Transportation Enhancement Grant Application

Warner Parks Trail Linkage

Phase One Improvements
Connecting the Warner Parks to the Hill Property Parkland
Via a Pedestrian Underpass Beneath Highway 100 and the Railroad

LITTLEJOHN ENGINEERING ASSOCIATES
November 2nd, 2009
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ACKNOWLEDGMENTS

The Master Plan represented herein is the culmination of many hours of discussion and public input to assure that the master plan reflects the communities’ goals and priorities. The Friends of Warner Parks, representing various interests from within the community, have served as the main interface with the Design Team with regard to programming and visioning. We commend them for their tireless efforts in support of Warner Park and wish to offer thanks for the vision and input they provided in guiding the planning process. Members of the Steering Committee (as listed below):

Steering Committee

Ms. Eleanor Willis, Executive Director, Friends of Warner Park
Mr. Lawsen Allen, President, Friends of Warner Park
Mr. Warner Bass
Mr. Reed Trickett

Metropolitan Nashville and Davidson County, Tennessee
Honorable Karl Dean, Mayor

Metropolitan Parks and Recreation Department

The staff at Metropolitan Parks and Recreation Department have offered their leadership and guidance in directing the planning efforts. We wish to thank the individuals involved including:

Mr. Curt Garrigan, Assistant Director - Planning and Facilities Development
Mr. Bob Parrish, Superintendent of Natural Resource Management for Warner Parks

We would like to commend the City of Nashville and Davidson County and the Friends of Warner Parks for undertaking this effort.
EXECUTIVE SUMMARY

The trail linkage improvements proposed for the 448 acre Hill Property offer a unique opportunity to explore new areas of the vast Warner Parks land and present educational opportunities to access of one of the few Old Growth Forests within the State of Tennessee. This “ancient forest” is home to centuries old trees and a diverse biological ecosystem offering a rich inventory of learning opportunities. Concurrently, the improvements will serve an expanding sector of the community seeking alternative opportunities for commuting to daily destinations or recreational activities. Within the initial phase of the project, a safe pedestrian connection will be established from the Warner Park Nature Center to the Hill Property. The envisioned long term trail project will offer a much needed pedestrian linkage between Highway 100 at Warner Park and the Highway 70 corridor to provide a safer alternative for runners and riders traveling Highway 100 and Old Hickory Boulevard to reach destinations in Bellevue. The current vehicular oriented routes are limited by a number of conditions including high travel speeds and narrow or non-existent paved shoulders for use by runners. It is the common belief of the Steering Committee that the envisioned alternative would quickly become a popular and well-travelled alternative means of transportation by the general public. Additionally, the proposed linkage will expand the existing greenway trail which extends from Edwin Warner Park to the Bellevue Exchange Club Park, adding approximately 2.2 miles of trail to the current 2.5 mile segment.

The educational opportunities mentioned above will be expounded upon greatly by utilizing the existing Edwin Warner Park Nature Center as a base of operations for guided tours and nature classes on the unique environments available within the Hill Property. The currently operational Nature Center is sited at the easterly terminus of the new trail system and will connect to the Hill Property via a tunnel system beneath Highway 100 to incorporate improved pedestrian safety for park users. The ability to utilize the Nature Center from the initial inception of the trail improvements means that the educational benefits will be introduced from day-one of operation, accommodating field trips for schools and community members to introduce them to the unique environs of the park.

From the perspective of the Steering Committee, it is rare to find a single improvement project that can accomplish multiple benefits for the community at large. The investment of funding into this trail project will truly serve the goals of the enhancement program to service the community at large.

Project Description

The Warner Parks Trail Linkage to the Hill property (Phase One Improvements) involves a 10’ wide asphalt trail which will originate at the Edwin Warner Park Nature Center (located on the southern side of Highway 100) and will proceed in a northerly direction via two new pedestrian underpasses to cross beneath Highway 100 and the CSX Railway to access the Hill Property parkland, encompassing a trail length of approximately 800 linear feet with two underpasses totaling approximately 240 linear feet.
Warner Park Trail Linkage
Connecting the Warner Parks to the Hill Property Parkland
Via a Pedestrian Underpass Beneath
Highway 100 and the Railroad
THE MASTER PLANNING PROCESS

Introduction

The Warner Parks system represents a diverse asset to the Nashville community and the Middle-Tennessee region as a whole. The facilities are widely known for their passive and active recreational offerings; however, they additionally serve as an active learning resource for environmental studies sponsored by schools, universities, and environmentalists and function in the preservation role for wildlife habitat and one of only three “old growth forests” identified within the State.

Recognizing the unique environs available within the Warner Park lands, a concerted effort is being led by the Metropolitan Parks Department and the Friends Of Warner Park (a civic organization founded to assist the Metropolitan government in the stewardship role for Warner Parks) to improve the accessibility of the public to the 448 acres of recently acquired parkland (identified as the Hill Property) which is separated from the main park grounds by Highway 100 and the CSX railroad line. Both of these elements create a physical barrier to linking the trail systems and the teaching and learning resources that are currently in place on the established Percy Warner and Edwin Warner Park tracts. The vision of the steering organizations has been communicated very succinctly – the unique environs and recreational benefits of the 448 acre Hill Property remain unavailable to the public until a creative solution is afforded to traverse these obstacles and develop, in the longer term, a connected pedestrian linkage through the Hill Property to the Highway 70S corridor. This accessibility would, in turn, open up new recreational access to the residents located along the Bellevue side of the Hill Property and would afford a means to access the Warner Parks system without traveling via vehicle or traversing higher travel speed roadways with unsafe shoulder conditions and no sidewalks.

“The goals of the Master Plan are to develop an interconnected Warner Parks trail system to provide both recreational and educational opportunities and offer an alternative transportation route from the Park through the Hill Property to Highway 70S.”

In Perspective

“As long as man’s activities are in sympathy with nature, or are on so small a scale that they do not interfere with nature’s self-renewing cycle, the landscape survives, either in a predominately natural form or as a balanced product of human partnership with nature. But as soon as the growth of the population or its urban activities are sufficient to upset nature’s balance, the landscape suffers, and the only remedy is for man to take a conscious part in the landscape’s evolution.”

Sylvia Crowe
History of Warner Parks and the Hill Property Acquisition

The Warner Parks were established in 1927, and during the 82 years that have followed they have become recognized both locally and nationally as an invaluable natural, recreational, and historical asset.

The vision of the park founders has been renewed in the present through the efforts of the Friends of Warner Parks, and the recent acquisition of 448 additional acres of parkland that includes a cave and approximately 200 acres of old growth forest. Following completion of the transfer of the property ownership to the Metro Nashville Board of Parks and Recreation, a master planning process will be conducted to determine the best and most appropriate public use of the resource, with special attention given to preservation, protection, and stewardship.

The Edwin Warner Park Nature Center

The master planning process will include community involvement and public input to identify the best practices for both use and protection of the new parkland. The Warner Parks Trail Linkage project will play a significant role in connecting the original parks, the newly acquired parkland, the surrounding neighborhoods, the Greenways system, and state Hwy 100, Hwy 70 S, and Old Hickory Blvd., in the safest and most accessible manner possible.

A timeline and highlights in the history of the Warner Parks, culminating with the acquisition of the 448 acres of new parkland follows below.
Highlights in the Park History

1926 – 1927
- Park Board chair Percy Warner is deeply involved in the vision of creating a large, natural area park.
- Percy Warner Park is established through initial gift of 868 acres by Colonel Luke Lea.
- Edwin Warner is named to the Park Board upon the untimely death of his older brother. He becomes the driving force in acquiring additional property and as chair of the Park Board oversees development of Percy Warner Park.

Early 1930s
- Warner Parks grow to 2,665 acres with the addition of Edwin Warner Park through a gift from Edwin Warner. The city coordinates their early development.
- The Belle Meade entrance constructed as a memorial to Percy Warner, through a gift from his wife and daughters.

1936 – 1941
- Works Progress Administration provides funding and labor for extensive development of stone entrances, bridges and walls, picnic shelters, steeplechase, and other features.
- First running of the Iroquois Steeplechase in 1941.

1940s – 1950s
- The community becomes endeared to the Warner Parks as a valued asset, a natural area, and a location for passive recreational interests.

1973
- Warner Park Nature Center is established as a local expression of the national interest in nature and the environment.
- Protection and preservation ethic begins to develop for the Warner Parks.

1980
- Forested portions of the Parks are listed in the Tennessee Register of Natural Areas.

1984
- The Warner Parks are listed in the National Register of Historic Places.

1986
- Warner Park Preservation Plan is completed through a matching grant with the U.S. Department of the Interior.

1987
- Warner Park Master Plan is published through local funding; Friends of Warner Parks is established to work for protection, preservation, and stewardship of the Parks.

1988
- The position of superintendent of Warner Parks is created to work toward centralized management of the Parks, and to implement the Master Plan.

1989
- Friends establishes the position of Executive Director. Warner Parks Headquarters is established in a renovated farmhouse. The facility is shared by the Parks and Recreation Department and Friends of Warner Parks to encourage good communication and partnership.

1990
- $700,000 bond fund made available by Metro for capital improvements.
- Sunday in the Park is established as a major fundraiser for Friends.

1993
- Friends funds the publication of the Warner Park Nature Center Master Plan to record the past, describe the present, and make recommendations for the future of the facility.

1997
- 70th anniversary of the Warner Parks.
- 10th anniversary of Friends of Warner Parks.
**Highlights in the Park History**

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<th>Event</th>
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<td>Capital Campaign is launched to build learning center ~ $4,000,000 goal set.</td>
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<td>1999</td>
<td>Warner Parks listed as Local Historical landmark by the Metro Historic Zoning Commission.</td>
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<td>2000</td>
<td>Susanne Warner Bass Learning Center officially opened.</td>
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<td>2002</td>
<td>75th Anniversary of the Warner Parks.</td>
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<td>Restoration work begins on the Hodge House (oldest structure in the Parks).</td>
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<td>2004</td>
<td>Kick off of Capital Campaign – beginning of Land Acquisition</td>
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<tr>
<td>2006</td>
<td>Completed the $5,500,000 campaign to add “The Burch Reserve” (124 additional acres) to the Parks</td>
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<td>2007 - 2008</td>
<td>80th Anniversary of the Warner Parks</td>
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<td>Hill farm offered for sale to F.O.W.P., initiating a $10,800,000 campaign to purchase the 324 acre H. G. Hill tract of property to add to the Warner Parks</td>
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<td>2009</td>
<td>Completed the Hodge House renovation project</td>
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<td>Acquired the 324 acre Hill Property containing the Old Growth Forest</td>
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<td>Turned 124 acres (The Burch Reserve) over to Metropolitan Board of Parks &amp; Recreation</td>
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**Goals of Current Development Process**

The goals of the initial phase of trail and pedestrian tunnel improvements have been specifically outlined, while recognizing what future opportunities may be achieved with completion of the full master planned improvements. Steps have been taken, and will continue to be implemented, to ensure that these planned improvements remain a community oriented process. The stewardship involvement and leadership role of the Friends of Warner Park organization is a unique asset with this particular application. The Friends currently serve in a community interaction and awareness role and will continue in this capacity throughout the foreseeable future, thereby developing broad-based community support and funding opportunities for the long-term maintenance and growth of the park programs.

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**Educational Programs and Field Tours**

**Parks and Parkway Bike Tour**
Goals

Develop a safe, user friendly means of egress for pedestrians to access the Hill Property tract from the current parking areas and educational resources based in the Edwin Warner Nature Center.

