SIX **Implementation



"Parks would enable all citizens to pursue commerce less constantly, to acquire habits of healthy living and live happily from day to day."

- Frederick Law Olmsted





his project engaged in critically evaluating and identifying the physical improvements required to best incorporate multi-modal facilities into the Olmsted Parkway corridors without violating the historic character and principles of each parkway. The recommendations are more than merely constructing a shared-use trail within the parkway limits. The recommendations are more than simple pavement re-striping for bicycle use. The recommendations noted in this plan identify the improvements necessary to accommodate the broadest combination of users while sustaining the functionality of the roadways. These recommendations identify needed upgrades that will help provide the durability to preserve the function and character of the Parkways well into the future.

This plan, and the subsequent cost estimate, includes:

- 21.5 miles of shared-use paths
- 37.5 miles of on-street bike lane (dedicated and shared-use)
- 6.5 miles of new service drives
- 3.5 miles of improved existing service drives
- 3 miles of pedestrian walk improvements
- 18.75 miles of new or improved curb and drainage improvements
- 130 safer intersections for vehicles, bicyclist, and pedestrians
- 3,900 new trees.

In addition, the recommendations include utility improvements and relocation (including the burying and moving of selected utilities), new pedestrian amenities, new pedestrian signalization at intersections, and full-depth replacement of portions of the Parkways, specifically along Eastern Parkway.

The outlined recommendations indentified in this plan identify the broader improvements necessary to incorporate the greatest number of users while sustaining the function of the parkways.

Because economies and politics are fluid, this section of the master plan cannot provide an exact implementation schedule or exact construction costs. This section is meant to provide a roadmap to full implementation of the vision outlined in the plan. It provides Metro Parks with a planning level strategy and preliminary estimate of costs to assist in the location and allocation of funds over the course of implementation. It is meant to serve as a planning tool for Metro Parks.

Magnitude of Costs

An order of magnitude estimate of costs was prepared for the various trail, parkway, amenities, and transportation and utility system changes recommended in this plan. These estimates provide a basis for the prioritization of projects as well as identifying potential partners or other funding opportunities for implementing various elements of the design. The estimate includes projected design and other soft costs associated with the design of the parkway improvements.

Each parkway or project area was broken down into identified projects, with identifiable beginnings and ends. And each of those project area's costs were broken down by:

- Roadway Improvements (including road diets, re-striping, and intersection improvements);
- Service Drives (where applicable);
- Shared-use paths;
- Plantings;
- Amenities and signage;
- Utilities; and
- Soft costs (including design costs, investigations and inspections).

This breakout allows the project to be evaluated based on manageable implementation phases and assists in defining an orderly, yet evenly dispersed, commitment of capital improvement dollars.

The recommendations in this master plan include over \$62 million in capital improvements. The cost breaks down as follows for each parkway:

Southwestern & Algonquin Parkways-	\$19,700,000
Southern Parkway-	\$ 7,900,000
Eastern Parkway-	\$13,175,000
The Central Hub area-	\$21,570,000

The cost estimate and quantities used for the estimate are based on the Louisville Metro's LOJIC Database and represent the conceptual ideas illustrated in this master plan. Costs are based upon anticipated 2007 construction costs. Prior to the design of the individual phases, more detailed estimates will need to be developed based upon more detailed physical survey information for each segment.

Several assumptions were made in the development of this estimate, including:

