

Mount Vernon Parks and Schools Safe Connection Routes Plan

Mount Vernon Parks and Recreation
Board

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Bogdana Rus, Kara Homan, and Michel Ayer

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TABLE OF CONTENTS

SECTION 1: INTRODUCTION	1
DESCRIPTION OF MOUNT VERNON	1
GOALS.....	3
GOAL 1: FULFILL THE VISION SET FORTH IN THE COMPREHENSIVE PLAN.....	3
GOAL 2: PROVIDE SAFE CONNECTIONS BETWEEN PARKS AND SCHOOLS	3
GOAL 3: CREATE A DOCUMENT THAT CAN BE USED IN CONJUNCTION WITH FUTURE DEVELOPMENT AND ROAD IMPROVEMENTS	3
EXISTING CONDITIONS	4
SECTION 2: METHODOLOGY	7
TECHNICAL ADVISORY COMMITTEE	7
OPEN HOUSE.....	8
PROJECT WEBSITE	10
SECTION 3: ROUTES AND ROUTE RECOMMENDATIONS.....	11
CONNECTOR ROUTES	11
LEVEL OF SERVICE.....	13
LEVEL OF SERVICE 1: GRADE SEPARATED, CONCRETE TRAIL.....	13
LEVEL OF SERVICE 2: BIKE LANE, STANDARD SIDEWALKS.....	14
LEVEL OF SERVICE 3: WIDENED SIDEWALK, SHARED-USE ROAD	15
LEVEL OF SERVICE 4: STANDARD SIDEWALK, SHARED-USE ROAD	16
SECTION 4: IMPLEMENTATION.....	19
PHASING.....	19
PHASE 1.....	19
PHASE 2.....	20
PHASE 3	21
FUNDING.....	23
MAINTENANCE.....	24
COMMUNITY EDUCATION.....	24
SECTION 5: CONCLUSION.....	26
FINDINGS	26

RECOMMENDATIONS	26
APPENDICES	28
ANNOTATED BIBLIOGRAPHY.....	59

LIST OF TABLES

TABLE 1: COMPARING MOUNT VERNON TO PEER COMMUNITIES BY BICYCLE AND WALKING WORKTRIPS	6
TABLE 2: PROPOSED LEVEL OF SERVICE CATEGORIES	13
TABLE 3: TOTAL COST ESTIMATES PER PHASE	19
TABLE 4: COST ESTIMATE FOR PHASE I.....	20
TABLE 5: COST ESTIMATE FOR PHASE II	20
TABLE 6: COST ESTIMATE FOR PHASE III.....	21

LIST OF FIGURES

FIGURE 1: AN EXISTING TRAIL ON THE EAST SIDE OF MOUNT VERNON	4
FIGURE 2: INITIAL TECHNICAL ADVISORY COMMITTEE MEETING	7
FIGURE 3: COMMUNITY INVOLVEMENT AT THE OPEN HOUSE.....	9
FIGURE 4: HIGHLY RATED AMENITY STYLES	10
FIGURE 5: PROJECT WEBSITE HOMEPAGE	10
FIGURE 6: THE UNDERHILL/NATURE PARK CONNECTOR	11
FIGURE 7: LOS 1-GRADE SEPARATED, CONCRETE TRAIL	13
FIGURE 8: LOS 2-BIKE LANE, STANDARD SIDEWALK.....	14
FIGURE 9: LOS 3-SHARED USE ROAD AND WIDENED SIDEWALK	15
FIGURE 10: LOS 4-SHARED USE ROAD AND STANDARD SIDEWALKS.....	16

LIST OF MAPS

MAP 1: CITY OF MOUNT VERNON OVERVIEW	2
MAP 2: MOUNT VERNON EXISTING AND PREVIOUSLY PLANNED TRAILS AND WIDENED SIDEWALKS	5
MAP 3: CITY OF MOUNT VERNON CONNECTOR ROUTE PROPOSAL	12
MAP 4: MOUNT VERNON LONG-RANGE LEVEL OF SERVICE RECOMMENDATIONS.....	18
MAP 5: MOUNT VERNON CONNECTOR PHASING STRATEGY	22
APPENDIX III: CITY OF MOUNT VERNON SIDEWALK INVENTORY	41
APPENDIX IV-A: TRAFFIC FLOW MAP OF MOUNT VERNON, LINN COUNTY; 2001 ANNUAL <i>AVERAGE DAILY TRAFFIC</i>	42
APPENDIX IV-B: TRAFFIC FLOW MAP OF MOUNT VERNON, LINN COUNTY; 2005 ANNUAL <i>AVERAGE DAILY TRAFFIC</i>	43
APPENDIX V: MOUNT VERNON WORKTRIPS BY WALKING OR BIKING; <i>PERCENTAGE PER 2000</i> <i>CENSUS BLOCK GROUP</i>	44
APPENDIX VII: MOUNT VERNON PARKS AND SCHOOLS CONNECTION ROUTES: <i>ALTERNATIVE ROUTE PROPOSALS PRESENTED AT PUBLIC FORUM 2</i>	55

EXECUTIVE SUMMARY

The Mount Vernon Parks and Schools Safe Connection Routes Plan builds upon the goals of developing a “Mount Vernon Greenway, a greenbelt trail with regional connections and links back to the college, and established neighborhoods, Uptown Mount Vernon, and emerging and commercial centers” as expressed in *The Mount Vernon Plan: A Comprehensive Plan for Mount Vernon*. This plan focuses on developing safe connections for children to safely move to and from school and other activity centers on foot or by bicycle, while also improving the pedestrian and bicycle service for all Mount Vernon residents. The plan proposes routes and recommends appropriate connections for each route. The plan also provides a phasing schedule for implementation and cost estimates for each route as well as each segment. Possible funding sources are identified.

This plan was developed by working closely with a small group of Mount Vernon residents who comprised a Technical Advisory Committee. We obtained feedback from the general population of Mount Vernon. Our recommendations also consider topography, engineering concerns, financial realities, political will, comparable plans, and lessons from academic literature.

This plan proposes three phases of implementation:

- Low cost segments—those requiring signage, lane painting, etc. —should be implemented first.
- Segments that are likely to coincide with a forthcoming city-wide sidewalk completion mandate should be implemented in the second phase.
- “Future connectors” completed as development occurs. This final phase will complete the “loop” portion of the connector plan and the costs should be borne by developers at the time of development.