Provide a linkage to the Harpeth River Metro Greenway Trail that currently begins at the Bellevue Exchange Club ball field complex and terminates at the Edwin Warner Park parking lot. The immediate improvements would extend the trail to the western side of Highway 100 and the CSX rail line; however, in the long-range master plan, the Greenway would be extended to Hwy. 70S providing a total length trail of approximately 5 miles and linking two State highways.

Create new recreational opportunities with varying types of trail experiences and levels of difficulty that serve the multi-faceted needs of park users.

Develop educational programs that enhance the public’s understanding of the “old growth forest” and other unique environs of the Hill Property.

Expand the opportunities for alternative transportation access to the Warner Parks system once the trail connection is extended to the Hwy. 70S corridor.

Improve habitat connectivity through the creation of the tunnels beneath Highway 100 and the railroad. The Highway 100 corridor has a high occurrence of deer and other wildlife mortality. These improvements may assist in reducing those statistics.

Preserve the natural scenic beauty and environmental ecosystems of the Hill Property while accomplishing the other identified planning goals.
Conclusion

The recommendations in this planning report are intended to bring about positive change for the Warner Parks system in service to the Bellevue and Greater Nashville community. Every one of the team members is committed to securing funding to see that these design concepts are implemented. The involvement of the community and the leadership and stewardship offered by the Friends of Warner Parks has been instrumental at every step along the way. The next step is an implementation strategy that will see this plan become a reality.

“In the creation of healthy environment nature’s collaboration is not only important, but also indispensable.”
- Eliel Saarinen

In Perspective

Master Plan Benefits

It would seem to follow that a fundamental principle for designers or planners ... would be this: to preserve or create a pleasing site or landscape character for an area, a harmony of all the various elements or parts must be retained or developed. We make much of this word “harmony.” Do we imply that everything should blend with or “get lost” in the landscape as through protective collaboration or camouflage? No. But the planner, in developing any area of the landscape ... must analyze the suitability of the land for any proposed use and then utilize its positive qualities to the maximum. If the completed project seems to blend or harmonize with the landscape, it is the happy result of an inspired design rather than the primary aim of an uninspired designer.

- John Ormsbee Simonds

“An Ecological Approach to Environmental Planning”
Warner Park Trail Linkage

Connecting the Warner Parks to the Hill Property Parkland
Via a Pedestrian Underpass Beneath Highway 100 and the Railroad
**Introduction**

The Warner Parks Trail Linkage project will directly benefit the community and residents of all of Metropolitan Nashville and Davidson County, as well as the surrounding counties of Middle Tennessee. Three of the primary areas of benefit include the following:

1. The project will provide linkage for park visitors between the traditional 2,685 acres of the Warner Parks with over 440 acres of newly acquired parkland, and between the heavily used traffic corridors of Hwy 100, Hwy 70 S, and Old Hickory Blvd.

2. The project will provide connections and linkage for hiking and running trails, bicycling paths, and the Harpeth River Greenway system between the traditional Warner Parks, the newly acquired property, and surrounding residential communities.

3. The project will significantly improve safety and pedestrian access across the heavy vehicular traffic of Hwy 100 and the CSX railroad tracks.

Other specific Community Benefits include the following:

- Improved program opportunities in environmental education and outdoor recreation activities provided by the award-winning Warner Park Nature Center. The proposed underpass would be conveniently located for access by Nature Center visitors and program participants including school children attending field trips and public environmental education classes.

- Improved public access to the unique natural resources on the newly acquired parkland, including the only cave located on Metropolitan Nashville park property, and approximately 200 acres of old growth forest. Officials with the Tennessee Department of Environment and Conservation, the Friends of Warner Parks, and Metro Nashville Parks are collaborating to nominate this stand of old growth forest as a State Designated Natural Area.

- Improved access for students and faculty of area high schools and universities for research projects in the Warner Parks and the newly acquired property, such as the “bio-blitz” flora and fauna inventory that was conducted by Austin Peay State University on this property in April, 2009.
Increased opportunities for “healthy lifestyle” recreational activities in the out-of-doors, such as walking, running, and bicycling, that will help combat national health issues including obesity and diabetes.

Increased opportunities for the Friends of Warner Parks to involve community volunteers and increase public awareness of the benefits of park use, while showcasing the Warner Parks and the newly acquired property.

Friends of Warner Parks Role

The Friends of Warner Parks has been deeply committed to the concept of the Warner Parks system maintaining its scenic beauty while concurrently evolving to meet the recreational needs of a growing City. The “Friends” formed years ago in order to support the effort to preserve and expand the park, both financially and programmatically in a public awareness role. Comprised of area members, “Friends has implemented several planning and improvement projects and sought to bring attention to the vast benefits that the Warner Parks offer to the community.

Realizing that private sector investment is a necessary component of preserving a quality park environment, “Friends” has been actively engaged with public officials in order to produce significant enhancement to the park environs and encourage local commerce and community involvement. “Friends” is committed to the notion that Warner Parks offers a wealth of opportunities being the single largest open space area within the City of Nashville. By focusing on the positive aspects and available resources within the community, “Friends” is confident that a more vibrant program to expand the park’s community interaction is achievable. With continued effort and perseverance, the Warner Parks system has the potential of becoming a sustainable sector of the community offering many varying opportunities for active and passive recreation and environmental learning programs.

User Demographics

The Warner Parks Trail Linkage project will directly benefit a wide variety of individuals, neighborhoods, and communities in Metropolitan Nashville and Davidson County, as well as the Middle Tennessee region. This benefit is based on the improvement and enhancement of linkages between the original 2,685 acres that make up the Warner Parks, over 440 additional acres of parkland that includes an old growth forest and a cave, and the state route corridors of Hwy 100 and Hwy 70S.

As the population of Metropolitan Nashville has grown in recent decades, the Warner Parks have increasingly served as a “neighborhood park” for residents of surrounding residential developments. These subdivisions and communities include Bellevue, Devon Park, Harpeth Trace, West Meade, Forest Hills, Belle Meade, Devonshire, Horseshoe...
Bend, and Stonebridge to name a few. Educational institutions including Ensworth High School and Christ Presbyterian Academy have been developed adjacent to the park property, with students and faculty becoming daily users and visitors for recreational and educational pursuits.

The Warner Parks have also served traditionally as a “regional park” destination for thousands of residents throughout all of Metropolitan Nashville and Davidson County, as well as for residents of surrounding counties in Middle Tennessee. Some of the most popular attractions include hiking, running, bicycling, wildlife observation, environmental education, and the “healthy lifestyle” benefits of other outdoor recreation activities. It is estimated that over 1,000,000 visitors enjoy the Warner Parks annually.

The Edwin Warner Park Nature Center, established in 1973, is one of the most popular facilities that draws thousands of visitors annually for environmental education and outdoor recreation programs. The 2008 Annual Program Report documents 11,249 participants of school field trips for children and teacher workshops, Community Center and inner-city children programs, research projects with high school and university students and faculty, and other activities. 9,978 participants attended Nature Center public programs covering a wide variety of environmental education and nature appreciation subjects. 40,269 participants, from pre-school age to senior citizens, visited the Nature Center campus or received requested visitor services. The vast majority of these park visitors use and enjoy the trails and greenway paths of the Warner Parks, and would directly benefit from the proposed Trail Linkages project.

Greenway System Connectivity

In recent years the Warner Parks have been connected to the city-wide Greenway system with construction of greenway trailheads in Edwin Warner Park, and other components of the Harpeth River Greenway trail system. The primary trailhead for Greenways within the Warner Parks is ideally located to connect with and benefit from the proposed Trail Linkage project.

One of the most important benefits of the Warner Parks Trail Linkage proposal is the improved safety and access that would result from the underpass that would link the traditional park acreage to the new property between Hwy 100 and Hwy 70 S. The increased vehicular traffic on Hwy 100, as well as the CSX railroad line, creates significant safety risks for park patrons to connect and benefit from the available...
natural and recreational resources. The newly acquired 448 acres of parkland will not be safely accessible, and will be essentially unusable to the public, without the proposed underpass. The proposed underpass is the solution to these safety challenges, and would provide the appropriate linkage needed for the benefit of countless park visitors.

**Conclusion**

The planning efforts to expand the role of Warner Parks and the community services that it offers must be a unified and well-communicated process if it is to achieve the level of success that Warner Parks has enjoyed throughout its history. As the development process moves forward from conceptual design to the construction phase, the need for strong public-private partnerships and coordination of efforts are vital to making the dream become a reality. The great news with this particular application is that the public-private partnership and an entrenched process for effective communication already is in place in the form of the Friends Of Warner Park. Building upon this strong foundation of communication and network of relationships will enable the project to take full advantage of any parallel agency funding or potential resources which can make a recognizable difference in the final outcome of the project. And furthermore, upon the project’s completion, there is a ready and willing volunteer labor and donation source in place to provide the long-term care and nurturing of the new facilities.
Warner Park Trail Linkage

Connecting the Warner Parks to the Hill Property Parkland
Via a Pedestrian Underpass Beneath Highway 100 and the Railroad
How rare is the opportunity for a resident in a Metropolitan area, or the children of these urban dwellers, to experience an “old growth forest”, especially without having to travel hundreds of miles to preserved forests within the Smoky Mountains or Appalachians? The answer is – pretty rare! D. Kennard in the Forest Encyclopedia Network writes “Old growth forests, by any definition, are rare throughout the eastern United States. Forested landscapes have been modified dramatically since European settlement by logging, agriculture, urbanization, chestnut blight, charcoal production, and 20th-century fire suppression. At present, few primary forest stands 200, 300, or 400+ years old exist; these stands are mostly located in inaccessible, rugged areas or on infertile, xeric, or saturated sites… Although the southern Appalachians contain one of the largest concentrations of old-growth forests east of the Mississippi River, these forests are restricted mostly to the Great Smoky Mountains National Park and a few wilderness areas.”

However, hidden away within the newly acquired Hill Property parkland is a treasure of 200 acres of old growth forest, ready for discovery by the students and citizens of Middle Tennessee through educational programs and park tours to be offered by the Warner Parks Nature Center. The key to unlocking these opportunities lies with achieving a safe and viable access route to the Hill Property.

Comprehensive Site Analysis

Overview

Hill Property Old Growth Forest

In Perspective

The newly acquired 448 acres of parkland will not be safely accessible, and will be essentially unusable to the public, without the proposed underpass.
The existing 3 mile long Harpeth River Greenway currently extends from the Bellevue Exchange Club baseball complex along the Harpeth River, crossing the Ensworth High School campus, to its terminus at the Edwin Warner Park visitor parking. The long-term vision is to connect an off-road trail system across Highway 100 and the CSX railroad to connect to the Highway 70S corridor and provide an accessible, alternative transportation route to the Warner Parks system. The current Hwy. 100 and Old Hickory Blvd. roadways are high-speed vehicular corridors and have minimal shoulder conditions and no pedestrian sidewalks for runners, hikers, or bikers.
Regional Context

The neighborhoods immediately surrounding the Hill Property parkland (within a 2-mile radius) consist of residential developments averaging in density 4 to 9 homes to the acre, as well as encompassing 2 high schools, 1 middle school, 1 elementary school and multiple other community activity destinations such as golf courses, fitness clubs, religious centers, ball fields, greenways, etc. While the Warner Parks system has been proven to serve as a regional park resource as indicated by the visitor registry, it also has a strong community base of support surrounding the park. These 10,000+ neighborhood residents are the prime candidates for utilizing the park trails on a daily basis for recreation or alternative transportation opportunities.
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Highway 100 and the Railroad
The final Trail Linkage Plan closely follows the planning guidelines and concepts presented in the prior chapters. Within this chapter, the specific scope of improvements will be discussed along with the intended plan phasing to accomplish the long-term goal of connecting the Highway 100 and 70S corridors via an off-road, paved trail. This planning document will serve as a guidebook to assist the Metropolitan Parks Department and the Friends of Warner Park in directing the future development efforts within the Hill Property parcel should the project receive grant funding approval.