- Utility Relocations at Intersections: An allowance of \$75,000 was allocated for above ground utility relocations for all major intersections. This may be necessary for new intersection geometries and the ability to clearly locate the shared use path at the intersection.
- The costs for Maintenance of Traffic were calculated as 5% of roadway and intersection costs.
- This estimate assumes that all the Parkways will be re-curbed with a new curb
 and gutter wherever the curbs currently exist in order to upgrade the roadway
 and drainage systems and provide for continuity along the Parkways.
- Embossed bituminous crosswalks includes DuraTherm over existing paving.
 The crosswalks will be ten feet wide.
- Mid-block crossings are estimated as a lump sum item priced to include a raised concrete median with a center cut-out and an embossed bituminous crosswalk.
- Miscellaneous drainage includes modifications to any existing inlets as well as other drainage contingencies.
- On Eastern Parkway, this Master plan recommends that the roadway
 pavement and existing curbs and gutters be replaced as part of a later
 project. Costs have been included for new curbs, gutters and catch basins
 along the Parkway from Crittenden Drive to Cherokee Park, but no pavement
 replacement costs are included in this estimate. It is assumed that the existing
 storm sewer system can handle the storm water runoff from the Parkway and
 that no other changes need to be made.
- For service drive drainage areas along Algonquin: costs include a storm water runoff with inlets every 200 feet in the service drives and a 15-inch pipe connecting the inlets and tying back into the side streets.
- Tree Care: An arborist has been included for each segment of the Parkway to help guide the construction process and protect the historic trees. A line item was also included for air-spading so additional care can be used to protect the tree roots.
- Tree Counts were taken from the LOJIC Database as well as the Tree Inventory provided to the project team at the start of this project. Both sets of data show somewhat conflicting information as they each differ from actual site photos. An estimate was taken from these data sets assuming that all missing gaps in the tree sequence will be filled at an average distance of 30 to 40 feet each.
- Many trees will have to be cut down, especially as new service drives are installed. The price of each tree can vary due to its diameter. For this estimate, an average cost of \$2,000 per tree was used.
- Pedestrian countdown clocks will be added to all signalized intersections.
- Eastern Parkway from 3rd St to I-65: This cost estimate assumes that the URS
 plan will be able to accommodate an eight-foot shared use path on the north
 side of the parkway as well as all roadway and intersection improvements,
 including all utility work. This estimate includes lighting, tree planting west of
 I-65, pedestrian amenities and signage.
- Utility burial: The cost for this line item can vary greatly depending upon which
 utilities need to be buried. This cost estimate assumes two types of utility
 lines Type 1: smaller, single source utilities at \$200 per liner foot and Type
 2: larger, multiple utility lines that will need to buried in a concrete duct bank
 at \$1000 a linear foot.

Given these assumptions and the recommendations presented in this plan, the costs for this project break down as follows:

Parkway Segment: Algonquin / Southwestern Pa	uin/Southwester	'n
Shawnee Park to Park Du Valle Park Du Valle to Wilson Ave. Wilson Ave. to Dixie Hwy. Dixie Hwy. to S. 7th St. S. 7th St. to Winkler Ave. (not including Demonstration Projects) Demonstration Projects 700 & 1100 Blocks	\$3,600,000 \$3,000,000 \$4,500,000 \$3,400,000 \$3,300,000 \$1,900,000	
Parkway Segment: Southern Parkway	Souther	'n
Taylor Blvd. to Woodlawn Ave. Woodlawn Ave. to I-264 I-264 to Oakdale Ave./3rd St.	\$3,000,000 \$2,300,000 \$2,600,000	
Parkway Segment: Eastern Parkway	Easter	'n
Cherokee Park to Bardstown Rd. Bardstown Rd. to Baxter Ave. Baxter Ave. to Barret Ave. Barret Ave. Poplar Level Rd. Poplar Level Rd. to Preston St. Preston St. to I-65 I-65 to 3rd St.	\$1,200,000 \$2,500,000 \$1,500,000 \$2,300,000 \$2,900,000 \$2,700,000 \$ 750,000	
Parkway Segment: The Hub	The Hu	ıb
Eastern Parkway to Algonquin Parkway Algonquin Parkway to Southern Parkway Southern Parkway to Eastern Parkway 3rd St Eastern Parkway to Central Ave. Rodman St North of Winkler Ave. Industry Rd. to Algonquin Parkway 4th St. & Oakdale Ave. Taylor Blvd. & Central Ave. Crittenden Dr. & Central Ave. Winkler Ave.	\$1,000,000 \$2,600,000 \$2,400,000 \$2,900,000 \$ 350,000 \$ 670,000 \$7,200,000 \$ 900,000 \$ 950,000 \$2,600,000	

The total estimate for all improvements listed in these recommendations is \$62,345,000.

It is important to remember that this total covers all improvements identified in the master plan and not just the shared-use trail cost. The cost breakdown by type of improvement for the shared use path system on the Parkways and portions of the hub is as follows:

	Shared-Use Paths (Not Including Service Drives)	\$ 6,130,00
	Service Drives	\$ 4,250,00
	Roadway (Road Diets & Intersections)	\$10,650,00
	Planting	\$ 2,770,00
	Pedestrian Amenities and Signage	\$ 250,00
	Utilities	\$12,200,00
	luding soft costs and contingencies, these total \$50),660,000.
	luding soft costs and contingencies, these total \$50),660,000.
),660,000.
STF	REETSCAPE AND PEDESTRIAN IMPROVEMENTS	,660,000. WITHIN THE HUB A
STF	REETSCAPE AND PEDESTRIAN IMPROVEMENTS Streetscape Improvements	9,660,000. S WITHIN THE HUB A \$ 910,000
STF	REETSCAPE AND PEDESTRIAN IMPROVEMENTS Streetscape Improvements Roadway (Road Diets & Intersections)	9,660,000. S WITHIN THE HUB A \$ 910,000 \$ 940,000

Implementation

This project is large scale and implementation will not happen all at once. The master plan represents the full vision for the parkways and the hub area. The individual design elements are all important in implementing that unified vision. For this purpose, the cost estimate should not be viewed as "menu of items" from which to select. Each has a specific purpose and should be implemented in its entirety. That stated, as in any design and construction project, the community may need to be creative in fully realizing the implementation of the plan.