Finally, this plan should be used as a tool to guide further pedestrian, trail, and bicycle planning. It may form the basis for funding requests as the City of Mount Vernon can now demonstrate that it has a “Trails” plan in place. The plan demonstrates the city’s commitment to improving the pedestrian and bicycling experience of its citizens, beginning with, but not limited to, the community’s children.

SECTION I: INTRODUCTION

DESCRIPTION OF MOUNT VERNON

Mount Vernon is a safe, peaceful, and quaint community located in Linn County, Iowa. The compactness of the city provides an opportunity to walk or bicycle to and from many activities.¹ The city boasts an extensive collection of schools, parks, and green spaces. School and park development have continued in recent years, but adequate pedestrian connections have not necessarily kept pace with the construction of these facilities. Additionally, Mount Vernon hopes to eventually connect with other Linn County communities via the Lincoln Trail.

Mount Vernon’s comprehensive plan recognizes the need to connect the city’s parks and schools through a system of pedestrian corridors and to encourage walking as a means to get around the city. The comprehensive plan speaks of a “system of connected open spaces.”² It “envisions parks and activity centers that are connected by a continuous greenway system of trails and environmental corridors.”³

The Mount Vernon Parks and Schools Safe Connection Routes plan aims to help the City of Mount Vernon realize these objectives. This plan is designed to guide the city in its future actions and is based on the comprehensive plan, current conditions, intensive community input, and successful plans from other communities.

The connections set forth in this plan primarily focus on providing safe convenient routes for children to move between their neighborhoods, schools, and activity centers. However, this plan is designed to offer all members of the community improved pedestrian and bicycle access throughout their city. The proposed connections are designed to facilitate increased physical activity among Mount Vernon residents. This plan identifies proposed routes, levels of service, and a strategy of phased implementation.

¹ See Map 1, “Mount Vernon Overview.”

² City of Mount Vernon. 1995. *The Mount Vernon Plan: A Comprehensive Plan for Mount Vernon, Iowa*: 51 [hereinafter “The Mount Vernon Plan”].

³ The Mount Vernon Plan 51.

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[INSERT MAP 1 “MOUNT VERNON OVERVIEW MAP”]

GOALS

The goals of this plan are derived from the city's comprehensive plan. Three general goals provide a guiding focus for achieving pedestrian friendly connections within the city.

GOAL 1: FULFILL THE VISION SET FORTH IN THE COMPREHENSIVE PLAN

The Mount Vernon comprehensive plan clearly values a network of pedestrian connections throughout the city. The plan calls for “development of a Mount Vernon Greenway, a greenbelt trail with regional connections and links back to the college, and established neighborhoods, Uptown Mount Vernon, and emerging and commercial centers.”⁴ The Mount Vernon Parks and Schools Safe Connection Routes Plan (hereinafter Mount Vernon Connection Routes Plan) provides a guide for implementing a system of connections between the city's parks and activity centers.

GOAL 2: PROVIDE SAFE CONNECTIONS BETWEEN PARKS AND SCHOOLS

The routes we recommend were designed with the safety of children and other members of the community in mind. Attention was paid to the physical topography of the city, input from the Technical Advisory Committee, and community feedback. The plan seeks to create routes that encourage pedestrian travel in a safe and efficient manner.

Currently, the percentage of children that walk or bike to school in Mount Vernon is very low. The low level of pedestrian and bicycle transit among school children mirrors trends from across the country. Creating a safe system of routes and working with the community to raise awareness of these routes can help reverse these trends. The city, schools, and community organizations should work together to promote and utilize these safe connectors.

GOAL 3: CREATE A DOCUMENT THAT CAN BE USED IN CONJUNCTION WITH FUTURE DEVELOPMENT AND ROAD IMPROVEMENTS

This plan aims to provide a roadmap for future development of an interconnected pedestrian system. It outlines ways to coordinate pedestrian and bicycle access in future

⁴ The Mount Vernon Plan 89.

development and road improvement projects. These future connections will more completely realize the vision of a “Green Network”⁵ and offer increased recreational opportunities⁶ as they will be integrated with development rather than retrofitted to existing conditions. “The trails network is envisioned to include on-streets bikeways, trails through parks and school grounds, as well as separated Class I bikeway trails...”⁷ This plan, used in conjunction with the comprehensive plan and the city’s subdivision regulations, will allow for the orderly development of a comprehensive pedestrian and bicycle system.

EXISTING CONDITIONS

The level of pedestrian and bicycle access varies widely across Mount Vernon. Sections of widened sidewalk and trails exist in pockets around the city, but these sections do not necessarily link to form a comprehensive system. There are also large portions of the city that lack even standard sidewalks.⁸ Additionally, except for the segments of widened sidewalk and trail, the needs of bicyclists have generally been ignored in Mount Vernon. City streets lack bike lanes, road markings, and signage alerting motorist to the presence of bicycles. Existing and previously planned trails and widened sidewalks can be seen in Map 2 on the following page.

FIGURE I: EXISTING TRAIL IN MOUNT VERNON



Source: Kara Homan

⁵ The Mount Vernon Plan 129.

⁶ The Mount Vernon Plan 217-18.

⁷ The Mount Vernon Plan 217.

⁸ See Appendix III, for “City of Mount Vernon Sidewalk Inventory” map.

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[INSERT MAP 2 “MOUNT VERNON EXISTING & PREVIOUSLY PLANNED
TRAILS & WIDENED SIDEWALKS” MAP]

Our assessment of the current conditions in Mount Vernon also takes into consideration Department of Transportation (Iowa DOT) vehicular traffic counts and Census data regarding current pedestrian and bicycle activities. Iowa DOT traffic data⁹ was used along with feedback from the Technical Advisory Committee and public involvement workshops to help identify dangerous intersections, and recognize less traveled routes that might serve as safe connectors.

As Mount Vernon currently lacks a comprehensive pedestrian and bicycle system, the number of adults who walk or bike to work within the city varies widely.¹⁰ However, Mount Vernon still outperforms most similar sized college towns in terms of walking to work rates, but ranks very low in biking to work rates (see Table 1). The percentage of children who walk or bike to school is also low¹¹ considering the compact nature and walkable scale of Mount Vernon. Increasing non-motorized modes of transportation throughout the city, in particular by bike, would help Mount Vernon become a leader among its peer communities. Many of these communities already have some form of trail system or trails plan in place, such as the cities of Fairfield, Decorah, and Pella.¹² This plan provides Mount Vernon with a means to capitalize further on the community’s tendency to walk, and increase the usage of bicycles.

