Indianapolis Regional Bicycle & Pedestrian System Plan

Indianapolis Metropolitan Planning Organization
March, 2000
EXECUTIVE SUMMARY

PART I. REGIONAL BICYCLE & PEDESTRIAN SYSTEM PLAN

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Indianapolis Regional Bicycle & Pedestrian System Plan

Part 1

Indianapolis Region Bicycle & Pedestrian System Plan
Indianapolis Metropolitan Planning Area Bicycle & Pedestrian System Plan

- Preliminary funding strategies identified
- Draft report document prepared

January - February 1996 2nd phase public involvement program of regional meetings conducted to generate detailed plan refinements

March 1996 Final plan documentation completed for implementation

The goal mandated by the MPO, IRTC, and SRC is the institutionalization of planning for bicycle and pedestrian facilities through the development of a Bicycle and Pedestrian System Plan component to the Long Range Plan. Additionally, the goal of encouraging and facilitating localized plans by providing a model development program is considered an important element in achieving regional success.

Understanding that implementation is only achievable when plans are supported through strong policy objectives and viable planning tools, the plan for the regional system is comprised of both physical design and policy guidelines. The physical design is characterized as a regional framework that will serve as the unifying link between existing and future local and regional systems through supportive design standards. The concept was refined under the direction of the MPO and SRC and finalized with the advise of citizen participants. The policy guidelines are recommendations for implementation strategies that will guide the development of the regional framework and generally enhance provisions for bicycle and pedestrian facilities as components of all appropriate transportation projects within the Metropolitan Planning Area.
Indianapolis Metropolitan Planning Area Bicycle & Pedestrian System Plan

I. INTRODUCTION

PROJECT BACKGROUND

The Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) placed new emphasis on alternative transportation, specifically bicycle and pedestrian modes. The recently completed National Bicycle and Walking Study, conducted in cooperation with the Federal Highway Administration (FHWA) and United States Department of Transportation also brings increasing emphasis to alternative means of transportation. The study generated two goals that have been adopted by the U.S. Department of Transportation; specifically:

- to double the number of trips that are now taken by bicycle & walking; and,
- to simultaneously reduce the number of motor vehicle accidents involving bicycles & pedestrians by 10%.1

These are very aggressive goals. In order to achieve them, individual communities must embrace them and develop the necessary plans to advance them.

ORGANIZATION

In the Fall of 1994, the Metropolitan Planning Organization (MPO) with the assistance of HNTB Corp. began preparation of the bicycle & pedestrian system plan for the Indianapolis planning area to be incorporated into the Regional Transportation Plan. Through research, case studies, and facilitation of a Study Review Committee, plans were developed for the regional framework that serves as the foundation for bicycle and pedestrian systems throughout the Metropolitan Planning Area (MPA). The MPA is a regional jurisdiction that includes the consolidated City of Indianapolis-Marion County and portions of Boone County, Hamilton County, Hancock County, Hendricks County, and Johnson County, as depicted above.

The Study Review Committee represented various jurisdictions, community and special interest groups. Review and support for the plan included a 30 member Citizens’ Advisory Committee and the
PART 1
INDIANAPOLIS METROPOLITAN PLANNING AREA
BICYCLE & PEDESTRIAN SYSTEM PLAN

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Planning for a regional bicycle and pedestrian system by the City of Indianapolis Metropolitan Planning Organization (MPO) began in 1993. This document is a record of the planning process, its participants, and the resulting recommendations as guided by HNTB Corp. and coordinated with the MPO, the Indianapolis Regional Transportation Council (IRTC), and the Study Review Committee (SRC). The timeline below represents the events and overall process that provides the foundation and context for recommendations and implementation.

August 1994
Metropolitan Planning Organization establishes Citizens’ Advisory Committee (CAC) to assist in Long Range Plan

Fall 1994
Metropolitan Planning Organization, Citizens’ Advisory Committee, and Indianapolis Regional Transportation Council determine need to address bicycle/pedestrian facilities in Long Range Plan as response to Intermodal Surface Transportation Efficiency Act & Clean Air Act

Fall 1994
Metropolitan Planning Organization establishes Study Review Committee to assist in developing request for proposals, selecting consultant, and reviewing consultant progress

Fall 1994
HNTB selected to complete project

December 1994
Interviews with Metropolitan Planning Organization & familiarization with project vision