Phase One Trail Improvements

Phase One of the Trail Linkage Plan is focused solely on developing a safe, viable means for park users to traverse Highway 100 and the CSX railway which serve as physical barriers separating the current Warner Parks system from the newly acquired 480 acre Hill Property parkland.

The Phase One project scope includes the following plan elements:

- 800 linear feet of 10’ wide asphalt trail which will originate at the Edwin Warner Park Nature Center and will proceed northward beneath Highway 100 and the rail line via two pedestrian tunnels. Additionally, some level of permeable pavers may be introduced at specialty trail locations to delineate areas for seating, gathering, etc. The initial phase will terminate on the north side of the railway at a trailhead encompassing wayfinding signage graphics.

- 240 linear feet of tunnel liner arch-plate to allow for the connection beneath the highway and rail line without disruption of service. Retaining walls will be utilized to tie the grades back as the trail system traverses back to surrounding grade levels. One design element that will be incorporated is to avoid a foreboding and dark element with the tunnel design which tends to discourage the level of pedestrian use. The design will transition grades in a manner that allows for clearly visible sight lines through the pedestrian underpasses thus addressing any negative perceptions relating to personal security.

- A trail will be connected to the existing Harpeth River Greenway via signage and wayfinding graphics.

- Elements including bike racks, seating, and signage graphics will be introduced. The wayfinding signage will be designed to enhance the user experience and create learning opportunities.

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“Thus we seek two values in every landscape: one, the expression of the native quality of the landscape, the other, the development of maximum human livability.”

- Garrett Eckbo
Future Trail Improvements

The future trail connection to the Highway 70S corridor would then continue from the phase one trailhead on the northern side of the railway and traverse the sloping hillsides until reaching the crest of the ridge. The trail would continue along the ridgeline in order to minimize vertical elevation change and be compliant with the national design standards for trail accessibility. This portion of the trail is envisioned to utilize alternative paving means such as permeable pavers in order to accommodate materials being carried up the steep hillsides with smaller, less invasive site work equipment to avoid major disturbance to the environs. The future trail improvements phase involves approximately an additional 8,000 linear feet of trail in order to reach the intended trailhead located on Highway 70S at Brookmont Terrace with a trail tie-in to the existing farmstead.

Five Parameters for Development

In support of the conclusions drawn during the preliminary planning phase, the planning team recommended five key design parameters for proceeding with the planned improvements.

I Preserve the Natural Scenic Attributes of the Park throughout any Planned Improvements

Any improvements shall minimize disturbances to slopes and existing vegetation.

II Trail Improvements

Trail Improvements should serve a varied-user base. Varied trail lengths should accommodate fitness levels, primitive and accessible improvements, educational learning environment coupled with secluded areas, etc.

III Greenway Connectivity

Achieve connectivity to current greenway system and anchor destinations (Warner Park Nature Center) to gain wide appeal.

IV Develop Inter-connectivity Between Hwy. 70S and Park Access & Alternative Transportation Opportunities

Long-term benefits lie with an off-road access between Warner Parks and greater Bellevue.

V Funding Initiatives

- Leverage the grant funding initially as a means for accessing the Hill Property.
- Utilize the investment of public funds in infrastructure improvements to jump-start new interest within the Hill Property parkland and potential for generation of funding to extend the trail to Hwy. 70S.
Opinion of Construction Costs

The information presented herein provides an overall summary of the projected cost for Phase One of the Trail Linkage Improvements. At this preliminary level of site design, a contingency is included within the opinion of construction costs in order to allow for unforeseen project expenses.

The quantities reflected in this cost opinion were taken from the Trail Linkage Plan prepared by Littlejohn Engineering Associates (LEA), dated October 9, 2009. Since we do not have control over the cost of labor, materials, or equipment, or over the contractor’s method of costing in the marketplace, this preliminary opinion of the probable cost is made on the basis of our experience and qualifications and represents our best judgement as a design professional familiar with the construction industry. However, we cannot guarantee that bids or the actual construction cost will not vary from this cost opinion. If the owner desires greater assurances of the cost of construction, it is recommended that they employ an independent cost estimator.

Assumptions:

- The total length of tunnel liner plate necessary to traverse individually beneath the highway and railroad alignments will not exceed 240 linear feet. The unit cost figure is inclusive of assumed shoring provisions for tunnel excavation.

- An allowance of $25,000 is provided in the cost opinion for encountering existing utilities within the public right-of-way that may require minor reworking or grade adjustment. However, no disturbance to the existing roadway asphalt is anticipated in the scope.

Minor provisions are anticipated to daylight storm drainage improvements for the tunnel areas and any isolated low areas which are created as a result of the improvements. Any additional drainage improvements to remedy current conditions are not anticipated.

- Lighting improvements have not been included for the project since the Warner Parks system is a day-use area.

- Overhead electrical power lines are presumed to not be affected by the construction.
### Site Preparation & Demolition

<table>
<thead>
<tr>
<th>Item</th>
<th>Unit</th>
<th>Quantity</th>
<th>Unit Price</th>
<th>Total Cost</th>
<th>Federal TE Funds @ 80%</th>
<th>Local Government Matching Funds @ 20%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clearing and Grubbing</td>
<td>AC.</td>
<td>2</td>
<td>$3,000/ AC.</td>
<td>$6,000</td>
<td>$4,800.00</td>
<td>$1,200</td>
</tr>
<tr>
<td>Removal of Obstructions/Demolition</td>
<td>Allow.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Removal and Disposal of Debris</td>
<td>L.S.</td>
<td>3,500</td>
<td></td>
<td>$2,800.00</td>
<td></td>
<td>$700</td>
</tr>
<tr>
<td>Erosion and Sedimentation Control - Silt Fence</td>
<td>L.F.</td>
<td>1000</td>
<td>$6.00/ L.F.</td>
<td>$6,000</td>
<td>$4,800.00</td>
<td>$1,200</td>
</tr>
<tr>
<td>Erosion and Sedimentation Control - Constr. Entrance</td>
<td>EA.</td>
<td>1</td>
<td>$2,500</td>
<td>$2,000.00</td>
<td></td>
<td>$500</td>
</tr>
</tbody>
</table>

### Construction Items

<table>
<thead>
<tr>
<th>Item</th>
<th>Unit</th>
<th>Quantity</th>
<th>Unit Price</th>
<th>Total Cost</th>
<th>Federal TE Funds @ 80%</th>
<th>Local Government Matching Funds @ 20%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retaining Wall (Segmental wall product @ avg. 7.5’ h; w/ rein. Geogrid at tunnel entrances; total 8 - 30’ sections)</td>
<td>L.F.</td>
<td>400 L.F.</td>
<td>$225/ L.F.</td>
<td>$90,000</td>
<td>$72,000.00</td>
<td>$18,000</td>
</tr>
<tr>
<td>Earthwork (including general trail grading and tunnel excavation)</td>
<td>L.S.</td>
<td></td>
<td></td>
<td>$50,000</td>
<td>$40,000.00</td>
<td>$10,000</td>
</tr>
<tr>
<td>Asphalt Trail (10’ wide pathway at lower elevations of site)</td>
<td>L.F.</td>
<td>800 L.F.</td>
<td>(10’ width)</td>
<td>$22,000</td>
<td>$17,600.00</td>
<td>$4,400</td>
</tr>
<tr>
<td>All-Weather Surface Trail (10’ wide pathway constructed of concrete within the tunnel areas)</td>
<td>L.F.</td>
<td>260</td>
<td>(10’ width)</td>
<td>$9,100</td>
<td>$7,280.00</td>
<td>$1,820</td>
</tr>
<tr>
<td>Storm Drainage / Culvert Extensions</td>
<td>Allow.</td>
<td></td>
<td></td>
<td>$45,000</td>
<td>$36,000.00</td>
<td>$9,000</td>
</tr>
<tr>
<td>Pedestrian Tunnel Archplate Culvert (inclusive of shoring expense; 2 @ 175 L.F. each, 10’ h. tunnel liner plate; boring beneath Hwy. 100 and RR; 120’ each location)</td>
<td>L.F.</td>
<td>240 L.F.</td>
<td>$3,850/ L.F.</td>
<td>$924,000</td>
<td>$739,200.00</td>
<td>$184,800</td>
</tr>
<tr>
<td>Pedestrian ADA Curb Ramps</td>
<td>EA.</td>
<td>3</td>
<td>$850/ EA.</td>
<td>$2,550</td>
<td>$2,040.00</td>
<td>$510</td>
</tr>
<tr>
<td>Stripping</td>
<td>Allow.</td>
<td></td>
<td></td>
<td>$1,500</td>
<td>$1,200.00</td>
<td>$300</td>
</tr>
<tr>
<td>*Utility Relocation Allowance</td>
<td>Allow.</td>
<td></td>
<td></td>
<td>$25,000</td>
<td>$20,000.00</td>
<td>$5,000</td>
</tr>
</tbody>
</table>

### Landscaping

<table>
<thead>
<tr>
<th>Item</th>
<th>Unit</th>
<th>Quantity</th>
<th>Unit Price</th>
<th>Total Cost</th>
<th>Federal TE Funds @ 80%</th>
<th>Local Government Matching Funds @ 20%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Native Species Plantings</td>
<td>EA.</td>
<td>20</td>
<td>$300/ EA.</td>
<td>$6,000</td>
<td>$4,800.00</td>
<td>$1,200</td>
</tr>
<tr>
<td>Shrub</td>
<td>EA.</td>
<td>200</td>
<td>$50/ EA.</td>
<td>$10,000</td>
<td>$8,000.00</td>
<td>$2,000</td>
</tr>
<tr>
<td>Mulch</td>
<td>Allow.</td>
<td></td>
<td></td>
<td>$1,500</td>
<td>$1,200.00</td>
<td>$300</td>
</tr>
<tr>
<td>Topsoil &amp; Backfill Amendments</td>
<td>Allow.</td>
<td></td>
<td></td>
<td>$1,500</td>
<td>$1,200.00</td>
<td>$300</td>
</tr>
<tr>
<td>Seeding</td>
<td>AC.</td>
<td>2 Ac.</td>
<td>$1,500/ Ac.</td>
<td>$3,000</td>
<td>$2,400.00</td>
<td>$600</td>
</tr>
</tbody>
</table>