TABLE 1: COMPARING MOUNT VERNON TO PEER COMMUNITIES BY BICYCLE AND WALKING WORKTRIPS

City Name	Percent Biking	Percent Walking	Total Biking & Walking
City of Mount Vernon	0.00%	22.27%	22.27%
City of Decorah	0.96%	29.98%	30.93%
City of Fairfield	1.56%	7.86%	9.42%
City of Grinnell	2.11%	19.29%	21.40%
City of Orange City	0.96%	18.66%	19.62%
City of Pella	1.14%	13.74%	14.88%
City of Waverly	0.85%	11.44%	12.29%

Source: US Census, 2000; Summary File 3

⁹ See Appendix IV for 2001 and 2005 DOT Traffic Count Maps for the City of Mount Vernon.

¹⁰ See Appendix V for “Mount Vernon Worktrips by Walking & Biking: Percentage per Census 2000 Block Group” map.

¹¹ Mount Vernon Community Schools Superintendent shared that the most recent survey found that 16% of the city’s school children walk to work and an even smaller number bike.

¹² Volksweg Trail, City of Pella, available at: <http://www.inhf.org/iowatrails/volksweg-intro.htm>; Trout Run Trail (*proposed*), City of Decorah, available at: <http://www.decoraharea.com/contentdisplay2.asp?id=troutruntrail>; Fairfield Bikeway & Walkway Plan, City of Fairfield, available at: <http://www.jeffersoncountytrails.org/plan.html>

SECTION 2: METHODOLOGY

TECHNICAL ADVISORY COMMITTEE

In order to develop a thorough understanding of the local conditions and the public's expectations regarding pedestrian/bike routes between parks and schools, a Technical Advisory Committee (TAC) was organized. The TAC was comprised of 10 members representing different segments of the community, and met three times over the winter.¹³

The first TAC meeting, held on December 12, 2006 focused on identifying and prioritizing community assets to connect, developing goals, and addressing preliminary trail plan issues like location, use, and safety. The TAC members identified the Community School Complex, all City Parks, Cornell College, Uptown, and the Stonebrook subdivision, as main community assets to be connected. Members argued for improved connection with Lisbon. In terms of safety concerns, the TAC identified the crossings of Highway 1 and Highway 30 as problematic¹⁴ as well as the need for lighting in more isolated areas.

Based on the input received in the first meeting, we prepared a preliminary outline of proposed routes by segment. At the second TAC meeting, on February 12,

FIGURE 2: INITIAL TECHNICAL ADVISORY COMMITTEE MEETING



Source: Bogdana Rus

¹³ See Appendix VI for a list of the Technical Advisory Committee Members.

¹⁴ In cooperation with the TAC, we recognize that the safety of the various Highway crossings are of particular concern. These issues will require further individualized study in conjunction with the Iowa Department of Transportation in order to identify the best options for safe pedestrian crossings.

2007, the TAC members were separated into two groups and asked to offer comments, criticisms, and alternatives to the proposed route options in their assigned half of the city. Since many connecting segments had two or more proposed options, the participants were also asked to identify the route which would create the best connection for their community.

Using public input received at the Open House¹⁵ appropriate changes were made to the route proposal map. This map was presented at the third TAC meeting on March 8, 2007. The final route segments were identified along with level of service recommendations. The members discussed the proposals and made changes as needed. A second achievement of this meeting was that the members decided how to prioritize implementation of the route segments into three phases based on the cost estimates we prepared.¹⁶ For the first phase, the members decided to take advantage of low cost options and recommended improving the current infrastructure to facilitate a safer environment for walking, running, and biking. For the second phase, they proposed installation of missing sidewalks, and believed that the adoption of a Sidewalk Improvement Plan would help achieve this goal. The third phase consists of future connections proposed to be developed as the city grows.

OPEN HOUSE

Following the second TAC meeting, Open Houses were held on February 20 and 22, 2007 at Washington Elementary School. Residents were invited to stop by at their convenience between 4 and 7 p.m. to give their input regarding the preliminary routes. The forums were advertised through Washington Elementary School's Friday Folders, flyers posted throughout the town, and an article in the local newspaper, *The Sun*.¹⁷

Participating residents had the opportunity to offer their feedback at any of three stations presented. A Visual Preference Survey slide show was the first station.¹⁸ The

¹⁵ The Open House is discussed in further detail in the subsequent section.

¹⁶ See Section 4, "Implementation" for a more detailed discussion of phasing.

¹⁷ See Appendix VIII for articles published in *The Sun*, and Appendix IX for advertisement flyers.

¹⁸ See Appendix VII for a summary of the Visual Preference survey.

public was presented with a series of images which they then ranked from -10 (completely disapprove) to 10 (completely approve). Twenty-two surveys were completed. The summary statistics for this station show that in terms of level of service or type of connection preferred, most respondents preferred the grade separated trail, followed by the on-street lane striping and markings. Survey respondents were neutral regarding signage, striping, or limited lane striping. For crosswalks, people mostly preferred the colored brick/cement or raised crosswalks, preferred Continental-style crosswalks similar to those in Iowa City and/or “bump-outs” from street, and were neutral about the standard two-lane striped crossings.

The second station was the Route Alternative Survey. Participants were presented with a map showing the routes developed by the TAC, along with an accompanying questionnaire. Citizens were asked to circle problem areas they saw with the preliminary routes, to choose between alternatives where they existed, and were given the option to draw their own routes if they saw fit. Fourteen surveys were collected. All written comments from this survey can be viewed in Appendix VII.

The third station requested input about route amenities.¹⁹ The public was presented with photos of amenities which they ranked in order of preference from -10 (least important) to 10 (important). Amenities were ranked using the 21 surveys collected. In order of preference, these were: lights, benches, trash cans, drinking

FIGURE 3: COMMUNITY INVOLVEMENT AT THE OPEN HOUSE



Source: Michel Ayer

¹⁹ See Appendix VII-A for a summary of the Amenities Survey statistics.

fountains, bike racks, and message centers/kiosks. In terms of the style of specific amenities, the public preferred the designs that were traditional, solid, metal, and/or clean looking.