January 1995
Study Review Committee project kick-off meeting

February 1995
Indiana Bicycle Coalition Conference; research & coordination

March - December 1995
• Planning objectives and criteria developed
• Inventory and analysis conducted
• Base mapping prepared
• Existing plans and facilities reviewed
• Subdivision regulations/guidelines reviewed and summarized in classification matrix
• Existing conditions map generated
• Opportunities & constraints identified
• Preliminary plan developed
• IRTC Technical & Policy Committees and SRC revisions to preliminary plan completed
• Draft plan recommendations and development phasing prepared
• Draft policy recommendations developed
Indianapolis Regional Transportation Council Technical and Policy Committees. The Policy Committee includes the elected officials within the Metropolitan Planning Area. Additionally, the MPO prepares a newsletter which is distributed to over 600 persons and organizations. The involvement of these groups protects the public interest in all of the City’s planning efforts.

GOALS & OBJECTIVES

The goals and objectives were developed in cooperation with the Study Review Committee and the Indianapolis Regional Transportation Council. After presentations of potential approaches and extensive discussion, the Study Review Committee established several consensus items to guide the overall direction of the project. The Study Review Committee required that the plan:

- Support the Goals of the National Bicycling & Walking Study and the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) by Providing Alternatives to Motor Vehicle Travel;
- Be Designed for Incremental Implementation Building on Existing or Planned Facilities; and,
- Provide a Strong Regional Framework Supporting the Development and Expansion of Local Systems.

Refinement of these consensus items provided the overall project goal of institutionalizing bicycle and pedestrian facilities in the transportation planning and implementation process. The project goal will be achieved when the plan becomes a component of the Regional Transportation Plan for the Indianapolis Metropolitan Planning Area and when the plan and other bicycle and pedestrian needs are given consideration in the implementation of all roadway projects.

The process should be viewed as four separate stages of design within the context of long-term implementation:

- Master Planning
- Schematic Design
- Design Development
- Construction Documents

This document represents the Master Planning and Schematic Design Phases of the process. Master planning elements were developed in cooperation with the Study Review Committee while the Schematic Design was facilitated by HNTB through a series of public involvement meetings. Design Development and Construction Documents will occur incrementally as projects are identified on the corridors designated as routes in the regional framework.
II. THE PLANNING PROCESS

The planning process was designed to provide supporting research & analysis leading to recommendations for operational programs and policies that may better ensure the implementation of the bicycle and pedestrian system plan and its future viability. The three basic elements of the process are:

- Case Studies;
- Data Collection; and,
- Design Application.

Case studies of successful programs provide a historic perspective on the implementation process and its pitfalls. Studying the components of similar projects in other communities offers a reference point for goal setting and helps in establishing a vision of an active system with practical examples of facility types.

Data collection provides the foundation for selecting design treatments and development strategies. The synthesis of demographic, statistical, geographic, economic, and regulatory data collected during the early stages of this project support final design decisions and policy recommendations.

Design application uses recognition of critical success factors in the case studies and interpretation of Indianapolis’ unique circumstances as revealed in data collection and synthesis to devise achievable physical plans and implementable development strategies.

CASE STUDIES

Recognizing the difficulty of quantifying the number of trips made by bicycle or pedestrian with statistics currently available for the Indianapolis MPA, a value assessment needed to be based in broadly collected information on systems being monitored in other communities. A review of evaluative materials from these communities helped to quantify the importance of developing a regional system in Indianapolis.

Denver, Dallas, and Minneapolis-St. Paul provide excellent examples of communities where walking and bicycling are supported not only by comprehensive and ubiquitous infrastructure but also by a generally high level of public appreciation for the benefits of alternative transportation. These communities were selected as case studies for their well-established and broadly implemented bicycle and pedestrian systems. The critical success factors present in each of these communities’ plans were:

- incremental development;
- local & regional policies institutionalizing plans for bicycles & pedestrians; and,
broad reaching public relations and education.

It was recognized that development strategies were designed to achieve ultimate completion over a period of 20 to 30 years through incremental development of a regional framework linking local projects throughout the planning area. The development strategies were incremental in two ways:

1. Bicycle and pedestrian facilities were built as components of larger transportation projects, new subdivisions and commercial developments; and,

2. Initial projects were designed as primarily recreational in character but over the years, as use increased, projects were expanded to accommodate convenience trips, and ultimately maximized as commuter routes.