Some portions of this plan may be implemented independent of the other elements. An example would be the roadway re-striping. The entire portions of Southwestern, Algonquin, and Southern Parkways can be re-striped independent of significant roadway improvements. Eastern Parkway is the exception. In order to meet the full vision of Eastern Parkway, the full set of improvements are needed to make the solutions work. Incorporation of the bike lanes is dependent on replacing the existing curbs and gutters, which requires pavement replacement. Implementation of the shared use path and walks requires adjustment to the existing curb lines. This is an example of the "system" of solutions that has been developed. Alterations to any component of the system can potentially undermine the successful implementation of this plan.

For this plan, implementation was evaluated at two levels. First, each designated parkway section was reviewed and prioritized. Some sections offer immediate opportunities, either in terms of ease of implementation or in combination with other community projects. Other sections pose more significant challenges and are designated as long-term goals for the individual parkway. Each parkway (and hub) section was prioritized into a sequence that represents the order of implementation for the individual parkway. This outline provides a chronological list of implementation projects for each individual parkway.

Once an order of implementation was established for each parkway, the timelines of all of the sections were synchronized into an overall sequence of implementation. In this sequence, all sections were positioned within a matrix that identified the general period in which implementation should occur. The matrix includes:

Priority Projects

Critical steps/segments to be completed within the next 5 years. These items include parkway segments as well as additional coordination and studies needed to prepare the parkways for implementation.

Near-term priorities

These projects consist of segments that are anticipated for implemention in the next 5-15 years. It is anticipated that these projects will require minimal coordination with other segments, or have other factors that will allow for more immediate implementation.

Long-term priorities

These projects are anticipated to require a greater level of coordination, study, or design that will require a longer time frame for implementation. These segments are longer term commitments with implementation anticipated between 15-30 years from now.

Conditional priorities

These projects may range from near-term priorities to long-term priorities, but each is dependent on some other factor in order for implementation to occur. Segments may be dependent on connection to other completed segments, other funding sources, coordination with other projects or agencies, or other factors in or near their segments.

There are two other considerations in setting the sequence of project implementation. The first is the anticipated amount of capital expenditures available each year for parkway or hub development. It is assumed that at least \$2.5 million will be allocated to development of the parkways each year. Secondly, it is assumed that the distribution of construction dollars will be spread across the parkway system, and that individual parkways likely will not develop as a whole.

It is anticipated that at least \$2.5 million will be allocated to the development of of the parkways each year.



his segment of the parkway system offers great opportunities for near-term implementation as well as some of the biggest challenges to implementation.

Southwestern Parkway has the opportunity to quickly become the demonstration project that introduces the public to the overall design and function intended in the master plan. Southwestern also is a critical piece in the development of the overall 100-mile Louisville Loop envisioned for Louisville. It will serve as the link between the Ohio River Levee Trail and the Riverwalk Trail, linking these two pieces of the Louisville Loop. In late 2007, Louisville Metro initiated a pavement re-striping project on Southwestern and a small portion of Algonquin Parkways to help complete this connection. The re-striping project provided a road diet with designated bike lanes starting at the intersection of 40th Street and Algonquin Parkway and running west, then north along Southwestern Parkway to Shawnee Park. This project completed a critical piece of the design for Southwestern Parkway.

Priortiy Projects

It is recommended that this parkway be treated as one segment, and that full implementation of the parkway design be implemented between Park Du Valle and Shawnee Park as a priority project. The total cost of this segment is anticipated to be near \$3.6 million. It would include the design of a shared-use path and introduction of the Olmsted tree patterns and character in the industrial areas. When completed, it would serve as public relations tool for Metro Parks in demonstrating the desired design of the parkway systems. With this phasing, it is anticipated that design and construction could begin within the next five years and the implementation of Southwestern Parkway would be complete.

The sequence of implementation for Southwestern Parkway is illustrated on the following page.

