan

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GENERAL DACEY TRAIL COMMITTEE

The following are members of the General Dacey Trail Committee and others who have contributed to the preparation of the General Dacey Trail Master Plan.

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Executive Summary



This document represents the *General Dacey Trail Master Plan*. The objective of the plan is to provide a conceptual framework guiding future trail development. More than a simple trail project, upon completion the General Dacey Trail will provide almost one hundred and seventy (170) miles of recreational opportunities for bikers, hikers, skaters, and cross-country skiers. Providing an off-road link to Lake Shelbyville and the other nearby communities, the trail network promises to increase tourism and to spur trail-use related economic development.



While referred to as a “trail plan” it is intended to provide a “blueprint” for the future development of a greenways network around Lake Shelbyville connecting population centers, recreation areas and wildlife areas. The trail network is designed to be part of a regional and statewide trail network by affording opportunities to connect with other trails, such as the Lincoln-Pana Trail and area communities including Mattoon and Decatur. The greenways will establish and/or preserve natural corridors. They will be capable of supporting hiking/biking trails as well as preserving natural areas and providing a location for additional recreation opportunities.

After much consideration, officials in Shelby and Moultrie Counties, as well as the City of Shelbyville, decided to pursue the concept of developing a trail network around Lake Shelbyville. Lake Shelbyville covers 11,100 acres and provides 172 miles of forested shoreline. Built as a flood control project in the Kaskaskia River valley, the ability of the lake to provide additional recreational opportunities was always recognized. Plans for state and federal recreation areas were included in the project and have been developed over the years. However, despite much discussion plans for linking those recreation areas together and also providing links to area population centers have not been pursued...*until now*.



In 2000, a committee was formed through the efforts of local units of government and the U.S. Army Corps of Engineers. One of the first actions taken by the committee was to commit to writing conceptual plans for the greenways/trail network. This plan represents a culmination of the first effort of the committee and a stepping-stone for the next effort that is to move the plan from paper to constructed reality.

The committee decided to come up with a name for the trail that had meaning and would be unique to our area. Thus it seemed ideal to name the trail in honor of a man who not only was the supervising engineer of the Lake Shelbyville construction, but also a man who cares about the lake and continues to support the project he once helped build. The committee decided on the name “**GENERAL DACEY TRAIL**” honoring retired Brigadier General Robert Dacey, a two star general.

The main goal of the General Dacey Trail Plan is to provide environmental, aesthetic, and recreational enhancements to the region. This will be accomplished by creating a comprehensive trail and natural corridor plan that is based on the principles of continuity and minimal public economic impact while maximizing public accessibility, efficiency, and safety through roadway enhancements, trail improvements, and new signage. This goal is accomplished by building a cooperative coalition between developers, transportation officials, planners, environmentalists, park officials, municipalities, and civic leaders. The intent of this plan is to encourage and foster partnerships and intergovernmental cooperation between municipalities, developers and public and private interests.

The General Dacey Trail Committee has adopted the following set of guidelines for the implementation of the trail network.



1. **Easy to Implement:** Those segments that are easiest to implement should be constructed as quickly as possible. Examples are the “loop” segment in the City of Shelbyville and the rehabilitation of the Dam West snowmobile trail. Since these segments do not require the purchase of any additional right-of-way and will primarily utilize existing public lands, they represent segments that are relatively easy to construct and implement.
2. **Benefits Multiple Communities:** Those segments that benefit multiple communities or a large segment of the population should be a priority for implementation. Segments that use right-of-ways that are being acquired, such as along the regional sewer lines that are in the planning stages, would also be easier to build.
3. **Completes Existing Trails:** Any segment that completes an existing trail or provides a unique trail within a recreation area should be a priority item. Examples are the realignment of the Illini Trail and the extension of the Camp Campfield trail
4. **Connects Multiple Public Facilities:** If a trail segment is connecting multiple public facilities (other parks, nature preserves, etc.) that should elevate the consideration that segment receives.
5. **Reasonable Length:** The trail should be short enough to make it easy to fund but, in most cases, not so short as to provide no interest for the users.

When these criteria are used, successful greenway and trail development can occur. With persistence on the part of the sponsoring groups, together with the General Dacey Committee, obstacles to development can be overcome and the General Dacey Trail made a reality.



It is estimated that approximately 81,500 residents and visitors will frequent the trail facilities on an annual basis. This is based on establishing the recommended four scheduled events that would generate approximately 3,500 room nights lodging and contribute an estimated \$875,000 to the local economy. We further believe that as the trail facilities become better known, visitor participation and resultant economic impact will increase.

It needs to be recognized that it will take a considerable period of time to complete enough miles of trails to host an event. Therefore, while we acknowledge that the General Dacey Trail will have a significant impact upon the regional economy, until the entire trail network is completed and the events envisioned in this plan become a reality, the full economic benefit will not be realized.



Background Overview





After much consideration, officials in Shelby and Moultrie Counties, as well as the City of Shelbyville, decided to pursue the concept of developing a trail network around Lake Shelbyville. The original genesis for the network can be found in the planning that culminated in the establishment of Lake Shelbyville itself.

Planning for this \$56 million dollar U. S. Army Corps of Engineers project began years before construction actually started in May of 1963. Upon completion the “pool” (lake) covers 11,100 acres and created 172 miles of forested shoreline. Built as a flood control project in the Kaskaskia River valley, the ability of the lake to provide additional recreational opportunities was always recognized. Plans for state and federal recreation areas were included in the project and have been developed over the years.

The concept of including a greenways network capable of supporting hiking/biking trails to connect population centers, wildlife management areas and recreational facilities has often been discussed but never actively pursued. In 2000, a committee was formed through the efforts of local units of government and the U.S. Army Corps of Engineers.

One of the first actions taken by the committee was to commit to writing conceptual plans for the greenways/trail network. While still envisioned as a greenways and trail plan, the committee has decided to simply call it a trail plan although the ultimate goal continues to be a network of greenways the support trails and other recreational opportunities. This plan represents a culmination of the first effort of the committee and a stepping-stone for the next effort that is to move the plan from paper to constructed reality.



The committee decided to come up with a name for the trail that had meaning and would be unique to our area. As the plan developed, it was clear that the U.S. Corps on Engineers would play an important role in the success of the trail. Much of the trail would be developed on Corps property around the entire lake. Thus it seemed ideal to name the trail in honor of a man who not only was the supervising engineer of the Lake Shelbyville construction, but also a man who cares about the lake and continues to support the project he once helped build. The committee decided on the name **“GENERAL DACEY TRAIL”** honoring retired Brigadier General Robert Dacey, a two star general.

In addition to deciding on a name, the committee felt that it was important to adopt a logo that promoted the project. With outstanding assistance from Jill Miller of Shelbyville who designed it, a logo has been adopted. In addition to the name, the two stars represent the final rank of General Dacey. The two hills represent the Kaskaskia Valley that incorporates both counties with one hill being rendered in green representing the land and the other blue representing the lake. The winding space between the hills represents the trail network linking the land and lake. The committee will use this logo on all plans, improvements, and signs.



Greenways



The main goal of the General Dacey Trail Plan is to provide environmental, aesthetic, and recreational enhancements to the region. This will be accomplished by creating a comprehensive trail and natural corridor plan that is based on the principles of continuity and minimal public economic impact while maximizing public accessibility, efficiency, and safety through roadway enhancements, trail improvements, and new signage. This goal is accomplished by building a cooperative coalition between developers, transportation officials, planners, environmentalists, park officials, municipalities, and civic leaders. New regulations on development are formulated and recommended for all jurisdictions based upon a cooperative planning process that involves all interested and affected parties. Implementing a region-wide greenways plan will address some growth concerns by providing homeowners in the area with quality recreation as the area is developed. The intent of this plan is to encourage and foster partnerships and intergovernmental cooperation between municipalities, developers and public and private interests.



