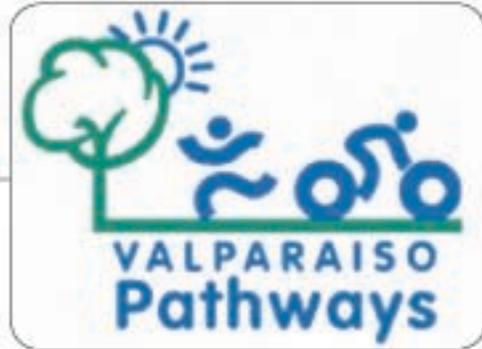


Pathways & Greenways Master Plan 2005

A proposed Pathways & Greenways System and
Alternative Transportation Enhancement Plan





Pathways & Greenways Master Plan 2005

A proposed Pathways & Greenways System and
Alternative Transportation Enhancement Plan

This report document was prepared under
contract for the Valparaiso Department of
Parks and Recreation by:

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Completed March 2005

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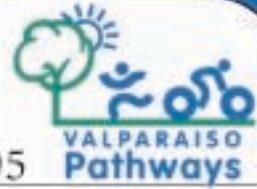
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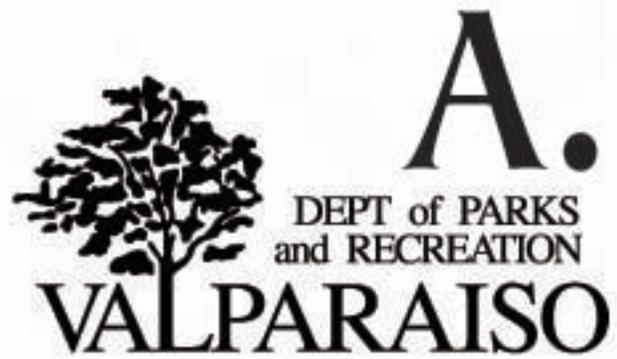
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Acknowledgements

This plan was prepared with the assistance, direction, and cooperation of the City of Valparaiso Parks and Recreation Board, the Valparaiso Pathways Community Committee, and the citizens of the City of Valparaiso.

Mayor

Jon Costas

City Clerk/Treasurer

Sharon Swihart

City Council

Edward Howe, District 1
Al Eisenmenger, District 2
Joey Larr, District 3
Robert McCasland, District 4
John Bowker, District 5
Jan Dick, At Large
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Plan Commission

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Board of Public Works and Safety

Mayor Jon Costas
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Sharon Emerson-Swihart
John Hardwick

Valparaiso Park Board

Christa Emerson Borlick, President
E. Ric Frataccia, Vice President
Linda Alessi, Member
T.J. Edwards, Member
Brad Koeppen, Attorney
Steve Doniger, Secretary





Executive Summary

What Are Pathways and Greenways?

Pathways and greenways are corridors of protected open space managed for conservation, recreation and alternative transportation purposes. **Greenways** often follow natural land or water features, and link nature reserves, parks, cultural features and historic sites with each other and with populated areas. Greenways can be publicly or privately owned, and some are the result of public/private partnerships.

Pathways are trails used for walking, bicycling, horseback riding or other forms of recreation. Some greenways include pathways, while others do not. Some appeal exclusively to people, while others attract wildlife. From the hills of inland America to the beaches and barrier islands of the coast, greenways provide a vast network linking America's special places.

Why Establish Pathways and Greenways?

Pathways and greenways positively impact individuals and improve communities by providing recreation and transportation opportunities and also by influencing economic and community development. Some of the many pathways and greenways benefits include:

- making communities better places to live by preserving and creating open spaces;
- encouraging physical fitness and healthy lifestyles;
- creating new opportunities for outdoor recreation and non-motorized transportation;
- strengthening local economies;
- protecting the environment; and
- preserving culturally and historically valuable areas.

“Today we wouldn’t consider building a home or an office without a blueprint, just as we should not continue to grow and develop our communities without a greenprint. The Valparaiso Pathways and Greenways Master Plan will provide the greenprint (infrastructure) for the future growth of the Valparaiso community.”

—Chuck Lehman, ASLA
President, Lehman & Lehman, Inc.

The City of Valparaiso, lead by the Park Department, is undertaking an important step toward meeting both the current and future alternative transportation needs of its citizens. The *Valparaiso Pathways and Greenways Master Plan* provides a “greenprint” for the City to use as a guide in forming a pathway network through existing developments and into future expansions of the community.

The *Valparaiso Pathways and Greenways* plan reaches the goals of the Valparaiso Pathways Mission by providing safe, non-motorized transportation pathways to the Valparaiso community. Once implemented the *Valparaiso Pathways and Greenways Master Plan* will fulfill the Valparaiso Pathways Vision by improving the health, fitness, and quality of life of Valparaiso residents and providing safe and attractive alternative options for movement and circulation through the community.



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The *Valparaiso Pathways and Greenways* plan represents a commitment by the City to design, construct, and maintain a network of safe, convenient, and attractive bicycle and pedestrian facilities for commuting and recreational use throughout the Valparaiso community. One of the goals and benefits of an alternative transportation system is to minimize the use of cars, especially for short, frequent trips. As the City of Valparaiso continues to grow, more and more vehicles will congest city streets, especially if no easy alternative transportation routes exist for citizens to use when travelling short distances. Increased traffic equates to increased road maintenance costs, the need for new and wider streets, traffic congestion, driver / bicyclist / pedestrian frustration, additional safety concerns and an image of a non-pedestrian friendly community.

The *Valparaiso Pathways and Greenways* plan will form a network of multiuse alternative transportation options including walkers, runners, cyclists, skaters, all resulting in many benefits to the City of Valparaiso. These include:

- Connecting the neighborhoods with neighborhoods, the community to adjacent communities and outward to the region;
- Further enhancing the community image / pride and visitors' impressions;
- Promoting the healthier lifestyles through exercise and leisure recreation;
- Expanding the tourism opportunities, related commerce and local economy;
- Being accessible to persons with disabilities;
- Increase the self-reliance for non-drivers;
- Providing "linear parks and parkways" throughout the community;
- Connecting neighborhoods to schools, parks and other community destination points;
- Promoting quality of life issues to current and future residents of Valparaiso; and
- Improving and stabilizing natural environments and natural areas.

Mission

"The mission of the Valparaiso Area Pathways Committee is to promote the use of non-motorized transportation by providing leadership and planning resources toward the development and implementation of safe pathways for the Valparaiso community."

Vision

"The vision of the Valparaiso Area Pathways Committee is to create a signature pathway system to and through the Valparaiso area that:

- **Is attractive and accessible,**
- **Encourages healthy lifestyles,**
- **Promotes energy conservation, and**
- **Assures user safety."**

Master Plan Document

The *Valparaiso Pathways and Greenways Master Plan* document is composed of three sections. These include Planning Approach and Plan Development, Design Guidelines, Implementation Strategies.

The *Planning Approach and Plan Development* section reviews the planning approach and process in the formation of the master plan. In this section the benefits of alternative transportation and greenways development as well as the vision, goals, and objectives for the Plan will be described.



The *Design Guidelines* section sets pathway and trail standards to ensure uniformity of bicycle and pedestrian facilities throughout the Valparaiso community.

The *Strategic Plan* section discusses the development and implementation of the overall pathway and greenway network system. In this section key project areas will be addressed as well as funding strategies.

The *Valparaiso Pathways and Greenways Master Plan* should not be viewed as static, never-to-be-changed set of ideas or project. It must be seen and used as a dynamic plan. For effectiveness in its implementation, the plan must be reviewed, evalu-

ated on a regular basis, and, when necessary, updated to reflect changing growth trends and attitudes of the community. In doing so, the City of Valparaiso can always be on the “front end” of the master plan. Besides the physical component of the master plan there needs to be an educational element of the citizens in promoting and usage of an alternative transportation system.

The realization of the *Valparaiso Pathways and Greenways Master Plan* will require a cooperative effort among public agencies, private and nonprofit organizations within the City of Valparaiso. To assist in this coordination, the *Valparaiso Pathways and Greenways Master Plan* recommends the creation of a Greenways Advisory Board. This group would be seen as a resource to all City Departments in the promotion of the *Valparaiso Pathways and Greenways Master Plan*, coordinating projects and priorities, assistance in obtaining funding and sponsorships, education of the community on the benefits of the system, etc.

Usage of the Master Plan Document

The *Valparaiso Pathways and Greenways Master Plan* is intended to be adopted and used in daily and long-term decision making by elected and appointed officials and City staff. These individuals, as well as the general public, should become familiar with the goals and objectives of the plan and implement them



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to the greatest extent possible. The concepts, goals, and objectives discussed in this Plan should complement and be a part of the City's Comprehensive Plan, Thoroughfare Plan, Parks Master Plan, etc.

The *Valparaiso Pathways and Greenways Master Plan* reflects the current and anticipated alternative transportation needs of Valparaiso. However, as a dynamic plan it must respond, evolve and expand as does the City. The plan's effectiveness will be measured through periodic reviews and refinements. A master plan update should occur every five to ten years to reflect changing trends, growth, and desires of the community. Using the plan as a guide, while periodically updating/refining it, will be an act of positive stewardship in maintaining and promoting the "greenprint" infrastructure of the Valparaiso Community.

Recommendations

There are several recommendations that have been concluded as a result of this planning effort. They are listed below:

1. Adoption of the *Valparaiso Pathways and Greenways Master Plan* as the City's alternative transportation and "greenprint" plan.
2. Adoption of the plan by the Park Board as an amendment to their 5-Year master plan.
3. Adoption by the Plan Commission and City Council as an amendment to the City's thoroughfare plan, comprehensive plan and any other applicable plans.
4. Modification of existing subdivision and development ordinances incorporating the pathway and greenway standards.
5. Establishment of cost estimates and a priority action plan for phased implementation of the trail segments.
6. Formulation of an ongoing, citizen-driven *Valparaiso Alternative Transportation and Greenways Advisory Board* (VATGAB). This Advisory Board would serve as a volunteer resource group to the City and its various departments. Assistance can be in the areas of educating the community on the benefits of the system, identification of need and priority, funding and sponsorships, marketing and promotion of the greenways and pathways system, organizing community functions and festivals utilizing the greenway system.
7. Commitment to annually review the *Valparaiso Pathways and Greenways Master Plan* and make refinements and adjustments in response to trends, community need and development growth.



8. Commitment to seek out connectivity outside of the Valparaiso planning limits expanding the system to adjacent communities. The City becomes an active partner and catalyst in the Valparaiso area in the promotion and connections of trails, pathways for the betterment of the communities and region.
9. Commitment to seek out funding options. Study the application of special funding resources such as TEA-21 grants, recreation impact fees, etc.
10. Identification of the priority trail segment (a highly visible segment that maximizes achievement of the implementation criteria and serves as a demonstration of the master plan components for the community) and commitment to fund this priority trail segment.

Plan Directions

The directions of the plan established at the threshold of the planning startup were identified as follows:

- Establish a vision for the community alternative transportation, pathways and greenways network,
- Identify key destinations and potential linkages within Valparaiso,
- Develop a conceptual design routing plan for alternative transportation, pathways and greenways route segments,
- Identify goals and objectives to guide future decision making, and
- Coordinate this plan with Valparaiso's Comprehensive Plan and Thoroughfare Plan, the City's implications to the subdivision ordinances, and the Parks and Recreation 5-Year Master Plan.

Note: The Valparaiso Pathways and Greenways Master Plan Community Pathways Committee, the City Parks Department, the City Administration, and the public supported these planning directions for the plan throughout the planning process.



Overview of the Planning Process

The Valparaiso Park Board selected the firm of Lehman & Lehman, Inc., landscape architects and planners from Mishawaka, in 2004 to assist in the development of this *Valparaiso Pathways and Greenways Master Plan*.

Since previous studies suggest alternative choices for commuting and mobility throughout the Valparaiso community, it was essential that a citizen group be established having a voice in shaping the plan. Therefore in 2004 a Community Pathways Committee was estab-



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lished. This group was made up of citizens with interests in pathway and greenways use and development, those who were concerned on how the plan would be developed and representatives from the various City Departments. The Community Pathways Committee was comprised of 24-26 members.

This Community Pathways Committee served as a sounding board on behalf of the community throughout the planning process working closely with the Consultant in defining destinations, routes, etc. In addition, drafts of the master plan were presented the City's Leadership Team, Park Board, the Re-development Commission, and to the general public at three meetings.





Resolution Adopting the *Valparaiso Pathways and Greenways Master Plan*

WHEREAS, The City of Valparaiso Parks and Recreation Board is focused on providing a quality parks and recreation system for the citizens of Valparaiso, Indiana as defined by its Mission Statement and its Vision Statement; and,

WHEREAS, in doing so the City of Valparaiso Parks and Recreation Board has sought opinions and input from the officials and citizens of City of Valparaiso in developing the *Valparaiso Pathways and Greenways Master Plan*; and,

WHEREAS, the City of Valparaiso Parks and Recreation Board is committed, with the assistance of the City of Valparaiso, to the implementation of the *Valparaiso Pathways and Greenways Master Plan* by establishing standards, defining priorities, targeting development schedules and seeking funding sources; and,

WHEREAS, the City of Valparaiso Parks and Recreation Board desires to make the *Valparaiso Pathways and Greenways Master Plan* a part of its current 5-Year Parks and Recreation Master Plan by addendum; and,

WHEREAS, the City of Valparaiso Parks and Recreation Board desires to make itself eligible to meet certain requirements for participation in grant programs; and,

WHEREAS, on March 22, 2005, the City of Valparaiso Parks and Recreation Board received the final document of the proposed *Valparaiso Pathways and Greenways Master Plan*, prepared by Lehman & Lehman, Inc. of Mishawaka, Indiana.

NOW THEREFORE, BE IT RESOLVED that the City of Valparaiso Parks and Recreation Board hereby accepts and adopts the final document of the *Valparaiso Pathways and Greenways Master Plan* presented on March 22, 2005, as its official Alternative Transportation, Pathways and Greenways System Master Plan.

Dated this 22nd day of March, 2005

Christa Emerson Borlick, President

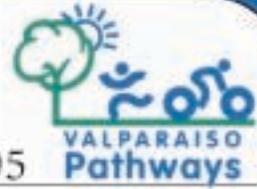
T.J. Edwards, Member

E. Ric Frataccia, Vice President

Attested:

Linda Alessi, Member

Steve Doniger, Director, Parks and Recreation



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B.

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VALPARAISO

**Planning Approach
& Plan Development**





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VALPARAISO Pathways & Greenways Master Plan • 2005

B·2 — Planning Approach and Plan Development

Benefits of Alternative Transportation

The Valparaiso Pathways and Greenways System is designed to address and resolve community issues that affect the current and future environmental and economic health of the Valparaiso metropolitan area.

Greenways have been implemented by communities throughout the United States in order to provide recreation and alternative transportation, control flooding, improve water quality, protect wetlands, conserve habitat for wildlife and buffer adjacent land uses. Greenways typically incorporate varying types and intensities of human use, including pathways for recreation and travel and passive and active park facilities, including open playing fields. Greenways increase the value of adjacent private properties as an amenity to residential and commercial developments. These and other benefits of the Valparaiso Pathways and Greenways network are described in the following pages. (*Adapted from the Kansas City MetroGreen Plan*)



Transportation Benefits

In past years, American communities have grown in a sprawling, suburban form as a result of dependence upon the automobile as the sole means of transportation. As automobile use has increased, traditional forms of transportation (such as passenger train service) have become less available and communities have been slow to offer alternatives such as bicycle and pedestrian networks, bus systems and local rail service. In order to provide relief from automobile congestion on the streets and highways in metro areas, future transportation planning and development must be concentrated on providing residents with choices in modes of travel. These choices should be appealing and should offer the same benefits currently provided by the automobile: efficiency, safety, comfort, reliability and flexibility.

Valparaiso's greenways corridors will be designed to serve as extensions of road networks, offering realistic and viable connections between origins and destinations such as work, schools, libraries, parks, shopping areas, historical and cultural sites and tourist attractions. Greenway-based bikeways





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Planning Approach and Plan Development — B-3

“Green infrastructure is our nation’s natural life support system—an interconnected network of waterways, wetlands, woodlands, wildlife habitats, and other natural areas; greenways, parks and other conservation lands; working farms, ranches and forest; and wilderness and other open spaces that support native species, maintain natural ecological processes, sustain air and water resources, and contribute to the health and quality of life for America’s communities and people. Green infrastructure is smart conservation that address the ecological, social economic impacts of sprawl and the accelerated consumption and fragmentation of land.”

—Definitions of green infrastructure are found in a report titled *Green Infrastructure: Smart Conservation for the 21st Century*, by Mark Benedict and Ed McMahon of the Conservation Fund.

and walkways are most effective for certain travel distances. National surveys by the Federal Highway Administration have shown that Americans are willing to walk as far as two miles to a destination and bike as far as five miles. Destinations can be linked to multiple origins throughout the Valparaiso area with a combination of off-road trails and on-road bicycle and pedestrian facilities.

Economic Benefits

Valparaiso Pathways and Greenways offer numerous economic benefits, including higher real estate property values, increased tourism and recreation-related revenues, and cost savings for public services. Greenways have been shown to raise the value of adjacent properties by as much as five to 20 percent. For example, in a residential development in Raleigh, North Carolina, new lots situated on a greenway were priced \$5,000 higher than comparable lots off the greenway. Many homebuyers and corporations are looking for real estate that provides direct access to public and private greenway systems. Greenways are viewed as amenities by residential, commercial and office park developers who realize higher rental values and profits from when they locate next to greenways. Additionally, greenways can save local tax dollars by utilizing resource-based strategies for hazard mitigation and managing community storm water, thus placing into productive use landscapes that would not normally be considered for conventional development.

Greenways enhance the role tourism plays in the economy. Tourism is ranked as the number one economic force in the world. In several states, regional areas and localities throughout the nation, greenways have been specifically created to capture the tourism potential of a regional landscape or cultural destination. The state of Missouri, for example, spent \$6 million to create the 200-mile KATY Trail, which, in its first full-year of operation, generated travel and tourism expenditures of more than \$6 million.



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B.4 — Planning Approach and Plan Development

Health and Recreation Benefits

Studies show that as little as 30 minutes a day of moderate-intensity exercise (such as bicycling, walking, in-line skating or cross-country skiing) can significantly improve mental and physical health and prevent certain diseases. Greenways contribute to public health by encouraging more people to walk or bike to short-distance destinations. Providing opportunities for participation in these outdoor activities, close to where people live and work is an important component of promoting healthy lifestyles.

In 1987, the President's Commission on Americans Outdoors released a report that profiled the modern pursuit of leisure and defined the quality of life for many Americans. Limited access to outdoor resources was cited as a growing problem throughout the nation. The commission recommended that a national system of greenways could provide all Americans with access to linear open space resources.



The Valparaiso Pathways and Greenways system will complement the community's existing parks and open-space system, and serve as a primary recreation and fitness resource.

Cultural Benefits

Greenway systems like Valparaiso Pathways and Greenways enhance the culture of their regions and protect historic resources in metropolitan areas. Successful greenway projects across the United States have served as new "main streets," where neighbors meet, children play and community groups gather to celebrate. For cities and towns large and small, greenways have become cultural assets and focal points for community activities. Some communities sponsor "greenway days" to celebrate the outdoors and local traditions. Various walking and running events are held on greenways to support charity events or extend traditional sporting events. Many civic groups adopt segments of greenways for cleanup, litter removal and environmental awareness programs. Some greenways, like San Antonio's Riverwalk, are the focal point not only for community activities, but also for economic development.

The richness and diversity of area historic and cultural resources are represented by locally or nationally significant historic sites and districts. The interpretation of historic and archeological sites along greenways can serve to increase the awareness and appreciation of the area's rich history. Greenways can also serve as vehicles to provide controlled public access to important cultural sites in a manner that promotes preservation and enhances interpretive opportunities.

“Increased access to open space has been linked to better physical fitness leading to decreased public health care costs, reduced social service and police/ justice costs; as well as reduced self-destructive and anti-social behavior.”

— U. S. National Park Service,
“The Economic Benefits of
Protecting Rivers, Trails and
Greenway Corridors”



Security and Safety Benefits

Most Americans are concerned about crime. Safe neighborhoods are of prime concern and priority to metro area residents. Some of the most successful deterrents to criminal activity involve increasing neighborhood awareness by citizens and participation in community watch programs. Greenways have proven to be an effective tool to encourage local residents to participate in neighborhood programs. Some greenways have been developed as part of efforts to deter criminal activity in a neighborhood. Crime statistics and reports from law enforcement officials have shown that parks and greenways are typically land uses with the lowest incidence of reported criminal activity.

As a recreation resource, alternative transportation corridor or area where fitness activities take place, most greenways provide a safer and much more user-friendly resource than other linear corridors, such as local roads. Greenways typically attract local residents who use the facilities frequently, creating an environment that is virtually self-policing. Additionally, greenways — whether publicly or privately owned — are dedicated for multiple use and are normally designed to meet federal, state and local standards for public safety and use.

Water Quality and Water Quantity Benefits

Greenways preserve wooded open spaces along creeks and streams that absorb flood waters and filter pollutants from storm water. In some cases buildings and other land uses have encroached into flood-prone areas. By designating floodplains as greenways, encroachments can be managed, and sometimes replaced with linear open space, an amenity to residents and businesses occupying adjacent property.

As a flood-control measure, Valparaiso Pathways and Greenways corridors serve as primary storage zones during periods of heavy rainfall. The protected floodplain can also be used during non-flood periods for recreation and alternative

transportation. In conjunction with existing storm water management policies and programs in the region, greenway lands can be set aside as development occurs. Greenway corridors also serve to improve the surface water quality of local rivers and creeks. The floodplain forests and wetlands contained within



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B.6 — Planning Approach and Plan Development

greenway corridors filter pollutants from storm water. These pollutants are not removed if storm water is collected in pipes and discharged directly into local streams and rivers. Improving surface water quality in streams benefits both local residents and numerous forms of wildlife that depend on streams for their habitat.

As a water supply protection measure, Valparaiso Pathways and Greenways corridors can buffer streams and lakes with vegetation to absorb pollution from runoff. As a flood control measure, Valparaiso Pathways and Greenways corridors will serve as primary storage zones during periods of heavy rainfall. The protected floodplain can also be used during non-flood periods for recreation and alternative transportation.

Air Quality Benefits

Greenways as alternative transportation corridors serve to reduce traffic congestion, thus helping to improve air quality. Since the majority of automobile trips are less than two miles in length, offering alternative transportation choices through greenways would encourage residents to bicycle or walk these short distances more often, thereby reducing traffic congestion and automobile emissions.

Plant and Animal Habitat Benefits

Valparaiso Pathways and Greenways corridors can serve as viable habitat for many species of plants and wildlife. Greenway corridors provide essential food sources and, most importantly, access to water that is required by all wildlife. Greenways in the Valparaiso area could become primary migratory routes for terrestrial wildlife, serving to help maintain the integrity of many plant and animal gene pools. Some wildlife biologists have extolled greenways as future “gene-ways” because these migration routes are essential to maintaining healthy wildlife populations.