Algonquin Parkway provides greater physical and fiscal challenges. As noted earlier, this parkway lacks the greatest amount of the historic parkways character and has been allowed to develop with numerous curb cuts along its length. A demonstration project completed by Louisville Metro in 2001 in the 2700 block of Algonquin Parkway reintroduced the service drives as a means of reducing curb cuts and to start to re-introduce the parkway's intended character.

Priority Projects

The first priority project is the complete re-striping and implementation of the road diet concept from 40th Street to Winkler Street. This can be done at a minimal cost with little reconstruction outside of the existing curb lines. This project would continue the revamped lane configuration already implemented on Southwestern Parkway and introduce bike lanes along the entire length of the project.

Two other projects are listed as conditional projects although they, too, are likely to become high priority for Metro Parks due to upcoming MSD projects along Algonquin. MSD projects are slated for the 700 and 1100 blocks, and an intention to combine these efforts with the parkways project has been expressed both by the city and Metro Parks. It is recommended that this area become a demonstration project for inclusion of the new service drives, drainage improvements, trail connections, and plantings designated for this parkway. This demonstration project, anticipated to be around \$1.9 million, will likely become a high priority due to the timing of the MSD funding. At a minimum, coordination with these efforts should be a high priority for Metro Parks.

Because of the gap between the 700 and 1100 blocks, the second high priority project should be the 7th Street to Winkler Avenue segment. This segment would maximize the construction efforts and minimize the replication of construction activities and costs along this segment of Algonquin. This entire length, anticipated to cost \$3.3 million, should be linked to the demonstration project at the 700 and 1100 blocks and be treated as one high priority segment.

Near-Term Priority Projects

Two segments of Algonquin are phased as near-term priorities: 7th Street to Dixie Highway (\$3.4 million) and Park Du Valle to Wilson Avenue (\$3 million). Both connect to segments that will have already been completed.

Long-Term Priority Projects

The final segment, Wilson Avenue to Dixie Highway (\$4.5 million), is one of the more complex pieces in terms of major construction and overall construction cost. Unless other Louisville Metro or KYTC projects in the area create opportunities for implementation, it is anticipated that this will be the final segment of Algonquin to be completed and that it will be a long-term priority. The sequence of implementation for Algonquin Parkway is illustrated below.

SOUTHWESTERN PARKWAY IMPLEMENTATION PRIORITY PROJECTS:

Shawnee Park to Park Du Valle \$3,600,000

ALGONQUIN PARKWAY IMPLEMENTATION

PRIORITY PROJECTS:

Roadway Re-striping - 40th Street to Winkler \$ 50,000 700 and 1100 Block Demonstration \$1,900,000

NEAR-TERM PRIORITY PROJECTS:

7th Street to Winkler Avenue \$3,300,000
7th Street to Dixie Highway \$3,400,000
Park Du Valle to Wilson Ave \$3,000,000

LONG-TERM PRIORITY PROJECTS:

Wilson Avenue to Dixie Highway \$4,500,000

Southwestern Parkway
has the opportunity to
quickly become the
demonstration project
that introduces the
public to the overall
design and function
intended in the master
plan. Southwestern
also is a critical piece in
the development of the
overall 100-mile loop trail
envisioned for Louisville.





s noted in previous chapters, Southern Parkway is the most intact of the Parkways in terms of existing character. As such, design and construction requirements and costs are much smaller than on the other parkways.

Priority Projects

Like Algonquin and Southwestern, traffic counts support the use of the road diet concept, reconfiguring the existing four-lane cross section into a three-lane cross section with on-street bike lanes. This transformation can occur with minimal reconstruction of pavements, roadways, or other construction outside of the curb. The first priority project recommended over the next five years is the re-striping of the complete length of Southern. This will further establish the revamped traffic patterns and provide immediate bicycle connectivity from Iroquois Park to Wayside Park at a minimal cost.

Another interim step that could become a priority is the construction of the shared-use pathway between the existing service drives. Without construction of the new service drives, the overall trail length would be greater, but more immediate shared-use connectivity would occur and be active during the full implementation cycle for the parkway. This would result in additional overall construction costs for implementation of Southern Parkway. The cost for constructing the pathway, pathway signage, pedestrian signals at intersections and tree protection is anticipated to be \$987,719.00. If constructed, these costs would have to be backed out of the overall cost for each segment listed for Southern Parkway.

Southern Parkway has been divided into three segments and has been prioritized starting at the southern end where there are fewer construction challenges. Taylor Boulevard to Woodlawn Avenue (\$3 million) is designated a priority project for Southern Parkway. It is anticipated that design and construction can begin within the next five years.