FIGURE 4: HIGHLY RATED AMENITY STYLES

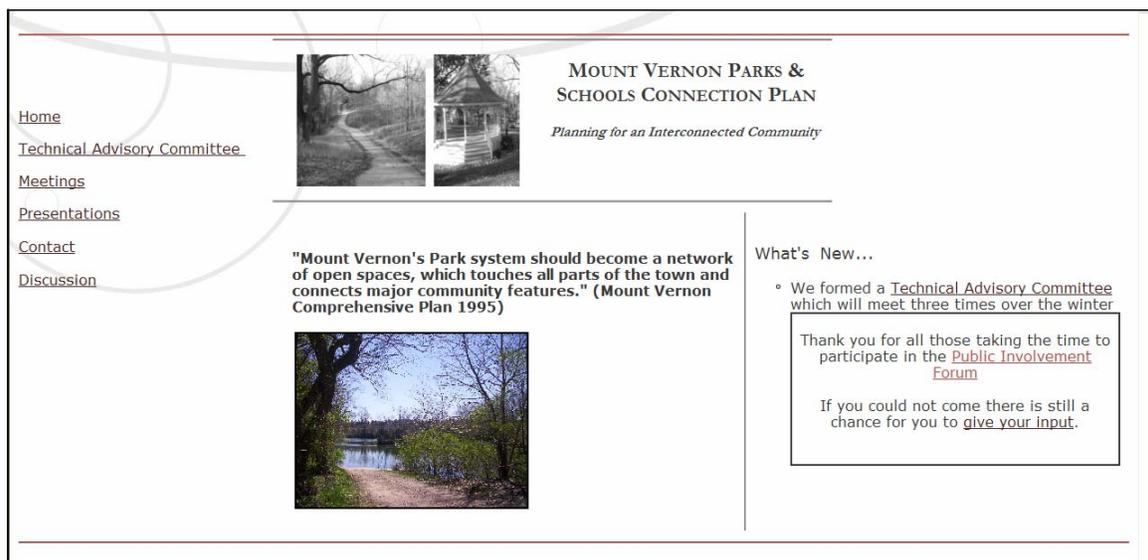


PROJECT WEBSITE

In addition to the methods presented above, a Project Website was maintained to provide updates on the project’s progress for the TAC and general public. Each TAC meeting was summarized on the website by including the agenda, minutes, additional handouts/information provided at the meetings, and newspaper articles. PowerPoint presentations related to the project were also added to the website. The website contained an open discussion board meant for residents to give feedback, ask questions, or express concern. The project website is available at the following address:

<https://www.myweb.uiowa.edu/bmrus>

FIGURE 5: PROJECT WEBSITE HOMEPAGE



Source: Bogdana Rus

SECTION 3: ROUTES AND ROUTE RECOMMENDATIONS

CONNECTOR ROUTES

In cooperation with the Technical Advisory Committee, 16 connector routes were developed to connect Mount Vernon’s parks, schools, and the college. The routes are identified in Map 3, on the following page. Connectors located in the urban core form internal links between community features. Those located on the periphery, “Future Connectors,” form a loop system that builds upon the trail that exists in the eastern part of Mount Vernon.

The routes use a standardized naming convention. For those that follow existing infrastructure (e.g. those that are “in town”), names are derived from the two community features that they connect. For example, the “Underhill/Nature Park Connector” describes the proposed link between Underhill Skate Park and Nature Park (see Figure 6). Routes designated as “Future Connectors” are the exception to this rule. We recommend that these connectors be installed with future development.²⁰

FIGURE 6: THE UNDERHILL/NATURE PARK CONNECTOR IS FLANKED BY UNDERHILL SKATE PARK TO THE NORTH (LEFT IMAGE) AND NATURE PARK TO THE SOUTH (RIGHT IMAGE)



Source: Kara Homan



Source: Kara Homan

²⁰ Phasing of routes will be discussed in Section 4, “Implementation.”

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[INSERT MAP 3 “CITY OF MOUNT VERNON CONNECTOR ROUTE
PROPOSAL” MAP]

LEVEL OF SERVICE

Existing community conditions, such as traffic levels, narrow road rights-of-way, and financial constraints were taken into account to determine each connector’s recommended “Level of Service” (hereinafter LOS). The final recommendations are shown in Map 4, at the end of this section.

During the planning process, the Technical Advisory Committee recommended that four different LOS categories be used to achieve a cohesive and safe connection plan (see Table 2). These categories are described in more detail below.

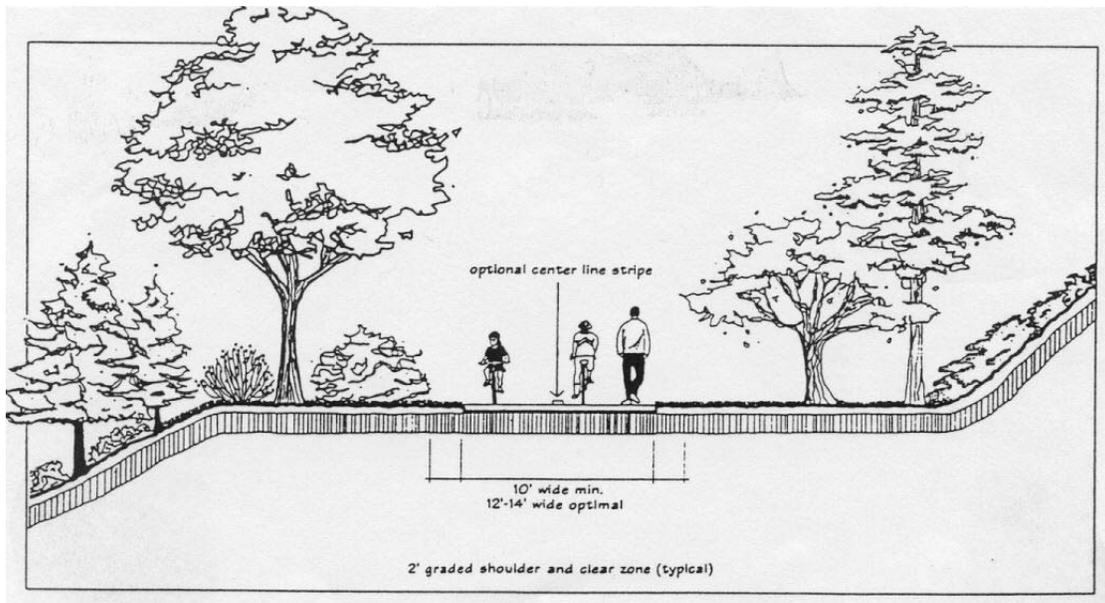
TABLE 2: PROPOSED LEVEL OF SERVICE CATEGORIES

LEVEL OF SERVICE CATEGORIES	
LOS	Description
1	<i>Grade Separated, Concrete Trail</i>
2	<i>Painted Bike Lane, Standard Sidewalks</i>
3	<i>Widened Sidewalk, Shared-Use Road</i>
4	<i>Standard Sidewalks, Shared-Use Road</i>