INTRODUCTION OF GREENWAYS

The planning process for the General Dacey Trail Plan was started more than two years ago. The growing realization that a united open space initiative among all governmental entities is needed. This has been the primary factor that spurred this planning effort.

Both Shelby and Moultrie Counties are fairly rural in nature with small cities and towns dotting the landscape. As with more urban areas, the population continues to move from populated areas to once rural agricultural lands. Also the area desires to attract



new residents and development. The establishment of a quality greenway network will address some of the concerns by:

- Providing better recreation and natural amenities for residents; and,
- Providing a cost-effective and coordinated approach to regional resource management and recreation planning.

The term “greenway” is often used to categorize many different projects that all relate to creating better open space in the region. Greenways are often synonymous with:

- Linear Park
- Parkways/Boulevards
- Trails
- Ribbons of open space
- Rivers, creeks, shorelines
- Floodplains
- Undeveloped corridors
- Abandoned railroad corridors
- Undeveloped utility easements and corridors

There are many words for a “greenway”, but the idea is quite simple. A greenway acts as the “green infrastructure” of the area. It serves environmental, recreational, and aesthetic purposes.

ENVIRONMENTAL IMPACT

Since greenways act as linear parks, or the linkages between parks, the greenway provides necessary links to natural systems to function properly. Greenways protect the urbanizing or developing areas from flooding



by providing a natural storm water retention corridor. Greenways conserve, protect, and enhance lands that provide habitat for wildlife, especially habitats for threatened and endangered species.

RECREATION AND ACCESS OPPORTUNITIES

Greenways can be used for recreation purposes. Hiking and biking trails not only provide relaxing recreational opportunities, but they can also be used for transportation purposes by providing bike and pedestrian access between homes, schools, employment centers, and shopping. Today's busy American lifestyles are changing the way in which people participate in outdoor recreation. Strangely while people increasingly understand that enjoying the outdoors and nature is part of a healthy lifestyle and can bring a sense of serenity to otherwise hectic days, it is difficult for most to find time to break away from daily routines. Local and convenient parks and recreation areas therefore have become more important in providing opportunities that people can more readily take advantage.

AESTHETIC

Greenways also provide an aesthetic improvement to the area by enhancing the community's image, increase spending on recreational activities, supporting tourism, and reducing landscape maintenance costs. Greenways have also been proven to increase property values of nearby homes.

PRINCIPLES OF GREENWAY DEVELOPMENT

There are three basic principles that should be considered when developing a comprehensive trail/greenways plan.



Continuity: Facilities should be continuous and interconnected. While this may seem obvious, many trails in urban settings often end abruptly and do not connect to others. The relationship between continuity and trail use is direct. It is crucial that the greenway is fully connected to make a meaningful environmental impact as well. Disjointed trail systems, no matter how aesthetic, cannot be as effective nor serve an effective purpose to the community.



Potential Use Destinations & Economic Impact: Natural greenways and multi-use trails should be located along corridors that assume maximum use by the intended use group. The trail system must lead and connect facilities that the intended user would frequent without the trail system such as

open spaces, parks, malls, schools, job centers, and civic attractions. Greenway systems promote a balanced environment, regionally attract individuals to use trail systems and support local business, and stabilize and improve housing values in proximity to the greenway.

Safety, Climate, & Related Perceptions: Natural greenways and multi-use trails should strive to create a system that meets both the utilitarian and recreational needs of diverse populations. Safety on the trail network should be given high priority. The route should avoid crossing busy intersections and steep grades. The system should be patrolled by law enforcement or volunteer courtesy patrols, preferably on bikes, and be well lit if intended to be used into the night time hours. Trails should avoid crossing directly through busy centers of activity like plazas, transit stops, and



heavily used recreational sites such as playgrounds. The system should be designed for year around use and, when allowable, make attempts to integrate snowmobilers, bicyclists, cross-country skiers, pedestrians, equestrians and other activities deemed important by the community.

IMPACTS OF GREENWAYS ON PROPERTY VALUES AND DEVELOPMENT

The popularity of greenway plans to enhance recreational amenities, lower landscape cost, provide natural flood protection, protect the environment and improve the aesthetic value of a community continues to grow. Various projects have been implemented across the country and some of the studies on these greenways and their findings are summarized below. Each case shows how the greenway project made a meaningful contribution to the community related to the principles discussed on the previous page.

Property Values: The effect on property values of land near a park or open space amenity has been the subject of several studies. It is sometime difficult to isolate open space from the other variables that affect a resident's property values; nevertheless many studies have revealed increases in property values where park property, trails, or reserved open space is adjacent to a homeowner's property. The following are three studies that support this theory.

Elm Boulder, Colorado, a City that has a large greenway situated near its central business district, found that housing values declined an average of \$4.20 for each foot of distance away from the greenway up to 3,200 feet. In the same study, it was proven that with all other variables equal, the property values of a home adjacent to the greenway system would be 32% higher than those 3,200 feet away. It should be noted that the greenway was an active piece of park property.



Two studies in Ohio showed that housing values in tile proximity of the Cox Arboretum in Dayton were 5% higher than the average selling price. In another study, it was estimated by the real estate industry that housing values in the Whetstone Park area of Columbus, proximity to the park accounted for 7.35% of selling prices.

A study found that the three most important factors for a greenway to have a positive effect on property values were those that are: (1) composed of open space rather than highly developed facilities; (2) have limited vehicular access, but some recreational access; and, (3) have effective maintenance and security within the system. These points were derived from a study that proved that highly used parks with a large amount of vehicular traffic can cause a nuisance and actually have a negative effect on property values immediately adjacent to the park property while still having a positive effect on property values nearby.

A greenway project in Shelby and Moultrie Counties should consider these statistical case studies. There must be a concerted effort to minimize conflicts between the park users and adjacent property owners. The greenways should be developed primarily as open space, with limited recreational access such as a trail or path. The trailheads or parking locations where one can access the system should be selected carefully and involve already existing park or publicly owned property.

Property Values - Survey Date/Perceptive Views: The perception of a greenway in a neighborhood may often be more important than the actual statistical facts that it represents. There have also been various studies that primarily used surveying techniques rather than the statistical comparisons to gauge the effect or perception of greenways on property values. The following are three studies that investigate these views.



A study involving the Lafayette/Moraga Trail in California, the Heritage Trail in Eastern Iowa, and the St. Marks Trail in Florida surveyed residents that lived along the trail system. A majority of all of the property owners near the trails felt that their trail would increase their property values and helped in the selling of their homes.

Surveys conducted with real estate agents regarding the 12-mile Burke-Gilman Trail in Seattle found that homes near the trail often sold for 6% more than a comparable home away from the trail. A survey of the residents along the trail showed that 60% of the homeowners felt that the trail would have either a positive or no effect on their property values.

Surveys conducted of landowners adjacent to the Luce Line Rail-Trail in Minnesota showed that 87% of the residents near the trail felt it had a positive or no effect on property values.

Economic Development: Documentation suggests that trails and greenways have little, if any, negative impact on adjacent property values. Trails have also been proven to spur economic development if implemented properly. There are an estimated 26 million day-hikers in the US and over half of the American public said they walk for pleasure. Bicycling also attracts people of all ages. In the United States, the rate of participation in bicycling has tripled since the 1960's. By the end of 1993, there were more than 100 million bicyclists in the United States. That means that just under half of all Americans consider themselves to be "bicyclists". Bicycle commuting has also become increasingly popular as an estimated 2.7 million commuters rely on bikes.