Near-Term Priority Projects

Woodlawn Avenue to Interstate 264 (\$2.3 million) and Interstate 264 to Oakdale Avenue/3rd Street (\$2.6 million) are both designated as near-term priorities .

The sequence of implementation for Southern Parkway is illustrated below.

SOUTHERN PARKWAY IMPLEMENTATION

PRIORITY PROJECTS:

Complete Roadway Re-striping \$ 50,000 Interim Shared Use Path connections \$ 987,719

NEAR-TERM PRIORITY PROJECTS:

 Taylor Blvd. to Woodlawn Ave.
 \$3,000,000

 Woodlawn Ave. to I-264
 \$2,300,000

 I-264 to Oakdale Ave./3rd St.
 \$2,600,000



Implementation Strategy:

Eastern Parkway

Eastern Parkway

hile much of Eastern retains the parkway character, the topography, density of development, and traffic volumes create significant challenges to implementation. Unlike the other parkways, portions of Eastern Parkway contain high enough traffic volumes that additional traffic data is needed to determine the timing of implementing on-street bicycle facilities and the road diet concept. Although existing traffic counts seem to be acceptable for on-street bike facilities, the numbers are significantly higher than the other parkways and further traffic studies are recommended.

Priority Projects

Three priority projects are recommended on Eastern Parkway. The first priority project on Eastern is for Metro Parks or Louisville Metro to commission a traffic study (\$50,000) to verify traffic patterns, counts and movements along the parkway. This traffic study should identify whether application of the overall road diet concept can be achieved in one overall re-striping application as with the other parkways.

The top priority construction project is the segment from Cherokee Park to Bardstown Road (1.2 million). Implementation of this section would require no immediate work within the roadway.

Finally, at the request of Metro Parks, repair of the median trail between Barret Avenue and Baxter Avenue is also a priority. Although this median trail is not used as part of the shared-use pathway system recommended in this plan, it is a critical piece of pedestrian infrastructure that will remain in place and repair of the existing pavement is needed. No additional work will be included in the median.

Implementation of the full design concept for Eastern Parkway is prioritized beginning at the interstate and moving east towards Cherokee Park. The parkway is divided into seven different segments.

Near-Term Priority Projects

Two segments, Bardstown Road to Baxter Avenue (\$2.5 million) and Baxter Avenue to Barret Avenue (\$1.5 million) are designated

as near-term priorities. It is anticipated that design and construction on these segments could begin after completion of the traffic study and implementation of the Cherokee Park to Bardstown Road section.

Long-Term Priority Projects

Three segments, Barret Avenue to Poplar Level Road (\$2.3 million), Poplar Level Road to Preston Street (\$2.9 million), and Preston Street to Interstate 65 (\$2.7 million) are designated as long-term priorities in the plan.

A final segment, Interstate 65 to 3rd Street (\$75,000), is designated as a conditional priority. This segment, as well as the segment on the east side of the interstate, may be influenced by future interstate development.

The sequence of implementation for Eastern Parkway is illustrated below.

EASTERN PARKWAY IMPLEMENTATION

PRIORITY PROJECTS: Conduct Traffic Study 50,000 Cherokee Park to Bardstown Rd. \$1,200,000 Baxter Ave. to Barret Ave. Median Walk \$ 200,000 **NEAR-TERM PRIORITY PROJECTS:** Bardstown Rd. to Baxter Ave. \$2,500,000 Baxter Ave. to Barret Ave. \$1,500,000 **LONG-TERM PRIORITY PROJECTS:** Barret Ave. to Poplar Level Rd. \$2,300,000 Poplar Level Rd. to Preston St. \$2,900,000 Preston St. to I-65 \$2,700,000 **CONDITIONAL PRIORITIES:** I-65 to 3rd St. 75,000



The Hub

he central hub area near the University of Louisville where the three parkways come together offers the opportunity to connect several significant local institutions and future redevelopment in the area. A loop system plan with specific parkway-to-parkway connections has been developed for this area that includes major on-street bicycle connections, shared-use path development, pedestrian streetscape improvements, and parkway character plantings.

This area also presents complex challenges to creating sound design solutions. Variables in this area include the railroad viaducts, future redevelopment along 3rd and 4th Streets, and future campus development. Some significant pieces already in place, such as the Stansbury Park Master Plan, will be part of the critical linkages made in this area. The design solution in the hub area has been broken into ten different segments for implementation with additional action steps identified.