As an example the Denver Regional Council of Governments (DRCOG) published an update to its Pedestrian and Bicycle Element of the Regional Transportation Plan in 1994 that quoted a commuter mode split of 3% for bicycling and walking. The significance of this number is that it equals the number of people who ride transit to work on a daily basis in the Denver region. While that is dramatically higher than could be expected in Indianapolis at the present time, Denver’s alternative transportation facilities planning began over twenty years ago and it is widely supported through institutionalization in the regional transportation improvement plan, local subdivision control ordinances, zoning, and broad-based public commitment.

Consistent with Denver’s approach, the National Bicycle & Walking Association emphasizes institutionalizing the bicycle as a vehicle of transportation. Incorporating the bicycle and pedestrian system plan as a legitimate component in the Regional Transportation Plan is the first step toward institutionalization in Indianapolis.

The Bicycle and Pedestrian System Plan was adopted by the Indianapolis Regional Transportation Council and the Metropolitan Development Commission as a component of the Regional Transportation Plan for the Indianapolis Metropolitan Planning Area.

Walking and cycling in the context of the Plan are considered an alternative means of transportation. The intent is to provide the option for traveling from an origin to a destination (called a trip) by foot or bike rather than by automobile. The Study Review Committee and the MPO support the goals of the National Bicycling and Walking Study.
DATA COLLECTION

Following the kick-off meeting of the Study Review Committee, efforts to compile a comprehensive inventory of existing bicycle and pedestrian facilities in the Metropolitan Planning Area began. Additionally, an inventory of existing policy guidelines in the form of Subdivision Regulations and Thoroughfare Plans was collected and reviewed for content relative to bicycle and pedestrian facilities. Demographic and statistic data relevant to determining target areas for facilities was compiled from the US Census Bureau and data linked to Traffic Analysis Zones as maintained by the City. Further, a collection of planning documents representing existing and proposed projects were reviewed and are reflected in the Bicycle and Pedestrian System Plan. Comparable projects in the region that are coordinated with the Regional Bicycle and Pedestrian System Plan include:

- Indy Parks Greenways Plan
- Greenwood Trails System
- Zionsville Trails System
- Hamilton County Alternative Transportation System Plan
- Indiana State Trails Program
- Indy Parks Monon Corridor Trail

The bulk of these projects are characterized by specific trail corridor development that is primarily separated from motor vehicle traffic. With the exception of the Zionsville Trails System and the Hamilton County Alternative Transportation System Plan, these plans can be characterized as fundamentally recreational in approach. While the Zionsville and Hamilton County plans may involve and enhance recreational opportunities they are uniquely tied to the regional system plan and are designed as components of the existing transportation system rather than as park facilities or accessories to private development. Their foundation is an attempt to improve transportation mobility through increased alternative transportation access within the community. Similarly, the Indianapolis Regional Bicycle and Pedestrian System Plan is intended to function as a component of the regional transportation system, expanding the transportation opportunities of the Indianapolis community. Its aim is to institutionalize these alternatives as viable transportation choices within the region helping to maintain, and potentially reduce, vehicle emissions causing ozone and impacting air quality.

STUDY REVIEW COMMITTEE

CITIZEN PARTICIPATION

DESIGN APPLICATION

For alternative transportation to become a realistic option within the Indianapolis MPA these same support mechanisms found in the various communities that have successfully
implemented a regional bicycle and pedestrian system must be created. The Study Review Committee determined that this could best be achieved by prioritizing the development of 'demonstration' routes and facilities throughout the region that serve recreation and convenience destinations. This approach of demonstrating early successful projects provides a fundamental step toward providing a safe and enjoyable transportation alternative for all ages and groups between residential and recreational service areas with connections to local neighborhood convenience centers. Once the public feels comfortable with these types of trips, it is easier to take the next step of using bicycle and pedestrian facilities, either separately or in conjunction with transit services, for commuting or other local trips. Early discussions with the Study Review Committee focused on the need to address the issues of a bicycle and pedestrian transportation system within the context of its linkages to other existing and proposed transportation systems.

A successful plan must start with a “vision” that is embraced by the community. The need for a public outreach and marketing effort was recommended. The Bicycle and Pedestrian System Plan should be viewed as an incremental process that will be refined over time as part of the MPO’s continuous, comprehensive and cooperative planning activities.
III. WALKING AND BICYCLING MODES OF TRANSPORTATION

Decisions of Mode Choice

"Today people who choose to drive rather than walk or cycle a short distance do so not merely for convenience, but also to insulate themselves from the harshness of a street ruled by the motor vehicle." This statement illustrates keenly the primary differences between motorized and non-motorized transportation— the sense of safety. Separation from the other is comfortable but mixing different modes of transportation in the same travel corridor creates tension or intimidation among operators of both motorized and non-motorized vehicles when their separation is not clearly defined. Ultimately, this is influenced as a matter of safety and public sentiment toward the appropriateness of sharing the road. "A study in 12 North American and Western European countries confirms that wide variations in people’s transport decisions are not chiefly influenced by levels of income, technology, or urbanization. The difference lies in enlightened public policy and strong government support."