Studies have proven that trails often generate economic multipliers for the local economy. User spending is one way that trails generate money for the local economy. The following studies support that contention.

The Heritage Trail in Iowa estimated that each user spent an average of \$9.21 a day. The St. Marks Trail in Florida estimated spending at \$11.02. The Lafayette/Moraga Trail in California found users spending \$3.97 per day as a result of the use of the trail. This study shows that many users of the system also patronize local businesses and services.

Maryland's North-Central Trail was estimated to have 450,000 visitors in 1993. The goods purchased in the local economy for uses related to the trail were valued at \$3.36 million in 1993.

The Hart-Montague Bike Trail, which runs along the eastern shore of Lake Michigan, is estimated to have increased business for several local owners by 25 to 30% after it opened. The trail also uses a pass system that generated \$40,000,

Within Illinois, Kankakee County located in the east central part of the state has seen significant growth in bicycle related sales in the last five years. This growth is due to new and better trails being constructed in the area. It is clear that a quality multi-purpose trail system could tap into a large number of potential users: pedestrians; in-line skaters, bicyclists, cross country skiers, equestrians, and others.

Tourism: An effective greenway cannot only affect the local citizens, but can also be a regional and even national attraction for tourists to visit. Although it is



assumed that most of the activity on the system will be from local residents, it is important to note the ability of the trail to attract tourists. Lake Shelbyville is very scenic and its proximity to the Chicago Metropolitan Area could make it an even bigger draw than it is today.

Tourism is predicted to be the world's and the United States' leading industry in the next few years. Tourism is a high multipliable economic factor, meaning that tourism, more than almost any other industry, positively affects other related industries like transportation, lodging, food services, retail, and other services. The travel-tourism industry has consistently outperformed the overall economy in creating new jobs, higher personal income, and contribution to governmental entities through taxes.

A poll done by the President's Commission on American Outdoors found that natural beauty was the single most important criterion for tourist in selecting a site for outdoor recreation.

Travel-tourism should be defined as any trip more than 50 miles and/or involves an overnight stay. Parks and open space can be an important draw to tourists in the Lake Shelbyville region. The area is already known for its fishing and wildlife amenities. Many of the promotional organizations spend most of their resources advertising the region's natural amenities. A greenway plan will surely identify and enhance the potential of the natural amenities of the region, allow it to boast even better recreational activities, add to tourism, and bring new tax dollars into the area.

Tourism is one of the few industries that truly add directly to the local economy. For example, a new localized attraction in the bi-county area will compete with the other owners of a comparable business in the local area. But if the attraction is a regional draw and brings new people into the area, the tourist are "new money" to the region as a whole. The greenway system should concentrate its attractions in



central or connected locations so that they can be marketed as a package to attract more visitors. The parks and other developments around Lake Shelbyville have the greatest potential to attract regional visitors and the links to them should be enhanced to promote their accessibility and use. Attractions and promotional material, such as quality bed & breakfasts, a lodge at the state parks, and brochures about the greenway and park system in the bi-county area, can all help to make the system a success.

Safety: The myth of crime and vandalism often surrounds the implementation of a trail system. Some residents are often concerned that the implementation of a recreational trail will encourage vandalism, crime, and other disturbances. There is little evidence from case studies that support the fear of crime.

The Minnesota Department of Natural Resources in 1980 compared landowners' opinions on a set of proposed trails and a set of existing trails. Seventy-five percent (75%) of homeowners along the proposed trail were concerned that the trail would cause increased crime and vandalism. But, by contrast, the homeowners along the existing trail system disagree that the trail caused crime or vandalism (0% and 6% respectively).

A 1992 National Park Service study of the impacts of rail-trails on nearby property owners found that "a majority of landowners reported no increase in problems since the trails opened. That living near the trails was better than living near unused railroad lines before the trail was opened."

A study by the Appalachian Trail Conference of crimes on the Appalachian Trail found that despite its use by 3-4 million persons per year. There was only 0.05 per 100,000 or 1 in 2 million crimes were associated with the trail. This means that if you used the Appalachian Trail on a regular basis



you would be more likely to be struck by lightning than accosted as a hiker on the trail.

There has been unparalleled momentum in public, taxpayer-financed acquisition of and for open space in other Illinois counties. Despite critics who contend that there are better methods, the past couple of years have yielded historic gains for open space referendums. Taxpayers seem willing to spend money to preserve open space. For example:

In November 1998, DuPage County residents voted to approve the spending of \$75 million to buy about 2,300 acres. On a typical \$200,000 home, taxes would be raised by approximately \$21 per year.



The McHenry County Conservation District in June 1998, approved \$18 million to buy about 1,500 acres over three years. That decision came after the district spent about \$4 million earlier in the year to buy nearly 240 acres of open land.

Surveys show that 65% of voters would support the Kane County Forest Preserve District's \$70 million land purchase plan, even though each of those voters would pay \$170 more in taxes each month for the extra green acres.

Bolstered by those polls~ forest preserve commissioners voted unanimously in January 1999 to put the issue on the April ballot.

According to Illinois Outdoor Recreation Activities (1992), the report of the 1991 Illinois Outdoor Recreation Participation Survey, 42.6% of Illinois' adult population participates in bicycling for a total of 143.5 million annual activity days.



At the national and state level, former President Clinton included \$1 billion for land purchases in his 2000 budget proposal, and Governor George Ryan pledged to spend up to \$40 million a year to acquire open land in Illinois. Unfortunately, a budget crisis precipitated, in part, by a downturn in the nation economy, has derailed many of these plans. However, with an improving economy and a new administration in Springfield, hope is again growing that some financial assistance will be forthcoming.



Plan Objectives and Principles



MISSION STATEMENT

The General Dacey Trail Plan responds to current needs and opportunities and promotes a vision for the future of greenways, trails, and outdoor recreation in Shelby County and a portion of Moultrie County. The following is an extensive mission statement that incorporates the desires and expectations of the public.

“Greenways and recreational trails should provide the people of Shelby and Moultrie Counties with opportunities to enjoy physical and social activities, they should provide opportunities to experience the natural, cultural and scenic amenities of the greenway and/or trails corridor... they should reflect landscapes typical of different regions.... they should be accessible to the area’s citizens...they should provide a pleasurable, non-polluting alternative to automobile travel for short trips... they should be an economic asset to communities along the trail....and they should contribute to the quality of life in the bi-county region.

These greenways and trails should be developed through partnerships among, state, federal, regional, and local units of government, constituent organizations and trails user...they should link communities and their parks and extend from cities and towns into the countryside...they should connect the bi-county region with trails in neighboring county’s and states’ trails...and they should evolve into a network throughout the length and width of the region, easily accessible to all residents for their use and enjoyment.”



PROJECT GOAL

To encourage the creation of an off-road trail network around Lake Shelbyville thereby increasing access to the natural beauty of the lake; enhancing recreational opportunities for residents and visitors; and providing connections between communities in the area and region is the overall goal of the General Dacey Trail Committee. As a first step in achieving that goal the Committee has undertaken the development of this master plan.



One goal of the General Dacey Trail Committee is to enhance all recreational opportunities afforded by Lake Shelbyville. Of prime importance are the land-based recreation offerings. The aim of the Committee is to construct a network of trails that respects the natural

environment while providing increased opportunities for both visitors and area residents to enjoy and appreciate the environmental beauty of Lake Shelbyville. Another goal is to maximize the economic benefit of establishing a trail network. Those economic benefits will be manifested in increased visitation numbers and extended visitations to the recreation areas provided by the Corps of Engineers and the State of Illinois. It is anticipated that the surrounding communities will realize additional spin-off economic benefits.