### Pedestrian Amenities

<table>
<thead>
<tr>
<th>Item</th>
<th>Unit</th>
<th>Quantity</th>
<th>Unit Price</th>
<th>Total Cost</th>
<th>Federal TE Funds @ 80%</th>
<th>Local Government Matching Funds @ 20%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benches</td>
<td>EA.</td>
<td>4</td>
<td>$900/ EA.</td>
<td>$3,600</td>
<td>$2,880.00</td>
<td>$720</td>
</tr>
<tr>
<td>Bike Racks (located at both trailheads)</td>
<td>EA.</td>
<td>2</td>
<td>$1,200/ EA.</td>
<td>$2,400</td>
<td>$1,920.00</td>
<td>$480</td>
</tr>
<tr>
<td>Trash Receptacles</td>
<td>EA.</td>
<td>2</td>
<td>$900/ EA.</td>
<td>$1,800</td>
<td>$1,440.00</td>
<td>$360</td>
</tr>
<tr>
<td>Signage</td>
<td>Allow.</td>
<td></td>
<td></td>
<td>$5,000</td>
<td>$4,000.00</td>
<td>$1,000</td>
</tr>
</tbody>
</table>

### Mobilization and Administration Costs

<table>
<thead>
<tr>
<th>Item</th>
<th>Unit</th>
<th>Quantity</th>
<th>Unit Price</th>
<th>Total Cost</th>
<th>Federal TE Funds @ 80%</th>
<th>Local Government Matching Funds @ 20%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contractor Mobilization/ Bonds</td>
<td>Allow.</td>
<td></td>
<td></td>
<td>$20,000</td>
<td>$16,000.00</td>
<td>$4,000</td>
</tr>
<tr>
<td>Traffic Control</td>
<td>Allow.</td>
<td></td>
<td></td>
<td>$10,000</td>
<td>$8,000.00</td>
<td>$2,000</td>
</tr>
<tr>
<td>Const. Survey &amp; Layout</td>
<td>Allow.</td>
<td></td>
<td></td>
<td>$7,500</td>
<td>$6,000.00</td>
<td>$1,500</td>
</tr>
<tr>
<td>Construction Administration</td>
<td>Allow.</td>
<td></td>
<td></td>
<td>$20,000</td>
<td>$16,000.00</td>
<td>$4,000</td>
</tr>
<tr>
<td>Construction Contingency</td>
<td></td>
<td>15%</td>
<td>of construction</td>
<td>$195,688</td>
<td>$156,534.00</td>
<td>$39,134</td>
</tr>
<tr>
<td>TDOT Dept. Oversight</td>
<td></td>
<td>2%</td>
<td>of construction</td>
<td>$26,089</td>
<td>$20,871.20</td>
<td>$5,218</td>
</tr>
<tr>
<td>Construction Engineering Inspection (CEI)</td>
<td></td>
<td>5%</td>
<td>of construction</td>
<td>$65,223</td>
<td>$52,178.00</td>
<td>$13,045</td>
</tr>
<tr>
<td>Subtotal of reimbursable construction expenses</td>
<td></td>
<td></td>
<td></td>
<td>$1,591,429</td>
<td>$1,273,143</td>
<td>$318,286</td>
</tr>
</tbody>
</table>
Warner Park Trail Linkage
Connecting the Warner Parks to the Hill Property Parkland
Via a Pedestrian Underpass Beneath Highway 100 and the Railroad
Amqui Train Station Depot Restoration and Rehabilitation
awarded by Governor Phil Bredesen on 9/19/07

Example of eligible Activities Four and Seven (4 & 7):
Scenic or Historic Highway Programs (Including Visitor Centers) and
Rehabilitation and Operation of Historic Transportation Buildings, Structures or Facilities

DEADLINE FOR 2010 SUBMITTALS:

November 2, 2009 at 4:00 PM

Submit applications electronically at tdot.enhancements@tn.gov
(for more submittal information see page 5 of this document)
IMPORTANT NOTICE TO APPLICANTS:

The Local Government Guidelines For The Management Of Federal and State Funded Transportation Projects (located on TDOT’s website at http://www.tdot.state.tn.us/local/Documents/LocalGovernmentGuidelines.pdf) provides State and Local Governmental Agencies with the procedures that are required by law, regulation, rule, policy and standards for the use of Federal Highway Administration (FHWA) transportation projects. Please familiarize yourself with the procedures specified in the Local Government Guidelines before submitting an application for Transportation Enhancement Funding.

If the procedures included in this manual are not followed, all funding will be withdrawn from the project.

The manual will be updated continuously as changes occur and will remain available in digital format on TDOT’s website on our Programs for Local Governments page http://www.tdot.state.tn.us/local/projectinfo.htm. To minimize confusion, technical guides are incorporated into the manual by reference. State and Local Governmental Agencies may access them on-line or download them for ready field reference. In the rare instance that an applicant does not have Internet capability, a hard copy will be provided, on request. It should be noted, however, that changes to the manual will be made only in the on-line version.

For additional assistance, please e-mail the Transportation Enhancement Office at TDOT.Enhancements@tn.gov.

Applications must be received or postmarked by 4:00 PM on November 2, 2009.
TDOT
TENNESSEE DEPARTMENT OF TRANSPORTATION
ENHANCEMENT PROGRAM APPLICATION
FY 2010

☐ Check box if this application is a re-submittal from any previous grant cycle and provide year of last submission: ________

Project Title: Phase One Improvements of the Warner Parks Trail Linkage Connecting the Hwy. 100 & 70 Corridors Through the Hill Property

Project Location (City AND County): Please include detailed driving directions to the project site from 505 Deaderick Street, Nashville for the necessary field reviews.
Site is located in Nashville, Davidson County. Project site is located at the intersection of Hwy. 100 with Old Hickory Blvd. (S.R. 254) on the southwest side of Nashville. Proceed west on West End Ave. from downtown to the split between Hwy. 70S and Hwy. 100. Continue on Hwy. 100 for approximately 4 miles to Edwin Warner Park.

Grand Total of All Project Costs (including preliminary engineering/design, right-of-way, and construction):

$1,686,429

<table>
<thead>
<tr>
<th>1. Total Construction Costs (excluding preliminary engineering/design and right-of-way expenses):</th>
</tr>
</thead>
<tbody>
<tr>
<td>$ 1,591,429 (100%)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2. Federal Construction Funds Requested:</th>
</tr>
</thead>
<tbody>
<tr>
<td>$ 1,273,143 (80% of number 1)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>3. Local Match of Construction Funds:</th>
</tr>
</thead>
<tbody>
<tr>
<td>$ 318,286 (20% of number 1) (Soft match of land value to be partially utilized)</td>
</tr>
</tbody>
</table>

Name of City/County or State Agency Applicant:
Metropolitan Board of Parks and Recreation

Address:
Centennial Park Office, Nashville, TN 37201

Local Government Contact Person, Phone Number and E-mail Address for Application Process:
Mr. Curt Garrigan, Assistant Director of Planning & Facilities; 615-862-8400; curt.garrigan@nashville.gov

Local Government Contact Person, Phone Number and E-mail Address for Project if Awarded:
Mr. Bob Parrish, Superintendent for Natural Resource Mgmnt. at Warner Park; 615-370-8050; bob.parrish@nashville.gov

I hereby certify that, to the best of my knowledge, the information submitted with this application is accurate, all rules & regulations contained in TDOT's Local Government Guidelines for the Management of Federal and State Funded Transportation Projects will be adhered to, & that funds are available for the completion of the project as described herein.

If an applicant is submitting more than one application, you must submit a letter with the applications ranking them in order of priority.

Signature: ___________________________________________ Date __/__/20__

City or County Mayor or State Agency Head

Printed Name and Title of elected official: Honorable Karl Dean, Mayor

NOTE: THE HIGHEST ELECTED OFFICIAL OF A STATE OR LOCAL GOVERNMENT MUST SIGN THIS APPLICATION.
**SECTION 1   ENHANCEMENT ACTIVITIES**

Check all that apply. Complete explanations of each activity can be found on Page 3 of the instruction booklet.

| ☑ Facilities for pedestrians or bicycles | ☐ Rehabilitation and operation of historic transportation buildings, structures or facilities (including historic railroad facilities and canals) |
| ☐ Safety and educational activities for pedestrians and bicyclists | ☐ Preservation of abandoned railway corridors |
| ☐ Acquisition of scenic easements and scenic or historic sites (including historic battlefields). TDOT does not accept applications from local agencies for this activity. | ☐ Inventory, control and removal of outdoor advertising. |
| ☐ Scenic or historic highway programs (including visitor centers) | ☐ Archaeological planning and research |
| ☐ Landscaping or other scenic beautification (All landscaping needs to be specified and detailed in the application budget) | ☑ Environmental mitigation: |
| ☐ Historic preservation |   1. due to highway runoff pollution (verification is required); |
| |   2. reduce vehicle-caused wildlife mortality; |
| |   3. maintain habitat connectivity |
| | ☐ Establishment of transportation museums |

**SECTION 2   PROJECT DESCRIPTION**

Include project name, project location, and scope of work. The project location should run from west to east or south to north and must include local road names. You must include a color coded map that clearly delineates the project (with road names, a north arrow and the project location highlighted), any photographs, plans, drawings and applicable preliminary sketches. MAPS MAY NOT BE LARGER THAN 11” x 17”.

If this is a pedestrian facility, you must provide distinct and connecting termini at each end of the proposed project. For example, "The Volunteer State Greenway is a 10’ wide asphalt trail which will be constructed parallel to State Route 147, beginning at a trailhead on Neal Street, proceeding in a northerly direction and terminating at Highland Elementary School located at Highland Avenue for a total distance of 4,670 linear feet."

**SECTION 3   PROJECT BUDGET**

PLEASE NOTE: Current applications will not be selected for funding until the fall of the following year with most projects not proceeding to construction for an additional year. Please adjust your budget accordingly and verify your calculations. You must include a statement verifying the source of the matching funds that will be provided by the Local Government, these funds cannot be from another FHWA surface transportation source. ALL COST OVERRUNS ARE THE RESPONSIBILITY OF THE LOCAL GOVERNMENT.

Budget templates are attached at the end of the application. Line items can be added or deleted as needed for any stage; however, this is the format in which the budget must be submitted. Budget template #2 is for structures only.

**SECTION 4   OPERATION AND MAINTENANCE COST**

Is the Local Government willing to be a party to a maintenance agreement for this project? ☑ Yes ☐ no

The facility on which this project is being developed shall remain open to the public for a sufficient time based upon the federal investment as shown below:

<table>
<thead>
<tr>
<th>Federal Amount</th>
<th>Lease</th>
</tr>
</thead>
<tbody>
<tr>
<td>$1.00 - $199,999</td>
<td>5 years from Federal close-out date</td>
</tr>
<tr>
<td>&gt;$200,000 - $499,999</td>
<td>10 years from Federal close-out date</td>
</tr>
<tr>
<td>&gt;$500,000 - $1,000,000</td>
<td>20 years from Federal close-out date</td>
</tr>
</tbody>
</table>

Projects over $1,000,000 carry a minimum 25 year lease and will be subject to individual review.
SECTION 5  SUPPORT AND COMMITMENT

Include the local, statewide, and legislative support for the proposed project and attach any available documentation.

METROPOLITAN AREAS

Are you in a Metropolitan Area over 50,000 population?  ☒ yes  ☐ no

If yes, please provide a copy of this application to the appropriate MPO/TPO/RPO coordinator.

NOTE: If the project is selected for funding you must have MPO/TPO project endorsement and amendment into the applicable Transportation Improvement Plan (TIP)

Please provide the legislative districts that correspond to the project location.