Greenways can also serve as “gene-ways” for plant species that migrate with changes in climate and habitat. These “greenways” often follow river and stream corridors that have long served as transportation routes for animals and humans. Valparaiso Pathways and Greenways promote local programs to protect valuable existing forested and wetland areas and to reclaim and restore streams to support higher quality habitat.

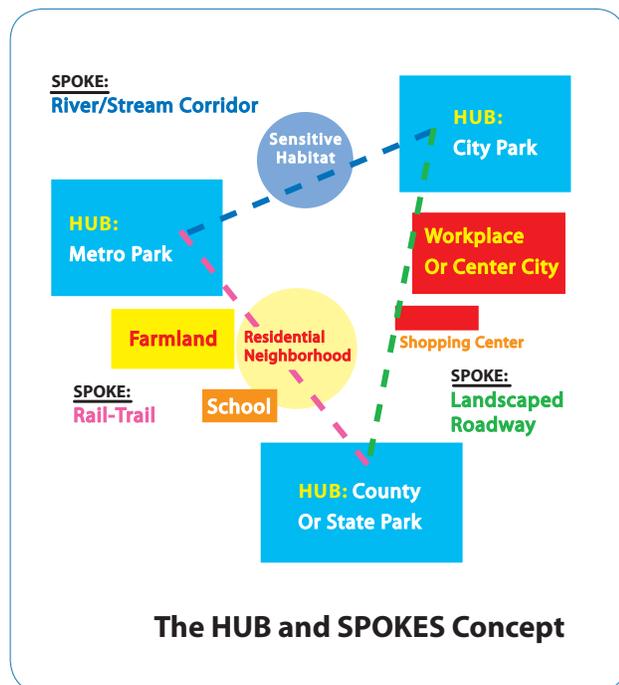


Connecting People through “Hubs and Spokes”

Connections are the most tangible product of pathways and greenways plans. The physical framework of the *Valparaiso Pathways and Greenways Master Plan* is based on a popular concept known as “Hubs and Spokes.” Under this concept, residential, commercial and business landscapes (hubs) are linked to parks, preserves and open spaces via greenway and physical corridors (spokes). For residents this means improved access to the outdoors for recreation, auto-alternative transportation, and participation in activities that can improve health, fitness and quality of life.

The strategy for implementation will be in applying the following elements:

- Start with the Trails Master Plan (general routes and destinations) and the findings of the master planning study
- Work with all stakeholders (citizens, government officials, businesses, etc.)
- Recognize that “users” (walkers, runners, cyclists, families, etc.) have differing needs
- Route around, not through, private property except where that access is offered voluntarily
- Choose first to construct those trails that are simplest to accomplish in terms of land, funding, etc. Easy, early successes provide project momentum and fastest benefits to citizens.



Hubs: Destination Points in the Community

One of the primary reasons for developing a pathway and greenway system is to provide access to a destination. While the pathway system evolves it will connect neighborhoods on its way to other destinations. The task force identified many possible destinations in the Valparaiso community.

- Recreational—Golf, Cinemas, Parks, Swimming Pool
- Services—Banks, Medical
- Commercial—Restaurants, Shopping, Video Stores, Arcades
- Civic—Schools, Churches, Parks, Library, City Buildings
- Residential—Houses, Apartments, Retirement Communities, Hotels/Motels



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Identified Benefits

- S 1. Increased safety for those currently biking, running, walking, pushing strollers (etc.) along our sidewalk-less and shoulder-less roads.
- Q, S 2. Transportation routes for wheelchairs where none existed before.
- S, T 3. Safe routes for children to parks, schools and other places they frequent.
- Q, S 4. Parents can send kids on trails with confidence (no traffic permits).
- Q, T 5. Parents can encourage children's self-reliance (in getting themselves where they want to go).
- C 6. Increased sense of community—of something that is "ours" to share.
- C 7. Increased sense of community among frequent users as community members get to know each other.
- S 8. Increased sense of community promotes increased safety—watching out for one another.
- E, H, T 9. Every person that chooses to walk (or wheel) to a destination avoids one car trip—decreased traffic; decreased pollutants.
- H, Q 10. Studies show that people will use trails once they exist—increased activity brings health benefits community-wide.
- S 11. Crime goes down when trails go through—increased activity and surveillance deter negative activity.
- Q, T 12. Employees who live in Valparaiso can more readily choose to walk or bike to work—even if only occasionally.
- Q, T 13. Employees, whether they live in Valparaiso or not, can choose to walk to lunch locations.
- S, \$ 14. Hotel guests in our city can safely walk to nearby restaurants and shops.
- S, \$ 15. Many hotel guests look for safe and convenient running routes while in town on business—more likely to use that hotel next time.
- T, \$ 16. Business guests in our hotels may find that they can walk each day to the facility they are in town to visit.

Identified Benefits Key

- C = Community
- E = Environmental
- H = Health
- Q = Quality of Life
- R = Recreation
- S = Safety
- T = Transportation
- \$ = Business & Tourism

Identified Uses:

Foot

- Walking
- Running

Wheeled

- Wheelchairs
- Baby strollers
- Bicycling
- Skating
- Scooters
- Skateboards



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- \$ 17. We will draw trail users from nearby communities that do not have such systems – they will spend money while they are here in our restaurants and shops.
- Q, \$ 18. Nationwide, there is evidence that nearby trails raise property values—for trail adjacent properties; but also for the community at large, which becomes a more desirable place.
- E, Q 19. Areas set aside for trails through greenways preserve that greenspace permanently; creating a more livable community.
- E 20. Greenspaces preserve animal habitats, plant habitats and wetlands, all contributing to a healthy ecosystem.

Additional Studies Having Influence to this Study

There were several previous studies that were referenced as a resource throughout the *Valparaiso Pathways and Greenways Master Plan* planning process.

Growth Management Plan for the City of Valparaiso

The Growth Management Plan for the City of Valparaiso (GMP), prepared by Camiros, Ltd. and Earth Tech in 1999, identified various proposals for the City's consideration. The study area defined in this GMP study was the same area used for the *Valparaiso Pathways and Greenways Master Plan*. While the GMP identified pathways and open space framework opportunities, this information was compared with the current development patterns and community pathway needs in order to update the results of this study.

Valparaiso Parks and Recreation Survey

In March 2004 the Community Research and Service Center of Valparaiso University conducted a community-wide (Valparaiso and Center Township residents) survey. The purpose of this survey was to assess the current Park and Recreation facilities and activities as well as to determine what facilities and activities citizens desire for the future.

Questions were asked regarding:

- Most important factors that contribute to the quality of life in Valparaiso
- The importance of the City's various recreation facilities and activities
- What new facilities or activities citizens would like to have

To highlight responses to the Quality of Life questions the top five responses were Public Schools, Safe Neighborhoods, Small Town Character, Downtown and Parks and Recreation.



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The responses to the question of the importance of Community Recreation Opportunities the top five responses were Playgrounds, Walking/Bike Trails, Natural Open Space, Athletic Fields, and Picnic Areas.

When asked what Potential New Community Facilities and Activities are needed the top five responses were Bike/Walk Trails, Open Land and Green Space, Community Center, Outdoor Pool and Amphitheatre/Bandshell.

In summary, the responses from the community survey indicated that bike/walk/trailways carry a high value in the quality of life and the expansion development of a pathways and greenways network system should be a top priority for the City.

Northwest Indiana Pedestrian & Bicycle Transportation Plan of 2004 (Ped & Pedal)

This study was recently completed and was prepared by Northwestern Indiana Regional Planning Commission (NIRPC). This study examined both the pedestrian and bicycle routings throughout its planning area which included Lake, Porter and LaPorte Counties.

Many transportation design standards were defined as a part of this study for the pedestrians and bicyclists using national standards. The study also defined an inventory of existing trails, corridor routes and identified many proposed trail corridors within the three counties.

The study also provided a Trail Costs Analysis whose summary can be found in the Appendix of this document. Since much of it applies to local development and construction costs it will serve as a guide for City's implementation of its plans.

Valparaiso Parks and Recreation Five Year Master Plan Update 2002 to 2006

The Park Department's Five Year Master Plan was also used as a resource in this planning study. Many of the identified goals of the Five Year Master Plan were considered as a foundation to this pathways study. Some of these goals included "Develop and Adopt a Proactive Open Space Strategy" and "Consider New Facilities through a Capability Analysis Methodology" (this included Pathways and Greenway Linkages).

Planning Approach for the *Valparaiso Pathways and Greenways Master Plan*

Lehman & Lehman, Inc. (Mishawaka, IN) served as the Consultant for the *Valparaiso Pathways and Greenways Master Plan*. The approach of the Consultant was as follows:

1. Form a Community Pathways Committee – This committee was made up of various citizens of the Valparaiso community representing their various neighborhoods, interests, users, etc. The committee also included several members of City departments.



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2. Prepare a base map of the study area – Utilizing the existing CAD information provided by the City, a base map indicating streets, key landmarks, etc. was created.
3. Delineate an initial routing layout looking at destination points, priorities, “coat-tail” projects, etc. – This work was prepared by the Consultant and then shared with the Community Pathways Committee.
4. Meeting with the Community Pathways Committee – The Consultant provided an orientation overview, defined goals and values to incorporate into the plan, addressed known priorities, outlined the next steps and assignments. Reviewed the initial routing layout plan and received additional feedback. Also, identified any new stakeholders that would have input for the *Valparaiso Pathways and Greenways Master Plan*.
5. Document current conditions – Nine (9) study areas were defined. Community Pathways Committee teams walk/drove their assigned study area and photo documented the area as well as indicated destination points and pathway routes on the provided basemaps. This Photo Inventory can be found in the Appendix (Section E) of this document.
6. Expand on the initial routing layout plan – Identify priorities, trail and greenway types, land ownerships, incorporate the City’s Comprehensive Growth Plan, locate and identify proposed new subdivisions, etc.
7. Provide a written Progress Report – Document the progress which included goals, values, visions, routing concepts, design of typical trail sections, priorities, etc. This report was shared with the Park Board and the Community Pathways Committee.
8. Public Meetings – Prepare PowerPoint presentation of the Conceptual *Valparaiso Pathways and Greenways Master Plan*. Share the conceptual design and the benefits of the plan with various service clubs, public groups, etc. to share the Greenways Vision for Valparaiso and to solicit feedback and response.
9. Departmental Meetings – Meetings with the various city departments (streets, utilities, etc.) to discuss impact of the proposed *Valparaiso Pathways and Greenways Master Plan*.
10. Master Plan Inclusion – Review and process the inclusion of the *Valparaiso Pathways and Greenways Master Plan* with the City’s Comprehensive and Thoroughfare Plans and Subdivision Standards.
11. Finalize the *Valparaiso Pathways and Greenways Master Plan* – Document the planning process, outline the overall master plan and its phases or priorities, related construction cost estimates, identify various funding sources, etc. Provide suggested policies and operations/management structures in the greenways implementation and operations. Also, address possible organization structures of the Valparaiso Pathways and Greenways.
12. Present the Master Plan to the Park Board and other agencies (i.e. Plan Commission, City Council, etc.)



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Role of the Community Pathways Committee

The Community Pathways Committee played a significant role in the development of this *Valparaiso Pathways and Greenways Master Plan* by assisting the Consultant and project team. Their verification of routes through on-site reconnaissance and photo documentation was of the upmost value to the planning process. Listed below is the purpose of this committee along with the goals for this project.

Function of the Community Pathways Committee

- To assist the City and the Consultant define the goals of the trail system
- To assist the City and the Consultant in developing a Master Plan to support those goals

Project Goals of the Community Pathways Committee:

That by the end of this project the project team will:

1. Provide a recommended routes map that has taken into consideration:
 - a. Anticipated uses
 - b. Destinations
 - c. Access and easements
2. Present a concluding policy statement that includes:
 - a. A vision for the final trail system
 - b. A list of anticipated uses, destinations, and benefits
3. Recommendations for the next steps

Meetings of the Community Pathways Committee

There were approximately four (4) meetings with the Community Pathways Committee during the course of this study. The meetings included a review of the goals and values of the study as well as an open discussion regarding the routes of the system, documented current inadequacies and problems, surveyed goals for the trails system and designed a master Plan to meet the goals.

Several assignments were given to the group to complete for each meeting. Some of the assignments included on-site assessment activities. City street maps were distributed to the task force members in order to:





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1. Identify key destination points in the community that should be connected with a greenway route.
2. Study areas of the community that carried concerns of safety, security, poor visibility, high maintenance, neighborhood acceptance, etc.
3. Develop thoughts regarding how best to communicate the applications of the Greenway System to the community.

Other planning ideas and concerns that this Master Plan addressed included the following:

1. The plan should address the connections of the existing sidewalks ... connecting the open segments.
2. Parks, schools, and churches may all serve as parking and trail heads for the greenway system.
3. Bikes should be used on streets or expanded pathways and not on existing sidewalks.
 4. The minimum width of the sidewalk/pathway should be 6–8 feet when following existing streets.
 5. The plan should develop design standards for the various trail/pathway/greenway types.
 6. Trails in remote areas may want to provide a width to accommodate emergency vehicle access.
 7. As the Master Plan evolves we may want to involve existing home owners associations for input.

“To make a greenway is to make a community.”

—Charles Little, Author,
Greenways for America

In identifying the routings of the greenway master plan and their priority for implementation the Community Pathways Committee identified several values to be considered as criteria (the list may be refined and added to in the master planning process):

1. Maximum length of the trail segment
2. Minimum expense in trail development
3. The practicality of the trail segment (whom it will serve)
4. Connections of the trail segments to community destinations
5. Safety factors of the trail segment (i.e. visibility of the trails)
6. Minimum stops or hesitations of the trail segment
7. The availability of water and other trail amenities
8. The circuit routes of the trail segment
9. The diversity of the trail segment
10. Ownership of the land (i.e. is there need to acquire, easements, etc.)



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Position Statement

Cities nationwide are realizing the benefits of establishing trail systems. They are taking action and seeing the positive results.

Trail systems serve many purposes, including recreation, which may take the form of exercise, or simply the enjoyment of an evening stroll. Trail systems, if properly designed, also provide a network of paths that connect desirable destinations. They enable a mode of transportation to the places people want to go. Imagine a city in which one is not forced by dangerous conditions to drive to a destination only three blocks away. Imagine a city in which children, seniors, and non-drivers can walk safely to a park, a grocery store or a video store.

Such a network should include multi-use trails, footpaths, bike lanes and exiting and/or improved sidewalks. It is equally important that it include will-identified “connectors” that enable users to depart for a destination with the confidence that the trail system is contiguous. Finally, the network should ultimately include walkable connections between residential areas that are otherwise isolated from one another.



Priority Strategies

The implementation of a greenway system as large and complex as the *Valparaiso Pathways and Greenways Master Plan* cannot be accomplished immediately. The system will take years to build, giving full consideration to the way each segment is designed, surveying the miles and securing adequate funding. As this Action Plan was formulated, segments of the overall system will need to be prioritized into four distinct phases.

Prioritization of Loops or Segments suggested to be of prime importance for implementation was identified based on a set of criteria suggested to seek out the best applied loop segments of the overall system. This information is based on the following criteria:

- Connections of links to destination points
- Number of persons served by link
- Costs and funding sources for link





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- Link's potential for multi-users
- Link's relation with other projects ("coat tails")
- Partnerships: public and/or private
- Link's proximity to identified loop or existing link
- Community / Neighborhood need requests
- Property availability
- Follows the overall alternative transportation plan
- How link applies to standards and pending impact fee strategies

Funding Resources

The following is a partial list of possible funding opportunities and resources for the City of Valparaiso to further explore. It includes Local Funding, State Funding, Federal Funding, Grant Programs, Foundations, and Corporate Sponsorship.

Local Funding Sources and Resources

1. **Mayor and City Council**—May supply direct funding and local matching for funds for state and federal grants. May adopt regulatory measures for setbacks, open space requirements, and trail easements. May adopt Recreation Impact Fees Ordinance. May provide political support.
2. **City Departments**—Parks and Recreation, Public Works, Traffic/Streets, Utilities, Planning, and Engineering Departments. May coordinate the planning, land acquisition, implementation, and maintenance efforts among individual departments which will lessen the financial burden of trail development on one department. Includes alternative transportation efforts in each department.
3. **Private Developers**—With the inclusion of the trail/pathway standards housing developers will be required to meet such standards as part of their development's Capital Improvement Program.
4. **Tourism Agency**—May provide funds or services for promotion and publishing information regarding trails, routes, destinations, etc.
5. **School Districts**—Funding for land for use as outdoor classrooms/labs and greenways.
6. **Special Interest Groups**—May collaborate funding with organizations with compatible interests.

State Funding Sources and Resources

1. **Indiana Department of Natural Resources**—Funding currently available from the Division of Outdoor Recreation, Recreational Trails Program. This is a matching grant program that supports trail related acquisition, development, maintenance, restoration, and education projects.



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2. **Indiana Department of Transportation**—Funds for bicycle and pedestrian trails are currently available through the Transportation Equity Act (TEA-21) including “Recreational Trails Program,” “Bicycle Transportation and Pedestrian Walkways” and “Scenic Byways Program”. Revenue generated from the sale of environmental license plates may fund trail development.
3. **Indiana Lottery**—Proceeds from ticket sales may provide funding for parks, recreation, and conservation.

Federal Funding Sources and Resources

1. **Department of the Interior**
 - a. National Park Service—Funds are currently available for land acquisition and trail development through the “Land & Water Conservation Fund” and “Rivers, Trails and Conservation Assistance Program.”
 - b. U.S. Fish and Wildlife—Funds are currently available for wildlife habitat conservation along greenways.
 - c. Bureau of Land Management—Funds are available for forest restoration, wildlife habitat studies, riparian habitat restoration and other programs benefiting public land.
2. **Department of Transportation**—Funds for bicycle and pedestrian trails are currently available through the Transportation Equity Act (TEA-21) including “Recreational Trails Program,” “Bicycle Transportation and Pedestrian Walkways” and “Scenic Byways Program”.
3. **Environmental Protection Agency**—Funding is currently available for planning, public information, and wetland projects related to greenways.
4. **Department of Defense**—U.S. Army Corps of Engineers have funds available for recreation and conservation projects in conjunction with flood control improvements.
5. **Department of Housing and Urban Development**—Community Development Block Grants are funds available to projects that benefit low and moderate-income people.
6. **Department of Commerce**
 - a. Economic Development Administration—Supports projects that promote long-term economic development and private sector job creation especially in areas in severe economic distress.
 - b. Small Business Administration—Funds are currently available for tree planting programs.
7. **Federal Emergency Management Agency**—Funds available through local flood insurance programs.
8. **Department of Energy**—Funds are currently available to assist communities cleanup contaminated sites.
9. **National Endowment for the Arts and Humanities**—Funds are currently available for including art along trails and greenways.



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Grant Programs

1. **American Greenways Kodak Awards Program**—Grants of \$500 to \$2,500 are currently available through The Conservation Fund to local greenways projects including planning, design, or development. Contact American Greenways Program at The Conservation Fund, 1800 North Kent Street, Suite 1120, Arlington, VA, 22209
2. **Recreational Equipment Incorporated (REI)**—Seed grants of \$200 to \$2,000 are available to state and local conservation groups for river protection projects. Contact National Rivers Coalition, American Rivers, Inc., 801 Pennsylvania Ave., SE, Washington DC, 20013.
3. **The Global Relief Heritage Forest Program, American Forestry Association**—Grants are available (unspecified amount) for tree planting on public lands. Contact American Forestry Association, P.O. Box 2000, Washington DC, 20013
4. **The Design Arts Program of the National Endowment for the Arts**—Grants are also available (unspecified amount) to promote excellence in urban design, historic preservation, planning, architecture, and landscape architecture. Contact National Endowment for the Arts, Room 625, Nancy Hawks Center, 1100 Pennsylvania Ave., NW, Washington DC, 20506

Foundations

National, regional and local foundations may be able to fund trail development. The National Foundation Center (www.fdncenter.org) maintains a database of foundations.

Corporate Sponsorship

Corporate donations have been used to build boardwalks, interpretive signage, trail furniture, and provide funds for annual awards programs.

Organizations and Resources

The following is a partial listing of alternative transportation and greenways organizations that may provide valuable policy, planning, design, and technical information to the City of Valparaiso.

Alternative Transportation

1. **American Association of State Highway and Transportation Officials (AASHTO)**. A national organization representing highway transportation departments. Published “Guide for the Development of Bicycle Facilities” in 1999. Contact AASHTO, 444 North Capital St., NW, Washington, DC 20001 or www.aashto.org



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2. **National Bicycle Greenway.** A national organization dedicated to creating and maintaining a coast-to-coast network of multi-use transportation and recreational bicycle trails. Public education information available. Contact www.bikeroute.com
3. **Association of Pedestrian and Bicycle Professionals.** A national organization dedicated to promoting better conditions for bicycling and walking. Contact www.apbp.org
4. **National Center for Bicycling & Walking.** A national organization promoting the increased safe use of bicycles and walking in transportation planning. Contact National Center for Bicycling & Walking, 1506 21st St., NW, Suite 200, Washington, DC 20036 or www.bikewalk.org
5. **League of American Bicyclists.** A national organization devoted to increased bicycle use for commuting and recreation. Contact League of American Bicyclists, 1612 K St., NW, Suite 401, Washington, DC 20006 or www.bikeleague.org
6. **Surface Transportation Policy Project.** A national organization lobbying for alternative transportation and instrumental in passage of ISTEA. Contact Surface Transportation Policy Project, 1100 17th St., NW, 10th Floor, Washington, DC 20036 or www.transact.org
7. **Transportation Access Project.** A national organization dedicated to integrating alternative transportation into communities. Contact Transportation Access Project, 503 W. 4th Ave., Olympia, WA 98501.
8. **Pedestrian & Bicycle Information Center.** A national organization dedicated to providing sound policy, design, and research information regarding alternative transportation. Contact www.bicyclinginfo.org



Greenways

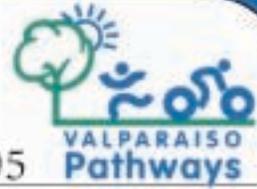
1. **The American Greenways Program.** A national organization dedicated to establishing a network of public and private open space corridors. Information and technical assistance is available on all aspects of greenways planning and development. Contact The Conservation Fund, 1800 N. Kent St., Suite 1120, Arlington, VA 22209 or www.conservationfund.org



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2. **American Farmland Trust.** A national organization charged with protecting agricultural land. Technical information is available regarding land preservation strategies. Contact American Farmland Trust, 1920 N. St., NW, Suite 400, Washington DC 20036 or www.farmland.org
3. **American Hiking Society.** A national organization dedicated to protecting the interests of hikers and preserving footpaths and the natural environment. Information about volunteer recruitment, trail building and maintenance is available. Contact The American Hiking Society, 1422 Fenwick Lane, Silver Spring, MD, 20910 or www.americanhiking.org
4. **American Rivers.** A national organization leading the charge of preserving the nation's outstanding rivers and their landscape. Contact American Rivers, 1025 Vermont Avenue, Suite #720, Washington, DC 20005 or www.amrivers.org
5. **Land Trust Alliance.** A national organization of land trusts. Expertise in establishing land trusts is available. Contact Land Trust Alliance, 1319 F St., NW, Suite 501, Washington DC 20004 or www.lta.org
6. **National Wildlife Federation.** A national organization dedicated to the protection of wildlife, wild places, and the environment. Sponsors a program called The Community Wildlife Habitat Program/Wild City Initiative. www.nwf.org
7. **Rails-to-Trails Conservancy.** A national organization dedicated to assist local governments and nonprofits convert abandoned railroad right-of-ways into public recreational trails. Contact Rails-to-Trails Conservancy, 1100 17th St., NW, 10th Floor, Washington, DC 20036 or www.railstotrails.org
8. **Scenic America.** A national organization devoted to preserving America's scenic beauty. Information and technical assistance is available to assist identifying, designating, and protecting scenic roads in urban and rural settings. Contact Scenic America, 801 Pennsylvania Ave., SE, Suite 300, Washington, DC 20003 or www.scenic.org
9. **Trust for Public Land.** A national organization formed to help public agencies acquire land of significant recreation, cultural, and ecological value. Contact Trust for Public Land, 116 New Montgomery St., 3rd Floor, San Francisco, CA 94105 or www.tpl.org
10. **Trails and Greenways Clearinghouse.** A national organization dedicated to promoting greenway development. Technical assistance and information is available. Contact Trails and Greenways Clearinghouse, 1100 17th St., NW, 10th Floor, Washington, DC 20036, or www.trailsandgreenways.org



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Design Guidelines





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C.2 — Design Guidelines

Design Guidelines

The intent of the *Valparaiso Pathways and Greenways Master Plan* is a planned network of bicycle and pedestrian routes and facilities for residents and visitors of all ages. This network will allow its users to walk or bike to their destinations in lieu of taking their car.