PLAN OBJECTIVE



The objective of the General Dacey Trail Plan is to provide a conceptual framework guiding future trail development. More than a simple trail project, upon completion the General Dacey Trail will provide almost one hundred and seventy (170) miles of recreational opportunities for bikers, hikers, skaters, and cross-country skiers. Providing an off-road link to Lake Shelbyville and the other nearby communities, the trail network promises to increase tourism and to spur trail-use related economic development.

The plan is purposely named the General Dacey Trail Plan. However, while it is envisioned that the majority of the network will consist of trails for hiking and biking, it is also a series of greenway corridors. These greenways provide what is essentially a linear park around the lake and between communities. In the future, the greenway concept needs to be expanded by acquisition of new lands or the widening of right-of-ways to accommodate other recreational opportunities. The previous section of this plan discussed the greenway concept in greater detail.

While it would be the ultimate dream to of the General Dacey Trail Committee to have the entire project constructed in one massive effort, the fact remains that it is too large a project to achieve in one step. It is envisioned that separate groups will construct portions of the trail network. As these individual groups undertake construction projects, they will use this trail network master plan as a guiding document. The plan provides preliminary design solutions for trailheads, overlooks, crossings, lake access and off-trail connections. Suggested signage and graphics are included along with trail cross-sections and safety considerations. However, it is recognized that as the trail network develops, individual sections will each require detailed engineering.

PLANNING PRINCIPLES



To achieve the overall goal of an off-road trail network, the General Dacey Trail Committee has adopted the following planning principles to guide both the development of this plan and construction of the trail network.

- The trail network is designed to be part of a regional and statewide trail network by affording opportunities to connect with other trails, such as the Lincoln-Pana Trail and area communities including Mattoon and Decatur.
- All trails are to be located on public property owned or controlled by local or state units of government or the U.S. Army Corps of Engineers as part of the Lake Shelbyville Water Resource Development Project.
- Where topography, environmental factors or land ownership preclude locating trails on Corps of Engineers property, other public or private lands will be used.
- The trail network is designed to link area communities to each other and to the federal and state recreation areas of Lake Shelbyville.
- All levels of recreational users are to be accommodated by providing short, intermediate and longer trail routes.
- Operation and maintenance of the trail system will be by an organization jointly established by Shelby and Moultrie Counties.
- Fund raising, including obtaining charitable contributions, will be through a not-for-profit organization, i.e., "Friends of the Trail".
- Trails are primarily designed for use by bicyclists, however, it is recognized that pedestrians may also access the trail network.
- Motorized vehicles, except for maintenance, construction and public safety vehicles are prohibited from accessing the trail network. This prohibition extends to other motorized vehicles such as, but not limited to, mopeds and ATVs.



- Snowmobiles are authorized on both the Dam West snowmobile trail and the Wolf Creek Trail. Horses will be allowed only on the Wolf Creek Trail.
- Where possible, trails are to be designed to the standards promulgated by the American Association of State Highway Transportation Officials [AASHTO].
- Where practicable, facilities are to meet the accessibility guidelines as set forth in the Americans With Disability Act [ADA].
- The trails established in this plan will avoid environmentally and culturally sensitive areas.

DESIGN STANDARDS

Whenever possible, the trail should be designed in accordance with the standards set forth by the American Association of State Highway and Transportation Officials



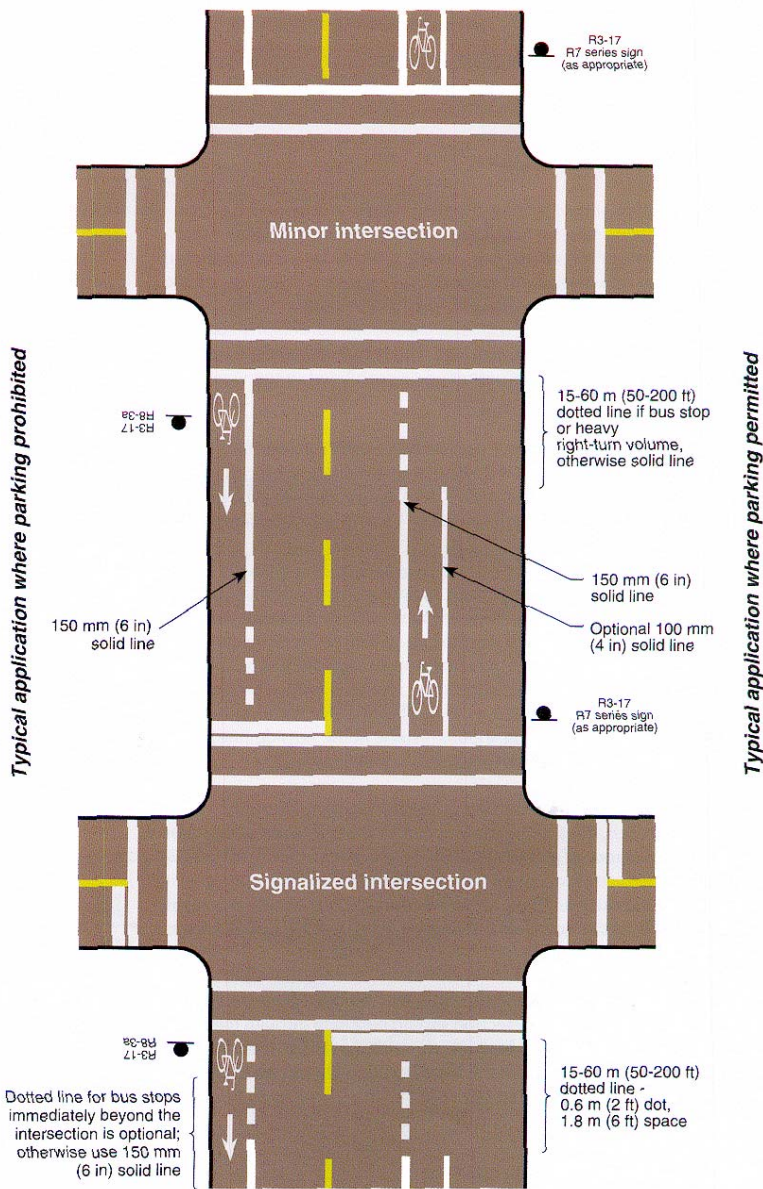
(AASHTO) in their publication *Guide for the Development of Bicycle Facilities*. The most recent edition of that publication was printed in 1999. In addition, other information especially regarding signs, pavement markings and signals are contained within the *Manual on Uniform Traffic Control Devices [MUTCD]* also published by

AASHTO. For the purposes of this plan, and its subsequent implementation, the AASHTO standards represent the guiding principles.