Source: Kara Homan

LOS 1: GRADE SEPARATED, CONCRETE TRAIL

FIGURE 7: LOS 1-GRADE SEPARATED, CONCRETE TRAIL



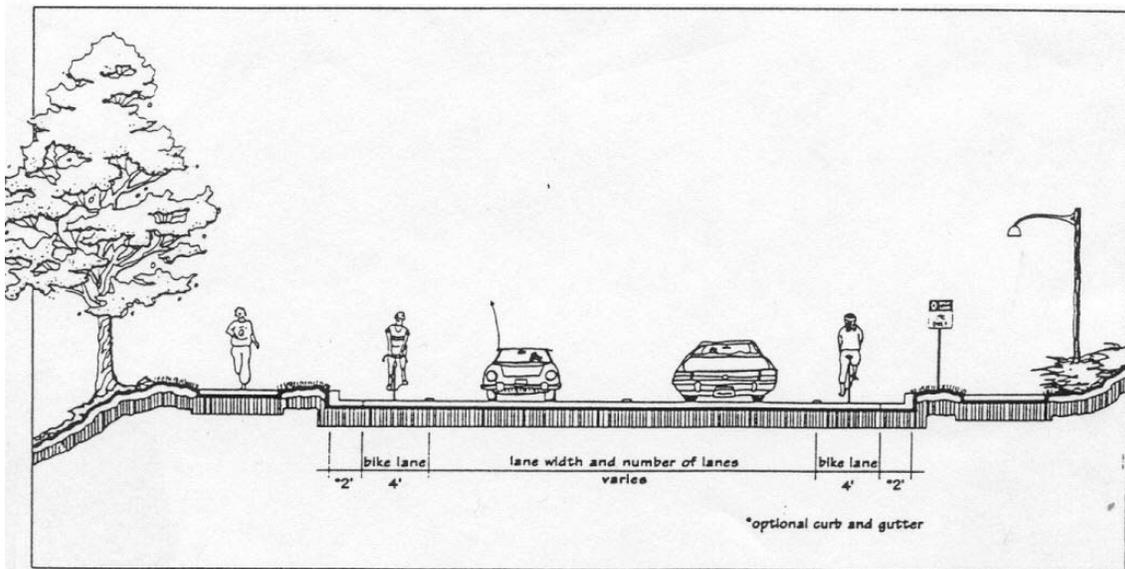
Source: The Brunswick Plan, 21

Grade separated, concrete trails are designed exclusively for a mix of non-automotive users, such as walkers, runners, wheelchair users, and bicyclists. They are designed to be completely separate from roads. Generally, they should be no less than 10 feet wide, and optimally 12 to 14 feet wide (see Figure 7). This trail style can follow natural features, such as streams or drainage ways, creating a more natural and relaxing atmosphere for the user. In the City of Mount Vernon, the existing trail between 3rd Street NW and 1st Street East is an excellent example of LOS 1. Community residents prefer this style connector above all others.²¹

Generally, this plan recommends that LOS 1 be utilized almost exclusively for the “Future Connectors.” As new development occurs, grade separated trails can be planned and designed during the subdivision process. Exceptions are Bryant Park/Cornell connector and the Davis/Elliott connector. Because the City owns the land and wide rights-of-way, LOS 1 is also recommended for this connector.²²

LOS 2: BIKE LANE, STANDARD SIDEWALKS

FIGURE 8: LOS 2-BIKE LANE, STANDARD SIDEWALK



Source: *The Brunswick Plan*, 20

²¹ See Appendix VII-C for Visual Preference Survey Results and Statistics.

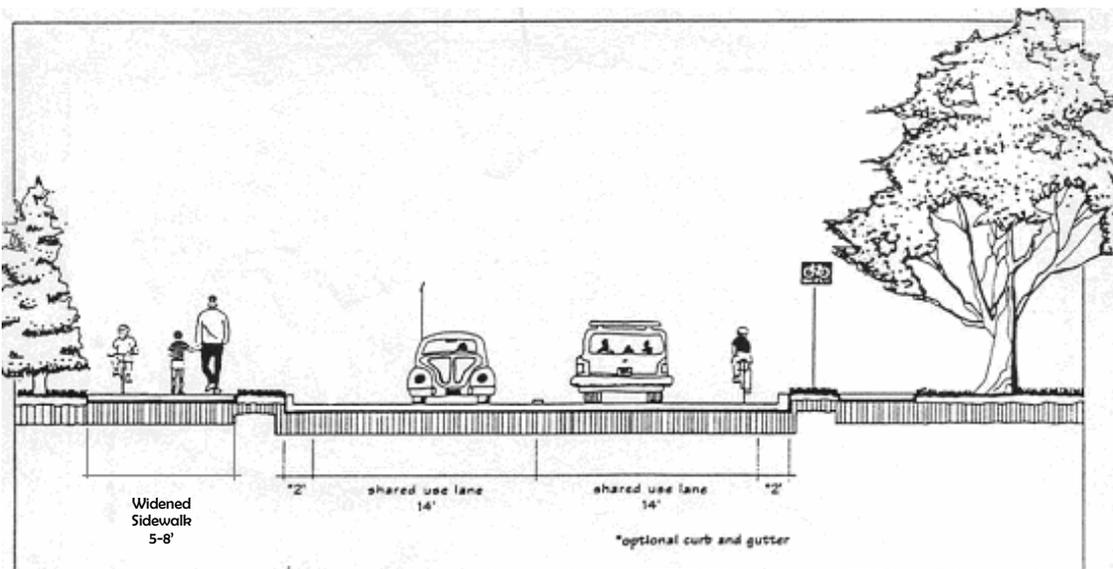
²² See segments 5 and 3 on the “Mount Vernon Long-Range Level of Service” map.