House District No.  55  Senate District No.  22  U.S. Congressional Representative District No. 05

SECTION 6  PROPERTY OWNERSHIP/ACQUISITIONS

Does all land necessary for the Project fall within public ownership or lease?  ☒ yes  ☐ no

Is any part of the project to be constructed inside State or Federal highway right-of-way?  ☒ yes  ☐ no

Does any part of your project lie within 200 feet of a rail line?  ☒ yes  ☐ no

Does the project include a pedestrian/bike overpass or underpass?  ☒ yes  ☐ no

Is the project along or adjacent to a State or Federal Highway?  ☒ yes  ☐ no

SECTION 7  RELATIONSHIP AND NEED

1. Relationship to Surface Transportation
   a. What service or function will this project, or has this project, provided for the traveling public?
      Refer to attached application booklet
   b. How will it impact surface transportation?
      Refer to attached application booklet

Please refer to www.fhwa.dot.gov/environment/th/relate.htm for more information pertaining to surface transportation relationships.

2. Demonstrated Need
   a. What need(s) will this project fulfill within the community?
      Refer to attached application booklet

3. Historical Impact
   a. What is the impact of the project to existing or eligible National Register of Historic Sites?
      There is no such impact.

4. Project Resources
   a. Is this a continuation of an existing project? If so, include the applicable Project Identification Number (PIN) project description, current status and estimated completion date.
      No, it is not a continuation of a current enhancement funds project.
   b. If the project is selected for funding, the State or Local Governmental Agency must certify by its signature that it has disclosed and provided to TDOT a copy of any and all contracts with any third party that relate to the project or any work funded for this project. The Agency must further certify that it will not enter into any contract with a third party that relates to this project or to any work funded for this project without prior disclosure of such proposed contract to TDOT. Failure to comply with these provisions shall be a material breach of the subsequent contract and may subject the Agency to the repayment of funds received from or through TDOT and for the payment of all damages suffered by TDOT as a result of said breach.
TDOT will accept applications electronically at tdot.enhancements@tn.gov. The electronic submission must still include the scanned signature of the applicable Mayor or State Agency Head as well as all necessary detailed maps, photographs, preliminary sketches, plans and support letters. Please note that only Word, PDF and JPG documents will be accepted for electronic submissions. If you choose not to submit electronically you must send one (1) complete bound application, in a hard cover 3-ring binder, and four (4) stapled copies of your application (these extra four (4) copies SHOULD NOT be bound) and should be submitted to:

TDOT - Transportation Enhancement Office
505 Deaderick Street, Suite 600, James K. Polk Building
Nashville, Tennessee 37243-0341
### BUDGET TEMPLATE #1

**Estimated Project Costs**

**INSTRUCTIONS:** List all items necessary to develop and construct your project. The applicant is responsible for verifying costs and their accuracy. Construction cost overruns will be the responsibility of the Local Government.

**LOCAL PROJECTS:** Please note that the Stage I and II Costs shown below are to be funded by the Local Government and are not eligible for Federal Reimbursement.

<table>
<thead>
<tr>
<th>ITEM DESCRIPTION</th>
<th>UNIT</th>
<th>QUANTITY</th>
<th>UNIT PRICE</th>
<th>TOTAL</th>
<th>FEDERAL TE FUNDS @ 80%</th>
<th>LOCAL GOVERNMENT MATCHING FUNDS @ 20%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preliminary Design Plans (enough to obtain the necessary environmental clearances)</td>
<td>LS</td>
<td>1</td>
<td>$20,000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Local, State and Federal Permits</td>
<td>LS</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plans, Specs, &amp; Estimates (PS&amp;E) Document Completion</td>
<td>LS</td>
<td>1</td>
<td>$75,000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>SUBTOTAL of non-reimbursable PE expenses</strong></td>
<td></td>
<td></td>
<td></td>
<td><strong>$95,000</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

All costs associated with preliminary engineering/design are not eligible for reimbursement.

**Preliminary Engineering/Design:** Costs cannot be reimbursed with federal funds. However, if the costs are incurred after receipt of the Notice to Proceed with the Environmental Phase of Preliminary Engineering/Design (PE), and the agency follows TDOT’s Consultant Selection Procedures, the costs can be applied toward the Local Government’s 20% match.

**Stage I – Preliminary Engineering/Design (PE)**

Local Match calculated by TDOT prior to Construction funding authorization: See page 6 of instruction booklet

| Preliminary Design Plans (enough to obtain the necessary environmental clearances) | LS | 1 | $20,000 | | |
| Local, State and Federal Permits | LS | 1 | | | |
| Plans, Specs, & Estimates (PS&E) Document Completion | LS | 1 | $75,000 | | |
| **SUBTOTAL of non-reimbursable PE expenses** | | | | **$95,000** | | |

**Stage II – Right-of-Way/Utilities**

All costs associated with right-of-way are not eligible for reimbursement

**Right-of-Way/Utilities:** Costs cannot be reimbursed with federal funds. However, if the costs are incurred after receipt of the Notice to Proceed with the Right-of-Way Phase (ROW), the costs can be applied toward the Local Government’s 20% match.

| ROW Design Plans | LS | 1 | $ - | | |
| ROW Acquisition (Applicable for the acquisition of Scenic or Historic Sites applied by State Agencies ONLY) | LS | 1 | $ - | | |
| License Agreements, Easements, Recording Fees | LS | 1 | $ - | | |
| Utility Relocation and Certifications (Only if not affected as a direct result of the enhancement project) | LS | 1 | $ - | | |
| **SUBTOTAL of non-reimbursable ROW expenses** | | | | **$ 0.00** | | |

All costs associated with preliminary engineering/design and right-of-way are not eligible for reimbursement.
<table>
<thead>
<tr>
<th>Site Preparation &amp; Demolition</th>
<th>Unit</th>
<th>Quantity</th>
<th>Unit price</th>
<th>Total Cost</th>
<th>Federal TE Funds @ 80%</th>
<th>Local Government Matching Funds @ 20%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clearing and Grubbing</td>
<td>AC.</td>
<td>2</td>
<td>$3,000/AC.</td>
<td>$6,000</td>
<td>$4,800.00</td>
<td>$1,200</td>
</tr>
<tr>
<td>Removal of Obstructions/ Demolition</td>
<td>Allow.</td>
<td>1</td>
<td>$25,000</td>
<td>$25,000</td>
<td>$20,000.00</td>
<td>$5,000</td>
</tr>
<tr>
<td>Removal and Disposal of Debris</td>
<td>L.S.</td>
<td>1</td>
<td>$3,500</td>
<td>$3,500</td>
<td>$2,800.00</td>
<td>$700</td>
</tr>
<tr>
<td>Erosion and Sedimentation Control - Silt Fence</td>
<td>L.F.</td>
<td>1000</td>
<td>$6.00/L.F.</td>
<td>$6000</td>
<td>$4,800.00</td>
<td>$1,200</td>
</tr>
<tr>
<td>Erosion and Sedimentation Control - Constr Entrance</td>
<td>EA.</td>
<td>1</td>
<td>$2,500</td>
<td>$2,500</td>
<td>$2,000.00</td>
<td>$500</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Construction Items</th>
<th>Unit</th>
<th>Quantity</th>
<th>Unit price</th>
<th>Total Cost</th>
<th>Federal TE Funds @ 80%</th>
<th>Local Government Matching Funds @ 20%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retaining Wall (Segmental wall product @ avg. 7.5 ft. w/ reinf. Geogrid at tunnel entrances; total 8 - 30')</td>
<td>L.F.</td>
<td>400 L.F.</td>
<td>$325/L.F.</td>
<td>$90,000</td>
<td>$72,000.00</td>
<td>$18,000</td>
</tr>
<tr>
<td>Earthwork (including general trail grading and tunnel excavation)</td>
<td>L.S.</td>
<td>1</td>
<td>$50,000</td>
<td>$50,000</td>
<td>$40,000.00</td>
<td>$10,000</td>
</tr>
<tr>
<td>Asphalt Trail (10' wide pathway at lower elevations of site)</td>
<td>L.F.</td>
<td>800 L.F. (10' width)</td>
<td>$27.50/L.F.</td>
<td>$22,000</td>
<td>$17,600.00</td>
<td>$4,400</td>
</tr>
<tr>
<td>All-Weather Surface Trail (10' wide pathway constructed of concrete within the tunnel areas)</td>
<td>L.F.</td>
<td>240 L.F. (10' width)</td>
<td>$15/L.F.</td>
<td>$924,000</td>
<td>$739,200.00</td>
<td>$184,800</td>
</tr>
<tr>
<td>Storm Drainage / Culvert Extensions</td>
<td>Allow.</td>
<td>240 L.F. (10' width)</td>
<td>$850/EA.</td>
<td>$1,500</td>
<td>$2,040.00</td>
<td>$510</td>
</tr>
<tr>
<td>Pedestrian Tunnel Archplate Culvert (inclusive of shoring expense; 2 @ 175 L.F. each, 10' ht. tunnel liner plate; setting beneath Hwy. 100 and RR. 120' each location)</td>
<td>EA.</td>
<td>3</td>
<td>$500/EA.</td>
<td>$1,500</td>
<td>$1,200.00</td>
<td>$300</td>
</tr>
<tr>
<td>Pedestrian ADA Curb Ramps</td>
<td>Allow.</td>
<td>240 L.F. (10' width)</td>
<td>$1,500</td>
<td>$250</td>
<td>$20,000.00</td>
<td>$5,000</td>
</tr>
<tr>
<td>Striping</td>
<td>EA.</td>
<td>1</td>
<td>$250</td>
<td>$250</td>
<td>$200.00</td>
<td>$50</td>
</tr>
<tr>
<td>*Utility Relocation Allowance</td>
<td>Allow.</td>
<td>1</td>
<td>$250</td>
<td>$250</td>
<td>$200.00</td>
<td>$50</td>
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<table>
<thead>
<tr>
<th>Landscaping</th>
<th>Unit</th>
<th>Quantity</th>
<th>Unit price</th>
<th>Total Cost</th>
<th>Federal TE Funds @ 80%</th>
<th>Local Government Matching Funds @ 20%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Native Species Plantings</td>
<td>EA.</td>
<td>20</td>
<td>$300/EA.</td>
<td>$6,000</td>
<td>$4,800.00</td>
<td>$1,200</td>
</tr>
<tr>
<td>Trees</td>
<td>EA.</td>
<td>200</td>
<td>$500/EA.</td>
<td>$10,000</td>
<td>$8,000.00</td>
<td>$2,000</td>
</tr>
<tr>
<td>Mulch</td>
<td>Allow.</td>
<td>1</td>
<td>$1,500</td>
<td>$1,500</td>
<td>$1,200.00</td>
<td>$300</td>
</tr>
<tr>
<td>Topsoil &amp; Backfill Amendments</td>
<td>Allow.</td>
<td>1</td>
<td>$1,500</td>
<td>$1,500</td>
<td>$1,200.00</td>
<td>$300</td>
</tr>
<tr>
<td>Seeding</td>
<td>AC.</td>
<td>1 Ac.</td>
<td>$1,500/AC.</td>
<td>$3,000</td>
<td>$2,400.00</td>
<td>$600</td>
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<table>
<thead>
<tr>
<th>Pedestrian Amenities</th>
<th>Unit</th>
<th>Quantity</th>
<th>Unit price</th>
<th>Total Cost</th>
<th>Federal TE Funds @ 80%</th>
<th>Local Government Matching Funds @ 20%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benches</td>
<td>EA.</td>
<td>4</td>
<td>$900/EA.</td>
<td>$3,600</td>
<td>$2,880.00</td>
<td>$720</td>
</tr>
<tr>
<td>Bike Racks (located at both trailheads)</td>
<td>EA.</td>
<td>2</td>
<td>$1,200/EA.</td>
<td>$2,400</td>
<td>$1,920.00</td>
<td>$480</td>
</tr>
<tr>
<td>Trash Receptacles</td>
<td>EA.</td>
<td>2</td>
<td>$900/EA.</td>
<td>$1,800</td>
<td>$1,440.00</td>
<td>$360</td>
</tr>
<tr>
<td>Signage</td>
<td>Allow.</td>
<td>1</td>
<td>$800</td>
<td>$800</td>
<td>$640.00</td>
<td>$160</td>
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<table>
<thead>
<tr>
<th>Mobilization and Administration Costs</th>
<th>Unit</th>
<th>Quantity</th>
<th>Unit price</th>
<th>Total Cost</th>
<th>Federal TE Funds @ 80%</th>
<th>Local Government Matching Funds @ 20%</th>
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<tbody>
<tr>
<td>Contractor Mobilization/ Bonds</td>
<td>Allow.</td>
<td>1</td>
<td>$20,000</td>
<td>$20,000</td>
<td>$16,000.00</td>
<td>$4,000</td>
</tr>
<tr>
<td>Traffic Control</td>
<td>Allow.</td>
<td>1</td>
<td>$10,000</td>
<td>$10,000</td>
<td>$8,000.00</td>
<td>$2,000</td>
</tr>
<tr>
<td>Const. Survey &amp; Layout</td>
<td>Allow.</td>
<td>1</td>
<td>$7,500</td>
<td>$7,500</td>
<td>$6,000.00</td>
<td>$1,500</td>
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<tr>
<td>Construction Administration</td>
<td>Allow.</td>
<td>1</td>
<td>$20,000</td>
<td>$20,000</td>
<td>$16,000.00</td>
<td>$4,000</td>
</tr>
<tr>
<td>Construction Contingency</td>
<td>15%</td>
<td>of construction</td>
<td>$155,688</td>
<td>$155,688</td>
<td>$116,551.00</td>
<td>$39,134</td>
</tr>
<tr>
<td>TDOT Dept. Oversight</td>
<td>2%</td>
<td>of construction</td>
<td>$26,089</td>
<td>$26,089</td>
<td>$20,871.20</td>
<td>$5,218</td>
</tr>
<tr>
<td>Construction Engineering, Inspection (CEI)</td>
<td>5%</td>
<td>of construction</td>
<td>$65,223</td>
<td>$65,223</td>
<td>$52,178.00</td>
<td>$13,045</td>
</tr>
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| Subtotal of reimbursable construction expenses | $1,591,429 | $1,273,143 | $318,286 |
Warner Park Trail Linkage
Connecting the Warner Parks to the Hill Property Parkland
Via a Pedestrian Underpass Beneath Highway 100 and the Railroad
October 30, 2009