In the City of Shelbyville, and possibly within the corporate limits of other communities surrounding the lake, there may be sufficient pavement width to designate a bicycle lane. The following figure, taken from the AASHTO publication *Guide for the*

Development of Bicycle Facilities illustrates some of the typical design





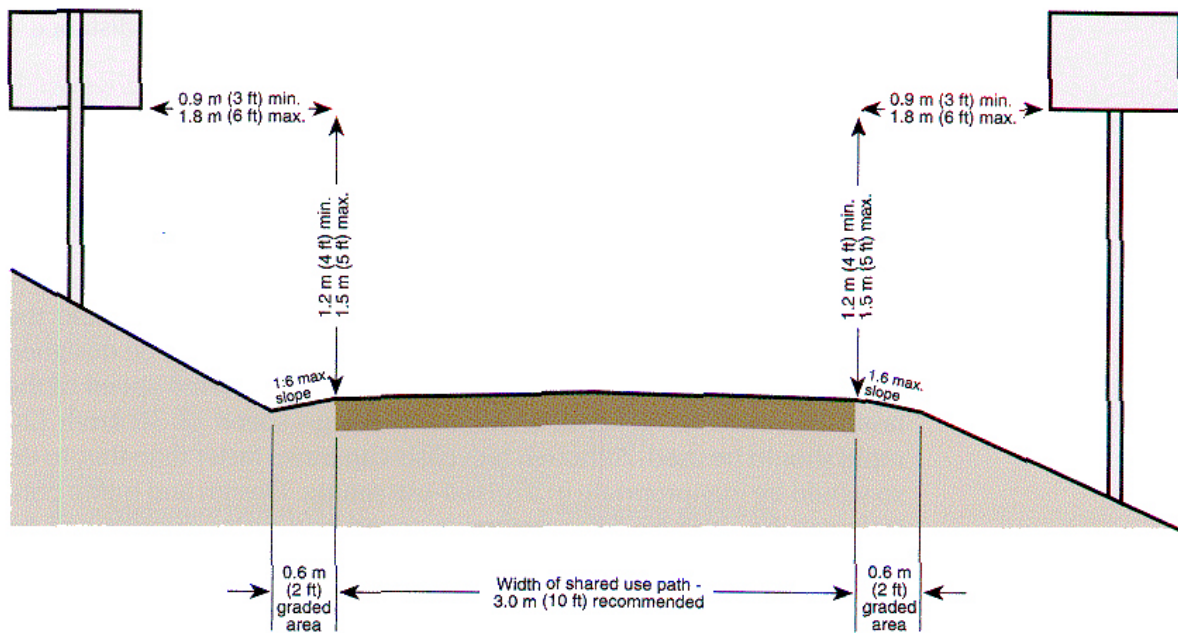
applications that can be used in a more urban environment when the pavement width allows.

Since many of the county and township roads only have twenty to twenty-four feet of paved surface to accommodate two lanes of vehicular traffic it is very unlikely that a separate bicycle lane can be designated. In the rural areas, that comprise the bulk of the trail network, it is recommended that the right-of-way be used and a separate trail surface be installed. In most areas this will require the acquisition of additional right-of-way. AASHTO recommends a ten-foot (10') travel surface combined with a two-foot

shoulder on either side. This results in a fourteen (14') foot right-of-way that needs to be acquired. Again, in some isolated areas there may be sufficient existing right-of-way that a fourteen-foot section can be allocated for the trail route. However, in reviewing the existing road network, together with input from local engineering officials, the vast majority of the existing road network has insufficient right-of-way.



The diagram below illustrates the basic design parameters associated with the construction of a new trail on a separate dedicated right-of-way. While shown with a “crown” AASHTO recommends sloping the trail surface in only one direction. Given the relatively narrow dimensions, this will ease construction and still allow for adequate drainage away from the pavement. As shown in the diagram, it is especially important that whenever a trail travels “across” a slope, that a swale be established upslope to intercept runoff. As with a vehicular roadway, the goal is to prevent water from standing on or running across the surface. It is important to establish positive drainage to keep the surface clear and prevent water from saturating the sub-base. The latter can be



especially detrimental to the trail.



The surface of the trail may be asphalt, Portland cement concrete, or crushed aggregate. In general, there are some factors to consider in specifying a surface material.

- Bicyclists prefer hard, all-weather pavement to crushed aggregate.
- Asphalt has a higher installation cost than aggregate but a lower maintenance cost.
- A crushed aggregate surface deters skaters, scooters and other vehicles using smaller diameter wheels.
- Bicyclist speeds tend to be lower on crushed aggregate surfaces making use of the trail easier for a wider spectrum of skill levels.
- While bicycle wheel loads are much less than motorized vehicle wheel loads, the trail needs to be able to support the weight of maintenance and patrol vehicles.

It should be noted that “fly ash” a by-product of some industrial operations might be used in conjunction with crushed aggregates. By combining the fly ash with crushed aggregates and adding a soil stabilizer it is possible to prepare a hard-surfaced trail with characteristics similar to asphalt or Portland cement concrete at a much lower cost. The added benefit is that a fly ash surface requires less maintenance than an aggregate only surface.

The actual design cross-section of the trail needs to be determined on a site-specific basis based on the ability of the underlying material to support the anticipated loads. In general, a trail should consist of a minimum of six inches (6”) of aggregate base, two inches (2”) of an asphalt binder course and a one-inch (1”) asphalt surface course. If a crushed aggregate is to be used a minimum depth of eight inches (8”) is recommended. It may be necessary to increase the minimum thickness based on the base material.



The California Bearing Ratio [CBR] is an AASHTO standard

measuring the support ability of the underlying material. It is recommended that the trail design cross-section be tied directly to the CBR.



Trail Network – Concept and Maintenance



TRAIL NETWORK

The overall alignment of the General Dacey Trail Plan is shown on the following page. As stated throughout this plan, the route shown is a general, suggested alignment. As each segment is constructed, detailed engineering and the availability of property will determine the final alignment. The broad-spectrum, illustrating the overall network concept is depicted in the drawing and throughout this plan.

The drawing shows the portions of the network that will utilize existing corridors (green lines) and are primarily located on property that is *not* owned by the U.S. Army Corps of Engineers or parallel to existing roads in federal recreation areas or state parks. It is anticipated that those segments will use existing or new right-of-ways along existing road right-of-ways. In some cases trails may be built in conjunction with right-of-ways developed for new regional sewers or they may use old railroad right-of-ways.

Blue dashed lines show those segments that will utilize entirely new corridors or rehabilitated trails on the Corps of Engineers Lake Shelbyville property. Again, in some cases final engineering and associated cost considerations may dictate an alignment that requires the purchase of land or property easements. This will be determined on a case-by-case basis. The boundary of the property, controlled by the U.S. Army Corps of Engineers, is shown in yellow.

The trail network is divided into seven main segments. These segments primarily provide connections between the primary communities surrounding Lake Shelbyville. Each main segment has sub-segments that link the main segment with federal and state recreation areas or provide alternative routes between main segments. The table with each section provides information regarding the length of each segment. Maps showing the general alignment of each segment are included.