Bike lanes are portions of paved roads designated with painted lines, signage, and/or pavement symbols. Streets with bike lanes should also have standard sidewalks, as the lanes are exclusively for the use of bicyclists (see Figure 8). These sidewalks can meet the needs of pedestrians. Community members believed that bike lanes were a preferable option, although slightly less preferable than grade separated trails.²³

Bike lanes are best utilized “on roads that are popular with cyclists due to their proximity to dense neighborhoods or popular destinations (e.g. schools, recreational facilities).”²⁴ For example, we recommend installing a bike lane on 10th Avenue SW/College Boulevard between Bryant Road and 5th Avenue SW. This bike lane is adjacent to and connects Bryant Park (the endpoint of the proposed interurban Lincoln Trail), Cornell College, and the Mount Vernon Community School District buildings.

LOS 3: WIDENED SIDEWALK, SHARED-USE ROAD

FIGURE 9: LOS 3-SHARED USE ROAD AND WIDENED SIDEWALK



Source: *The Brunswick Plan*, 18; modified by Kara Homan

Shared-use roads aim to improve safety for motorists and bicyclists alike through appropriate signage. Shared-use roads are recommended only on lower-traffic areas, and

²³ See Appendix VII for Public Forum Statistics.

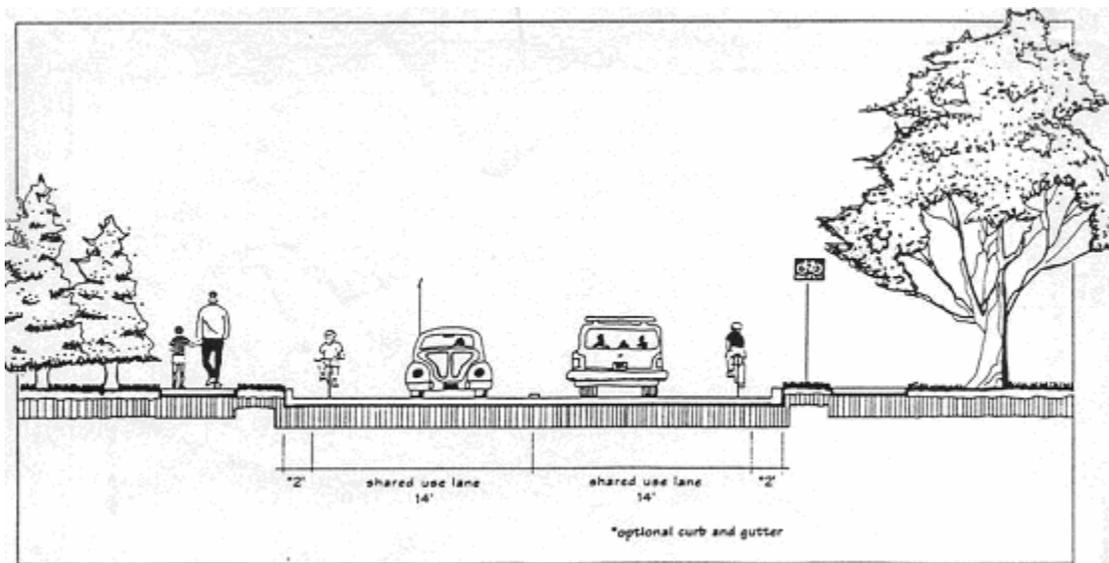
²⁴ City of Brunswick, ME. 2004. Brunswick Bicycle and Pedestrian Advisory Committee. *Brunswick Bicycle and Pedestrian Improvements Plan*: 20. [hereinafter “The Brunswick Plan”].

are ideal for areas with narrow rights-of-way where separate lanes are not feasible. LOS 3 utilizes a widened sidewalk (5 to 8 feet in width) on at least one side of a shared-use road (see Figure 9). Mount Vernon residents were neutral regarding LOS 3.²⁵ Widened sidewalks are important for routes that will likely get higher pedestrian traffic and/or be utilized by small children on bicycles. The widened sidewalk provides a safer alternative for younger and less experienced bikers, but is not appropriate for older and more experienced riders who can more safely ride in the street.

For example, the plan recommends that 8th Street NW be a shared-use road with a widened sidewalk on the north side. As this segment connects Davis Park to the Cornell College Athletic field, extending the widened sidewalk that already exists on 8th Avenue NW, will provide a safe and convenient route for pedestrians and bicyclists to travel between these community athletic facilities.

LOS 4: STANDARD SIDEWALK, SHARED-USE ROAD

FIGURE 10: LOS 4-SHARED USE ROAD AND STANDARD SIDEWALK



Source: *The Brunswick Plan*, 18

LOS 4 is similar to LOS 3, except that it utilizes standard sidewalks (3 to 4 feet wide)(see Figure 10). Through a combination of “Share-the-Road” signs, low traffic

²⁵ See Appendix VII for Public Forum survey statistics.

levels, and safety education efforts, a shared-use road will provide a safe and effective route for bicycle uses, while the standard sidewalks will meet the demands of pedestrians. Mount Vernon residents were neutral regarding LOS 4.²⁶

The Technical Advisory Committee agreed that LOS 4 is appropriate for much of the core of Mount Vernon. As the City has low traffic and narrow streets, this option proved an appropriate and affordable alternative to the other service levels.²⁷ Several portions designated as LOS 4 have non-existent or intermittent sidewalks. Many areas within Mount Vernon will see drastic pedestrian enhancements with the installation of LOS 4 improvements.

²⁶ See Appendix VII for Public Forum survey statistics.

²⁷ See Appendix II for alternative cost estimates.

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[INSERT MAP 4 “MOUNT VERNON LONG-RANGE LEVEL OF SERVICE
RECOMMENDATIONS” MAP]

SECTION 4: IMPLEMENTATION

PHASING

Developing a phasing strategy is critical for successful implementation of this plan. By assessing cost estimates,²⁸ community input,²⁹ and existing conditions,³⁰ the Technical Advisory Committee (TAC) devised a three-phase approach to develop a system-wide connection plan. Phasing recommendations are shown on Map 5, at the end of this section. The time-period for completion increases from Phase I (within one to two years) to Phase III (as development occurs). Table 3 provides an estimate of the total cost for each phase, and should be used as a general guide. Actual costs will be determined during the engineering and bidding process.