According to the National Bicycling and Walking Study, nearly 49 percent of trips currently made in motor vehicles are 3 miles or less in distance while approximately 27.5 percent of those trips are 1 mile or less in distance. This indicates that the decision to bike or walk is not one solely based on feasibility or convenience, but rather an attitude and a cultural norm. More often, these activities are viewed as being fitness oriented and are compartmentalized into recreational and health related activities that do not necessarily complement work or other trips.

Defining the Design Bicyclist

Recognizing the use trends for bicycle and pedestrian facilities, it is important to determine what kind of standards should be followed in designing these facilities. Prior to completing the National Bicycling and Walking Study, the Federal Highway Administration sought to answer two questions:

1. "What is the Federal policy goal for bicycle use?
2. Who is the ‘design bicyclist’?"

There initial assessment was that alternative policy goals could either seek to accommodate current use levels or to increase bicycle use. It was resolved that the spirit of the Intermodal Surface Transportation Enhancement Act of 1991 sent a clear message that the federal policy goal for bicycling and pedestrian modes is to “accommodate current use and to encourage increased use, while enhancing safety,” as confirmed in the National Bicycling and Walking Study.

One of the fundamental questions addressed by the Study Review Committee was for whom will the system be designed. There is obviously a wide range of skill levels among bicyclists
varying from beginners to professional racers. It is also easy to recognize that these representative skill levels require different types of facilities.

The "design bicyclist" is an attempt to address the broad range of skill levels among bicyclists. The Bicycle Federation of America has estimated that less than 5 percent of bicyclists in the U.S. could be classified as experienced or highly skilled. The correlation of this information with the federal policy goals indicates that highway facilities will need to be developed to accommodate the needs of both experienced and novice bicyclists. In response to this understanding, the Federal Highway Administration adopted a classification system that identifies "design bicyclists" in the following three categories:

<table>
<thead>
<tr>
<th>Group</th>
<th>Category</th>
<th>Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Advanced Bicyclists</td>
<td>'experienced riders who can operate under most traffic conditions'</td>
</tr>
<tr>
<td>B</td>
<td>Basic Bicyclists</td>
<td>'casual or new adult or teenage riders who are less confident of their ability to operate in traffic'</td>
</tr>
<tr>
<td>C</td>
<td>Children</td>
<td>- &quot;pre-teen riders whose roadway use is initially monitored by parents&quot;</td>
</tr>
</tbody>
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Defining the needs of each of these groups, it was evident that preferences for separated facilities were shared by Groups B & C while Group A bicyclists would best be served by providing that all streets are "bicycle-friendly." The Study Review Committee recognized early on that there are an abundance of roadways within the existing transportation system that can accommodate the more advanced bicyclists. Advanced bicyclists are less likely to be intimidated by narrow shoulders and curb lanes. While these riders may prefer lane striping, they do not require such measures in order to feel comfortable using a particular roadway. Beginner bicyclists by contrast may choose to ride on less traveled, wider streets and may prefer distinct separation between bicyclists, pedestrians, and motor vehicles. Beginner bicyclists have less confident command of the bicycle and may have trouble riding in a straight, narrow path over a long distance. In the context of preferences among different design bicyclist groups, selecting and designing roadway treatments to accommodate bicycles became a function of three key variables:

- the design bicyclist
- the type of roadway project involved on the selected route
- traffics operations factors (including traffic volume, speeds, etc.)

Targeting the facility requirements of the design bicyclist will provide a context for studying the three variables listed above from the standpoints of physical design and policy support.
Factors Affecting Walking and Bicycling

Physical Factors

Space requirements for alternative transportation facilities are minimal and in most instances can be accommodated within the existing right-of-ways for the motor vehicular transportation system. In fact, this may be the most appropriate application for bicycle and pedestrian facilities because it allows provisions supporting opportunities to replace trips normally taken by motor vehicle. However, the unique demands of a transportation system for bicycles and pedestrians arise from the fact that there is a broader range of operator skills present on these facilities.