General Dacey Trail Overall Plan

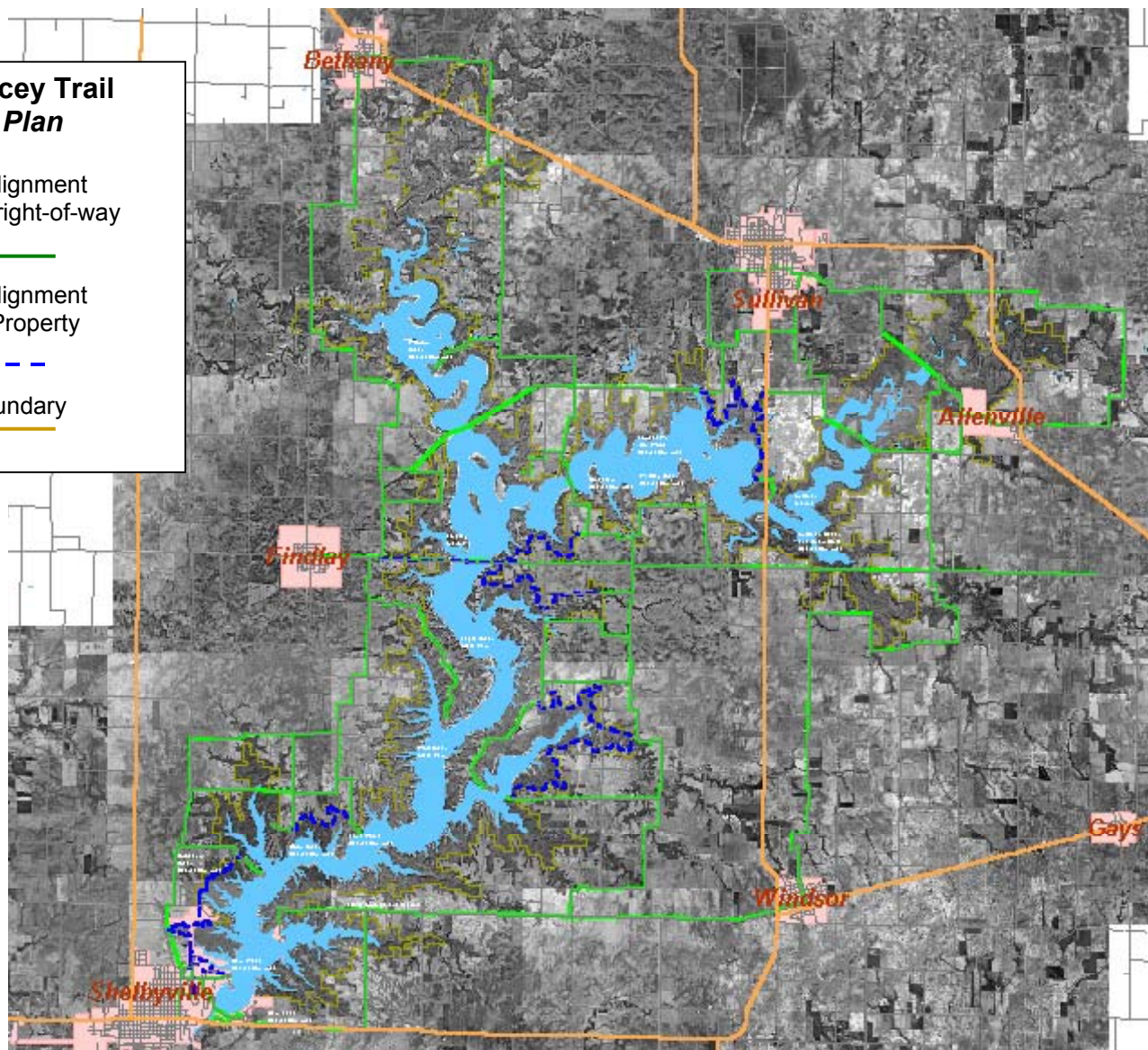
New Trail Alignment
Along existing right-of-way



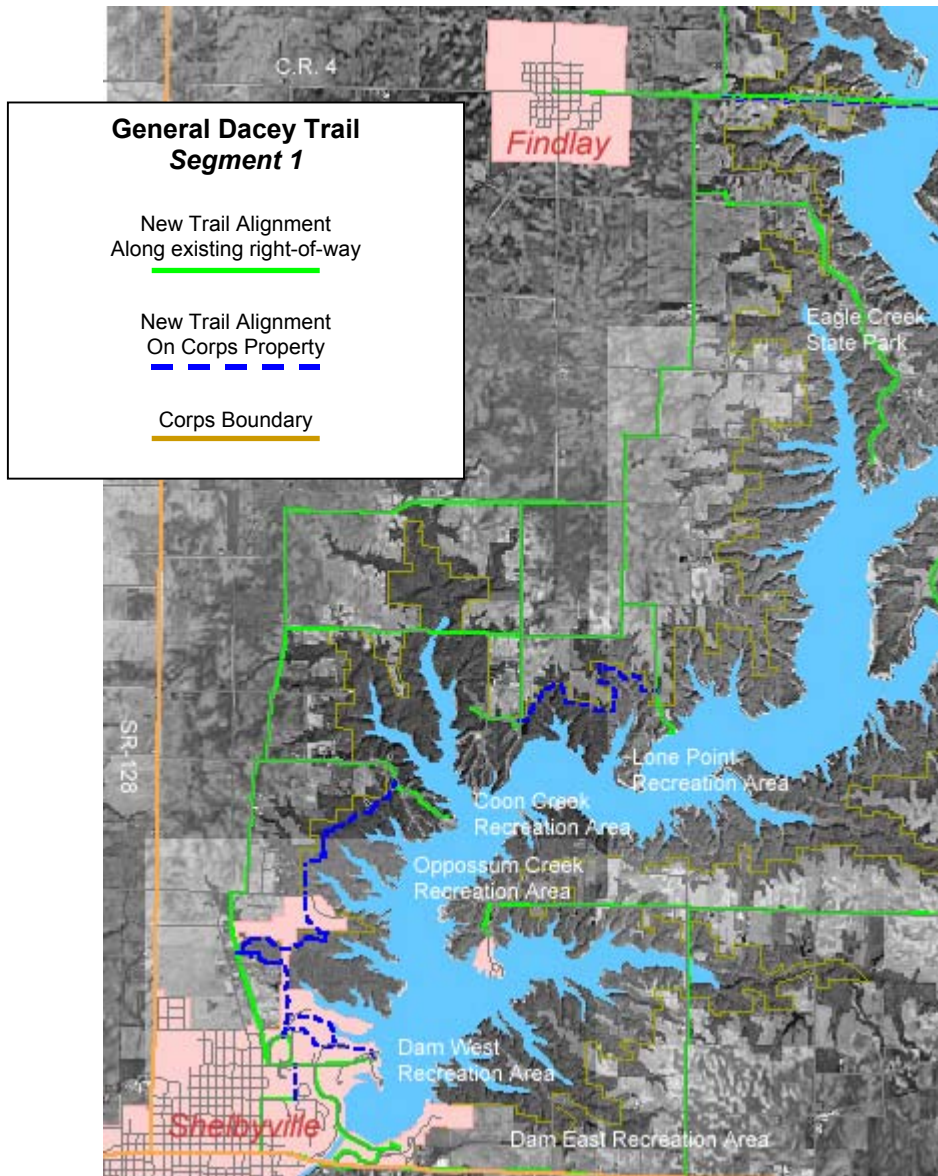
New Trail Alignment
On Corps Property



Corps Boundary



Segment 1 – Shelbyville to Findlay Connector



This segment connects the municipalities of Shelbyville and Findlay. Beginning at the Dam West Recreation Area adjacent to the Lake Shelbyville dam, it follows city and township roads to the community of Findlay. Sub-segments provide access to the primary city park in Shelbyville. Other routes access property owned by the Corps of Engineers including the Opossum Creek, Coon Creek and Lone Point Recreation Areas. Another sub-segment provides additional access to and

within the Eagle Creek State Park.