TABLE 3: TOTAL COST ESTIMATES PER PHASE

Total Project Phasing Cost Estimate	
<i>Phase</i>	<i>Estimated Cost</i>
I	\$67,175
II	\$172,184
III	\$910,185
Total	\$1,149,544

Source: Appendix II

PHASE I

The TAC recommends that Phase I should include projects that could be completed within one to two years, or in conjunction with forthcoming road construction projects. This phase includes: painting “Continental Style” crosswalks and road symbols, installing “Share the Road” signs, constructing stairs from Memorial Park to 2nd Street NW³¹, installing a trail through Elliott Fields, and installing improvements as roads are reconstructed (e.g. 10th Avenue). Cost estimates for this phase, and its components, can be seen in Table 4.

²⁸ See Appendix II for connector cost estimates.

²⁹ See Appendix VII for community input statistics.

³⁰ See Appendices IV through VI for maps illustrating existing conditions.

³¹ Currently, there is no safe pedestrian connection between the path in Memorial Park and the sidewalk on 2nd Street. Constructing stairs would bridge this gap.

The successful implementation of Phase I is contingent upon cooperation between the City Engineering Department, the Department of Public Works, the Parks and Recreation Board, the City Manager, the City Council, and the Mount Vernon Chapter of the Boy Scouts of America (for painting tasks).

TABLE 4: COST ESTIMATES FOR PHASE I

PHASE I COST ESTIMATE		
<i>Improvement</i>	<i>Involved Connectors</i>	<i>Estimated Cost</i>
Signage	All Connectors	\$4,444
Crosswalks	All Connectors	\$8,436
10th Avenue/ College Boulevard Bike Lane	Bryant/Cornell Connector & Cornell/MVCSD Connector	\$2,936
Memorial Park Stairs	Memorial/Davis Connector	\$10,000
MVAC Trail	Davis/MVAC Connector	\$41,359
Phase I Total		\$67,175

Source: Appendix II

PHASE II

The TAC recommends that Phase II improvements involve the construction of missing sidewalk segments. Many of the roads within Mount Vernon lack sidewalks on one or both sides of the street, or the sidewalks are not continuous.³² Phase II recommendations are built upon the assumption that the City of Mount Vernon will adopt a Sidewalk Improvement Plan. Adoption of such a plan is critical to the success of Phase II. Cost estimates for this phase, and its components, can be seen in Table 5.

TABLE 5: COST ESTIMATES FOR PHASE II

PHASE II COST ESTIMATE		
<i>Improvement</i>	<i>Involved Connectors</i>	<i>Estimated Cost</i>
Standard Sidewalk	MVCSD/Nature Park Connector, North Branch	\$27,089
Standard Sidewalk	MVCSD/Nature Park connector, South Branch	\$26,210
Widened Sidewalk	Underhill/Nature Park Connector	\$9,073
Widened Sidewalk	Davis/Cornell Connector	\$56,814
8-10' Grade Separated Cement Sidewalk	Bryant/Cornell Connector	\$52,998
Phase II Total		\$172,184

Source: Appendix II

³² See Appendix III for the “Sidewalk Inventory” map.

Although it is preferable to have sidewalks on both sides of the street, it is recommended that Phase II focus on the construction/improvement of connector sidewalks on the side of the road as designated in the “Phasing Map,” available at the end of this “Phasing” section. This focuses initial efforts in sidewalk improvements on getting at least one safe path for each connector segment.

PHASE III

The TAC determined that implementation of Phase III should be contingent upon future development. Through the subdivision process, the city could negotiate with developers to ensure that the grade separated concrete trails are included in Development Agreements.³³ By utilizing the flexibility of the City Code regarding Pedestrian and Bikeway Systems, it is possible that these connector trails could be included as part of the development costs that must be paid by the developer.³⁴ Cost estimates for this phase, and its components, can be seen in Table 6.

Many of the “Future Connector” trail routes have portions that follow natural features, such as streams, drainageways, and tree-lines. As development occurs, these natural areas could be utilized as open space areas in the subdivision plats, or as sewer easements. Either way, having land dedicated to the city by right or by easement would allow for trail corridors to be acquired more easily. Consistent negotiation for trail corridors during subdivision approvals will determine the success of Phase III.

TABLE 6: COST ESTIMATES FOR PHASE III

PHASE III COST ESTIMATE		
<i>Improvement</i>	<i>Involved Connector</i>	<i>Estimated Costs</i>
Grade Separated, Concrete Trail	Future North Connector	\$322,640
Grade Separated, Concrete Trail	Future South Connector	\$376,303
Grade Separated, Concrete Trail	Future West Connector	\$211,242
Phase III Total		\$910,185

Source: Appendix II

³³ City of Mount Vernon. 2007. Chapter 166.17(c) “Improvement Financing and Guarantees-Subdivision Agreement.” *Mount Vernon Code of Ordinances*.

³⁴ City of Mount Vernon. 2007. Chapter 166.14(b) “Circulation System Design-Pedestrian and Bicycle Systems.” *Mount Vernon Code of Ordinances*.

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[INSERT MAP 5 “MOUNT VERNON CONNECTOR PHASING STRATEGY”]

FUNDING

All phases of implementation will require a combination of different funding sources. Acquisition of outside funding sources plays a crucial role in the successful implementation of this plan. As many grants are tied to specific purposes, Mount Vernon has an opportunity to capitalize on these funding opportunities as the proposed connection system is very diverse in level of service and in connector location (e.g. on street versus grade separated trails in natural areas). Appendix I organizes funding opportunities into three priority levels that are designed to be pursued with the three phases (e.g. Priority I funds should be pursued before Phase I implementation). We recommend that the TAC identify at least one community member (not necessarily from the TAC) who will serve as a grant writer and aggressively pursue funding opportunities as outlined in this plan.

In addition to outside funding sources, some portions of this plan are best funded directly from within the city. For instance, this plan's recommendation to install standard sidewalks where they are currently lacking, will be funded most effectively if the city adopts a Sidewalk Improvement Plan. Adoption of a Sidewalk Improvement Plan is recommended, with the sidewalk improvements identified in this document listed as the first priority. Currently, the City's Subdivision Regulations require new subdivisions to have some form of pedestrian network, and we believe recommending that older portions of town have the same is not unreasonable.³⁵

In addition, the city can also incorporate connector improvements into its capital improvements planning. As city streets are reconstructed, including a bike lane or a widened sidewalk during construction offers significant cost savings. Capital projects that receive state and federal funds (e.g. Hwy 1, Hwy 30, etc.) have an opportunity to capitalize off of programs linked to these funding sources. The city should also negotiate for "complete street" amenities to enhance multi-modal opportunities.³⁶

³⁵ City of Mount Vernon. 2007. Chapter 166.14(b) "Circulation System Design-Pedestrian and Bicycle Systems." *Mount Vernon Code of Ordinances*.