Immediate Interim Actions

Over the next few years, the most critical elements that will affect implementation of the shared-use connections are coordination with the other significant players and projects in the area (CSX, University of Louisville, Economic Development) and implementation of the Stansbury Park Master Plan. These other players hold great potential in funding, including the shared-use connection in their plans, and influencing the further development of the hub area. Focused attention to these efforts, as well as others, over the next couple of years is a must for successful implementation in the hub area.

Additional steps should be considered to start to introduce the connecting routes to the community. Consideration should be given to erecting signage or implementing other temporary measures that identify the route through this area. This will help the public to begin to understand the connections through the hub.

Priority Projects

Three of the ten segments in the hub area have been designated as priority projects. These segments are coordinated to make critical connections as the parkway segments are completed. These

segments include the Algonquin to Southern Connection (\$2.6 million), the Eastern Parkway to Algonquin Parkway Connection (\$1 million), and the Southern Parkway to Eastern Parkway Connection (\$2.4 million). With the completion of these three segments, the main connection of the Parkways will be implemented.

Near-Term Priority Projects

The Industry Road Trail segment (\$670,000) connecting Algonquin to Stansbury Park is designated as a near-term priority project. This is a critical connection that enhances the connection and should be rather easy to construct.

Conditional Priority Projects

The remaining seven segments are all designated as conditional priorities because the specific timing of their implementation is reliant on other conditions and development in the hub area. These segments include 3rd Street-Eastern Parkway to Central Avenue (\$2.9 million), 4th Street-Viaduct to Oakdale (\$7.2 million), Taylor Boulevard and Central Avenue (\$900,000), Crittenden Drive and Central Avenue (\$950,000), Rodman Street-Winkler to Industry(\$350,000) and Winkler Avenue to Algonquin (\$2.6 million). All of these segments should be coordinated with other investments and development in the hub area. Prioritization and timing of implementation will be affected by other development, and Metro Parks should seek partnerships in the funding and implementation of these sections.

HUB AREA IMPLEMENTATION

PRIORITY PROJECTS:

Algonquin to Southern Parkway Connection \$2,600,000
Eastern to Algonquin Parkway Connection \$1,000,000
Southern to Eastern Parkway Connection \$2,400,000

NEAR-TERM PRIORITY PROJECTS:

Industry Road Trail Segment \$ 670,000

ALL REMAINING SEGMENTS ARE CONDITIONAL PRIORITIES.

Overall Sequencing of Implementation

Based on the individual parkway implementation sequences described above, the anticipated funding levels available, and the anticipated timing to have segments ready for design and construction, an overall sequencing outline has been developed using the same prioritization categories as used for the individual parkways. The sequencing matrix is illustrated on the following page.

The overall system of improvements is divided into 31 separate segments, and those segments are aligned sequentially in the overall implementation matrix. Priority projects have been designated over the next several years to set up the overall implementation of the design solutions as well as create physical demonstration projects to show the public and the public agencies how the proposed solutions will work. Equally important, though, is that the first several years of this plan must be used to coordinate with other groups, especially in the hub area, in order to effectively coordinate work efforts and maximize funding opportunities.

It should be noted that this overall sequence is intended only to provide planning direction for the overall system. As opportunities arise for collaboration with other projects or agencies, Metro Parks should seek to take full advantage of those situations.

Priority Projects

Sequentially, over the next several years, the projects identified as priority projects include:

- Eastern Parkway Traffic Study (\$50,000)
- Eastern Parkway Cherokee Park to Bardstown Road (1.2 million)
- Eastern Parkway- Baxter Avenue to Barret Avenue Median Walk Repair (\$200,000)
- Southern Parkway Re-stripe entire length of street (\$50,000)
- Southern Parkway- interim shared-use path connections (\$1 million)
- Algonquin Parkway Re-stripe Wilson Avenue to Winkler Street (\$50,000)
- Algonquin Parkway 700 and 1100 blocks Demonstration Project (MSD) (\$1.9 million)
- Southwestern Parkway Park Du Valle and Shawnee Park (\$3.6 million
- Hub Area- Coordination with other projects/agencies costs not part of this estimate.
- Hub Area Stansbury Park Master Plan Implementation costs not part of this estimate.
- Hub Area Algonquin Parkway to Southern Parkway Connection (\$2.6 million)
- Hub Area Eastern Parkway to Algonquin Parkway Connection (\$1 million)
- Hub Area Southern Parkway to Eastern Parkway Connection (\$2.4 million)

Completion of these segments would provide a critical piece in the development of the overall 100-mile loop trail and provide the public and public agencies a demonstration of the implementation strategies identified in this plan. It would also provide direct and complete bicycle linkages on three of the four parkways. Based on the traffic study conducted as the top priority project, a complete re-striping of Eastern may be feasible within the next 5 years as well.