One of the key sub-segments is the “Shelbyville Loop” – Segment 1A. Already a popular walking/jogging/biking alignment, this alignment begins at the Dam West



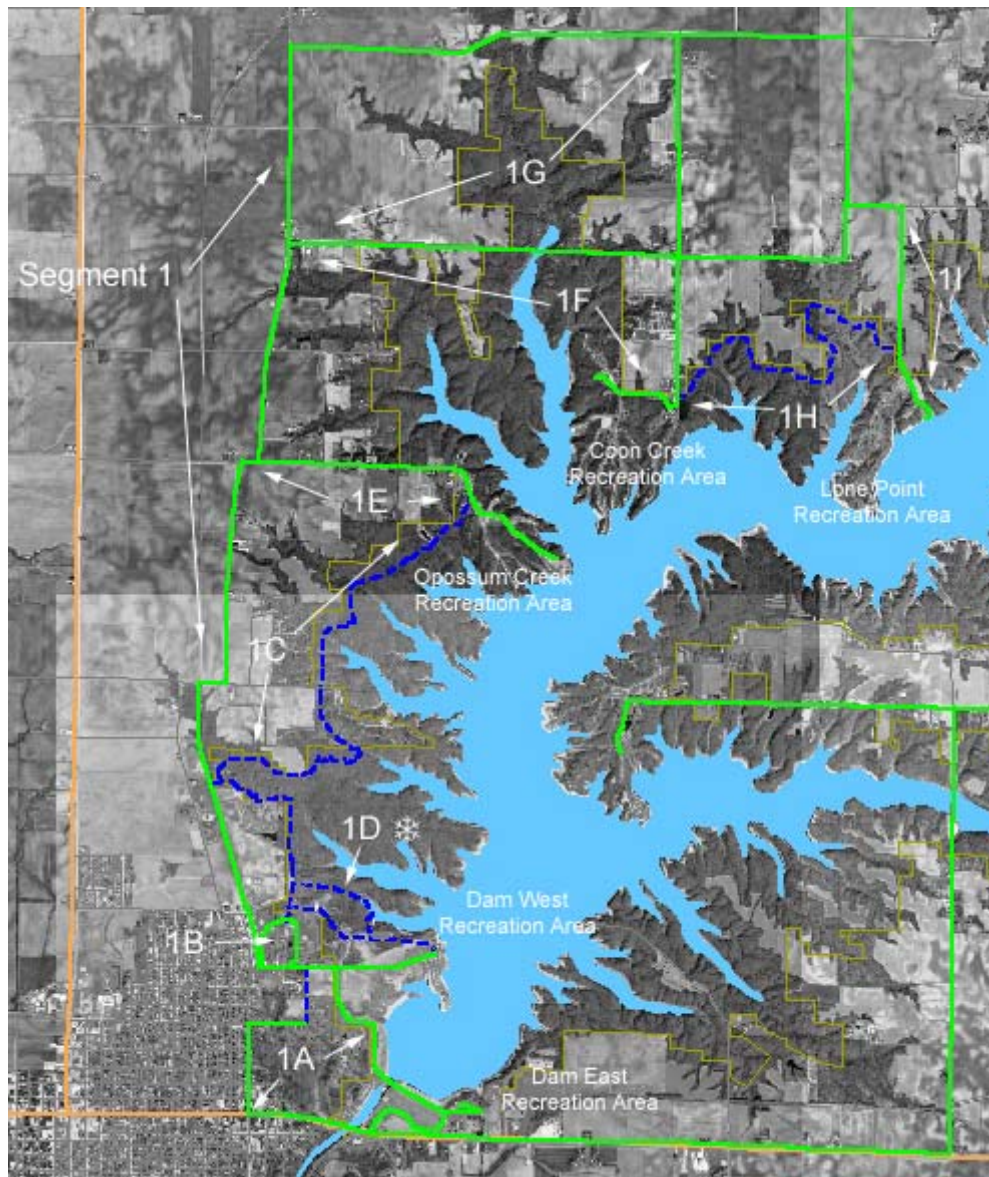
Recreation Area. It follows North 9th Street to the City Cemetery. A newly constructed segment would follow the west side of the cemetery to North 6th Street then west to



North Morgan Street. The suggested alignment would follow North Morgan Street south to State Road 16 then east to the entrance to the Spillway Recreation Area. It would pass through that area to the visitor center in the Dam East Recreation Area. The trail would “loop” back to the Dam West Recreation Area following the existing road across the dam. As with all suggested alignments, this route will require some “fine-tuning” and detailed engineering especially the segment across the dam that will require some special treatment to separate the vehicular traffic from the trail users. Most of the city route, however, is on roads that are wide enough to easily accommodate a bicycle lane. This downtown “loop” is a popular walking/running/biking path that can be easily established.

The following picture shows the sub-segments in the southern and central portion of Segment 1. It includes the aforementioned Segment 1A or the “downtown loop”.

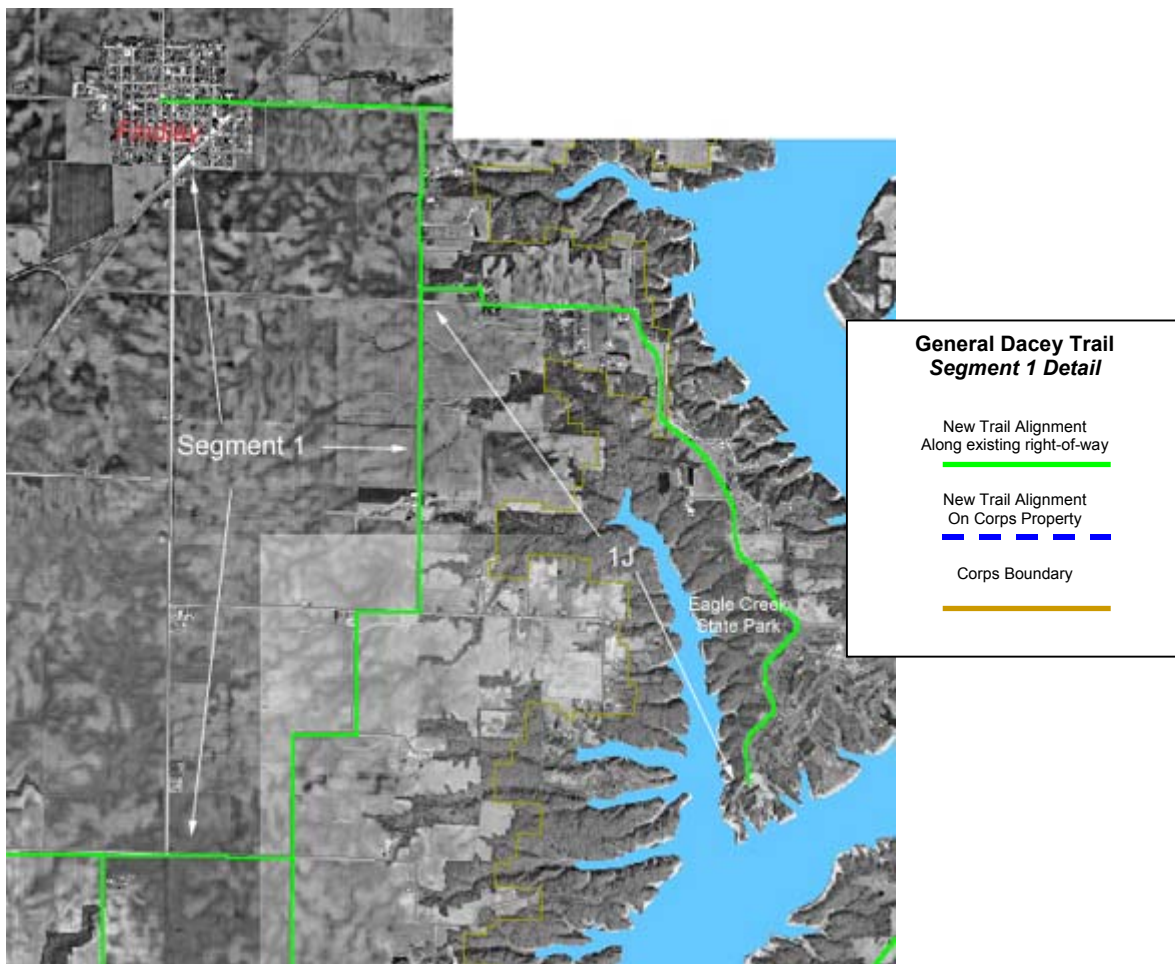




Segment 1B would be established in the Shelbyville City Park. 1C would be entirely on Corps property and would provide access between the city park and the Opossum Creek Recreation Area. Segment 1D is of particular note. Located in the Dam West Recreation Area it is one of two segments that would be open to snowmobiles. Segments 1E, 1F, 1G and 1I would provide shorter connections between the main

segment and the federal recreation areas along that portion of the lake. Segment 1H would be a new trail on Corps property connecting Coon Creek and Lone Point Recreation Areas.