The *Valparaiso Pathways and Greenways Master Plan* fulfills the goals identified in the recent community surveys and previous studies. It provides opportunities to improve the health, fitness, and quality of life of Valparaiso's residents. However, motivating individuals to walk or bike will require developing safe, convenient, and attractive facilities.

Valparaiso Pathways and Greenways will require the establishment of design guidelines in order to successfully implement the vision, goals, and objectives of this Master Plan. The guidelines will assist the City Administration and Departments along with the proposed Valparaiso Alternative Transportation and Greenways Advisory Board (VATGAB) in the development of bicycle and pedestrian facilities that are safe, convenient, and attractive as well as ensure uniformity of the design, layout, and construction of these facilities throughout the Valparaiso community.

The Development Guidelines should be used in conjunction with the standards developed by the City of Valparaiso Public Works Department, the Indiana Department of Transportation (INDOT), and American Association of State Highway and Transportation Officials (AASHTO).

Identified Users

The users of Valparaiso's Pathways and Greenways, including bicycle and pedestrian users, will vary in age, experience, mobility, as well as confidence in traveling with, or crossing, vehicular, bicycles and people traffic.

Users will wish to experience the multi-use trails and pathways, greenways in nature areas and parks, and bike lanes as part of the city streets. Trails, pathways and sidewalks will need to accommodate walkers, bikers, runners, roller bladers, persons in wheelchairs, as well as accommodations for large groups.

Experienced users will bike or walk with vehicular traffic even if designated facilities do not exist. However, average users prefer to bike or walk on less busy neighborhood streets and on designated bicycle and pedestrian facilities.

The *Valparaiso Pathways and Greenways Master Plan* attempts to improve the routes and connectivity for experienced users as well as create safe, convenient and attractive facilities to attract average users. Providing accessibility for users of varying experience, mobility and confidence requires careful attention to the visibility of users, width and surface condition of routes, and design speed of bicycle and pedestrian facilities.

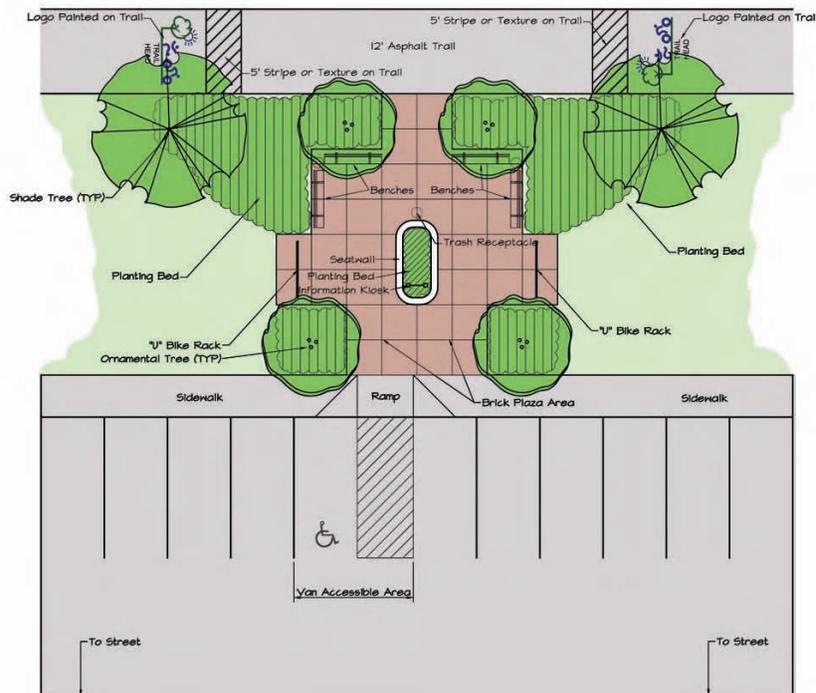
Facility Components

The Valparaiso Pathways and Greenways system will comprise many different facility components. These will include the trail or pathway itself, supporting infrastructure such as trailheads, signage, etc. Also, the design and applications of the use of landscape plantings, fencing, lighting, emergency phones, design and details of intersections and crossings, etc. will enhance the trail system. Trail signage and kiosks are also a vital component of the trail system. Standardization of the graphics/logos is recommended as well as the use of such signage to provide directions and information.

The locations of trailheads and their related elements would best be placed in common areas such as parks, schools, churches, etc. They should have ample visibility and necessary infrastructure elements such as utilities, lighting, parking, etc.

Other on-trail components (i.e. landscape plantings, fencing, lighting, etc.) should be designed and used for best compatibility with the adjacent land uses and neighbors.

Samples of conceptual design for a typical Trailhead and Rest Station were prepared as part of this study. Illustrations of these concepts are shown below.



Concept Design For A
Trail Head Layout

12.November.02

Prepared for:



Prepared by:

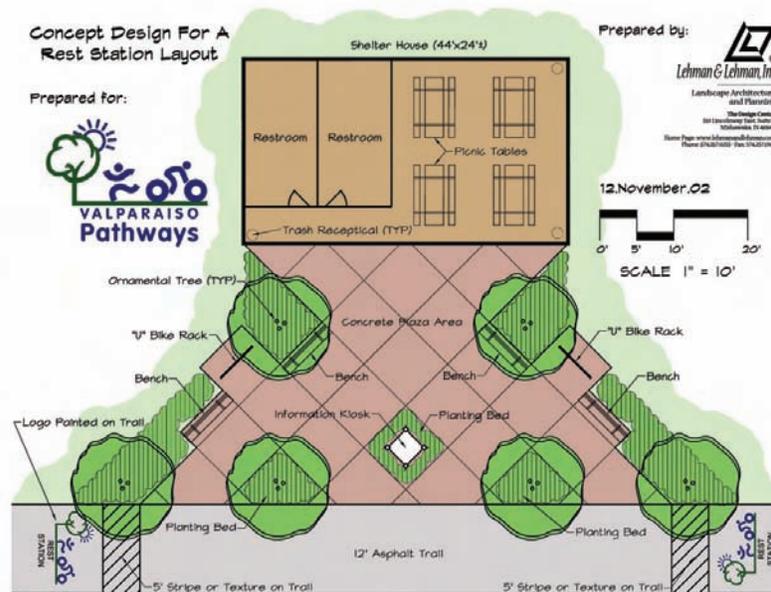
Landscape Architecture
and Planning
The Design Center
225 Lehigh Avenue, Suite C
Valparaiso, IN 46384
Lehman & Lehman, Inc. Home Page: www.lehmanlehman.com Phone: 317.461.1100 Fax: 317.461.1101



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C.4 — Design Guidelines



Design for Special Areas

The Valparaiso Pathways and Greenways system routing plan calls for several areas that will require special design considerations. There are segment routes that in lieu of crossing busy streets and highways may potentially need to be routed under the highway using existing drainage way bridges.

There are other areas of the city where such bridge under crossings will not be possible. Where these occur the route segments have been located at major street intersections that are signaled. These intersections may need to be enhanced to provide this access and accessibility to the users.

While there are no abandoned railroads within the City there are active rail lines that cross through the city limits. Potential exists for possible utilization of the railroad right of way. This has been done successfully in other Indiana communities on active rail lines. The City and the railroad company should explore this trail option further.

Trail segments have been noted occurring in areas of drainage ways and easements. These trail segments can have two trail type applications. As a nature type trail the trail composition may be an earthen trail surface. If utility vehicles will use the segment it is recommended that the trail be a multiuse and be 12' in width and be asphalt surface designed to handle traffic loads.

Where possible and feasible the City should consider the inclusion of "bike lanes" as part of the City Thoroughfare Plan. The design standards used for these applications should comply with both INDOT and AASHTO guidelines and requirements.





Maintenance Guidelines

The Valparaiso Pathways and Greenways system will require both maintenance and management policy for its usage and operation. The City should establish maintenance policy and guidelines that would define responsibility and be used in the overall system. Generally, the trail segment in the parks and open spaces will be the responsibility of the Parks Department (or jointly with the Utility Departments, where applicable). Segments where the trails are within street right of ways will be part of the maintenance responsibilities of the Public Works Department.

Regular maintenance may include:

- Inspecting and replacing bicycle and pedestrian routes and roadway signs,
- Repairing cracks and holes in bicycle and pedestrian routes surface,
- Sweeping routes to remove loose gravel, sand, garbage, leaves, etc.
- Removing dead or dangerous tree limbs and regular pruning of vegetation along the bicycle and pedestrian routes,
- Removing snow and ice,
- Assuring that there is positive drainage off of and away from the trail segment, and
- Documenting regular inspection to limit risk and liability.

The City may wish to consider promoting an “adopt a trail” program where the adjacent property owners or businesses would become “partners” with the City in the maintenance of trail segments.

Logo and Signage

The Valparaiso Pathways and Greenways system will best become known by its users through its usage. Early in the implementation of the system a logo should be commissioned and used in identifying trail segments and the overall system. Such logo design can be used to identify the Valparaiso Pathways and Greenways system in Valparaiso. The logo is a form of identity and marketing for the system. Naming trail segments and loops can be another form of marketing and identity.

The logo and signage will serve various functions including identifying trailheads, providing direction and safety information, identifying segment names, and communicating unique information such as historic or interpretive uses (in the form of kiosks).

The Valparaiso Pathways and Greenways system should have its own identity in its graphics and logos, etc. Common regional logos and graphics should apply where they system extends to the adjacent communities and the trail systems.



DEPT of PARKS
and RECREATION

VALPARAISO Pathways & Greenways Master Plan • 2005

C.6 — Design Guidelines

Proposed Trails and Pathways Design Standards

The *Valparaiso Pathways and Greenways Master Plan* calls for five (5) trail/pathway applications. They are as follows:

- A. Street Pathways
- B. Street Bike Lanes
- C. County Road Pathways
- D. Easement Pathways
- E. Open Space Pathways

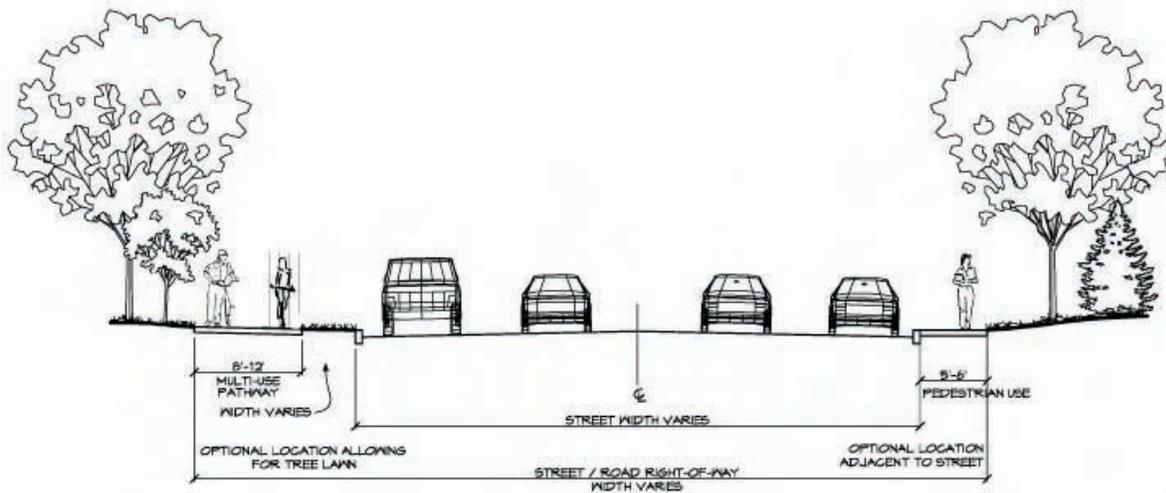
Where applicable the Consultant recommended the inclusion of conduits within the trailway. Such conduits can serve the City now and in the future in running fiber optics and other similar utility lines. With the construction of the trails and pathways such a piece of “utility infrastructure” should be seen as an asset.

As stated previously, it is not the intention of the *Valparaiso Pathways and Greenways Master Plan* to acquire land for such development unless it is donated or negotiated with the City and the Property Owner.



A – Street Pathways

This design guideline application would be used within existing street right-of-ways for both current and future streets. This application would be made part of the City's thoroughfare plan and street design standards.



STREET PATHWAYS

NOT TO SCALE



STREET PATHWAYS

NOT TO SCALE



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C·8 — Design Guidelines

A – Street Pathways Notes

1. Maintenance and upkeep by the Board of Public Works and Street Department.
2. Trails will be lighted with the street lighting.
3. Trails will be developed on both sides of street.
4. Alterations to design standards will be permitted with approved variance and site conditions.
5. Location of conduit may vary to either side of trail pavement.
6. Where existing sidewalks exist expand or replace sidewalks to these standards when possible.

A – Street Pathways Design Specs

- Concrete:
4" thick – 4000 p.s.i. @ 28 day limestone aggregate with air entraining agent reinforced with wire mesh
- Asphalt:
3" bituminous surface, #8 or #9, lv
5" compacted aggregate base #53

The design of the trails/sidewalks will apply on both sides of the street with an option for either 5'-6' concrete sidewalk or 8'-12' asphalt trail configuration. Where and when possible the existing sidewalks should be improved to match the design guidelines. Since these passageways are within street right-of-ways, in most cases night lighting will already be available.



The responsibility of the maintenance and upkeep of this trail/sidewalk application will be that of the Board of Public Works and Street Department.

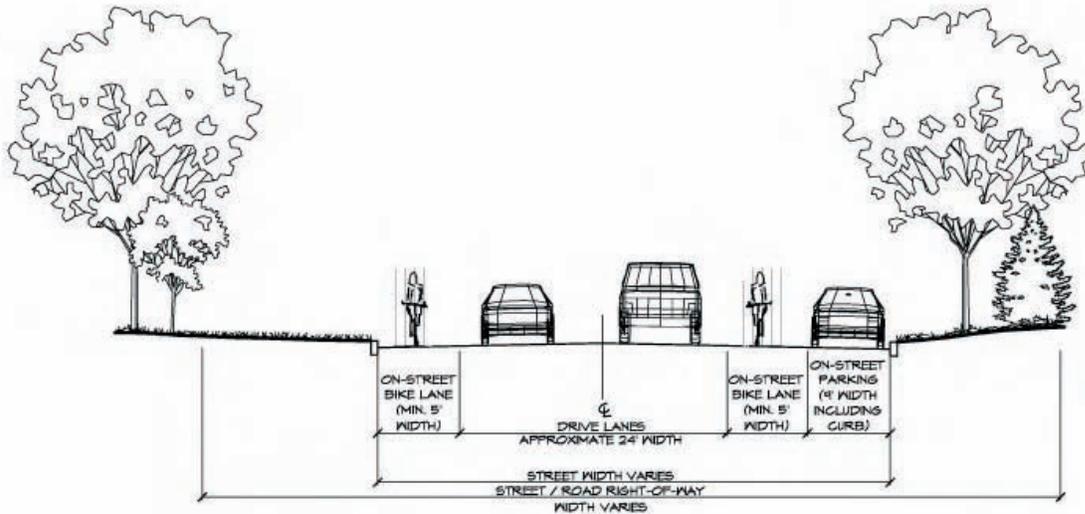
A – Street Pathways Estimated Construction Costs

Listed below is the general construction costing estimate for 1,000 linear feet of Street Pathway trail system. This reflects 2005 construction costs and does not include design/engineering fees, testing fees, trail amenities or land acquisitions, if required. These construction cost estimates should be used as a guide only, until the City can establish construction cost estimates.

- Asphalt or concrete 10'-12' trail: \$200,000 – \$250,000 per mile

B – Street Bike Lanes

This design guideline application will be used in areas where there is defined street right-of-way in which the street width and parking configuration allow for two one-way bike lanes within the street pavement.



B STREET BIKE LANES

NOT TO SCALE



B STREET BIKE LANES

NOT TO SCALE



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C•10 — Design Guidelines

B – Street Bike Lanes Notes

1. Maintenance and upkeep by the Board of Public Works and Street Department.
2. Bike Lanes will be lighted with the street lighting.
3. Bike Lanes will be developed on both sides of street.
4. Alterations to design standards will be permitted with approved variance and site conditions.

B – Street Bike Lanes Design Specs

The design of the Bike Lanes will follow the guidelines established by AASHTO (American Association of State Highway and Transportation Officials) and will become a part of the street system.

The size of the trail shall be 5' in width and can be located adjacent to the curb or adjacent to on-street parking.

The responsibility of the maintenance and upkeep of this trail/pathway application shall be with the Street Department and Public Works.



B – Street Bike Lanes Estimated Construction Costs

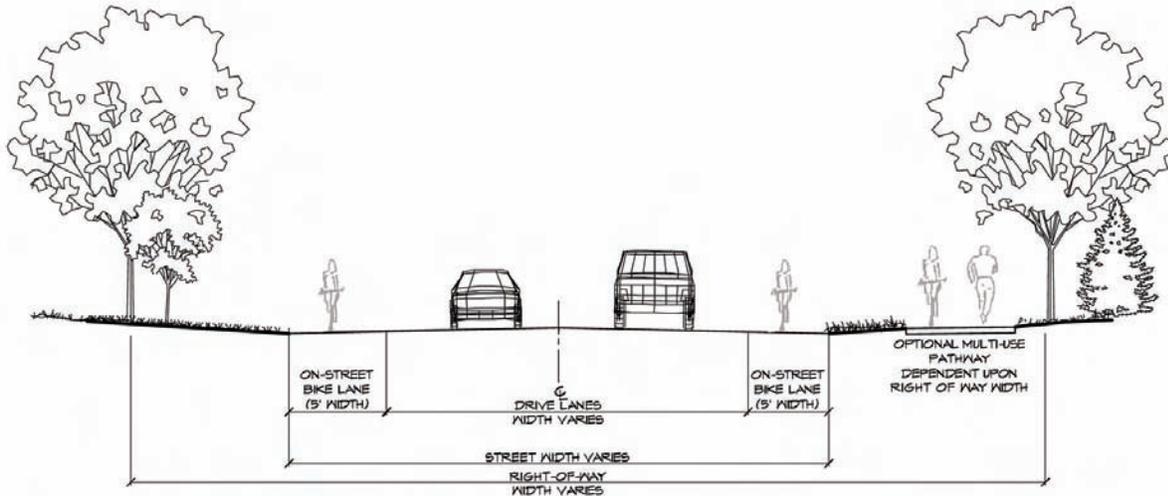
Listed below is the general construction costing estimate for 1,000 linear feet of Street Bike Lane trail system. This reflects 2005 construction costs and does not include additional street improvements, widening or design/engineering fees. These construction cost estimates should be used as a guide only, until the City can establish construction cost estimates.

- Street Bike Lane with striping and related signage: \$25,000 – \$30,000 per mile



C – Road Pathways

This design guideline application would be used similarly to the Street Pathways (A) but apply to roads (such as county roads) within the study area.



C ROAD PATHWAYS

NOT TO SCALE



C ROAD PATHWAYS

NOT TO SCALE



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VALPARAISO Pathways & Greenways Master Plan • 2005

C•12 — Design Guidelines

C – Road Pathways Notes

1. Maintenance and upkeep by the Board of Public Works and Street Department.
2. Bike Lanes will be lighted with the street lighting.
3. Bike Lanes will be developed on both sides of street.
4. Alterations to design standards will be permitted with approved variance and site conditions.

C – Road Pathways Design Specs

The design of the Road Pathways will follow the guidelines established by AASHTO (American Association of State Highway and Transportation Officials) and will become a part of the street system.

The size of the trail shall be 5'-8' in width.

The responsibility of the maintenance and upkeep of this trail/pathway application shall be between the Municipal Street Department and County Highway Department.

C – Road Pathways Estimated Construction Costs

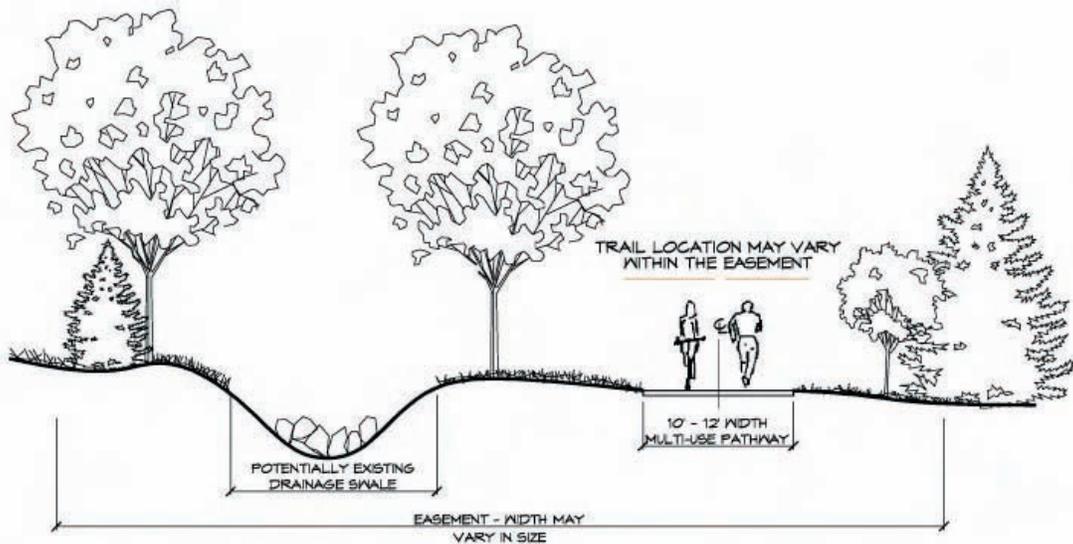
Listed below is the general construction costing estimate for 1,000 linear feet of Road Pathways trail system. This reflects 2005 construction costs and does not include additional street improvements, widening, land acquisition, right-of-way acquisition, or design/engineering fees. These construction cost estimates should be used as a guide only, until the City can establish construction cost estimates.