Commissioner Gerald Nicely  
Tennessee Department of Transportation  
James K. Polk Building, Suite 700  
505 Deaderick Street  
Nashville, Tennessee 37243

Dear Commissioner Nicely:

The Metropolitan Board of Parks and Recreation of the city of Nashville is applying for a TDOT 2010 Transportation Enhancement Grant. I am writing this letter in support for this application. This is needed to construct a bike and pedestrian underpass to connect the existing Warner Parks to the north side of Highway 100, a State scenic highway, where Friends of Warner Parks has just completed the acquisition of 124 acres. This new property, now called The Burch Reserve, has recently been turned over to the city and is now a part of the Warner Parks. The Parks are a unique resource for all of Middle Tennessee, and a stunning jewel in Nashville’s park system.

At the present time, Friends of Warner Parks is actively soliciting $10,800,000 to acquire 324 acres known as the Hill Forest. Close to 200 acres of this land is an old growth forest with trees 200-400 years old. This property connects Highway 100 with State Highway 70. The proposed underpass project will provide a connecting link to this Highway 70 corridor by means of an all-weather surface Greenway Trail. In the very near future this latest acquisition will become part of the Warner Parks.

The bike and pedestrian underpass addresses the following needs:

GREENWAYS

The Warner Parks Trail Linkage Transportation Enhancement project will connect the Harpeth River Greenway, currently under development, to newly acquired parkland and recreational opportunities between Hwy 100 and Hwy 70 South. The Harpeth River Greenway development is a critical component of Nashville’s citywide Master Plan for Parks and Greenways, and this project will connect greenway pedestrians and bicyclists to significant natural and recreational resources.
EDUCATION

The project will also link the award-winning Warner Park Nature Center program to the newly acquired property between Hwy 100 and Hwy 70 South. Thousands of school children and citizens of all ages will have opportunities to visit the property for environmental education and field trips. Local high school and university students & faculty will be safely linked to the property for research projects, including the nearby Ensworth High School.

SAFETY

The Enhancement Grant will greatly improve public and transportation safety for thousands of visitors to the parkland, by providing an underpass to the park property for pedestrians and bicyclists for crossing Hwy 100. The project will also improve safety for crossing the CSX railroad tracks.

HEALTHY LIFESTYLES

The linkages and connections made possible by the Warner Parks Trails Enhancement project will directly improve healthy lifestyles for the community with improved and safe opportunities for walking, running, and bicycling. The project will also encourage citizens of all ages to enjoy the clean air and stress-relieving activities found on beautiful local parkland.

I support this grant application, and urge you to award the Metropolitan Board of Parks and Recreation the needed Enhancement Grant to complete this unique project.

Sincerely,

Karl F. Dean
Mayor
October 29, 2009

Commissioner Gerald Nicely
Tennessee Department of Transportation
James K. Polk Building, Suite 700
505 Deaderick Street
Nashville, Tennessee 37243

Dear Commissioner Nicely:

The Metropolitan Board of Parks and Recreation of the city of Nashville is applying for a TDOT 2010 Transportation Enhancement Grant. I am writing this letter to convey my enthusiastic support for this application. This is needed to construct a bike and pedestrian underpass to connect the existing Warner Parks to the north side of Highway 100, a State scenic highway, where Friends of Warner Parks has just completed the acquisition of 124 acres. This new property, now called The Burch Reserve, has recently been turned over to the city and is now a part of the Warner Parks. The Parks are a unique resource for all of Middle Tennessee, and a stunning jewel in Nashville’s park system.

At the present time, Friends of Warner Parks is actively soliciting $10,800,000 to acquire 324 acres known as the Hill Forest. Close to 200 acres of this land is an old growth forest with trees 200-400 years old. This property connects Highway 100 with State Highway 70. The proposed underpass project will provide a connecting link to this Highway 70 corridor by means of an all weather surface Greenway Trail. In the very near future this latest acquisition will become part of the Warner Parks.

The bike and pedestrian underpass addresses the following needs:
GREENWAYS

The Warner Parks Trail Linkage Transportation Enhancement project will connect the Harpeth River Greenway, currently under development, to newly acquired parkland and recreational opportunities between Hwy 100 and Hwy 70 South. The Harpeth River Greenway development is a critical component of Nashville’s citywide Master Plan for Parks and Greenways, and this project will connect greenway pedestrians and bicyclists to significant natural and recreational resources.

EDUCATION

The project will also link the award-winning Warner Park Nature Center program to the newly acquired property between Hwy 100 and Hwy 70 South. Thousands of school children and citizens of all ages will have opportunities to visit the property for environmental education and field trips. Local high school and university students & faculty will be safely linked to the property for research projects, including the nearby Ensworth High School.

SAFETY

The Enhancement Grant will greatly improve public and transportation safety for thousands of visitors to the parkland, by providing an underpass to the park property for pedestrians and bicyclists for crossing Hwy 100. The project will also improve safety for crossing the CSX railroad tracks.

HEALTHY LIFESTYLES

The linkages and connections made possible by the Warner Parks Trails Enhancement project will directly improve healthy lifestyles for the community with improved and safe opportunities for walking, running, and bicycling. The project will also encourage citizens of all ages to enjoy the clean air and stress-relieving activities found on beautiful local parkland.

I heartily support this grant application, and urge you to award the Metropolitan Board of Parks and Recreation the needed Enhancement Grant to complete this unique linkage project.

Very truly yours,

Douglas Henry
October 30, 2009

Commissioner Gerald Nicely
Tennessee Department of Transportation
James K. Polk Building, Suite 700
505 Deaderick Street
Nashville, Tennessee 37243

Dear Commissioner Nicely,

The Metropolitan Board of Parks and Recreation of the city of Nashville is applying for a TDOT 2010 Transportation Enhancement Grant. I am writing this letter to convey my enthusiastic and steadfast support for this application. This grant is needed to construct a bike and pedestrian underpass connecting the existing Warner Parks to the north side of Highway 100, a state scenic highway, where Friends of Warner Parks has recently completed the acquisition of 124 acres. This new property, now called The Burch Reserve, has recently been turned over to the city and is now a part of the Warner Parks. The Parks are a unique resource for all of Middle Tennessee, and a stunning jewel in Nashville’s park system.

At present, Friends of Warner Parks is actively soliciting $10,800,000 to acquire 324 acres known as the Hill Forest. Close to 200 acres of this land is an old growth forest with trees 200-400 years old. This property connects Highway 100 with State Highway 70. The proposed underpass project will provide a connecting link to this Highway 70 corridor by means of an all weather surface Greenway Trail. In the very near future this latest acquisition will become part of the Warner Parks.

The bike and pedestrian underpass addresses the following needs:

GREENWAYS

The Warner Parks Trail Linkage Transportation Enhancement project will connect the Harpeth River Greenway, currently under development, to newly acquired parkland and recreational opportunities between Hwy 100 and Hwy 70 South. The Harpeth River
Greenway development is a critical component of Nashville’s citywide Master Plan for Parks and Greenways, and this project will connect greenway pedestrians and bicyclists to significant natural and recreational resources.

EDUCATION

The project will also link the award-winning Warner Park Nature Center program to the newly acquired property between Hwy 100 and Hwy 70 South. Thousands of school children and citizens of all ages will have opportunities to visit the property for environmental education and field trips. Local high school and university students & faculty will be safely linked to the property for research projects, including the nearby Ensworth High School.

SAFETY

The Enhancement Grant will greatly improve public and transportation safety for thousands of visitors to the parkland by providing an underpass to the park property for pedestrians and bicyclists to use while crossing Hwy 100. The project will also improve safety for crossing the CSX railroad tracks.

HEALTHY LIFESTYLES

The linkages and connections made possible by the Warner Parks Trails Enhancement project will provide our community with additional opportunities to engage in living a healthy lifestyle by creating a safe outdoor area in which to walk, run, and cycle. The project will also encourage citizens of all ages to enjoy the clean air and stress-relieving activities found on beautiful local parkland.

I heartily support this grant application, and urge you to award the Metropolitan Board of Parks and Recreation the needed Enhancement Grant to complete this unique linkage project.

Sincerely,

[Signature]

Member, Tennessee House of Representatives
District 55- Nashville
October 30, 2009

Dear Commissioner Nicely,

The Metropolitan Board of Parks and Recreation of the City of Nashville is applying for a TDOT 2010 Transportation Enhancement Grant. I am writing this letter to convey my enthusiastic support for this application. This is needed to construct a bike and pedestrian underpass to connect the existing Warner Parks to the north side of Highway 100, a State scenic highway, where Friends of Warner Parks has just completed the acquisition of 124 acres. This new property, now called The Burch Reserve, has recently been turned over to the City and is now a part of the Warner Parks. The Parks are a unique resource for all of Middle Tennessee, and a stunning jewel in Nashville’s park system.