In the northern part of Segment 1, Segment 1J connects the main segment to Eagle Creek State Park. That is shown in the following picture along with the terminus of Segment 1 in the City of Findlay. Again, please note that the exact trailhead in Findlay needs to be determined between the General Dacey Trail Committee and the appropriate officials in Findlay.



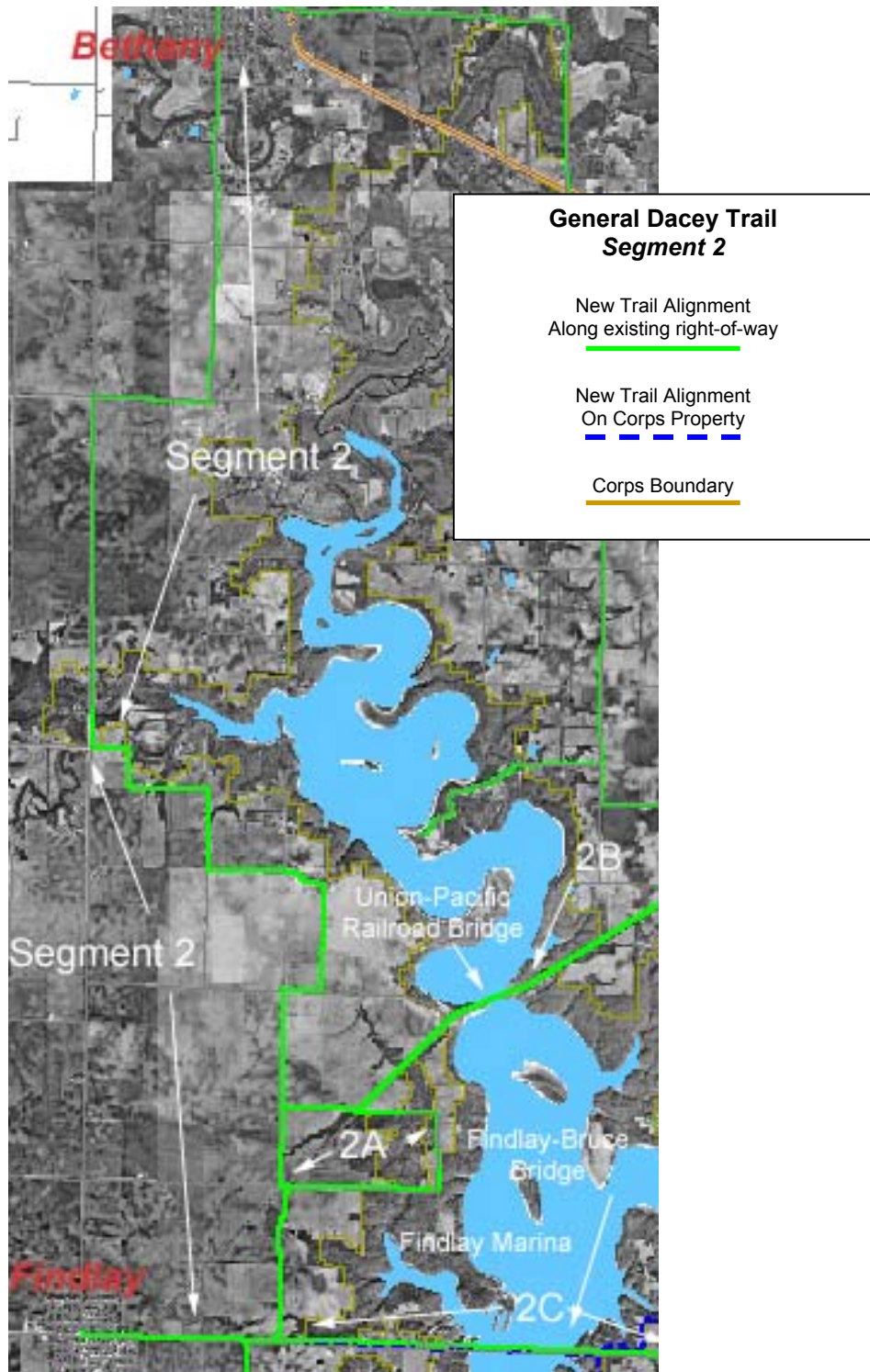
The following table details the sub-segments that make up the main Shelbyville-Findlay segment.

Segment	Number	Description	Miles
Shelbyville-Findlay Segment	1	Shelbyville to Findlay	11.9
	1A	Dam West to Park and Downtown (“Shelbyville Loop”)	5.0
	1B	City Park Segment	1.0
	1C	Connects 1A, 1B and 1D to Opossum Creek	3.4
	1D	Dam West Snowmobile Trail	2.1
	1E	Opossum Creek to Segment 1	1.1
	1F	Connects Coon Creek to Segment 1	1.9
	1G	Segment 1 loop sub-segment	3.4
	1H	Coon Creek to Lone Point sub-segment	2.0
	1I	Lone Point to sub-segment 1F	0.9
	1J	Eagle Creek State Park sub-segment	3.2
		Totals	35.9

Segment 2 – Findlay to Bethany Connector

This segment connects the communities of Findlay and Bethany. Sub-segments afford two lake crossings, one (2B) using the former Union Pacific Railroad Bridge on the rail line that passes between Findlay and Sullivan. Segment 2C would employ the Findlay Bridge on the Bruce-Findlay Road. A small sub-segment (2A) would provide a loop to get users adjacent to or possibly on Corps property. As stated in the General Dacey Trail Plan, whenever possible any of the segments, not just those shown, should be located on Corps property to take advantage of land already publicly owned and that provides excellent vistas of Lake Shelbyville and the shoreline.





Clearly, this is a very expensive segment, due to the costs associated with upgrading the bridges. As shown in the photograph at the right, the Findlay Bridge, while wide enough for vehicular traffic, does not have any additional room to accommodate a bicycle trail adjacent to the travel lane(s). Therefore, it will be necessary to either widen the bridge or build a separate structure next to it. Either option is costly, but necessary. In order to make the trail network a reality, the ability to cross the lake at strategic points is crucial. The best way to widen the



Findlay Bridge or any of the other structures included in the network can best be determined following a detailed engineering study. Such a study was beyond the scope of the initial plan but should be included as a key element as the plan moves from concept to implementation.

Segment	Number	Description	Miles
Findlay-Bethany Segment	2	Findlay to Bethany Segment	11.9
	2A	Sub-segment loop	1.9
	2B	Cross-pool sub-segment	3.2
	2C	Cross-pool sub-segment (State Road)	6.1
		Totals	23.1

Segment 3 – Bethany to Sullivan Connector

The main segment connects Bethany with the community of Sullivan. Sub-segments provide access to the Forrest W. “Bo” Wood Recreation Area, the Willborn Creek Recreation Area and the Sullivan Marina. Most of these sub-segments are planned for Corps property along routes that maximize the ability to view and appreciate the natural beauty of Lake Shelbyville.