These priority projects represent nearly \$12 million in capital expenditures over the next several years.

■ Near-Term Priority Projects

The order of these project was determined by aligning costs, ease of implementation, and connectivity to other portions of the system. While the exact order of these could change based upon future opportunities for collaboration with other projects, they should all still fall in the same time period. Sequentially, implementation projects identified as near-term priority projects include:

This overall sequence is intended only to provide planning direction for the overall system. As opportunities arise for collaboration with other projects or agencies, Metro Parks should seek to take full advantage of those situations.

OLMSTED PARKWAY SEQUENCING

	PRIORITY PROJECTS	NEAR-TERM PRIORITIES	LONG-TERM PRIORITIES	CONDITIONAL PRIORITIES
SOUTHWESTERN	Shawnee Park to Park Du Valle			
ALGONQUIN	Roadway Re-striping- 40th Street to Winkler Avenue 700 and 1100 Block Demonstration Project	7th Street to Winkler Avenue 7th Street to Dixie Highway Park Du Valle to Wilson Ave	Wilson Avenue to Dixie Highway	
SOUTHERN	Complete Roadway Re-striping Interim Shared-Use Path Connections	Taylor Blvd. to Woodlawn Ave. Woodlawn Ave. to I-264 I-264 to Oakdale Ave./3rd St.		
EASTERN	Conduct Traffic Study Cherokee Park to Bardstown Rd. Baxter Ave. to Barret Ave. Median Walk	Bardstown Rd. to Baxter Ave. Baxter Ave. to Barret Ave.	Barret Ave. toPoplar Level Rd. Poplar Level Rd. to Preston St. Preston St. to I-65	I-65 to 3rd St.
HUB AREA	Algonquin to Southern Parkway Connection Eastern to Algonquin Parkway Connection Southern to Eastern Parkway Connection	Industry Road Trail Segment		3rd Street- Eastern to Central 4th Street- Viaduct to Oakdale Taylor Blvd. and Central Avenue Crittenden Dr. and Central Avenue Rodman St Winkler to Industry Winkler Ave. to Algonquin
	PRIORITY PROJECTS	NEAR-TERM PRIORITIES	LONG-TERM PRIORITIES	CONDITIONAL PRIORITIES

- Eastern Parkway Bardstown Road to Baxter Avenue (\$2.5 million)
- Eastern Parkway Baxter Avenue to Barret Avenue (\$1.5 million)
- Algonquin Parkway 7th Street to Dixie Highway (\$3.4 million)
- Algonquin Parkway 7th Street to Winkler Avenue (\$3.3 million)
- Algonquin Parkway Park Du Valle to Wilson Avenue (\$3 million)
- Southern Parkway Woodlawn Avenue to Interstate 264 (\$2.3 million)
- Southern Parkway Interstate 264 to Oakdale Avenue/3rd Street (\$2.6 million)
- Southern Parkway Taylor Blvd. to Woodlawn Avenue (\$3 million)
- Hub Area Industry Road Trail segment connecting Algonquin to Stansbury Park (\$670,000)

These near-term priority projects represent over \$19 million in capital expenditures (in 2007 dollars).

Long-Term Priority Projects

These projects present some of the most significant challenges, either in terms of physical conditions or costs. It is anticipated that these projects will take the longest time for completion. Sequentially, implementation projects identified for this period include:

- Eastern Parkway Barret Avenue to Poplar Level Drive (\$2.3 million)
- Eastern Parkway Poplar Level Road to Preston Street (\$2.9 million)
- Eastern Parkway Preston Street to Interstate 65 (\$2.7 million)
- Algonquin Parkway Wilson Avenue to Dixie Highway (\$4.5 million)

These long-term priority projects represent over \$12 million in capital expenditures (in 2007 dollars).

Conditional Priorities

These projects require significant coordination with other projects and agency activities. Metro Parks should seek to have the parkway master plan design solution coordinated into the other projects that may affect the parkways and hub area. Although these are listed in sequential order, that sequence is not critical. Any one of these projects could become a higher priority if the projects they are dependent upon are given a higher priority. For instance, if the 3rd or 4th Street corridors are developed within the next five years, the priority of implementation for those solutions will also become priorities within the same time period.