The Federal Highway Administration has prepared recommendations for physical dimensions of five basic facility types to accommodate bicyclists:

1. Shared Lane
2. Wide Outside Lane
3. Bike Lane
4. Shoulder
5. Separate Bike Path

The key point to take from the facility types listed above is that only one calls for special land access outside of the normal rights-of-way already provided for the public highway system. Detailed descriptions and diagrams of each facility type are presented in Chapter VI.

Economic & Policy Factors

Public policy and government support have been difficult to generate against public opposition to bicycle and pedestrian plans that can appear to be a frivolous waste of tax dollars. However, recent studies have indicated that alternative transportation facilities are not only environmentally smart, but economically viable as well. The Maryland Greenways Commission recently documented that the "Northern Central Rail Trail provides a number of substantial economic and qualitative benefits to the people of Maryland." While the development of the trail cost approximately $192,000, tax revenues generated from the trail in 1993 were estimated at more than $300,000. Further, it is estimated that the trail supports 254 jobs across the State of Maryland and economic activity generated by the trail in 1993 included nearly $3.4 million in trail related product sales. Nearly two-thirds of residents responding to a questionnaire felt that the development of the Northern Central Rail Trail had enhanced nearby property values. It was estimated that the trail attracted spending by non-county residents ranging from $294,000 to $630,000 each year. Until recently, misconceptions about the safety and economic viability of providing bicycling and pedestrian facilities have been a detriment to their development in the United States.

There is now strong and deliberate support for the development and expansion of bicycle and pedestrian transportation facilities on the federal level from FHWA, AASHTO, and Congress

The State of Indiana has responded to these influences through the creation of alternative transportation planning and engineering efforts at INDOT. This translates to a need for increased planning efforts at the municipal level and as the Capitol City, Indianapolis is leading the State in developing the resources and tools necessary to integrate and implement bicycle and pedestrian planning.

HNTB research completed in April 1995 included a review of public policy relevant to alternative transportation facilities in the Indianapolis MPA. Comprehensive Plans, Zoning and Subdivision Control Ordinances and Thoroughfare Plans, where available, were examined for content supporting or requiring provisions for bicycle and pedestrian oriented facilities. There was no bias in identification of these provisions as either components of a recreational use or trip reduction use. The general results indicate that while communities throughout the MPA broadly support bicycle and pedestrian activities they do not wholly view them as viable trip reducing components of the transportation network. For this reason, there is little or no policy provision for bicycle and pedestrian facilities among the communities of the MPA. While there are several independently organized rail-trail projects and some public facilities provided under parks and recreation master plans, there are few examples of transportation oriented facilities in the region.

Planning and development information from all of the communities within the MPA has been collected. Meeting with community representatives from throughout the MPA provided an opportunity to ascertain the level of activity and interest in alternative transportation planning in the region. Compiling relevant data from subdivision regulations and thoroughfare plans provided insight into the current policies toward bicycle & pedestrian facilities in local development standards. The process revealed that:

- there is general support for alternative transportation planning in local communities;
- few of the local communities possess effective policy-based tools for implementing alternative transportation plans;

Further analysis of the policy conditions in the MPA showed that a majority of local subdivision codes and/or thoroughfare plans limit bicycle and pedestrian facility requirements to residential streets. These policies do not support the provision of alternative transportation choices when considered from the standpoint that streets with higher functional classifications are more likely to connect trip destinations than residential streets. Through these observations it was determined that a component of the Bicycle & Pedestrian System Plan should be the development of model ordinances providing policy-based support for the implementation of alternative transportation plans at the local government level.
IV. REGIONAL ANALYSIS

Access to bicycle and pedestrian transportation facilities is the most critical factor in meeting current demand and encouraging increased use. Access is as important to encouraging increased use of bicycle and pedestrian modes of travel as facilities design. In the regional analysis, the plan seeks to provide a logical formulation to assist in preparing a design for the regional framework. The analysis began with an inventory and review of the following:

- Existing Conditions
- Origins
- Destinations

EXISTING CONDITIONS

Base mapping for the study area was completed to assist in graphically depicting the facilities inventory as well as other existing or planned physical development which may influence or impact the bicycle and pedestrian system plan. In this analysis, various source maps were reviewed including maps of roadways planned for repaving or resurfacing in the next five years which may be targeted to provide for bike lanes; rail lines scheduled to be abandoned in the next 5 to 10 years which may be converted to alternative transportation routes; and roadways identified in the Congestion Management Study of 1995 as requiring congestion mitigation which may include the addition of alternative transportation facilities.