- Road Pathways with related shoulder:
\$150,000 – \$200,000 per mile



D – Easement Pathways

This design guideline application would be used in areas where there are easements or right-of-ways located in open space areas. Such areas would primarily include utility corridors, drainage easements or greenways/conservation areas.



D EASEMENT PATHWAYS

NOT TO SCALE



D EASEMENT PATHWAYS

NOT TO SCALE



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C•14 — Design Guidelines

D – Easement Pathways Notes

1. Maintenance and upkeep by the entity which owns the property or easement
2. Location of conduit may vary to either side of trail pavement

D – Easement Pathways Design Specs

- 3” bituminous surface, #8 or #9, lv
- 5” compacted aggregate base #53

The size of the trail will be between 10’ to 12’ in width, made of asphalt with a 2’ shoulder on each side. If preferred by the utility company in utility easements this width should be widened to accommodate utility maintenance vehicles. In areas where there is need for a more “organic feel,” such as nature areas, etc., this trail width should be maintained but its surface type could be of an aggregate mix.



The responsibility of the maintenance and upkeep of this trail/pathway application, if located within park property, would be by the Parks agency. Where such applications would be located outside the parks property, the property owner would carry primary maintenance responsibilities.

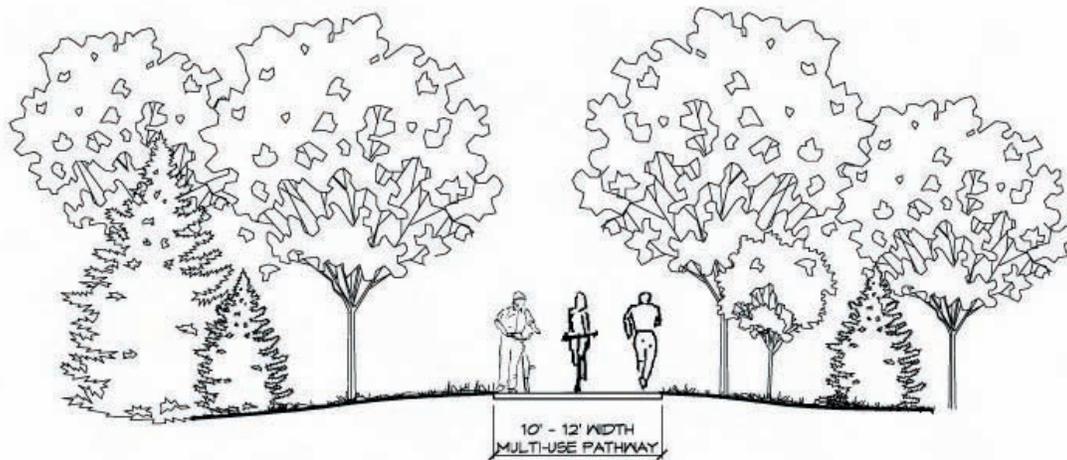
D – Easement Pathways Estimated Construction Costs

Listed below is the general construction costing estimate for 1,000 linear feet of Easement Pathways trail system. This reflects 2005 construction costs and does not include design/engineering fees, testing fees, trail amenities or land acquisitions, if required. These construction cost estimates should be used as a guide only, until the City can establish construction cost estimates.

- Asphalt or concrete 10’-12’ trail: \$200,000 – \$250,000 per mile

E – Open Space Pathways

This design guideline application would be used in open space areas where there are no easements or right-of-ways. Such areas would primarily include parks and natural areas.



E OPEN SPACE PATHWAYS

NOT TO SCALE



MULTI-USE PATHWAY (10'-12' WIDE)
TO BE PLACED WITHIN OPEN SPACE.
(LOCATIONS WILL VARY).

E OPEN SPACE PATHWAYS

NOT TO SCALE



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C•16 — Design Guidelines

E – Open Space Pathways Notes

1. Maintenance and upkeep by the Parks Department or the entity which owns the property
2. Location of conduit may vary to either side of trail pavement

E – Open Space Pathways Design Specs

- 3” bituminous surface, #8 or #9, lv
- 5” compacted aggregate base #53

The size of the trail will be between 10’ to 12’ in width, made of asphalt with a 2’ shoulder on each side. In areas where there is need for a more “organic feel,” such as nature areas, etc., this trail width should be maintained but its surface type could be of an aggregate mix.

The responsibility of the maintenance and upkeep of this trail/pathway application, if located within park property, would be by the Parks agency. Where such applications would be located outside the parks property, the property owner would carry primary maintenance responsibilities.

E – Open Space Pathways Estimated Construction Costs

Listed below is the general construction costing estimate for 1,000 linear feet of Open Space Pathways trail system. This reflects 2005 construction costs and does not include design/engineering fees, testing fees, trail amenities or land acquisitions, if required. These construction cost estimates should be used as a guide only, until the City can establish construction cost estimates.

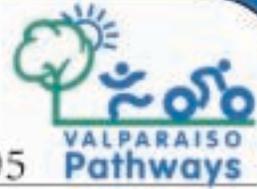
- Asphalt or concrete 10’-12’ trail:
\$175,000 – \$200,000 per mile



Trail Surface Types

The following tables reflect various trail/pathway surfacing options. Advantages and disadvantages of each surface type are noted. (Source: *Trails for the Twenty-First Century: Planning, Design, and Management Manual for Multi-Use Trails*, by Charles A. Flink, Kristine Olka, Robert M. Searns. Second edition.)

Surface Material (cost per mile) (longevity)	Advantages	Disadvantages
Soil cement, \$60,000-\$100,000, medium	Uses natural materials, more durable than native soils, smoother surface, low cost, accommodates multiple use.	Surface wears unevenly, not a stable all-weather surface, erodes, difficult to achieve correct mix.
Granular stone, \$80,000-120,000, Medium-long (7-10 yrs)	Soft but firm surface, natural material, moderate cost, accommodates multiple use.	Surface can rut or erode with heavy rainfall, regular maintenance needed to keep consistent surface, replenishing stones may be a long-term expense, not for areas prone to flooding or steep slopes.
Asphalt, \$200,000-\$300,000, medium-long (7-15 yrs)	Hard surface, supports most types of use, all-weather, accommodates most users simultaneously, smooth surface to comply with ADA guidelines, low maintenance.	High installation cost, costly to repair, not a natural surface, freeze/thaw can crack surface, heavy construction vehicles need access.
Concrete, \$300,000-\$500,000, long-term (20 yrs plus)	Hardest surface, easy to form to site conditions, supports multiple use, lowest maintenance, resists freeze/thaw, best cold weather surface, most resistant to flooding.	High installation cost, costly to repair, not a natural-looking surface, construction vehicles will need access to the trail corridor.
Boardwalk, \$1.5-\$2 million, medium-long	Necessary in wet or ecologically sensitive areas, natural-looking surface, low maintenance, supports multiple use.	High installation cost, costly to repair, can be slippery when wet.
Resin-stabilized cost varies depending on type of application, medium-long depending on type of application	Aesthetics, and less environmental impact, possible cost savings if soil used, can be applied by volunteers.	Need to determine site suitability and durability, may be more costly in some cases.
Native soil, \$50,000-\$70,000, short to long depending on local use and conditions	Natural material, lowest cost, low maintenance, can be altered for future improvements, easiest for volunteers to build and maintain.	Dusty, ruts when wet, not an all-weather surface, can be uneven and bumpy, limited use, possibly not accessible.
Wood chips, \$65,000-\$85,000, short term (1-3 yrs)	Soft, spongy surface good for walking, moderate cost, natural material.	Decomposes under high temperature and moisture, requires constant replenishment, not typically accessible, limited availability, not appropriate for floodprone areas.
Recycled materials, cost and life vary	Good use of recyclable materials, surface can vary depending on materials.	Design appropriateness and availability vary.



Pathways & Greenways Master Plan • 2005



Implementation Strategies





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D-2 — Implementation Strategies

Proposed Alternative Transportation and Greenways Master Plan

The development of the overall *Valparaiso Pathways and Greenways Master Plan* has taken considerable time in formation, verification and consensus of thought. Organizing, adopting, defining priorities, funding, etc. will become the next steps.

This master plan should be used as a guide in the implementation of the plan. It is meant to be dynamic allowing for change and refinement to take place when needed.

The following pages represent the overall *Valparaiso Pathways and Greenways Master Plan* and its various routes. The organization of the routing plan are segments of trail/pathway loops that make up the whole. Breaking down the overall system of pathways into segments becomes a useful tool. It allows for segments to be phased for implementation and funding. Segments can be named establishing a "sense of place" in a neighborhood. Segments can become known as routes towards various destinations. Segments can also describe the type of trail or pathway that it is. As it relates to the dynamic nature of the plan and as the plan evolves and expands, new segments can be added to the system.

Planning Maps

The *Valparaiso Pathways and Greenways Master Plan* should be incorporated into the City's Comprehensive Plan and Throughfare Plan. The design details and standards should be incorporated into the Public Works/Street Right-of-Way standards. Also the green infrastructure should be an update to the Park and Recreation Master Plan. While this document studied the pathways and trails within the study area, the results of this study truly formed an "alternative transportation plan" that can be used by the City for marketing and grant funding, etc.

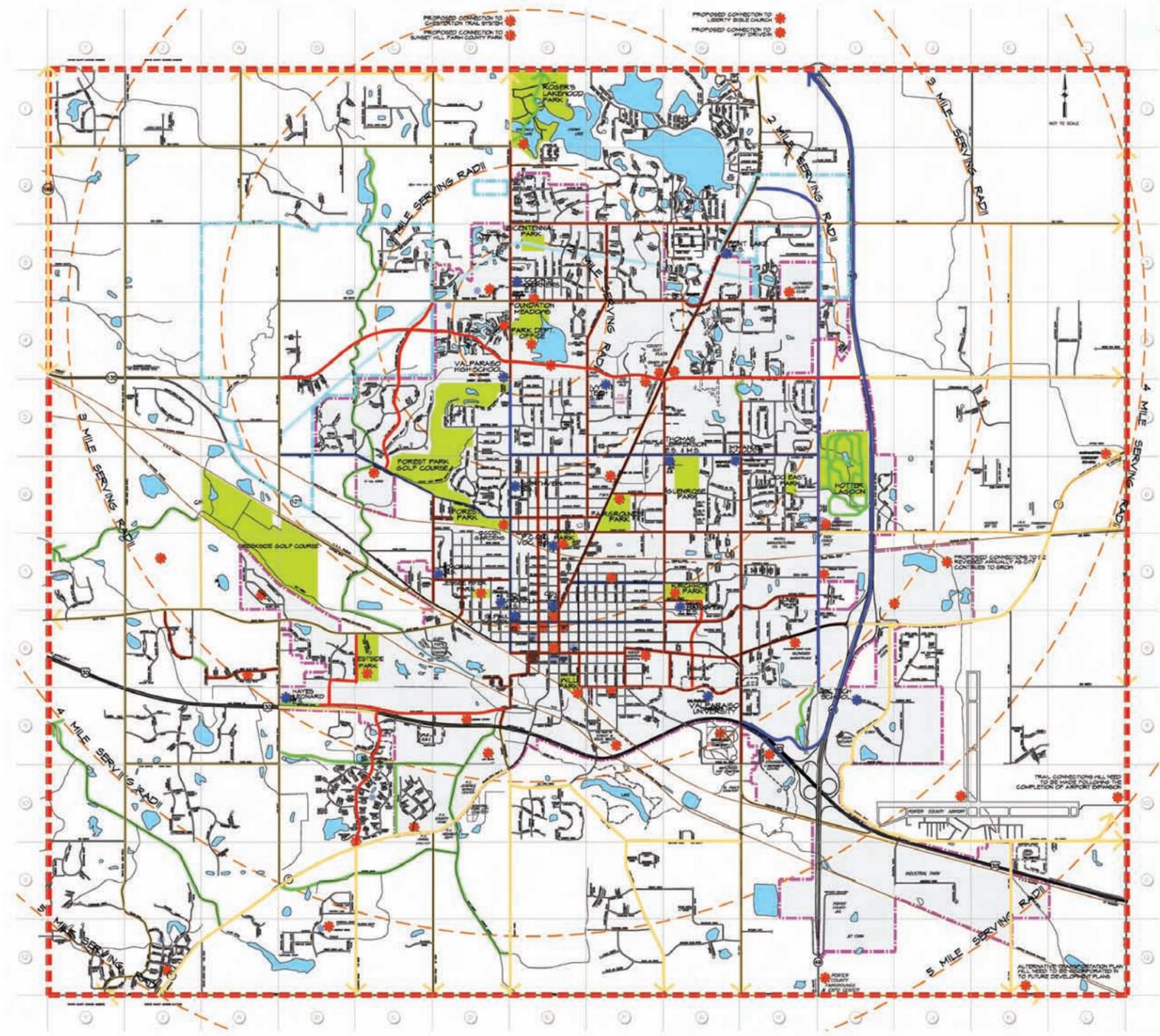
The *Valparaiso Pathways and Greenways Master Plan* development resulted in various planning maps. These maps found later in this chapter will be illustrated in two visual versions. One version will have the aerial photograph as its base and the same information will be illustrated without the aerial photo. Key elements of the community have been identified on these maps including schools, parks, and other community destination points.

The following are the Master Plan maps that were the result of this study:

- Overall Pathways and Trails Map (with and without aerial base)
- Routing Loops Map (with and without aerial base)
- Transit Map (with and without aerial base)
- Priority Loop Plan (identified priority loop for implementation)

Overall Pathways and Trails Map (Without Aerial Background)

This map represents the various segments of the overall system. Each of the various segments have been color-coded for their identification of the pathways type. This map will be the guide and reference in the development implementation.



VALPARAISO ALTERNATIVE TRANSPORTATION PLAN VALPARAISO, INDIANA

PREPARED FOR:
CITY OF VALPARAISO
AND
CITY OF VALPARAISO
PARKS AND RECREATION DEPARTMENT



DATE: SEPTEMBER 22, 2004
REVISED DATE: FEBRUARY 22, 2005

PREPARED BY:



MAP LEGEND

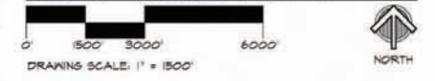
-  SUGGESTED CONNECTIVITY NODE (PUBLIC, PRIVATE, OR COLLEGE)
-  EXISTING VALPARAISO SCHOOL (PUBLIC, PRIVATE, OR COLLEGE)
-  EXISTING VALPARAISO CITY PARK
-  EXISTING VALPARAISO CORPORATE CITY LIMITS
-  EXISTING VALPARAISO CORPORATE CITY LIMITS AREA
-  PROPOSED VALPARAISO CORPORATE CITY LIMITS ANNEXATION
-  EXISTING WATER FEATURE (STREAM, POND, OR LAKE)
-  SERVING RADI

PROPOSED PATHWAYS LEGEND

COLOR	TYPE OF PATHWAY	QUANTITY (MI)
Red	PROPOSED STREET PATHWAYS	126.3 MI (129.5 IN CITY)
Blue	PROPOSED STREET BIKE LANES	115.9 MI (119.1 IN CITY)
Yellow	PROPOSED ROAD PATHWAYS	161.0 MI (14.8 IN CITY)
Light Blue	EASEMENT PATHWAYS	14.4 MI (12.8 IN CITY)
Green	OPEN SPACE PATHWAYS	116.4 MI (15.9 IN CITY)

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PROPOSED PATHWAYS ROUTING AND CONNECTIVITY NODES





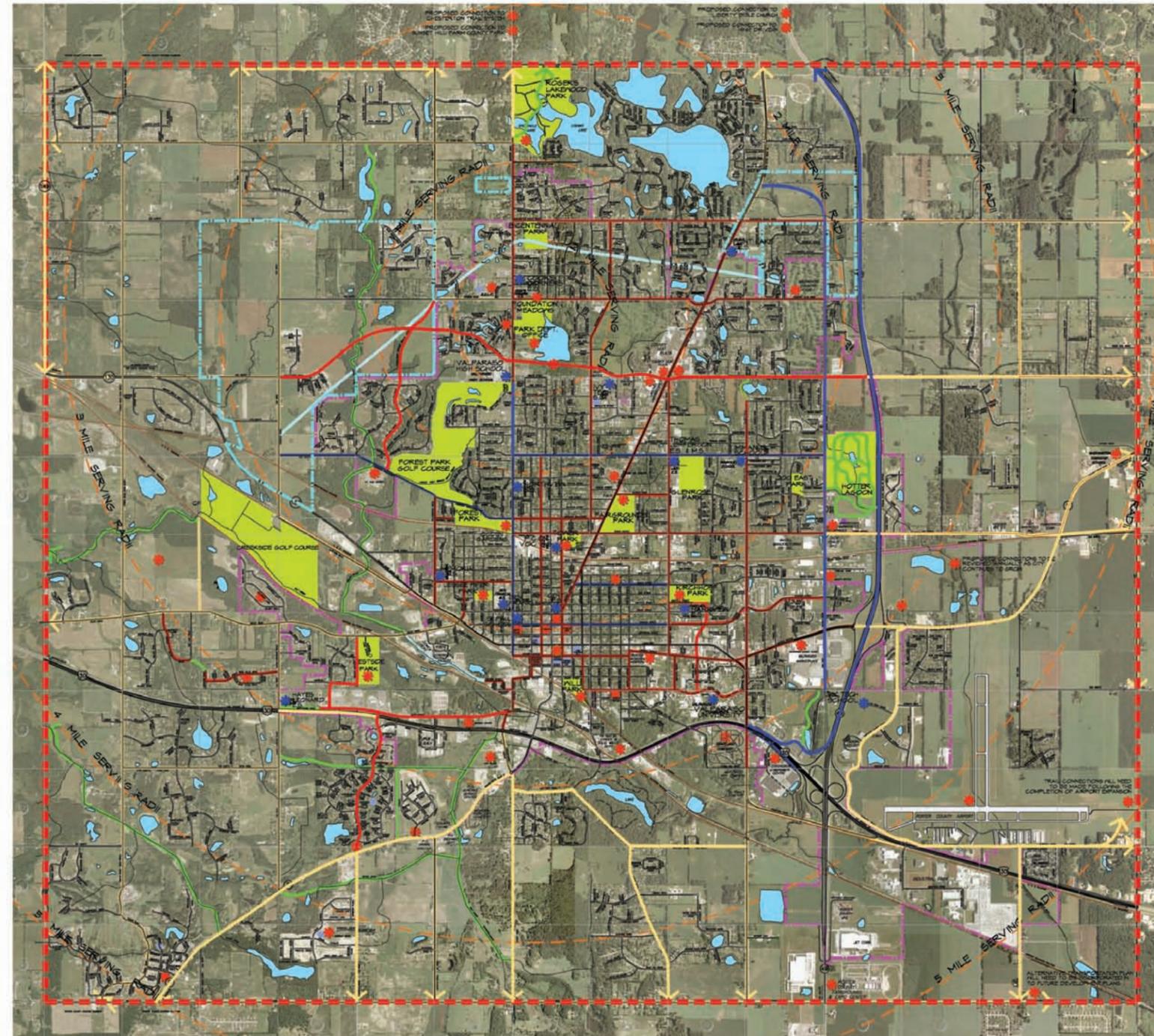
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D-4 — Implementation Strategies

Overall Pathways and Trails Map (With Aerial Background)

This map represents the various segments of the overall system. Each of the various segments have been color-coded for their identification of the pathways type. This map will be the guide and reference in the development implementation.