Implementation projects identified as conditional priorities include:

- Eastern Parkway- Interstate 65 to 3rd Street (\$75,000)
- Hub Area 3rd Street Eastern Parkway to Central Avenue (\$2.9 million)
- Hub Area 4th Street Viaduct to Oakdale (\$7.2 million)
- Hub Area Taylor Boulevard and Central Avenue (\$900,000)
- Hub Area Crittenden Drive and Central Avenue (\$950,000)
- Hub Area Rodman Street Winkler to Industry (\$350,000)
- Hub Area Winkler Avenue to Algonquin (\$2.6 million)

Together, these projects represent a significant and aggressive plan for implementing the design solutions for the parkways and the hub area.

Because economies and politics are fluid, this section of the master plan cannot provide an exact implementation schedule or exact construction costs. This section is meant to provide a road map to full implementation of the vision outlined in the plan. It is intended to provide Metro Parks with a planning level strategy and opinion of costs to assist in the location and allocation of funds over the course of implementation.



he Olmsted Parkways provide a truly unique landscape expression for Louisville Metro. The ribbon of green envisioned by Frederick Law Olmsted that would connect the flagship parks and provide pleasure grounds for the citizenry has endured. The community has embraced the parkways and continues to take steps to preserve Olmsted's legacy and improve upon the condition and usability of the Parkways. This project is testament to the commitment and value that Louisville Metro has placed on parks and open space and the City of Parks initiative.

This project has outlined design concepts and methodologies for including contemporary pedestrian and bicycle uses into the historic parkways with special attention to preserving Olmsted's visions and designs. The project:

- Ensures that the Parkway system provides for safe, effective multi-modal circulation within the larger transportation and land-use context.
- Ensures that the Olmsted Parkways make a significant contribution to the health and vitality
 of Louisville Metro, and serve as a key element in the Mayor's Healthy Hometown Movement.
- Ensures that improvements to the Parkways are respectful of the historic Olmsted design and the role they play in the larger City of Parks initiative.
- Promotes effective management and maintenance strategies to preserve the quality and character of the Parkways and the new design initiatives outlined in this plan.

While the plan specifically examined the pedestrian and bicycle use of the corridors, it also looked more broadly at the parkways, with recommendations concerning the roadway, lane configurations, infrastructure improvement, and the removal of encroachments. As such, this

The Olmsted Parkways
Shared-use Pathway
System Master Plan
is testament to the
commitment and value
that Louisville Metro
has placed on parks
and open space and the
City of Parks Initiative.

plan looks very closely at the full range of improvements needed to advance the original vision of the parkways in the contemporary Louisville Metro setting.

This plan includes recommendations for over \$62,345,000 in capital improvements over the next 30 years. When completed, it will result in:

- 21.5 miles of shared-use paths
- 37.5 miles of on-street bike lanes (dedicated and shared-use)
- 6.5 miles of new service drives
- 3.5 miles of improved existing service drives
- 3 miles of pedestrian walk improvements
- 18.75 miles of new or improved curb and drainage improvements
- 130 safer intersections for vehicles, bicyclists, and pedestrians
- 3,900 new trees.

It is grand and ambitious in scale, but it provides an overview and plan for implementing the recommendations that achieve the principles of the project in a methodical manner. While the plan addresses the parkways and hub connections as an entire system, the plan recognizes that implementation will not happen all at once, and the final implementation plan outlines a strategy for implementation that addresses other priorities and projects along the parkways. It provides an alignment of specific individual implementation steps that will lead to the full implementation of the principles described within this report.

Louisville Metro has embarked on a plan that reinforces the need for public open space and emphasizes this as a priority through the City of Parks Initiative. The Olmsted Parkways Shared-use Path System Master Plan is a major component of that initiative, providing a critical link in the 100-mile loop trail and providing connections to the neighborhoods in the interior of Louisville Metro. The focus on the parkways as a community resource for a shared-use pathway system boldly carries the Olmsted vision forward.

Final Thought

The Olmsted Parkways Shared-use Trail System Master Plan is a major component of the City of Parks initiative, providing a critical link in the 100-mile loop trail and providing connections to the neighborhoods in the interior of Louisville Metro. The focus on the parkways as a community resource for a shared-use pathway system boldly carries the Olmsted vision forward.

APPENDIX CD-ROM The Olmsted Parkways Multi-use Path Team is grateful to the many individuals, artists, firms and groups that contributed photographs for use during this planning and design process.

Louisville's City of Parks Initiative will ensure adequate

Louisville's City of Parks Initiative will ensure adequate park and recreation facilities for the City's future. Louisville is becoming known nationally for its dedication to parks and open space as well as encouraging healthy lifestyles through recreational options. This Parkway Master Plan will continue to build upon Frederick Law Olmsted's original vision for Louisville.