Building on the data collection process described on page 13, an inventory was compiled of existing and planned alternative transportation facilities for the Indianapolis Metropolitan Planning Area (MPA). The inventory was recorded on a base map of the MPA comprised of significant regional transportation corridors and included local, regional, and state-wide bicycle & pedestrian routes. The analysis map for Marion County is presented on the following page.
Indianapolis Metropolitan Planning Area Bicycle & Pedestrian System Plan

ORIGINS

An analysis of travel origins for pedestrians and bicyclists was undertaken to provide a geographic and statistical context for development of a regional framework design concept. Areas of high population density were identified through an analysis of U.S. Census Data and the Traffic Analysis Zones.

Within the Indianapolis Metropolitan Statistical Area (MSA) there are approximately 1.38 million people. U.S. Census and County Business Patterns data indicates that nearly 57% of that population are part of the workforce with a great majority commuting in single occupancy motor vehicles. While the relative volume of bicycle commuters in Indianapolis is small in a regional context, it is important to recognize that those areas with the greatest percentage of bicycle commuters are located in areas where a variety of facilities exist to support that transportation alternative. Specific examples are found in those Census Tracts that include Broad Ripple Village, Butler University, downtown Indianapolis, and Irvington among others. The areas with heaviest commuter activity in bicycle or pedestrian modes are complemented with facilities that accompany existing roadways either sharing the road surface or paralleling the roadway. It is presumed that this is because these types of facilities provide alternative transportation access for people who need to travel a short distance, usually less than 3 miles and frequently less than one mile.

With this universe of potential bicycle and pedestrian travelers, planning efforts must focus on the most appropriate facility design to accommodate and encourage increased alternative mode travel.

DESTINATIONS

An analysis of travel destinations for pedestrians and bicyclists was undertaken to provide a geographic and statistical context for development of a conceptual regional framework design concept. Areas of high employment population density were identified through an analysis of U.S. Census Data and Traffic Analysis Zones. Additionally, retail centers\(^1\), parks & recreation facilities\(^2\), junior & senior high schools, and public institutions/special interest facilities\(^3\) were chosen as likely destinations for short distance, recreational or convenience trips.
V. REGIONAL FRAMEWORK

CONCEPT ALTERNATIVES

After compiling relevant information and completing the inventory & analysis, three alternative designs for the regional framework of the Bicycle & Pedestrian System were created based on three distinct conceptual approaches.

The first concept, called Alternative A, was a "North/South & East/West" route forming the backbone of a regional framework. This design took advantage of the Monon Corridor for north/south access; the already designated State Bicycle Route along U.S. 40 and the abandoned B&O Rail Road for east/west access.

Alternative B was dubbed the “Greenway Extension” alternative. In this Alternative, the Marion County Greenways Plan was expanded upon along the same greenways corridors into the rest of the metropolitan area. The strength of this concept is that it builds on an already well advertised and highly supported project and that all of its paths would be separated from motor vehicle traffic. Additionally, through our analysis, we found that extending the Greenways plan also reaches those areas of highest population densities in the metropolitan area, thereby providing alternative transportation to more people.

The last concept, Alternative C, is referred to as a "Perimeter Loop" concept. In Alternative C each of the communities surrounding the MPA were connected along county roads or other accessible roadways creating a loop around the metropolitan area connecting each of the smaller communities. In this way, over time, access to the downtown bicycle routes in Indianapolis would be gained through "spokes in a wheel" either already existing or currently being planned.

Each of the concepts described is illustrated on the following page in the Final System map. Alternative A is shown in yellow and rust as the North-South and East-West spokes of the Final System. Alternative B is shown in green, and includes both existing and proposed routes in Indianapolis. Alternative C, the Perimeter Loop, is a tan color and is the Outer Loop in the Final System.
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PREFERRED ALTERNATIVE

Study Review Committee discussion resulted in consensus that Alternatives A and C were the most logical and implementable. They constituted, in the Study Review Committee's opinion, a long-term and a near-term approach to the Metropolitan Bicycle & Pedestrian System Plan. The "North/South/East/West" routes, or Alternative A, was viewed as a near-term approach to implementing the system plan. Significant portions of its design take advantage of existing or planned bicycle or pedestrian routes, provide significant separation from motor vehicular traffic and central access for the communities in the outlying metropolitan area. Alternative C provides a long-term approach connecting each of the surrounding communities with each other in the regional framework. The map illustrated on the following page is the combined near-term and long-term frameworks derived from Alternative A and Alternative C.
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