VALPARAISO ALTERNATIVE TRANSPORTATION PLAN VALPARAISO, INDIANA

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MAP LEGEND

- SUGGESTED CONNECTIVITY NODE
- EXISTING VALPARAISO SCHOOL (PUBLIC, PRIVATE, OR COLLEGE)
- EXISTING VALPARAISO CITY PARK
- EXISTING VALPARAISO CORPORATE CITY LIMITS
- EXISTING VALPARAISO CORPORATE CITY LIMITS AREA
- PROPOSED VALPARAISO CORPORATE CITY LIMITS ANNEXATION
- EXISTING WATER FEATURE -STREAM, POND, OR LAKE
- SERVING RADI

PROPOSED PATHWAYS LEGEND

COLOR	TYPE OF PATHWAY	QUANTITY (MI.)
Red	PROPOSED STREET PATHWAYS	156.5 MI (129.5 IN CITY)
Blue	PROPOSED STREET BIKE LANES	19.3 MI (14.7 IN CITY)
Yellow	PROPOSED ROAD PATHWAYS	161.0 MI (14.5 IN CITY)
Cyan	EASEMENT PATHWAYS	14.4 MI (12.5 IN CITY)
Green	OPEN SPACE PATHWAYS	116.4 MI (15.9 IN CITY)

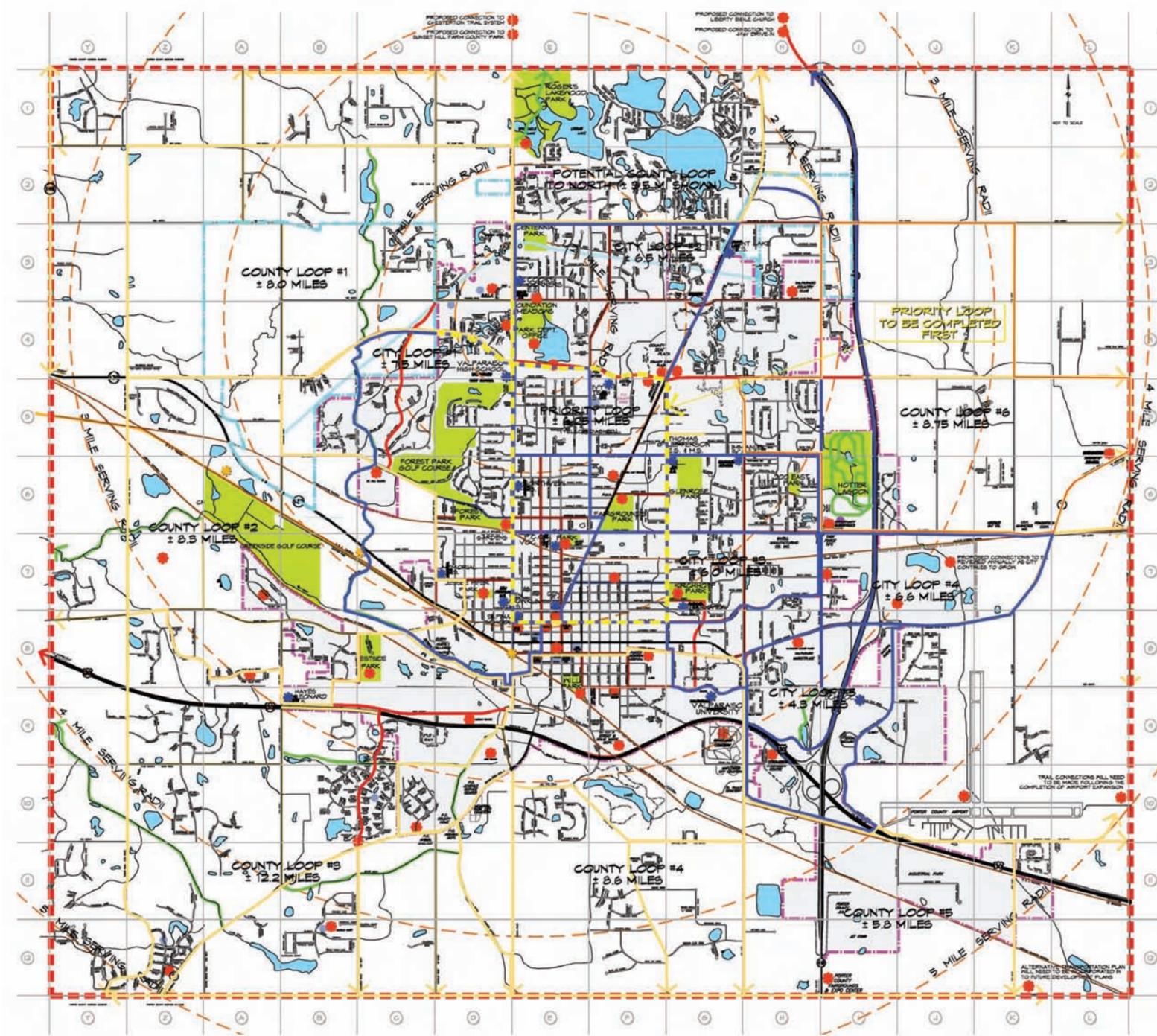
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PROPOSED PATHWAYS ROUTING AND CONNECTIVITY NODES



Routing Loops Map (Without Aerial Background)

This map represents the various trail segments of the overall system plan but, instead of displaying the individual segments, the plan identifies both loops (or circuits) that close on themselves for both “city loops” and “county loops.” The plan notes the length of the primary loops in miles. This information will be applicable for trails and pathways brochures.



VALPARAISO ALTERNATIVE TRANSPORTATION PLAN VALPARAISO, INDIANA

PREPARED FOR:
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MAP LEGEND

- SUGGESTED CONNECTIVITY NODE
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- EXISTING VALPARAISO CORPORATE CITY LIMITS AREA
- PROPOSED VALPARAISO CORPORATE CITY LIMITS ANNEXTION
- EXISTING WATER FEATURE -STREAM, POND, OR LAKE
- SERVING RADIUS

PROPOSED PATHWAYS LEGEND

COLOR	TYPE OF PATHWAY	QUANTITY
■	PROPOSED COUNTY LOOP SYSTEM (OUTSIDE CITY LIMITS)	6 LOOPS
■	PROPOSED CITY LOOP SYSTEM (INSIDE CITY LIMITS)	5 LOOPS

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PROPOSED PATHWAY LOOPS AND CONNECTIVITY NODES

0' 1500' 3000' 6000'

DRAWING SCALE: 1" = 1500'





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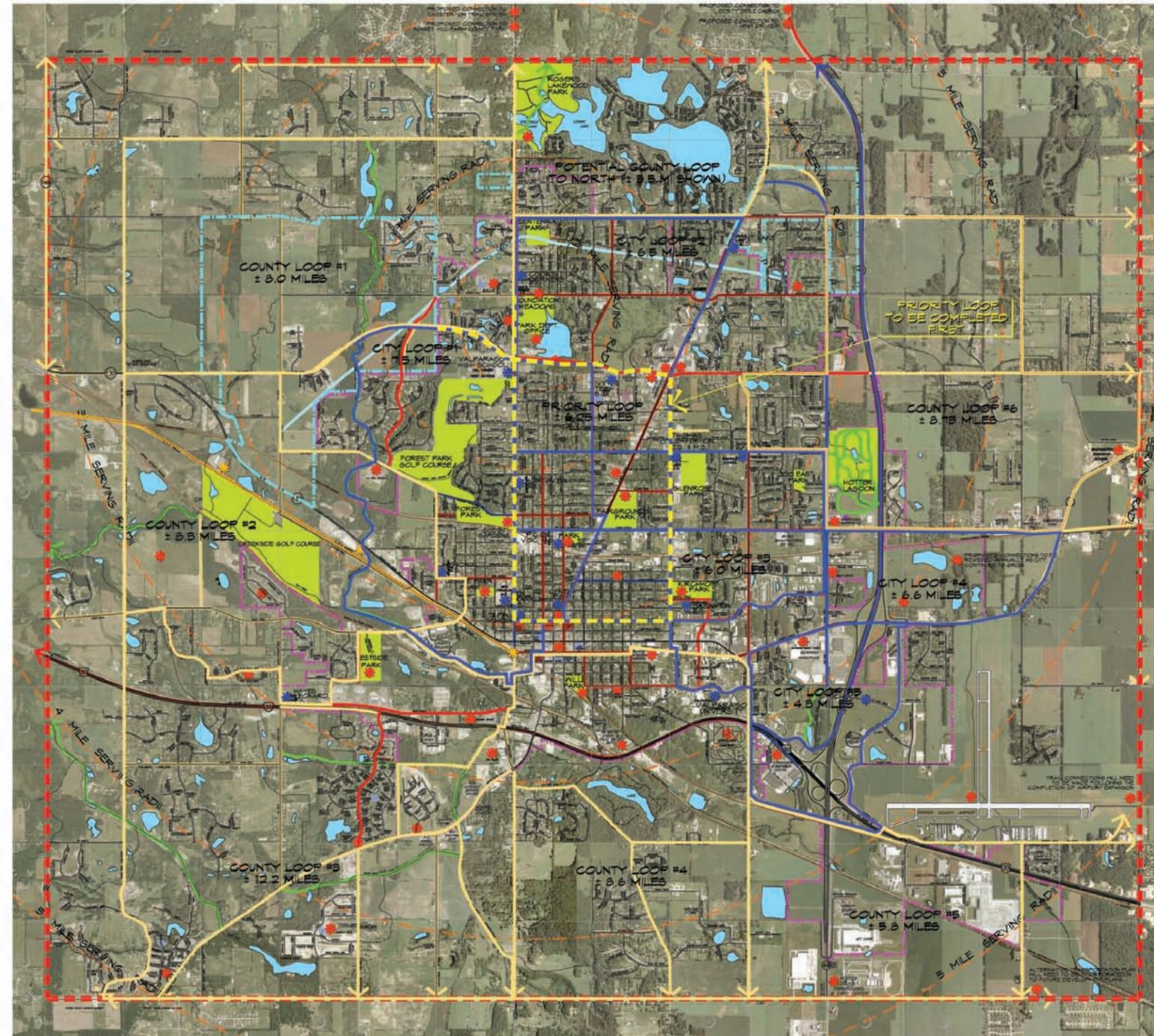
VALPARAISO Pathways & Greenways Master Plan • 2005

D.6 — Implementation Strategies

Routing Loops Map

(With Aerial Background)

This map represents the various trail segments of the overall system plan but, instead of displaying the individual segments, the plan identifies both loops (or circuits) that close on themselves for both “city loops” and “county loops.” The plan notes the length of the primary loops in miles. This information will be applicable for trails and pathways brochures.



VALPARAISO ALTERNATIVE TRANSPORTATION PLAN VALPARAISO, INDIANA

PREPARED FOR:
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VALPARAISO
Pathways

DATE: SEPTEMBER 22, 2004
REVISED DATE: FEBRUARY 22, 2005

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MAP LEGEND

- SUGGESTED CONNECTIVITY NODE
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- EXISTING VALPARAISO CORPORATE CITY LIMITS
- EXISTING VALPARAISO CORPORATE CITY LIMITS AREA
- PROPOSED VALPARAISO CORPORATE CITY LIMITS ANNEXATION
- EXISTING WATER FEATURE (STREAM, POND, OR LAKE)
- SERVING RADIUS

PROPOSED PATHWAYS LEGEND

COLOR	TYPE OF PATHWAY	QUANTITY
Yellow	PROPOSED COUNTY LOOP SYSTEM (OUTSIDE CITY LIMITS)	6 LOOPS
Blue	PROPOSED CITY LOOP SYSTEM (INSIDE CITY LIMITS)	5 LOOPS

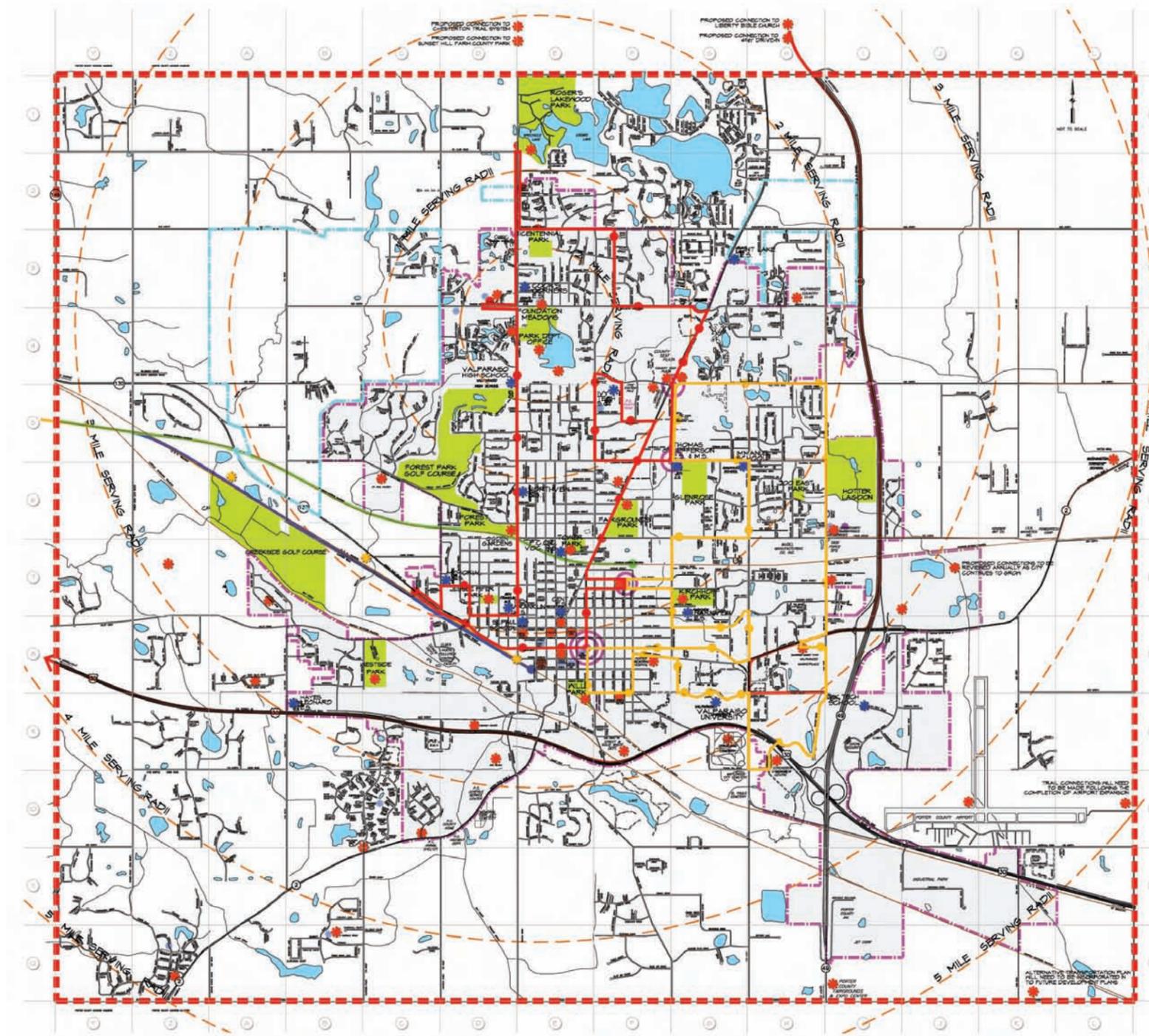
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PROPOSED PATHWAY LOOPS AND CONNECTIVITY NODES



Transit Map (Without Aerial Background)

The Transit Map illustrates both mass transit (bus) routes and proposed bus hub and transfer stations within the community. The plan also illustrates current planning for the extension of the SouthShore Lines Train transit and its related hubs and stations. This transit map forms another piece of the alternative transportation system in the Valparaiso Community.



VALPARAISO ALTERNATIVE TRANSPORTATION PLAN
VALPARAISO, INDIANA

PREPARED FOR:
CITY OF VALPARAISO
CITY OF VALPARAISO
PARKS AND RECREATION DEPARTMENT



VALPARAISO
Pathways

DATE: SEPTEMBER 22, 2004
REVISED DATE: FEBRUARY 22, 2005

PREPARED BY:
Landscape Architecture
and Planning
The Design Center
101 Lindbergh Lane, Suite C
Elkhart, IN 46520
Phone: 765.226.0100 Fax: 765.226.0101
www.LehmanLehman.com

Lehman & Lehman, Inc.

- MAP LEGEND**
- SUGGESTED CONNECTIVITY NODE
 - EXISTING VALPARAISO SCHOOL (PUBLIC, PRIVATE, OR COLLEGE)
 - EXISTING VALPARAISO CITY PARK
 - EXISTING VALPARAISO CORPORATE CITY LIMITS
 - EXISTING VALPARAISO CORPORATE CITY LIMITS AREA
 - PROPOSED VALPARAISO CORPORATE CITY LIMITS ANNEXATION
 - EXISTING WATER FEATURE -STREAM, POND, OR LAKE
 - SERVING RADIi
 - STUDY BOUNDARY

- TRANSIT PLAN LEGEND**
- PROPOSED BUS TRANSIT ROUTE #A
 - PROPOSED BUS STOP ROUTE #A
 - PROPOSED BUS TRANSIT ROUTE #B
 - PROPOSED BUS STOP ROUTE #B
 - PROPOSED BUS TRANSFER LOCATION
 - PROPOSED BUS HUB (DOWNTOWN)
 - PROPOSED TRAIN TRANSIT ROUTE #A
 - PROPOSED TRAIN STATION (ROUTE #A)
 - PROPOSED TRAIN TRANSIT ROUTE #B
 - PROPOSED TRAIN STATION (ROUTE #B)

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PROPOSED TRANSIT ROUTING AND CONNECTIVITY NODES



DRAWING SCALE: 1" = 1500'



NORTH



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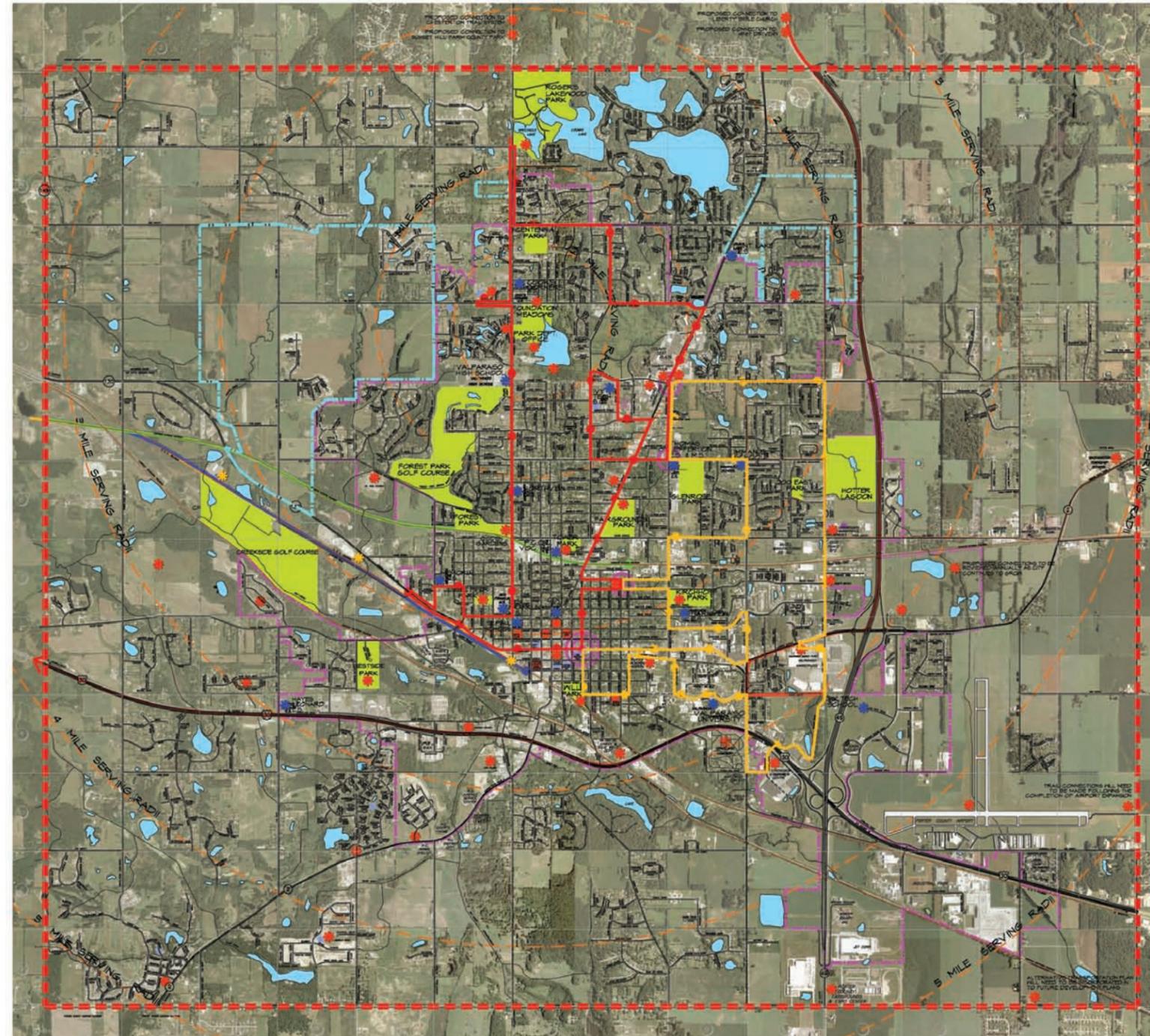
VALPARAISO Pathways & Greenways Master Plan • 2005

D•8 — Implementation Strategies

Transit Map

(With Aerial Background)

The Transit Map illustrates both mass transit (bus) routes and proposed bus hub and transfer stations within the community. The plan also illustrates current planning for the extension of the SouthShore Lines Train transit and its related hubs and stations. This transit map forms another piece of the alternative transportation system in the Valparaiso Community.



VALPARAISO ALTERNATIVE TRANSPORTATION PLAN

VALPARAISO, INDIANA

PREPARED FOR:

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VALPARAISO
Pathways

DATE: SEPTEMBER 22, 2004
REVISED DATE: FEBRUARY 22, 2005

PREPARED BY:



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MAP LEGEND

- SUGGESTED CONNECTIVITY NODE
- EXISTING VALPARAISO SCHOOL (PUBLIC, PRIVATE, OR COLLEGE)
- EXISTING VALPARAISO CITY PARK
- EXISTING VALPARAISO CORPORATE CITY LIMITS
- EXISTING VALPARAISO CORPORATE CITY LIMITS AREA
- PROPOSED VALPARAISO CORPORATE CITY LIMITS ANNEXATION
- EXISTING WATER FEATURE -STREAM, POND, OR LAKE
- SERVING RADI
- STUDY BOUNDARY

TRANSIT PLAN LEGEND

- PROPOSED BUS TRANSIT ROUTE #A
- PROPOSED BUS STOP ROUTE #A
- PROPOSED BUS TRANSIT ROUTE #B
- PROPOSED BUS STOP ROUTE #B
- PROPOSED BUS TRANSFER LOCATION
- PROPOSED BUS HUB (DOWNTOWN)
- PROPOSED TRAIN TRANSIT ROUTE #A
- PROPOSED TRAIN STATION (ROUTE #A)
- PROPOSED TRAIN TRANSIT ROUTE #B
- PROPOSED TRAIN STATION (ROUTE #B)

DISCLAIMER:
BASE MAP INFORMATION FOR THIS PROJECT PROVIDED BY
THE CITY OF VALPARAISO, DEPARTMENT OF CITY PLANNING.
LEHMAN & LEHMAN, INC. DOES NOT ASSUME RESPONSIBILITY
FOR THE ACCURACY OF THE BASE MAP INFORMATION.