At the present time, Friends of Warner Parks is actively soliciting $10,800,000 to acquire 324 acres known as the Hill Forest. Close to 200 acres of this land is an old growth forest with trees 200-400 years old. This property connects Highway 100 with State Highway 70. The proposed underpass project will provide a connecting link to this Highway 70 corridor by means of an all weather surface Greenway Trail. In the very near future this latest acquisition will become part of the Warner Parks.

The bike and pedestrian underpass addresses the following needs:

GREENWAYS
The Warner Parks Trail Linkage Transportation Enhancement project will connect the Harpeth River Greenway, currently under development, to newly acquired parkland and recreational opportunities between Hwy 100 and Hwy 70 South. The Harpeth River Greenway development is a critical component of Nashville’s citywide Master Plan for Parks and Greenways, and this project will connect greenway pedestrians and bicyclists to significant natural and recreational resources.

EDUCATION
The project will also link the award-winning Warner Park Nature Center program to the newly acquired property between Hwy 100 and Hwy 70 South. Thousands of school children and citizens of all ages will have opportunities to visit the property for environmental education and field trips. Local high school and university students & faculty will be safely linked to the property for research projects, including the nearby Ensworth High School.
SAFETY
The Enhancement Grant will greatly improve public and transportation safety for thousands of visitors to the parkland, by providing an underpass to the park property for pedestrians and bicyclists for crossing Hwy 100. The project will also improve safety for crossing the CSX railroad tracks.

HEALTHY LIFESTYLES
The linkages and connections made possible by the Warner Parks Trails Enhancement project will directly improve healthy lifestyles for the community with improved and safe opportunities for walking, running, and bicycling. The project will also encourage citizens of all ages to enjoy the clean air and stress-relieving activities found on beautiful local parkland.

I heartily support this grant application, and urge you to award the Metropolitan Board of Parks and Recreation the needed Enhancement Grant to complete this unique linkage project.

Sincerely,

Bo Mitchell
Councilmember, District 35
Commissioner Gerald Nicely
Tennessee Department of Transportation
James K. Polk Building, Suite 700
505 Deaderick Street
Nashville, Tennessee 37243

Dear Commissioner Nicely:

As you know, I chaired the Metro Council’s Parks and Recreation Committee during the last year, during which time the Friends of Warner Parks purchased 124 acres, known as the Burch Reserve. This new property has recently been turned over to the city and is now a part of the Warner Park system.

The Metropolitan Board of Parks and Recreation of the city of Nashville is applying for a TDOT 2010 Transportation Enhancement Grant, which is needed to construct a bike and pedestrian underpass to connect the existing Warner Parks to the Burch Reserve. I am writing this letter to convey my enthusiastic support for this application.

At the present time, Friends of Warner Parks is actively soliciting $10,800,000 to acquire 324 acres known as the Hill Forest. Close to 200 acres of this land is an old growth forest with trees 200-400 years old. This property connects Highway 100 with State Highway 70. The proposed underpass project will provide a connecting link to this Highway 70 corridor by means of an all weather surface Greenway Trail. In the very near future this latest acquisition will become part of the Warner Parks.

The bike and pedestrian underpass will help in many areas, including:

Greenways. The Warner Parks Trail Linkage Transportation Enhancement project will connect the Harpeth River Greenway, currently under development, to newly acquired parkland and recreational opportunities between Hwy 100 and Hwy 70 South. The Harpeth River Greenway development is a critical component of Nashville’s citywide Master Plan for Parks and Greenways, and this project will connect greenway pedestrians and bicyclists to significant natural and recreational resources.
Education. The project will also link the award-winning Warner Park Nature Center program to the newly acquired property between Hwy 100 and Hwy 70 South. Thousands of school children and citizens of all ages will have opportunities to visit the property for environmental education and field trips. Local high school and university students & faculty will be safely linked to the property for research projects, including the nearby Ensworth High School.

Safety. The Enhancement Grant will greatly improve public and transportation safety for thousands of visitors to the parkland, by providing an underpass to the park property for pedestrians and bicyclists for crossing Hwy 100. The project will also improve safety for crossing the CSX railroad tracks.

Healthy Lifestyles. The linkages and connections made possible by the Warner Parks Trails Enhancement project will directly improve healthy lifestyles for the community with improved and safe opportunities for walking, running, and bicycling. The project will also encourage citizens of all ages to enjoy the clean air and stress-relieving activities found on beautiful local parkland.

I heartily support this grant application, and urge you to award the Metropolitan Board of Parks and Recreation the needed Enhancement Grant to complete this unique linkage project.

Best regards.

Very truly yours,

Carter R. Todd
August 12, 2008

Friends of Warner Parks
Warner Bass
50 Vaughn Road
Nashville, TN 37221

Re: Hill tract

Dear Mr. Bass:

I was pleased to have the opportunity recently to visit the property that the Friends of Warner Parks is attempting to purchase for eventual inclusion in the parks (the "Hill property"). During this visit, I was struck by several unusual characteristics of the tract:

- the high diversity of large trees including oaks, hickories, beech, ashes, tulip poplars, and sassafras. I have seen individual large specimens of these species at various locations in middle Tennessee, but never so many examples of so many species in one location.

- the open nature of the forest. Most natural areas that I have visited in this region are in much earlier successional stages and have far more brush, small trees, greenbriar, etc. This forest reminded me of the few patches of old growth forest that I have passed through in the Smokies.

- the virtual absence of invasive species in the interior of the tract. I was honestly surprised to find any area within the developed part of Nashville like that. Most comparable natural areas in the region that are near development (e.g. Radnor Lake, Warner Parks, Shelby Bottoms, Longhunter) are overrun with bush and vine honeysuckle, privet, wintercreeper, etc. The only park in the vicinity of Nashville in which I have spent time that might be compared with this in terms of lack of disturbance and invasive species is Beaman Park, but even Beaman has old logging roads along the summit of nearly every ridge and has been subjected to logging in the past. I am anxious to have the opportunity to visit this tract during the spring to see whether the diversity of herbaceous plants is comparable to what we observed in the woody plants on this trip.

As an educator, I am excited about the potential that exists for student research on this property. In particular, it would be very interesting to be able to delineate permanent study plots in the parts of the tract that exhibit old-growth traits and to survey those plots to determine whether their characteristics are similar to those of other forests known to be at successional climax. Initially this would involve measurement of the size and distribution of trees, but it could eventually be extended to the herbaceous flora and insects. Because of the
relative rareness of undisturbed forests in this region, I am aware of relatively few studies of this kind (Quarterman et al. 1972. Analysis of virgin mixed mesophytic forests in Savage Gulf, Tennessee. *Bulletin of the Torrey Botanical Club* 99: 228-232 is an exception and their study was limited to steep slopes that had escaped logging due only to inaccessibility). A similar study of a tract at Radnor Lake in an earlier successional stage (Eickmeier. 1988. Ten Years of Forest Dynamics at Radnor Lake, Tennessee. *Bulletin of the Torrey Botanical Club* 115:100-107) could be used as a contrasting example. If this property is acquired, I plan to encourage students in my research-methods course (BSCI 111c) to begin such a study. It is also possible that the study could be conducted in cooperation with other local academic institutions that might survey other locations within the tract, or different aspects of the plots.

I encourage the Friends of Warner Parks to proceed with the acquisition of this property. In addition to the unique general characteristics I have outlined above, it is almost unbelievable that such a tract has survived and is located adjacent to the existing Warner Parks. The opportunity to add property like this to the park and to plan for its development as a park resource in an ecologically sound manner will probably never arise again.

Sincerely,

Steven J. Baskauf, Ph.D.
Senior Lecturer

cc: Sandy Bivens
November 7, 2008

Ms. Eleanor Willis
Friends of Warner Parks
50 Vaughn Road
Nashville, TN 37221

Re: H.G. Hill Tract

Dear Eleanor:

We celebrate the decision of the Friends of Warner Parks to pursue acquisition of the H.G. Hill tract in Davidson County. It is rare that such a beautiful and unique piece of land in Davidson County is preserved for future generations.

Not only is this property so rare in the Middle Tennessee region, but it is rare that such a diverse property can be added to an already extraordinary local Parks system. The Land Trust for Tennessee’s vision is “Life. Land. Legacy.” Adding the H.G. Hill tract to the Warner Parks system will leave a lasting legacy of ecological and educational opportunities in a region where it is sorely needed. As we all know, Middle Tennessee is losing its open spaces at an alarming rate. The need for action on this property cannot be overstated.

By preserving the H.G. Hill tract, Friends of Warner Parks will be protecting the legacy of Warner Parks for all citizens in Middle Tennessee. While the need for protecting this property is immediate, the legacy will live on for all generations.

Please know that our Board of Directors passed a resolution endorsing your efforts and we wish you the best in this important endeavor.

Sincerely,

Jean Nelson
President and Executive Director
September 25, 2008

Friends of Warner Parks
Ms. Eleanor Willis, Executive Director
50 Vaughn Road
Nashville, TN 37221

Dear Ms. Willis:

Although The Nature Conservancy (TNC) focuses its limited resources on larger landscapes in generally rural settings (as opposed to sites contained in more urbanized settings), the H.G. Hill site presented an opportunity to evaluate a very unusual tract for Middle Tennessee.

In April of 2007, TNC staff biologist, Chris Bullington, visited the H.G. Hill tract with Brian Bowen, a biologist from the Tennessee Division of Natural Areas, and other interested parties. During the visit, a rapid ecological assessment was conducted to determine what conservation qualities might exist on the property. The biologists toured the 322 acre site on foot for approximately four hours to assess: general forest conditions, unique natural features, and potential occurrences of rare species and habitats.

The assessment revealed that the H.G. Hill property represents an extraordinary find for Middle Tennessee and is a tract that should be protected and preserved. The potential for use in any number of Park sponsored environmental education opportunities is unparalleled in this part of the State. Sites like this have become so rare as to also present significant research opportunities at a number of different educational levels.
It is my sincere hope that the funding necessary to protect this unique site for future generations can be raised before it is too late. Houses and shopping centers we have – truly unique natural spaces where both children and adults have the opportunity to learn about and experience our natural world – are becoming far too rare. In the years to come these will be the legacies that really matter.

Sincerely,

Scott Davis
State Director,
Tennessee Chapter of The Nature Conservancy
August 24, 2008

E. Warner Bass
Chairman Emeritus
Chairman, Capital Campaign
Friends of Warner Parks, Inc.
Warner Parks Headquarters
50 Vaughn Road
Nashville, TN 37221

Dear Warner:

The Tennessee Chapter of the Sierra Club is pleased to endorse the Friends of Warner Parks project to acquire the unique tract of 322 acres of H.G. Hill property that is adjacent to the existing Warner Parks in Nashville. The opportunity to protect, as a part of the Warner Parks, this number of acres that contain unique geological and scenic features, support high quality native plant communities, and have an old growth forest in an urban setting must not go unfulfilled.

Sierra’s mission statement to "Explore, enjoy and protect the planet," and your efforts to acquire and protect this property are certainly in concert with Sierra’s values. Having the largest old-growth urban forest in this country in Nashville, TN would be outstanding.

Katherine Pendleton
Tennessee Chapter-Chair
The opportunity for Friends of Warner Parks to acquire the Hill Tract is a once-in-a-lifetime event.