PROPOSED TRANSIT ROUTING AND CONNECTIVITY NODES



Priority Loop Plan

The Priority Loop Plan suggested to be of prime importance for implementation was identified based on a set of criteria suggested to seek out the best applied loop segments of the overall system. This information is based on the following criteria:

- Connections of links to destination points
- Number of persons served by link
- Costs and funding sources for link
- Link's potential for multi-users
- Link's relation with other projects ("coat tails")
- Partnerships: public and/or private
- Link's proximity to identified loop or existing link
- Community / Neighborhood need requests
- Property availability
- Follows the overall alternative transportation plan
- How link applies to standards and pending impact fee strategies

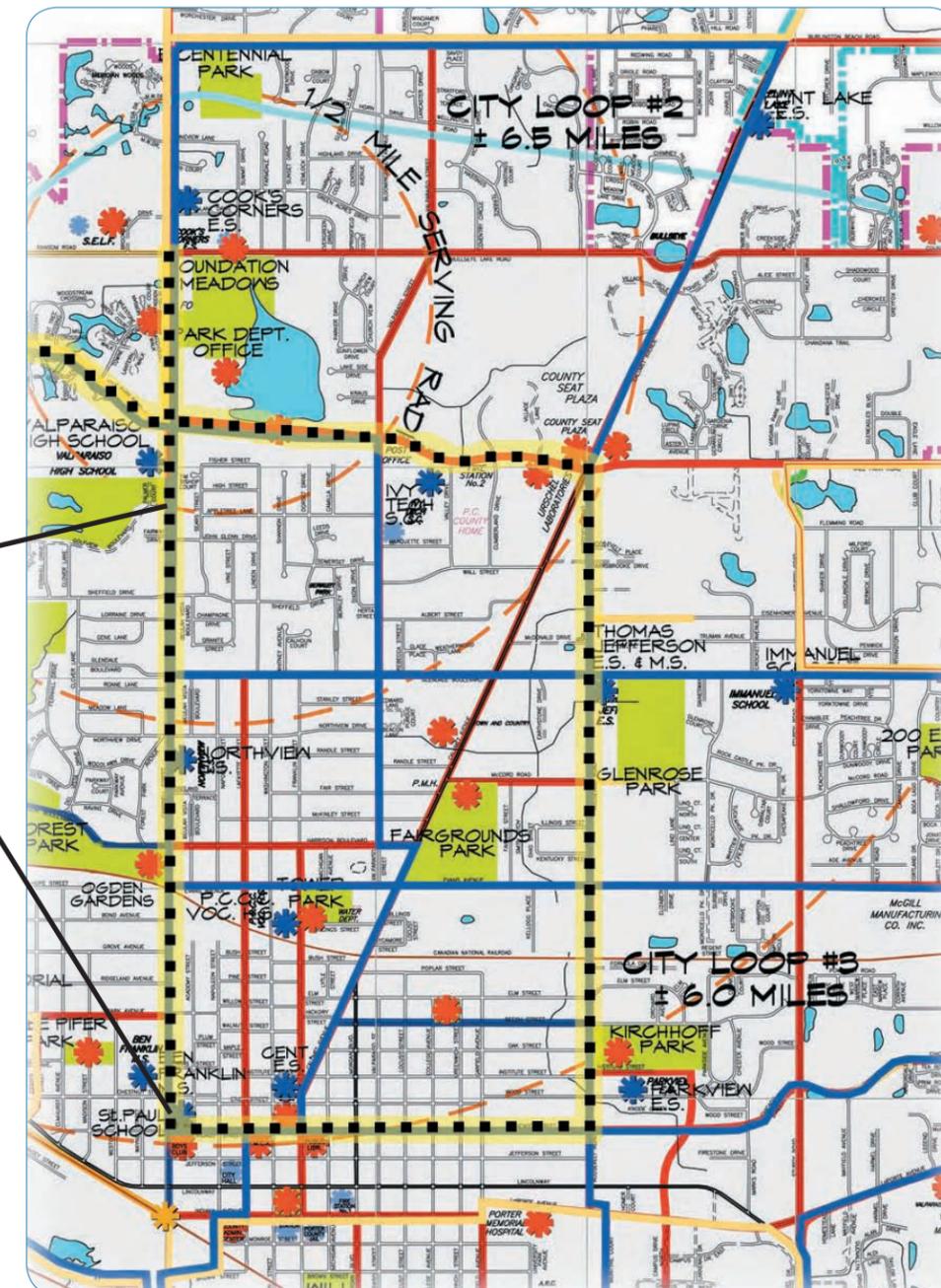
The Priority Loop can be identified as a Loop with the following boundaries:

- Foundation Meadows Park
- South on Campbell to Chicago (or Jefferson)
- East to Roosevelt
- North on Roosevelt to Vale Park
- West to Campbell and beyond to West Side Annexation

This Priority Loop matches much of the identified criteria noted above:

- Partners with Vale Park extension
- Links to existing Lakewood Link
- Encompasses/accesses 23 connectivity points including 10 schools and 10 parks/community centers
- Proximity to dense population
- Proximity to the heart of the City (downtown businesses and government district)
- Loop is approximately 32,830 ft or 6.25 miles in length

Priority Loop Pathway





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Implementation Strategies — D-11

Pathways and Greenways System Forecast Inventory

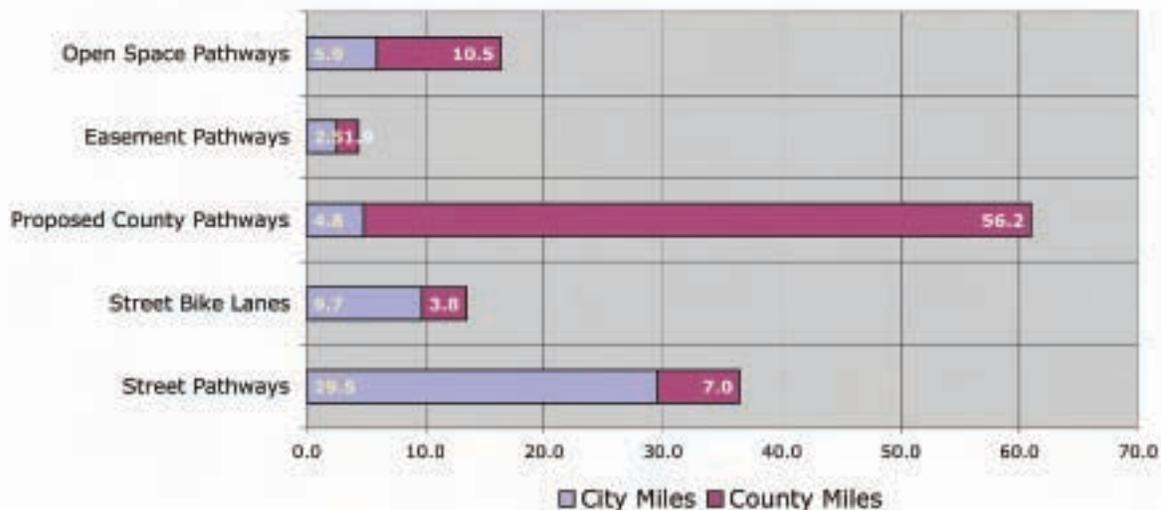
The *Valparaiso Pathways and Greenways Master Plan* identified proposed routes and pathway segments based on identified trail types. The following table represents the inventory of the proposed plan broken down by trail types:

Trail Type	Within City Limits (miles)*	Outside City Limits (miles)*	Total Length (miles)*
A. Street Pathways	29.5	7	36.5**
B. Street Bike Lanes	9.7	3.8	13.5
C. Road Pathways	4.8	56.2	61
D. Easement Pathways	2.5	1.9	4.4
E. Open Space Pathways	5.9	10.5	16.4
Total Trails	52.4	79.4	131.8

* Approximate mileage, based on master plan takeoffs

** Includes 2.1 miles of the existing Lakewood Link Pathway

Proposed Pathways Projections





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D·12 — Implementation Strategies

Pathways and Greenways System Standards

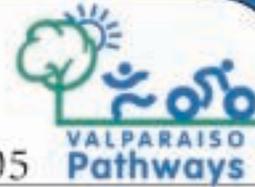
The total mileage of the *Valparaiso Pathways and Greenways Master Plan* represents the forecasted “build out” of the City. This plan should be viewed as the Green Infrastructure Master Plan.

The use of standards should be established and applied to Valparaiso Pathways and Greenways. Such standards can be used as a gauge in maintaining the Valparaiso Pathways and Greenways implementation, keeping pace with the community growth. The following table indicates what the *Valparaiso Pathways and Greenways Master Plan* proposed mileage would mean to standards as applied to various population scenarios.

Standards Applications

Trail Type	Within City Limits (miles)	Outside City Limits (miles)	Total Length (miles)
A. Street Pathways	29.5	7	36.5**
B. Street Bike Lanes	9.7	3.8	13.5
C. Road Pathways	4.8	56.2	61
D. Easement Pathways	2.5	1.9	4.4
E. Open Space Pathways	5.9	10.5	16.4
Total Trails	52.4	79.4	131.8
STANDARDS			
Population	Miles/1,000 pop.	Miles/1,000 pop.	Miles/1,000 pop.
2000 Census: 27,428	4.81	1.91	2.89
Estimated 2005: 29,000	4.54	1.81	2.47

Applied Standards: Using the standard of two (2) miles of trail/pathway per 1,000 persons and by applying the total system’s length (131.8 miles) the calculated population served by this standard (and the forecasted master plan mileage) is 65,900 persons (possible build-out population).



Implementation Strategies and Priorities

Policy Development

- Take action in support of the Valparaiso Pathways and Greenways Action Plan.
- Designate a lead agency/department to work with the proposed Valparaiso Alternative Transportation and Greenways Advisory Board (VATGAB) to implement the Action Plan.
- Integrate the *Valparaiso Pathways and Greenways Master Plan*, the Ped & Pedal Plan and any local trails and greenways plans into the community's parks and open space, land use and transportation plans.
- Adopt a stream buffer ordinance that protects stream corridors.
- Adopt a park/open space dedication requirement to support the acquisition of land and development of Valparaiso Pathways and Greenways.
- Incorporate *Valparaiso Pathways and Greenways Master Plan* objectives into the development of the community's parks and open space, land use and transportation plans.

Planning

- Conduct a Natural Resources Inventory as part of the City's comprehensive or land-use planning process to identify important resources to protect and preserve and to determine appropriate stream setback provisions.
- Identify land ownership for each Valparaiso Pathways and Greenways segment within each neighborhood, and determine how acquisition or access will be accomplished if it is required.
- Determine the facility type for each Valparaiso Pathways and Greenways segment.
- Identify partners from the public and private sectors that can help implement Valparaiso Pathways and Greenways segments. (This may also be accomplished by the VATGAB.)
- Continue to assist Municipalities and Counties in building a regional GIS inventory of natural resources including open space, parks and trails.

Programming

- Refine priorities for the *Valparaiso Pathways and Greenways Master Plan* on a periodic basis.
- Identify and program local funding sources for the highest priority Valparaiso Pathways and Greenways segments and seek grants and other funds to supplement local resources.
- Evaluate how new funding sources could support the development of Valparaiso Pathways and Greenways trail segments. In particular, Valparaiso should determine how to best utilize such new programs as Recreation Impact Fees, etc. which could be a major support base of the implementation of *Valparaiso Pathways and Greenways Master Plan*.



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D-14 — Implementation Strategies

Operation/Maintenance

- Adopt the *Valparaiso Pathways and Greenways Master Plan* design guidelines for Valparaiso Pathways and Greenways.
- Adopt the Valparaiso Pathways and Greenways logo into the City's signage for its trail system, using one of the proposed design concepts.
- Determine how and by whom each segment of Valparaiso Pathways and Greenways will be operated and maintained.
- Develop maintenance standards for Valparaiso Pathways and Greenways.

Implementation Schedule and Costs

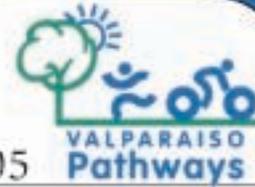
As previously mentioned, a greater inventory of each of the trail segments needs to be completed. This inventory will identify the improvement needs, consistency of trail flow and safety issues. Consideration should be given to the ease of making route segments accessible as part of the plan. (Refer to the Priority Loop Plan.)

Associated Costs for Development

A planning component for the implementation of the *Valparaiso Pathways and Greenways Master Plan* is cost. It is recommended by the Consultant that average construction costs be developed for each of the trail types. Generally, construction costs per running foot of trail is the typical costing unit that would apply. This information should be updated periodically and be used in evaluating phasing and priorities of trail segments. This applies to both new trail construction as well as upgrading improvements to existing trails and sidewalks. The Board of Public Works and Engineering Department should keep these costs updated.



The Streets and Parks Departments should also establish a maintenance cost per trail segment. This will be useful in defining annual maintenance and operation budgets.



Establishment of a Valparaiso Alternative Transportation and Greenways Advisory Board (VATGAB)

Next Steps Recommended

The *Valparaiso Pathways and Greenways Master Plan* should be considered a dynamic document and updated periodically. City officials and its various government entities will continue to need ongoing citizen input in order to make informed decisions with respect to a developing trail system. The Consultant therefore proposes that the City authorize a voluntary Valparaiso Alternative Transportation and Greenways Advisory Board, led by a private citizen, and composed of both appropriate city officials and private citizens who have interest and knowledge related to greenway and pathway development.

VATGAB Strategy

An overall strategy to advise city officials and citizens, and to develop trail policy and plans, would include the following elements:

- Accept and start with *Valparaiso Pathways and Greenways Master Plan's* findings and Position Statement.
- Recommend further detail that must be added to the plan—trail type, exact routes.
- Work with all stakeholders—citizens, government officials and businesses.
- Recognize that "users" have differing needs—walkers, runners, cyclists, etc.
- Route around, not through, private property—except where that access is offered voluntarily.
- Use all practical means to solicit input.
- Use all practical means to disseminate and communicate information about plans & about trail system progress & successes—education, presentations, and publicity.
- Organize trail-use events to publicize opened trails and familiarize citizens with them.
- Assist the city in documenting infrastructure conditions and issues by soliciting volunteer survey/inspection crews.
- Advise the City in developing creative financing arrangements that facilitate trail funding.
- Advising the City in developing creative financing arrangements that create access for trails.
- Advising the City with respect to trail-type needs.
- Enlist a group of interested citizens, with skills and interests in the needed areas, to serve on the board.
- Meet regularly; run the board effectively; with clear responsibilities, assignments & goals.



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D-16 — Implementation Strategies

Inclusions and Updates

One of the recommended outcomes of the *Valparaiso Pathways and Greenways Master Plan* is the inclusion of the system plan into the existing planning documents, ordinances and guidelines of the City.

The Park and Recreation Board is advised to include the *Valparaiso Pathways and Greenways Master Plan* in their current five-year master plan, adopting the overall development strategies as well as the trail standards affecting both current and future populations in this recreation amenity.

The City Council and Plan Commission are advised, similarly, to include the *Valparaiso Pathways and Greenways Master Plan* as part of the City's Comprehensive Plan and the Thoroughfare Plan, adopting the overall development strategies as well as the trail standards affecting both current and future populations in this recreation amenity. The City's subdivision ordinance and related development standards are also recommended to be updated to include the trail standards set forth in the *Valparaiso Pathways and Greenways Master Plan*.

Once these plans and guidelines have been adopted, the City, with the assistance of the VATGAB, can establish priorities for implementing as well as seek grants and other funding sources for development projects. The City can budget annually for matching grants using local resources and funding mechanisms.

Continual inclusion in the existing operations policies (maintenance and upkeep) as well as marketing and promotion, etc. should be carried out.

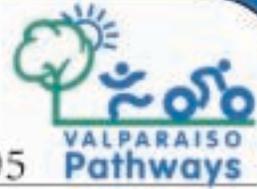
On a regional scale, the City of Valparaiso should be an active "partner" with surrounding greenways and trails providers allowing the inclusion of the *Valparaiso Pathways and Greenways Master Plan* to become part of a larger, regional system, including the Ped and Pedal regional plan.

The Consultant feels it is critical to conduct annual review of progress and accomplishments and to report to the City such findings.

Potential Developing Partners

Throughout the implementation of the Valparaiso Pathways and Greenways Master Plan the City will benefit by forming partnerships with various organizations. Some potential partners identified as part of this study are as follows:

- Valparaiso Parks Department
- City of Valparaiso/Public Works
- Commercial/Residential developers
- Businesses and corporations
- Porter County/Highway Department
- NIRPC



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Appendix





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Appendix



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Appendix Index

The following Appendix items served as part of this study:

- Definitions
- News article: “Residents get final say on Valpo pathway plan” (Northwest Indiana Times)
- Reference Sources
- Photo inventory completed by the Community Pathways Committee as part of data collection
- Sample plan exhibit from the 1999 City’s Growth Management Plan by Camiros, Ltd.
- Ped & Pedal Regional Bike Trails Master Plan
- Estimated trail costs breakdown by trail type from the Ped & Pedal Study
- Bikeway plans of LaPorte County, Indiana
- Copies of slides from the *Valparaiso Pathways and Greenways Master Plan* PowerPoint presentation given by Chuck Lehman (Lehman & Lehman, Inc.)

Definitions

- **Bicycle** – Every vehicle propelled solely by human power upon which any person may ride, having two tandem wheels, except scooters and similar devices. The term “bicycle” for this publication also includes three and four-wheeled human-powered vehicles, but not tricycles for children.
- **Bicycle Facilities** – A general term denoting improvements and provisions made by public agencies to accommodate or encourage bicycling, including parking and storage facilities, shared roadways not specifically designated for bicycle use.
- **Bicycle Land or Bike Land** – A portion of a roadway which has been designated by striping, signing, and pavement markings for the preferential or exclusive use of bicyclists.
- **Bicycle Path or Bike Path** – See **Shared Use Path**
- **Bicycle Route System** – A system of bikeways designated by the jurisdiction having authority with appropriate directional and informational route markers, with or without specific bicycle route numbers. Bike routes should establish a continuous routing, but may be a combination of any and all types of bikeways.





- **Bikeway** – A generic term for any road, street, path or way which in some manner is specifically designated for bicycle travel, regardless of whether such facilities are designated for the exclusive use of bicycles or are to be shared with other transportation modes.
- **Highway** – A general term denoting a public way for purposes of vehicular travel, including the entire area within the right-of-way.
- **Rail-Trail** – A shared use path, either paved or unpaved, built within the right-of-way of an existing or former railroad.
- **Right-of-Way** – A general term denoting land, property or interest therein, usually in a strip, acquired for or devoted to transportation purposes.
- **Right of Way** – The right of one vehicle or pedestrian to proceed in a lawful manner in preference to another vehicle or pedestrian.
- **Roadway** – The portion of the highway, including shoulders, intended for vehicular use.
- **Rumble Strips** – A textured or grooved pavement sometimes used on or along shoulders of highways to alert motorists who stray onto the shoulder.
- **Shared Roadway** – A roadway which is open to both bicycle and motor vehicle travel. This may be an exiting roadway, street with wide curb lanes, or road with paved shoulders.
- **Shared Use Path** – A bikeway physically separated from motorized vehicular traffic by an open space or barrier and either within the highway right-of-way or within an independent right-of-way. Shared use paths may also be used by pedestrians, skaters, wheelchair users, joggers and other non-motorized users.
- **Shoulder** – A portion of the roadway contiguous with the traveled way for accommodation of stopped vehicles, for emergency use and for lateral support of sub-base, base and surface courses.
- **Sidewalk** – The portion of a street or highway right-of-way designed for preferential or exclusive use by pedestrians.
- **Signed Shared Roadway (Signed Bike Route)** – A shared roadway which has been designated by signing as a preferred route for bicycle use.
- **Traveled Way** – The portion of the roadway for the movement of vehicles, exclusive of shoulders.
- **Unpaved Path** – Paths not surfaced with asphalt or Portland cement concrete.



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Northwest Indiana News: nwitimes.com

11/19/04 5:04 PM



This story ran on nwitimes.com on Friday, November 19, 2004 12:53 AM CST

Residents get final say on Valpo pathway plan

BY PHIL WIELAND
pwieland@nwitimes.com
219.462.5151

VALPARAISO | The proposed pathway plan for the city got a final tweaking Thursday from about 20 people, including a group of Valparaiso University students who thought they were coming just to observe the meeting.

"This is going to put us in a great situation, not only to make decisions about the value of pathways, but, before we do anything, this is a holistic look at what should be done," Park Director Steve Doniger said.

The audience was divided into four groups to study each quadrant of the proposed pathway plan put together by Lehman & Lehman for the Park Board. Each group was asked to say what it liked and didn't like about its segment of the plan and make any suggestions for changes or additions.

"Don't think there are any barriers," Doniger told them. If a building blocked the route the group thought a path should follow, Doniger said, "It might be best to remove that building or put the path through it."

Among the suggestions was one for multiple use pathways that would have a concrete, 8-foot-wide pathway next to the road for walkers and other slow travelers and a lane marked off on the highway for bikers, joggers or skateboarders.

The groups also asked for a safe path in and out of the west side of the city, possibly along Vale Park Road; a pathway parallel to the Ind. 49 Bypass; a path connecting West Side Park to Creekside Golf Course along Salt Creek; a separate bike path next to Silhavy Road rather than a bike lane on the road; a pathway leading to the back entrance to County Seat Plaza; and more direct routes from the university to the Valparaiso Marketplace.

Lehman & Lehman will make a presentation to the Park Board on Nov. 30 before completing the final report in January. The report will recommend the phasing of the implementation of the plan, provide costs and possible funding sources and describe the standards for each type of pathway.

"The implementation starts immediately," Doniger said. "This will not be a plan that sits on a shelf and gathers dust. It will be a living document to go to and bring out to the community. Pathways are one of the biggest goals for the department and for the mayor."

The plan will become part of the city's master plan and could mean changes in some city laws, such as requiring developers to include pathways in their plans where they match with the master plan. The city also will be looking for sponsors to help with things such as providing seed money to get grants or providing property for a pathway.

http://www.nwitimes.com/articles/2004/11/19/news/porter_county/6ad4ab6ba598334086256f31001ac667.ppt

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Northwest Indiana News: nwitimes.com

11/19/04 5:04 PM

When the city's plan for a bus system is more complete, Doniger said the park department wants to be at the table to talk about the need for links with the pathways. The same goes for the proposed extension of the South Shore Line commuter trains to Valparaiso.

Doniger warned the city won't be able to do the whole plan on its own, but said, "We hope to have a significant pathway system laid out over the next few years."

http://www.nwitimes.com/articles/2004/11/19/news/porter_county/6ad4ab6ba598334086256f51001ae667.ppt

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Reference Sources

The following is a listing of reference books, articles, newsletters, documents and studies referred to and used in the planning and processing of this master plan.

References: Benefits of Trails, Pathways, Greenways

Increasing Physical Activity Through Community Design, A Guide for Public Health Practitioners. National Center for Bicycling and Walking, May 2002. (www.bikewalk.org)

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Guide for the Development of Bicycle Facilities. The League of Illinois Bicyclists website. (www.bikelib.org)

Health and Wellness Benefits. Rails-to-Trails Conservancy website. (www.trailsandgreenways.org)

Preserving Historic and Cultural Resources. Rails-to-Trails Conservancy website. (www.trailsandgreenways.org)

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Who Pays for Roads? The League of Illinois Bicyclists website. (www.bikelib.org)

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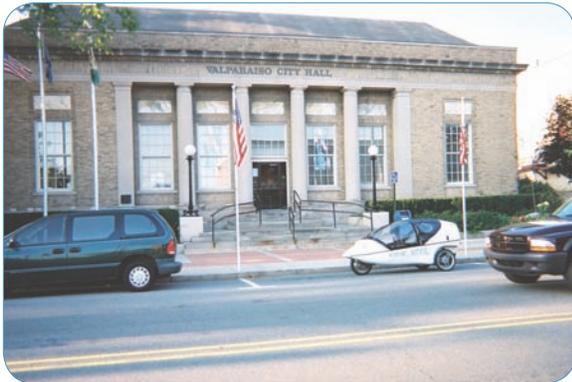
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Pedestrian Transportation Plan Executive Summary. City of Madison (WI) Traffic Engineering Division. September, 1997. (www.ci.madison.wi.us/transp/trindex)

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VALPARAISO PATHWAYS MASTER PLAN

VALPARAISO, INDIANA

PREPARED FOR:
CITY OF VALPARAISO
AND
CITY OF VALPARAISO
PARKS AND RECREATION DEPARTMENT



DATE: SEPTEMBER 22, 2004
REVISED DATE: NOVEMBER 18, 2004

PREPARED BY:



PICTURES "A1- A6"



PICTURE A1

PICTURES "A7- A13"



PICTURE A7

PICTURES "A14, B1-5"



PICTURE A14

PICTURES "B6-B11"



PICTURE B6

PICTURES "B12-B14, B16-B18"



PICTURE B12

PICTURES "B19-B24"



PICTURE B19



PICTURE A2



PICTURE A8



PICTURE B1



PICTURE B7



PICTURE B13



PICTURE B20



PICTURE A3



PICTURE A9



PICTURE B2



PICTURE B8



PICTURE B14



PICTURE B21



PICTURE A4



PICTURE A10



PICTURE A11



PICTURE B3



PICTURE B9



PICTURE B16



PICTURE B22



PICTURE A5



PICTURE A12



PICTURE B4



PICTURE B10



PICTURE B17



PICTURE B23



PICTURE A6



PICTURE A13



PICTURE B5



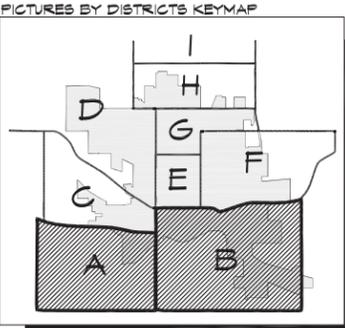
PICTURE B11



PICTURE B18



PICTURE B24



PICTURES BY DISTRICTS

VALPARAISO PATHWAYS MASTER PLAN

VALPARAISO, INDIANA

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AND
CITY OF VALPARAISO
PARKS AND RECREATION DEPARTMENT



DATE: SEPTEMBER 22, 2004
REVISED DATE: NOVEMBER 18, 2004

PREPARED BY:

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and Planning
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PICTURES "C1- C6"



PICTURE C1



PICTURE C2



PICTURE C3



PICTURE C4



PICTURE C5



PICTURE C6

PICTURES "C7-C12"



PICTURE C7



PICTURE C8



PICTURE C9



PICTURE C10



PICTURE C11



PICTURE C12

PICTURES "C13, C13-C21, 24"



PICTURE C13



PICTURE C18



PICTURE C19



PICTURE C20



PICTURE C21



PICTURE C24

DISTRICT "C25-C27, D1-D3"



PICTURE C25



PICTURE C26



PICTURE C27



PICTURE D1



PICTURE D2



PICTURE D3

DISTRICT "D4-D9"



PICTURE D4



PICTURE D5



PICTURE D6



PICTURE D7



PICTURE D8



PICTURE D9

DISTRICT "D10-D15"



PICTURE D10



PICTURE D11



PICTURE D12



PICTURE D13

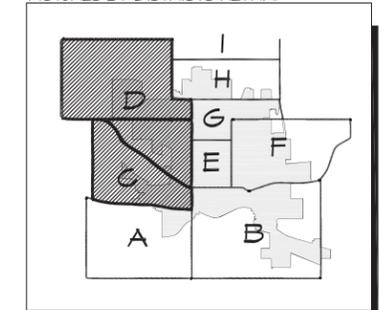


PICTURE D14



PICTURE D15

PICTURES BY DISTRICTS KEYMAP



PICTURES BY DISTRICTS

VALPARAISO PATHWAYS MASTER PLAN

VALPARAISO, INDIANA

PREPARED FOR:
CITY OF VALPARAISO
AND
CITY OF VALPARAISO
PARKS AND RECREATION DEPARTMENT



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PICTURES "E1- E6"



PICTURE E1



PICTURE E2



PICTURE E3



PICTURE E4



PICTURE E5



PICTURE E6

PICTURES "E7-E9, E11-E13"



PICTURE E7



PICTURE E8



PICTURE E9



PICTURE E11



PICTURE E12



PICTURE E13

PICTURES "E14-E20"



PICTURE E14



PICTURE E15



PICTURE E16



PICTURE E17



PICTURE E18



PICTURE E19



PICTURE E20

PICTURES "E21-E26"



PICTURE E21



PICTURE E22



PICTURE E23



PICTURE E24



PICTURE E25



PICTURE E26

PICTURES "F7-F12"



PICTURE F7



PICTURE F8



PICTURE F9



PICTURE F10



PICTURE F11



PICTURE F12

PICTURES "F13-F18"



PICTURE F13



PICTURE F14



PICTURE F15



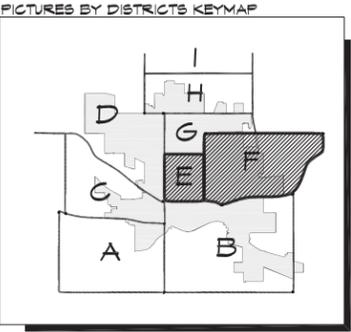
PICTURE F16



PICTURE F17



PICTURE F18



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PICTURES "F19-F24"



PICTURE F19



PICTURE F20



PICTURE F21



PICTURE F22



PICTURE F23



PICTURE F24

PICTURES "F25-F27, G1-G3"



PICTURE E25



PICTURE F26



PICTURE F27



PICTURE G1



PICTURE G2



PICTURE G3

PICTURES "G4-G9"



PICTURE G4



PICTURE G5



PICTURE G6



PICTURE G7

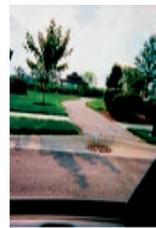


PICTURE G8



PICTURE G9

PICTURES "G10-G14, H1"



PICTURE G10



PICTURE G11



PICTURE G12



PICTURE G13



PICTURE G14



PICTURE H1

PICTURES "H2-H7"



PICTURE H2



PICTURE H3



PICTURE H4



PICTURE H5



PICTURE H6



PICTURE H7

PICTURES "H8-H13"



PICTURE H8



PICTURE H9



PICTURE H10



PICTURE H11

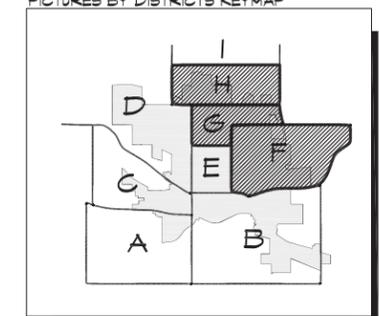


PICTURE H12



PICTURE H13

PICTURES BY DISTRICTS KEYMAP



PICTURES BY DISTRICTS

VALPARAISO PATHWAYS MASTER PLAN

VALPARAISO, INDIANA

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PICTURES "H14-H18, H20"



PICTURE H14

PICTURES "H21-H26"



PICTURE H21

PICTURES "H27, I-1 - I-4"



PICTURE H27

PICTURES "I-6 - I-13"



PICTURE I-6

PICTURES "I-14 - I-16"



PICTURE I-14



PICTURE H15



PICTURE H22



PICTURE I-1



PICTURE I-7



PICTURE I-15



PICTURE H16



PICTURE H23



PICTURE I-2



PICTURE I-8



PICTURE I-9



PICTURE I-16



PICTURE H17



PICTURE H24



PICTURE I-3



PICTURE I-10



PICTURE I-11



PICTURE H18



PICTURE H25



PICTURE I-4



PICTURE I-12



PICTURE H20



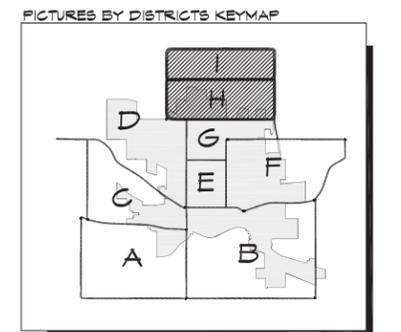
PICTURE H26



PICTURE I-5



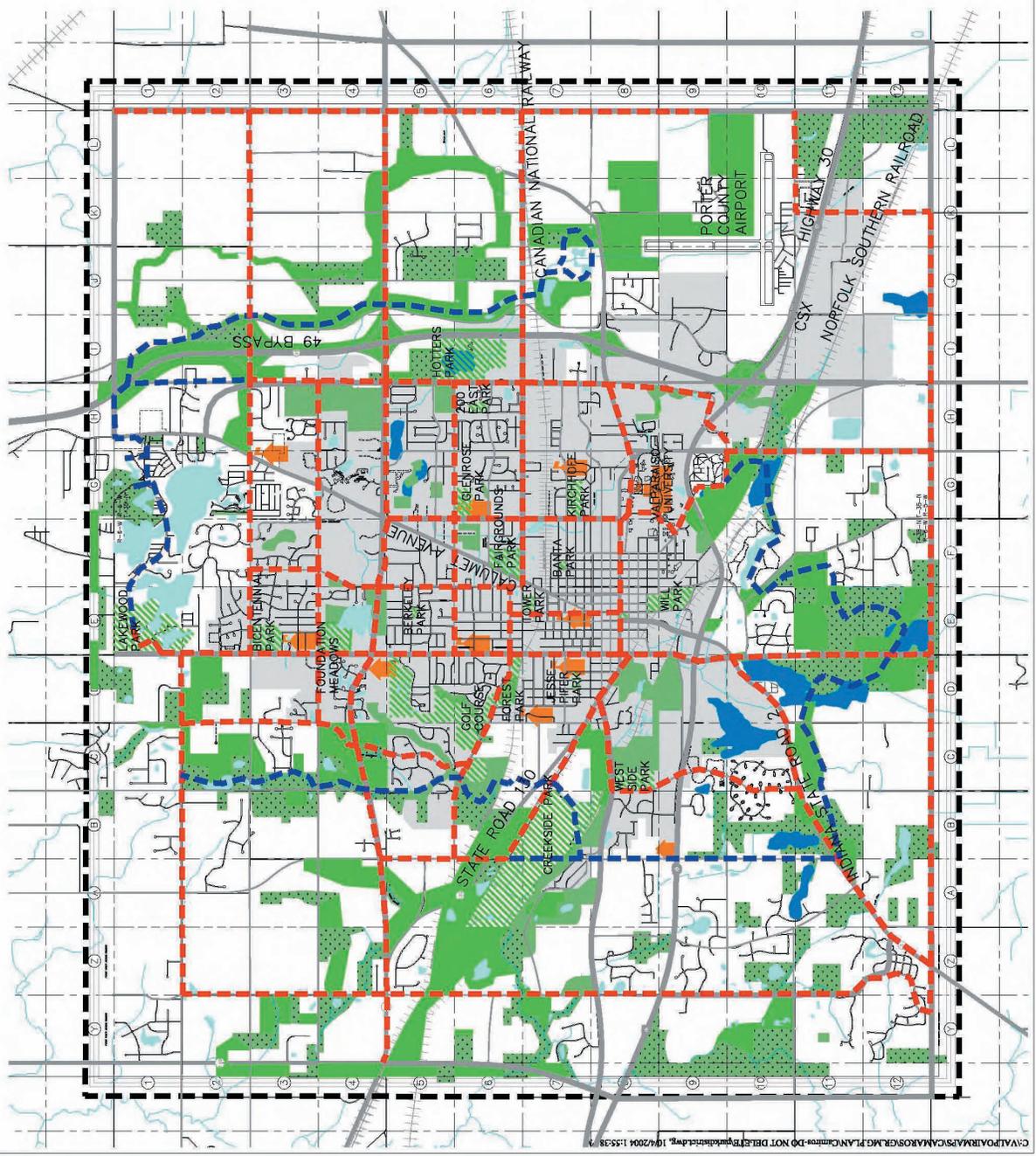
PICTURE I-13



PICTURES BY DISTRICTS

LEGEND:

-  EXISTING PARKS
-  EXISTING WOODED AREAS
-  PROPOSED PARK & OPEN SPACE
-  EXISTING WETLAND/WATER
-  FLOODPLAIN
-  EXISTING CITY BOUNDARIES
-  SCHOOLS
-  VALPARAISO UNIVERSITY
-  PROPOSED BIKE PATH ALONG ROADWAYS
-  PROPOSED BIKE PATH ALONG GREENWAYS
-  MAJOR ROADS
-  STUDY AREA BOUNDARY



**Figure 7:
PROPOSED OPEN
SPACE FRAMEWORK
GROWTH MANAGEMENT PLAN
Valparaiso, Indiana**

SCALE IN FEET
0 2000 4000 8000

**CAMIROS
EARTHTECH**

C:\VALPARAISO\GIS\CAMIROS\GROWTH MGMT PLAN\Comp - DO NOT DELETE\figs\fig7.dwg, 10/4/2004 1:55:38 PM



Northwest Indiana Bike Trails

Courtesy of
Calumet Citizens
For Connecting Communities
(C4)

C4 Web Site:
<http://www.geocities.com/calumetcitizens/>

C4 Mailing List:
<http://groups.yahoo.com/group/cc4cc/>

Bike Trail Maps:
http://www.geocities.com/huffmun/Bike_Maps.html

Porter County Bike Routes:
<http://www.indianadunes.com/maps.asp>

La Porte County Bike Routes:
<http://members.csinet.net/lambc/>

Porter
Trail
(2005)

Calumet Trail

Coffee
Creek

Lakewood
Link

Estimated Trails Construction Cost Estimates by Trail Type

Source: PED & PEDAL 2004: The Pedestrian & Bicycle Plan for Northwestern Indiana

Estimated Costs for: NATURAL SURFACE TRAILS: 5-Foot Width

Trail Element	Unit	Price Per Unit	Element Width	Units Per Mile	Trail Cost Per Mile
Clearing and Grubbing	Acre	\$2,000	9 feet	1	\$2,000
Grading	Mile	\$2,500		1	\$2,500
Seed/mulch	Acre	\$1,600	4 feet	0.5	\$800
Subtotal					\$5,300
Other Costs	10% of trail cost				\$530
Contingency	15% of trail cost				\$795
TOTAL COST PER MILE					\$6,625

Estimated Costs for: WOOD CHIP HIKING TRAILS: 5-Foot Width

Trail Element	Unit	Price Per Unit	Element Width	Units Per Mile	Trail Cost Per Mile
Clearing and Grubbing	Acre	\$2,000	9 feet	1	\$2,000
Grading	Mile	\$2,500		1	\$2,500
Wood Chips	Sq. ft.	\$0.40	5 feet	26,400	\$10,560
Seed/mulch	Acre	\$1,600	4 feet	0.5	\$800
Subtotal					\$15,860
Other Costs	10% of trail cost				\$1,586
Contingency	15% of trail cost				\$2,379
TOTAL COST PER MILE					\$19,900

Estimated Costs for: GRANULAR HIKING TRAILS: 5-Foot Width

Trail Element	Unit	Price Per Unit	Element Width	Units Per Mile	Trail Cost Per Mile
Clearing and Grubbing	Acre	\$2,000	9 feet	1	\$2,000
Grading	Mile	\$3,000		1	\$3,000
Granular subbase	Sq. ft.	\$0.40	7 feet	36,960	\$14,785
Granular surfacing	Sq. ft.	\$0.40	5 feet	26,400	\$10,560
Seed/mulch	Acre	\$1,600	4 feet	0.5	\$800
Subtotal					\$31,145
Other Costs	10% of trail cost				\$3,115
Contingency	15% of trail cost				\$4,671
TOTAL COST PER MILE					\$39,000

Estimated Trails Construction Cost Estimates by Trail Type

Source: PED & PEDAL 2004: The Pedestrian & Bicycle Plan for Northwestern Indiana

Estimated Costs for: PEDESTRIAN TRAILS: ASPHALT SURFACE: 6-Foot Width

Trail Element	Unit	Price Per Unit	Element Width	Units Per Mile	Trail Cost Per Mile
Clearing and Grubbing	Acre	\$2,000	10 feet	1.25	\$2,500
Grading	Mile	\$3,000		1	\$3,000
Granular subbase	Sq. ft.	\$0.40	8 feet	42,240	\$16,896
Asphalt	Sq. ft.	\$1	6 feet	31,680	\$31,680
Seed/mulch	Acre	\$1,600	4 feet	0.5	\$800
Subtotal					\$54,876
Other Costs	10% of trail cost				\$5,488
Contingency	15% of trail cost				\$8,231
TOTAL COST PER MILE					\$68,600

Estimated Costs for: PEDESTRIAN TRAILS: CONCRETE SURFACE: 5-Foot Width

Trail Element	Unit	Price Per Unit	Element Width	Units Per Mile	Trail Cost Per Mile
Clearing and Grubbing	Acre	\$2,000	9 feet	1	\$2,000
Grading	Mile	\$3,000		1	\$3,000
Granular subbase	Sq. ft.	\$0.40	7 feet	36,960	\$14,785
Concrete	Sq. ft.	\$2.25	5 feet	26,400	\$59,400
Seed/mulch	Acre	\$1,600	4 feet	0.5	\$800
Subtotal					\$80,000
Other Costs	10% of trail cost				\$8,000
Contingency	15% of trail cost				\$12,000
TOTAL COST PER MILE					\$100,000

Estimated Trails Construction Cost Estimates by Trail Type

Source: PED & PEDAL 2004: The Pedestrian & Bicycle Plan for Northwestern Indiana

Estimated Costs for: NON-MOTORIZED MULTI-USE TRAILS (SINGLE TREADWAY): GRANULAR SURFACE: 10-Foot Width

Trail Element	Unit	Price Per Unit	Element Width	Units Per Mile	Trail Cost Per Mile
Clearing and Grubbing	Acre	\$2,000	14 feet	1.7	\$3,400
Grading	Mile	\$3,000		1	\$3,000
Granular subbase	Sq. ft.	\$0.40	12 feet	63,360	\$25,344
Granular surfacing	Sq. ft.	\$0.40	10 feet	52,800	\$21,120
Seed/mulch	Acre	\$1,600	4 feet	0.5	\$800
Subtotal					\$53,664
Other Costs	10% of trail cost				\$5,367
Contingency	15% of trail cost				\$8,050
TOTAL COST PER MILE					\$67,100

Estimated Costs for: NON-MOTORIZED MULTI-USE TRAILS (SINGLE TREADWAY): ASPHALT SURFACE, 10-Foot Width

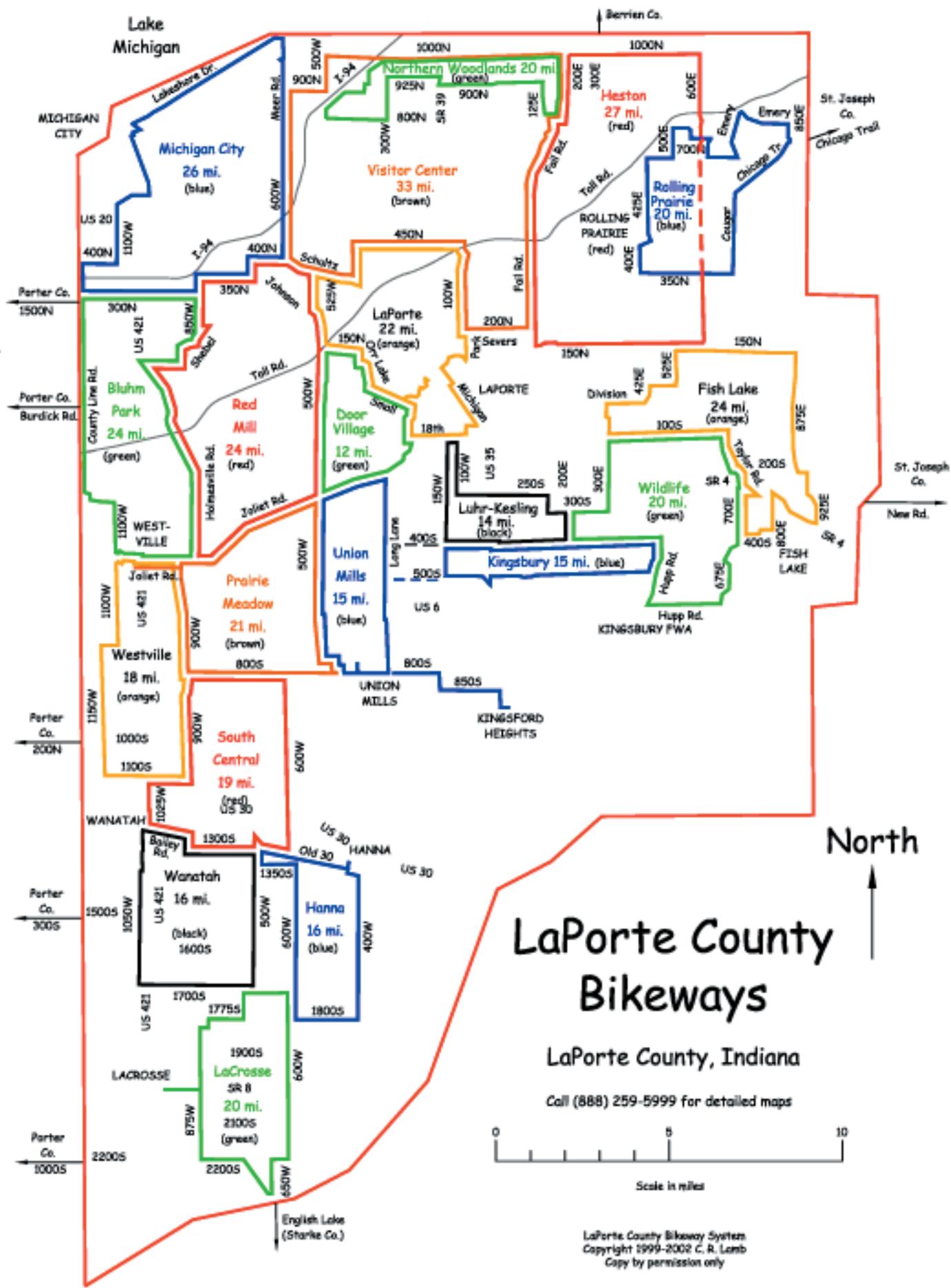
Trail Element	Unit	Price Per Unit	Element Width	Units Per Mile	Trail Cost Per Mile
Clearing and Grubbing	Acre	\$2,000	14 feet	1.7	\$3,400
Grading	Mile	\$3,000		1	\$3,000
Granular subbase	Sq. ft.	\$0.40	12 feet	63,360	\$25,344
Asphalt	Sq. ft.	\$1	10 feet	52,800	\$52,800
Seed/mulch	Acre	\$1,600	4 feet	0.5	\$800
Subtotal					\$85,344
Other Costs	10% of trail cost				\$8,534
Contingency	15% of trail cost				\$12,802
TOTAL COST PER MILE					\$106,700

Estimated Trails Construction Cost Estimates by Trail Type

Source: PED & PEDAL 2004: *The Pedestrian & Bicycle Plan for Northwestern Indiana*

Estimated Costs for: NON-MOTORIZED MULTI-USE TRAILS (SINGLE TREADWAY): CONCRETE SURFACE: 10-Foot Width

Trail Element	Unit	Price Per Unit	Element Width	Units Per Mile	Trail Cost Per Mile
Clearing and Grubbing	Acre	\$2,000	14 feet	1.7	\$3,400
Grading	Mile	\$3,000		1	\$3,000
Granular subbase	Sq. ft.	\$0.40	12 feet	63,360	\$25,344
Concrete	Sq. ft.	\$2.25	10 feet	52,800	\$118,800
Seed/mulch	Acre	\$1,600	4 feet	0.5	\$800
Subtotal					\$151,344
Other Costs	10% of trail cost				\$15,134
Contingency	15% of trail cost				\$22,701
TOTAL COST PER MILE					\$189,200



Signage on County-Wide Bicycle Routes Promotes Fitness and Safety

Casey McIntire, ISDH director of the Governor's Council for Physical Fitness and Sports, thinks LaPorte County models an exemplary promotional effort to encourage physical fitness and bicycle safety. A key element of the effort is the use of signage to focus public attention on the availability of recreational bicycling routes in LaPorte County.