On August 20, 2008, the Metro Tree Advisory Committee passed a resolution endorsing the acquisition of this 322-acre property, which will:

• Enlarge the Warner Parks and help accommodate ever-increasing demands on them,
• Protect the Parks' viewshed against encroaching commercial development, and
• Expand educational opportunities available.

As important as these factors are, the discovery of an old-growth forest on the Hill Tract makes it essential that the Warner Parks acquire this property. Finding a virgin forest like this is extremely rare, especially so close to an urban area. The acquisition will allow the old-growth portions of the forest to be designated as a state natural area, preserved for generations to come. In addition to protecting trees that are hundreds of years old, it will extend protection to the unique vegetation there as well as several species of birds that require old-growth forest as a nesting site.

The project is expensive, but this is an opportunity Nashville can't afford to pass up. We, the undersigned members of the Metro Tree Advisory Committee, urge every Nashvillian to step up and help make this acquisition possible.

Chris Armour, Chair, Armour&Armour Advertising and Publications
Bill Tolbert, Vice Chair, State of Tennessee
Carol Ashworth, Ashworth Environmental Design
Alice A. Barge, Citizen activist
Dwight Beard, Beard's Landscaping & Lawn Maintenance
Dean Glascock, Arbor Art Tree Care
Marcus Kerske, Gardens of Babylon
Heather Langford, SSRCx
Lynda Miller, Miller Media
Jason Ownbey, Historic Edgefield
Richard C. Page, Druid Tree Service
Glenn Springer, Nashville Electric Service
Bruce Webster, Tennessee Department of Agriculture, Forestry Division

Ex-Officio
Stephan Kivett, Nashville Urban Forester, Metro Codes Department
Randall Lantz, Metro Parks and Recreation
Veronica Frazier, Metro Beautification & Environment Commission
September 7, 2008

Friends of Warner Park
E. Warner Bass
50 Vaughn Road
Nashville, TN 37221

Dear Mr. Bass,

It is with great interest and support that the Tennessee Urban Forestry Council (TUFC) endorses the Friends of Warner Parks effort to extend the Warner Parks system to include the H. G. Hill Realty Company Tract. This effort is in line with our mission of promoting healthy and sustainable urban and community forests. This is truly a once in a lifetime opportunity that stands to benefit all future generations.

The maintenance of this land tract as a component of Nashville’s urban forest will provide priceless community value. The preservation of “old growth” forest as an original wildlife habitat will generate beneficial ecological services, including:

- Improved **air quality** through the absorption of gaseous pollutants and filtering of particulate matter.
- Moderation of **local climate** through the cooling effects of hundreds of acres of trees.
- An offset of Nashville’s “carbon footprint” through **carbon sequestration**. A single tree stores an average of 13 pounds of carbon annually. A community forest can store 2.6 tons of carbon per acre per year.
- Protection of **water quality** within the Harpeth River Watershed.
- Maintenance of the **wildland interface** within the increasing urbanized Davidson County.

Thank you for your work to expand and preserve this treasured community asset.

Sincerely,

Jennifer Mathews Smith
Executive Director

*People who will not sustain trees will soon live in a world which cannot sustain people.*

-- Bryce Nelson
February 10, 2009

Mr. E. Warner Bass
Friends of Warner Parks
50 Vaughn Road
Nashville TN 37221

Dear Warner,

On behalf of The Conservation Fund, I would like to express my enthusiastic support for the Friends of Warner Parks’ effort to acquire the H.G. Hill Realty property. Urban parks are increasingly important to the well-being of local communities, especially the youth. You are probably familiar with the fairly recent book by author Richard Lou entitled “Last Child in the Woods” in which the concept of Nature-Deficit Disorder is discussed. In the long list of reasons regarding the importance of natural park lands, Nature-Deficit Disorder is perhaps the most recent. We must continue to balance children’s lives with quality outdoor experiences.

The addition to Warner Park of the H.G. Hill property with its beautiful old-growth trees will be a wonderful legacy for current and future generations. It will also help provide additional incentives and opportunities for children to spend time outdoors and to reduce the effects of Nature-Deficit Disorder. I wish you success with this significant endeavor and hope that in these challenging economic times your potential donors will agree to support this outstanding project.

Please let me know if you see ways that The Conservation Fund can be of further assistance with this important project.

Sincerely,

Rex R. Boner
Vice President
Southeast Representative
May 2, 2007

Friends of Warner Parks
C/O Warner Bass
50 Vaughns Gap Road
Nashville, Tennessee 37205

Dear Mr. Bass:

I am writing in regard to the natural area attributes on the 322-acre property between Hwy 70S and Hwy 100 at 6811 Hwy 70S in Davidson County that is owned by the H.G. Hill Realty Co. I was asked to visit this property and provide a brief assessment of the site’s natural area qualities. A site’s natural area attributes are characterized by the occurrence of rare elements (species and communities), its unique geological/scenic features, and/or because a site supports high quality exemplary native plant communities that are becoming increasingly rare in Tennessee. An objective of my two site visits in April 2007 was to observe if any of these attributes are present on the property.

The most interesting feature observed was the occurrence of the many extraordinarily different large tree species, particularly those associated with the slopes and ridges. The approximate average size class of trees on the ridges was somewhere between 34 inches to 46 inches diameter at breast height (dbh). The approximate average size class of trees on the slopes was approximately 20 inches to 27 inches dbh. These size class ranges are approximations based on estimates made after walking the majority of the 322 acres and taking numerous measurements. In addition, there were many examples of white oak, sugar maple, tulip poplar, black oak, red pignut hickory, American beech, chestnut oak, and other species that exceed these average-size class ranges. The size class ranges of the ridge and slope forests here are perhaps the best examples of any comparable forest types found in Middle Tennessee including those found at Radnor Lake Designated State Natural Area (DSNA), Bon Aqua DSNA, Short Springs DSNA, Beaman Park in Metro Davidson County, and the Warner Parks just across Highway 100.

Furthermore, these large trees and the forest structure on this property is characteristic of an old growth forest ecosystem. There is no known history of logging on this property according to the property caretaker, whose father preceded him as property caretaker when the Hills acquired the property in the 1930’s. There are no stumps associated with logging to be found. There are very large dead trees decaying on the ground occasionally scattered throughout the property, which is sometimes indicative of an old growth forest. The only anomaly was the trees found in the hollows were often smaller than those found on slopes and ridges, which is both unusual and perplexing.

Another interesting facet of the property was the occurrence of several trunks of dead but well-preserved American chestnut that was found on the driest of ridges where large chestnut oaks are common. American chestnut began to disappear from the American forest nearly a century ago. Another interesting plant occurrence observed here was American ginseng, which was observed to be widespread on the property. Ginseng is regulated and protected in the state (by our Division) because of its commercial exploitation from the wild. It is generally regarded as an indicator of a biologically rich forest ecosystem.

In summary the occurrence of old growth forest is both rare in Tennessee and rare in the US. The occurrence of old growth forest in Davidson County is extremely unique. There are many qualities about this forest that suggest that it is old growth. This
opinion is also supported by a report provided by Jeffery L Cooper, Forester, Inc in 2005. Regardless, the forest quality is excellent and the diversity of large tree species throughout the majority of the property is impressive. There is a formal process designating a land as a state natural area, which starts with evaluating the site’s quality. Based on my two site visits, this property if acquired and became public land, would certainly receive very high marks for its quality if it were proposed as a state natural area.

It is my hope that this brief report provides the Friends of Warner Parks a better understanding of the properties ecological value and significance. Please feel free to contact me if you have any questions or need further clarification about this brief assessment.

Sincerely

Brian Bowen, Manager
Tennessee Natural Areas Program

c: Reggie Reeves, Director, Division of Natural Areas
October 28, 2009

Commissioner Gerald Nicely
Tennessee Department of Transportation
James K. Polk Building, Suite 700
505 Deaderick Street
Nashville, Tennessee 37243

Dear Commissioner Nicely:

The Metropolitan Board of Parks and Recreation of the city of Nashville is applying for a TDOT 2010 Transportation Enhancement Grant. I am writing this letter to convey my enthusiastic support for this application. This is needed to construct a bike and pedestrian underpass to connect the existing Warner Parks to the north side of Highway 100, a State scenic highway, where Friends of Warner Parks has just completed the acquisition of 124 acres. This new property, now called The Burch Reserve, has recently been turned over to the city and is now a part of the Warner Parks. The Parks are a unique resource for all of Middle Tennessee, and a stunning jewel in Nashville’s park system.

At the present time, Friends of Warner Parks is actively soliciting $10,800,000 to acquire 324 acres known as the Hill Forest. Close to 200 acres of this land is an old growth forest with trees 200-400 years old. This property connects Highway 100 with State Highway 70. The proposed underpass project will provide a connecting link to this Highway 70 corridor by means of an all weather surface Greenway Trail. In the very near future this latest acquisition will become part of the Warner Parks.

The bike and pedestrian underpass addresses the following needs:

GREENWAYS

The Warner Parks Trail Linkage Transportation Enhancement project will connect the Harpeth River Greenway, currently under development, to newly acquired parkland and recreational opportunities between Hwy 100 and Hwy 70 South. The Harpeth River Greenway development is a critical component of Nashville’s citywide Master Plan for Parks and Greenways, and this project will connect greenway pedestrians and bicyclists to significant natural and recreational resources.
EDUCATION

The project will also link the award-winning Warner Park Nature Center program to the newly acquired property between Hwy 100 and Hwy 70 South. Thousands of school children and citizens of all ages will have opportunities to visit the property for environmental education and field trips. Local high school and university students & faculty will be safely linked to the property for research projects, including the nearby Ensworth High School.

SAFETY

The Enhancement Grant will greatly improve public and transportation safety for thousands of visitors to the parkland, by providing an underpass to the park property for pedestrians and bicyclists for crossing Hwy 100. The project will also improve safety for crossing the CSX railroad tracks.

HEALTHY LIFESTYLES

The linkages and connections made possible by the Warner Parks Trails Enhancement project will directly improve healthy lifestyles for the community with improved and safe opportunities for walking, running, and bicycling. The project will also encourage citizens of all ages to enjoy the clean air and stress-relieving activities found on beautiful local parkland.

I heartily support this grant application, and urge you to award the Metropolitan Board of Parks and Recreation the needed Enhancement Grant to complete this unique linkage project.

Sincerely,

William N. Moseley
Headmaster
Dear Commissioner Nicely:

The Metropolitan Board of Parks and Recreation of the city of Nashville is applying for a TDOT 2010 Transportation Enhancement Grant. I serve as the President of the non-profit organization Friends of Warner Parks, Inc., and we have worked tirelessly over the last five years to acquire this property that is contiguous to the existing Warner Parks. This land has now been deeded to the city of Nashville, but we are still in dire need of an underpass to connect the two parcels of property and provide for safe passage for the Warner Park visitors that number more than 1 million people each year. The grant dollars would be used to construct a bike and pedestrian underpass to connect the existing Warner Parks to the north side of Highway 100, a State scenic highway, where Friends of Warner Parks has just completed the acquisition of 124 acres. This new property, now called The Burch Reserve, has recently been turned over to the city and is now a part of the Warner Parks. The Parks are a unique resource for all of Middle Tennessee, and a stunning jewel in Nashville’s park system.

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The bike and pedestrian underpass addresses the following needs:

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Sincerely,

[Signature]

Lawson C. Allen