In the county, signage graces intersections where cyclists need to make turns to stay on the color-coded bicycle-riding loops that vary in length from 12.5 to 33 miles.

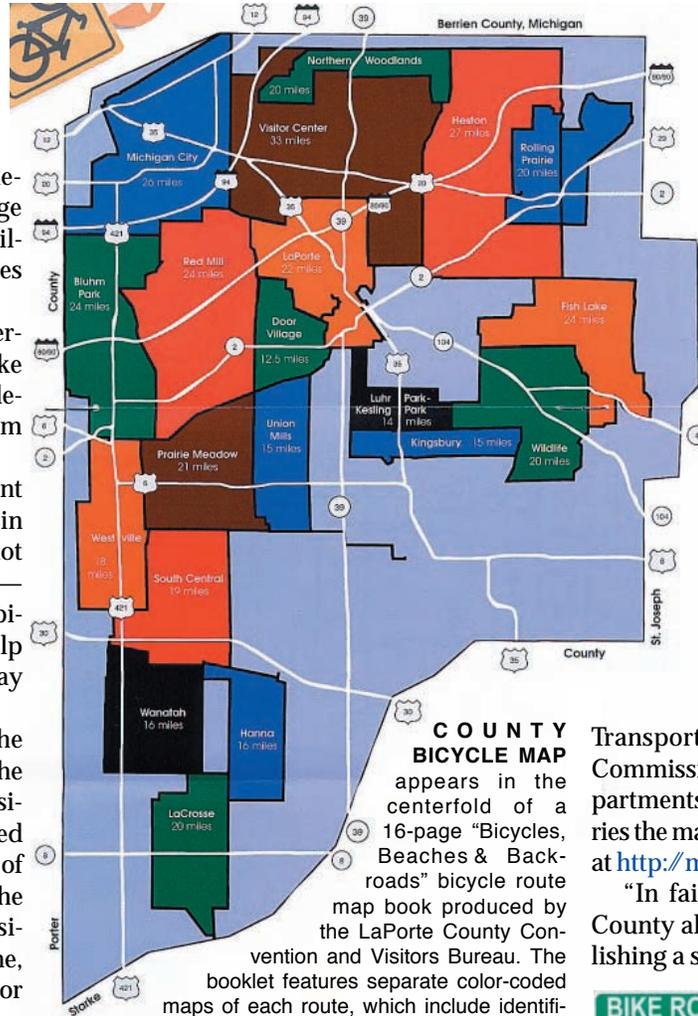
McIntire's enthusiastic endorsement of the county's promotional effort in support of the bicycling routes is not based on secondhand information—he's "been there and done that" by bicycling on several of the routes to help promote an annual senior fitness day there.

The 20 color-coded routes on the map, which has been produced by the LaPorte County Convention and Visitors Bureau, are conveniently located throughout approximately 80 percent of the county. The map and presence of the route markers encourage county residents to find a route near their home, which eliminates the need for a motor trip to start at least one of the rides.

Promoting fitness, however, is not the only function of the color-coded signs whose primary function is to alert cyclists of a route's direction changes.

The colorful signs also serve as an inescapable reminder to motorists of the dual use of the routes, mostly county back roads, where cyclists are likely to be encountered. Separate yellow diamond-shaped bicycle warning signs have also been erected, where roads "T" into the bicycle routes, to alert motorists of the presence of bicyclists. Seeing the signs is a constant reminder that a bicyclist may be around the next curve.

The county-wide use of signage to encourage fitness and safety for bicyclists in LaPorte County is one that Casey McIntire deems worthy of consideration by residents of any Indiana county, especially by officials in search of effective ways to improve health through reducing obesity



COUNTY BICYCLE MAP appears in the centerfold of a 16-page "Bicycles, Beaches & Backroads" bicycle route map book produced by the LaPorte County Convention and Visitors Bureau. The booklet features separate color-coded maps of each route, which include identification of all crossroads intersecting the route and a list of noteworthy attractions, like beaches, historic homes and buildings, bridges, farms, lakes, and fishing spots. Color-coded route markers that correspond to the colored maps in the booklet appear on directional signs at key intersections to help bicyclists stay on course.

and overweight that is caused by sedentary habits and lack of exercise.

Bob Lamb, a retired volunteer and bicyclist, says the success of the project is due to broad-based support that included the LaPorte County Extension Director, who called for the original organizational meeting; the Solid Waste District, which provided 1,350 signs of recycled aluminum; the LaPorte County Convention and Visitors Bureau, which provided major funding and printed brochures; the LaPorte County Highway Department; the Indiana Department of

Transportation; the LaPorte County Commissioners; and three parks departments. Lamb's own Web site carries the maps and brochure information at <http://members.csinet.net/lambc/>.

"In fairness," Lamb said, "Porter County also deserves credit for establishing a similar but earlier project."



ROUTE SIGNAGE, positioned at key intersections, helps bicyclists stay on color-keyed loops and alerts motorists to the presence of bicyclists.

Have You Heard?



Sound MEDICINE

On a recent program, the need for gender differentiated medical care was discussed on *Sound Medicine* together with separate comments on the disease prevention properties of garlic and tomatoes in the diet.

Sound Medicine, an I.U. School of Medicine consumer-oriented health-information program, is broadcast on Saturdays at noon on WFYI 90.1 FM, Indianapolis.



Indiana State Department of Health **Express**

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State Health Commissioner

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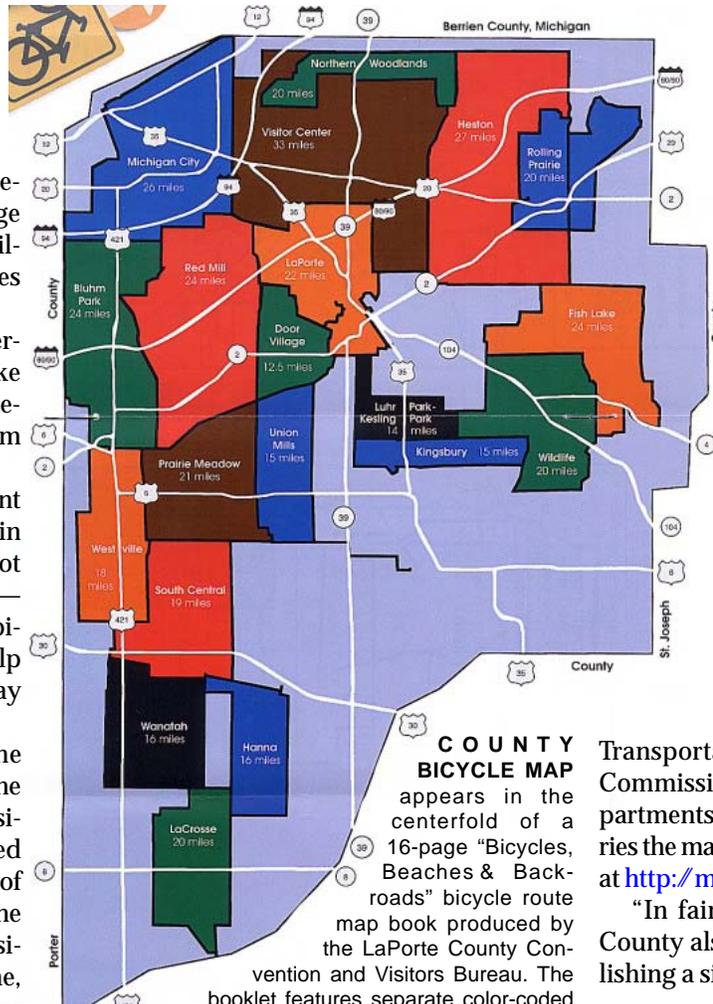
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VALPARAISO Pathways

**Final Report of the
Pathways and Greenways
Master Plan**

for Valparaiso, Indiana

Presented by:
Chuck Lehman, ASLA
Lehman & Lehman, Inc.

February 2005

Lehman & Lehman, Inc.

VALPARAISO Pathways

Pathways & Greenways

“To make a greenway is to make a community.”

— Charles Little, author, *Greenways for America*



Lehman & Lehman, Inc.

VALPARAISO Pathways

Pathways & Greenways

“Today we wouldn’t consider building a home or an office without a blueprint, just as we should not continue to grow and develop our communities without a **greenprint.**”

The Valparaiso Pathways plans will provide the greenprint (infrastructure) for the future growth of the Valparaiso Community.”

— Chuck Lehman, Lehman & Lehman, Inc.



Lehman & Lehman, Inc.

VALPARAISO Pathways

Mission & Vision Statement

“The **mission** of the Valparaiso Area Pathways is: *to promote the use of non-motorized transportation by providing leadership and planning resources toward the development and implementation of safe pathways for the Valparaiso community.*”

“Our **vision** is to create a signature pathway system to and through the Valparaiso area that

- Is attractive and accessible,
- Encourages healthy lifestyles,
- Promotes energy conservation,
- Assures user safety.”

Lehman & Lehman, Inc.

VALPARAISO Pathways

Northwest Indiana Bike Trails



Ped & Pedal

Lehman & Lehman, Inc.

VALPARAISO Pathways

Growth Management Plan



LEGEND:

- Green space
- Open space
- Open space (with green)
- Open space (with blue)
- Open space (with red)
- Open space (with yellow)
- Open space (with orange)
- Open space (with purple)
- Open space (with pink)
- Open space (with grey)
- Open space (with black)

Figure 7: PROPOSED OPEN SPACE FRAMEWORK GROWTH MANAGEMENT PLAN Valparaiso, Indiana

Lehman & Lehman, Inc.

VALPARAISO Pathways

Benefits of Pathways System

- Links neighborhoods, parks, schools, shopping and other destinations
- Links people to people and people to places
- Provides opportunities for alternative methods of transportation and pedestrian-friendly routes
- Provides opportunities for healthy and fun leisure activities
- Preserves natural and cultural resources
- Builds upon and is an integral segment of other local, county, regional and state agencies' planning efforts for an interconnected greenways system
- Enhances the quality of life for the citizens of Valparaiso
- Serves as a gift to future generations

Lehman & Lehman, Inc.

VALPARAISO Pathways

The Planning Process

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VALPARAISO Pathways

The Hub & Spokes Model

- Destinations
- Connections
- Segments/ Routes
- Trail Types

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VALPARAISO Pathways

Destinations & Connections

- Parks, schools, churches, which serve as both destinations and trail heads
- Neighborhoods, community centers, etc.
- Commercial areas, hotels, restaurants, malls, etc.
- Natural areas (streams, drainage ways, wooded areas, etc.)
- Areas of interest in Porter County and in adjacent counties

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VALPARAISO Pathways

Segment / Route Criteria

Criteria used in identifying routing segments:

- **Maximum length** of the trail segments
- **Minimum expense** in trail development
- **Practicality** of the trail segment and whom it will serve
- **Connections** of the trail segments to community destinations
- **Safety factors** of the trail segments, such as visibility
- **Minimum number of stops** or hesitations in the trail segment
- **Availability of water** and other amenities
- **Circuit routes** of the trail segments (loops)
- **Diversity** of the trail segment

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VALPARAISO Pathways

Street Pathways

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VALPARAISO Pathways

Street Bike Lanes

B STREET BIKE LANES

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VALPARAISO Pathways

County Road Pathways

C COUNTY ROAD PATHWAYS

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VALPARAISO Pathways

Easement Pathways

D EASEMENT PATHWAYS

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VALPARAISO Pathways

Open Space Pathways

E OPEN SPACE PATHWAYS

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VALPARAISO Pathways

Typical Route Analysis

- Parks
- Destination Points
- Pathway Routes
- Aerial Photo
- Schools

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Final Pathway Plan

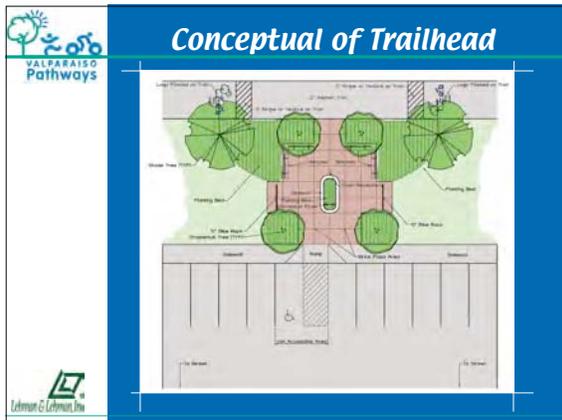
MAP LEGEND

- EXISTING PATHWAYS
- PROPOSED PATHWAYS
- PROPOSED PATHWAYS LEAD

PROPOSED PATHWAYS LEAD

- LOCAL
- REGIONAL
- STATE
- FEDERAL

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- Criteria for Implementation**
- Connections of links to destination points
 - Number of persons served by link
 - Costs and funding sources for link
 - Link's potential for multi-users
 - Link's relation with other projects ("coat tails")
 - Partnerships: public and/or private
 - Link's proximity to identified loop or existing link
 - Community / Neighborhood need requests
 - Property availability
 - Follows the overall alternative transportation plan
 - How link applies to standards and pending impact fee strategies

Identified Priority Loop

Loop:

- Foundation Meadows Park
- South on Campbell to Chicago (or Jefferson)
- East to Roosevelt
- North on Roosevelt to Vale Park
- West to Campbell and beyond to West Side Annexation



- Partners with Vale Park extension
- Links to existing Lakewood Link
- Encompasses/ accesses 23 connectivity points including 10 schools and 10 parks/community centers
- Proximity to dense population
- Proximity to the heart of the City (downtown businesses and government district)
- Loop is approx. 32,830 ft or 6.25 miles in length

Proposed Pathways / Standards

Proposed Pathway Classifications and Lengths

Trail Type	Total Length (miles)	Within City Limits (miles)	Outside City Limits (miles)
Street Pathways	36.5	29.5	7.0
Street Bike Lanes	13.5	9.7	3.8
County Road Pathways	61.0	4.8	56.2
Easement Pathways	4.4	2.5	1.9
Open Space Pathways	16.4	5.9	10.5
Total Trails	131.8	52.4	79.4

Population = 27,426

Miles/1,000 pop = 4.81

Miles/1,000 pop = 1.91

Miles/1,000 pop = 2.89

Standards will be developed as an outcome of this Master Planning Study.

Total Miles of System

Proposed Pathways Projections

Pathway Type	City Miles		County Miles		Total Miles
	City	County	City	County	
Open Space Pathways	10.5	0.0	0.0	0.0	10.5
Easement Pathways	2.5	0.0	0.0	0.0	2.5
Proposed County Pathways	0.0	0.0	56.2	0.0	56.2
Street Bike Lanes	9.7	0.0	0.0	0.0	9.7
Street Pathways	29.5	0.0	0.0	7.0	36.5
TOTAL	52.4	0.0	56.2	0.0	108.6

Potential Developing Partners

- Valparaiso Parks Department
- City of Valparaiso / Public Works
- Valparaiso University
- Commercial / Residential Developers
- Businesses and Corporations
- Porter County / Highway and Parks Departments
- NIRPC

Recommendations

- Adopt the Alternative Transportation / Pathways Master Plan
- Update City's Comprehensive Plan, Thoroughfare Plan and Parks Master Plan
- Form a *Pathways Advisory Board (PAB)* to assist in implementation

Remaining Steps

- Documentation of the Study
- Present final plan to the City of Valparaiso
 - Park Board
 - Plan Commission / City Council
- Incorporate Pathways Master Plan into the Park Department's and City of Valparaiso's Development and Thoroughfare Standards







This story ran on nwitimes.com on Thursday, March 10, 2005 1:02 AM CST

Plan in hand, pathway panel eager to begin

BY PHIL WIELAND

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VALPARAISO | After working for three years, the city's Pathways Committee has a plan, and it is ready to go out and get it done.

Now called the Valparaiso Pathways Advisory Board and working under the auspices of the city's Parks and Recreation Department, the group met for the first time in several months Wednesday to view the pathways and greenways master plan prepared by the consulting firm of Lehman & Lehman. The Park Board is expected to adopt the plan later this month.

The "greenprint" lays out the suggested routes for a total of 131 miles of pathways, 52 miles of them within the current city boundaries, and establishes the criteria for the different types of pathways that might be used and the kind of amenities that might be included with them, such as drinking fountains, rest rooms, benches and landscaping.

The department even has its first partner to help pay for the first paths beyond the Lakewood link, which goes from Foundation Meadows Park to Rogers Lakewood Park. The city's Redevelopment Commission has included pathways as part of the work already done on LaPorte Avenue and Sturdy Road, and it is committed to building pathways on the Vale Parkway and a couple locations where it plans improvements.

Councilman Jan Dick, who is chairman of the advisory board and a member of the Redevelopment Commission, said the commission had not made any provision to turn the pathways on LaPorte and Sturdy over to the Parks Department to maintain, and the commission has no personnel for doing the maintenance itself.

Parks Director Steve Doniger said he talked to the commission's Executive Director Stuart Summers this week and it appears the commission will pass on the pathways to the parks and provide money to buy the equipment to maintain them. Doniger said the department won't need any additional personnel to do the job.

After the plan is adopted by the Park Board, it will be presented to the Plan Commission for inclusion in the city's thoroughfare plan and to the council to adopt as part of the city's overall master plan so that, when projects are bought in for consideration, they will be compared with the pathway plan to see if pathways must be included.

Finding sources of funding to implement the plan will be the next step.

Developers could be required to pay for them in areas where their projects match up with the plan. State and federal funds will be sought, and local partners, such as Valparaiso University, the city and businesses, will be asked to help. The department is considering an impact fee for parks.

Those efforts will come into play almost immediately after the plan is adopted, as the parks look to build what the consultants identified as the priority loop. It would extend the Lakewood link south on Campbell Street to Chicago Street, then go east to Roosevelt Road, north to Vale Park Road and back to Campbell for a total length of 6.25 miles.

Doniger said the cost of an 8-foot-wide concrete pathway is about \$250,000 per mile. The role of the pathways group will be as an advocate for funding and for pathways in general and to serve as an educational resource. It also will advise the Parks Department on proposed changes to the plan.

"We can't do it without you," Doniger said to the eight who attended the session. "(Developing the master plan) was the easy part. Many people still don't understand what pathways are. If you are on board with this, let's go."

The group agreed to start having regular meetings again and to begin planning a calendar of events to keep pathways in the public mind, including the annual Bike to Work Day in May. The group also plans to help with the triathlon and the Popcorn Festival.

[EXTRAS]



This story ran on nwitimes.com on Monday, March 21, 2005 12:04 AM CST

City wants to put bikers, hikers in the loop

BY PHIL WIELAND
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VALPARAISO | If you plan to develop a pathway system in a city, a good place to start would be a path that is simple yet connects to 23 points of interest or desired destinations.

In the pathway master plan developed for the city by Lehman & Lehman, such a path is called the "priority loop." It starts at Foundation Meadows Park on Campbell Street and goes south to Chicago or Jefferson streets, east to Roosevelt Road, north to Vale Park Road and west back to Campbell.

Along its 6 1/4-mile route, the priority loop provides access to 10 schools and 10 parks and community centers, in addition to a couple of major shopping areas. It also will connect with the Lakewood Link path at Foundation Meadows, which goes to Rogers Lakewood Park.

Construction of the loop is expected to begin this year when the city's Redevelopment Commission builds Vale Parkway, the extension of Vale Park Road between Campbell and Valparaiso Street. The commission will pay for the section of the pathway on Vale Parkway and will extend the Lakewood Link from Foundation Meadows down to connect with the new path.

After that, paying for the pathway and any of the other proposed routes in the plan will be a matter of finding the funding. The consultants estimated the cost of building a mile of concrete pathway at \$250,000, which means the priority loop could cost more than \$1.5 million, not counting land acquisition, engineering and any other costs. Other types of pathways would be less expensive.

"We've identified the loop because it meets many of the criteria set up in the pathways study," Assistant Parks Director Carol Costakis said. "We are still going through the process of presenting the plan to the city's Plan Commission and the council. In the meantime, we are moving along with the next step, which is to hire a consultant to do the engineering and cost analysis of the loop.

"Then, where we go and how we fund it is the challenge of the city and the Parks Department," Costakis said. "We will look at grants and look to see if any of the routes tie in with any public works projects that are going on, any redevelopment projects or private developments. Through this initiative we hope to go to all these partners to see how we can go about it and how we can fund it.

"By having this as part of the citywide plan, we will be watching to see what's happening elsewhere in the city, and we could get parts of the plan done here and there. It will happen as other parts of the city develop. We started with the loop to give us a sense of direction to see what we can do as a city and a park department to

put it together."

Mayor Jon Costas said when the mayor of Carmel is trying to recruit a new business to move to his city, the first thing he shows them is the pathway system on the old Monon Railroad right of way and how people of all ages and sizes use it.

"Pathways are becoming an increasingly vital part of recreation plans, and they are also related to economic development," Costas said. "They are a high priority for citizens in terms of what they want to see in our parks. The whole discussion of funding is just beginning now.

"It all starts with a conceptual, and that's why we engaged Lehman & Lehman, and they have done an outstanding job of showing how pathways can encourage a more active lifestyle," he said. "Linear parks are very popular. It's hard to bike around the city, and, if it were made safer, more people would take advantage of it to connect with our parks and businesses. There are many benefits from this."

Costakis said, "Our vision is to create a signature pathway system to and through the Valparaiso area, linking people to people and people to places. We are moving the process forward, and we want to make sure everything is in place. Can I say we will break ground on any other component? I can't say that. It's more than just drawing a line on a map.

"We are working with (the Northwestern Indiana Regional Planning Commission) as part of the Ped and Pedal Committee to see what's available, how other communities have done it and what the funding sources are. There are different pathway systems in place, and we want to share our plan with NIRPC so we become part of the regional plan.

"We are going to have to figure out how to accomplish this and look at the big picture of what are all the city's other plans and priorities and how we are going to move this forward," she said.

[EXTRAS]