³⁶ See <http://www.completethestreets.org/benefits.html> to learn more about the benefits of complete streets. "Complete streets are designed and operated to enable safe access for all users." Id.

MAINTENANCE

Upon completion, all segments of the connector plan should be maintained regularly to ensure a safe and consistent system for all non-motorized users. A maintenance schedule should be put in place by the Parks and Recreation Department, the Engineering Department, and/or Public Works Department for short and long-term tasks. Short-term tasks include seasonal maintenance, such as removing debris and snow. Long-term tasks include scheduled inspections to identify pavement cracks, and areas in need of new paint (e.g. crosswalks and bike lanes). Although costs are associated with a maintenance schedule, it should be considered cost beneficial in the long run (e.g. a 20-30 year time frame). Some costs could be defrayed by utilizing volunteer work from community groups.

COMMUNITY EDUCATION

Educating pedestrians, bicyclists, and motorists to practice safe behavior while traveling will further enhance the safety of connections between parks and schools, as stated in Goal Two of this plan.³⁷ For example, educating pedestrians to stop and look before crossing the street, and teaching bicyclists the proper hand signal when making maneuvers on the road will help reduce the chance of collisions. Moreover, communication and rules-of-the-road need to be created for shared sidewalks and trails. For example, pedestrians should be asked to walk, as much as possible, on the right side of the sidewalk, and bicyclists should verbally announce their presence.

We recommend that a Parks and Recreation Committee or sub-committee be formed to organize the community education campaign. Educational resources are available from the Iowa DOT³⁸ and can be ordered free of charge. Therefore, the Commission would only need to distribute these educational materials, which can be achieved through newsletters, school Friday folders, and brochures made available at different locations throughout the city. The Iowa DOT offers a 5 minute educational video for bicyclists which can be presented on public television. School educational

³⁷ See Section 1, "Goals" for a description of Goal Two.

³⁸ Iowa Department of Transportation. *Bicycle Safety*. Available online at: <http://www.iowabikes.com/>

campaigns can be created to appeal to the young population, using the same free materials offered by the Iowa DOT.

While education regarding biking, walking, and driving is important, there must also be effective enforcement of the rules of the road to ensure the safe and efficient use of the system. Exceeding speed limits or failing to stop for pedestrians in crosswalks should be enforced with penalties. Bicyclists and pedestrians should also be held accountable for errors on their part.

SECTION 5: CONCLUSION

FINDINGS

Mount Vernon is poised to make great strides in creating a connector system that links its parks, schools, and other community assets. Through a process that involved an active Technical Advisory Committee (TAC) and extensive community involvement efforts and participation,³⁹ the Mount Vernon Parks and Schools Safe Connection Routes Plan provides the foundation upon which the city can begin building its network. This plan strikes a balance between financial constraints, the needs and wants of citizens, and topographical and physical limitations of the city's environs. We have found that the community prefers the highest Level of Service possible for non-motorized routes, within these constraints.

RECOMMENDATIONS

Although many recommendations have been identified throughout this plan, this section summarizes the most critical recommendations necessary for full implementation. There are three key steps the city needs to take:

- (1) Adopt the **3-Phase Strategy** recommended by the TAC.
 - a. Phase I – Projects that can be completed in 1-2 years or in conjunction with forthcoming road construction projects
 - i. Painting crosswalks and road symbols, installing “Share the Road” signs, constructing stairs from Memorial Park to 2nd Street, installing a trail through Elliott Fields, and installing improvements as roads are reconstructed
 - b. Phase II – Complete missing sidewalk segments throughout the City
 - i. Adopt and enforce a **Sidewalk Improvement/Completion Plan** to ensure that all streets are serviced by a sidewalk on at least one side of the street

³⁹ See Section 3, “Methodology” and Appendices VII through X for community involvement information.

- c. Phase III - Utilize **Development Agreements** to negotiate with developers for trail facilities and/or corridor acquisition during the Subdivision Process
 - i. Require developers to pay for grade separated trails during future development
 - ii. Complete the Mount Vernon Loop Trail
- (2) Focus on **Education Efforts** to ensure a safe non-motorized system and to encourage use
 - a. Educate both children and motorist about the existence of the safe routes and proper pedestrian, cyclist, and motorist safety
- (3) Aggressively pursue outside **Funding Opportunities**
 - a. Appoint a committee to apply for grants and monitor the implementation of the plan

This plan is not the ending point—rather it offers a platform for the community to achieve the goals laid out in the Mount Vernon Plan: A Comprehensive Plan for Mount Vernon, Iowa.

APPENDICES

APPENDIX I: FUNDING SOURCES.....	29
APPENDIX II: PROPOSAL COST ESTIMATES	37
APPENDIX III: CITY OF MOUNT VERNON SIDEWALK INVENTORY	41
APPENDIX IV: TRAFFIC FLOW MAPS OF MOUNT VERNON, LINN COUNTY	42
A: 2001 ANNUAL AVERAGE DAILY TRAFFIC	42
B: 2005 ANNUAL AVERAGE DAILY TRAFFIC	43
APPENDIX V: MOUNT VERNON WORKTRIPS BY WALKING OR BICYCLE:	
<i>PERCENTAGE PER 2000 CENSUS BLOCK GROUP</i>	44
APPENDIX VI: TECHNICAL ADVISORY COMMITTEE MEMBERS.....	45
APPENDIX VII: SUMMARY OF PUBLIC FORUM INPUT	46
APPENDIX VIII: NEWSPAPER ARTICLES	
A: MOUNT VERNON-LISBON SUN PLANNING PROCESS ARTICLE.....	56
B: MOUNT VERNON-LISBON SUN PUBLIC FORUM ARTICLE.....	57
APPENDIX IX: COMMUNITY INVOLVEMENT FLIER	58

APPENDIX I: FUNDING SOURCES⁴⁰

I. PRIORITY I FUNDING PROGRAMS:

These funding sources provide the greatest opportunity for initial success, and/or projects outlined in Phase I of this plan meet the criteria of these programs.⁴¹ These sources should be pursued immediately to have the greatest chance of acquiring outside funding sources before implementation of Phase I begins.

A. SAFE ROUTES TO SCHOOLS

Purpose: encourages youth and their families to choose walking, bicycling and other active ways to get to and from school

Eligible projects:

- planning, design and construction of projects that will improve the ability of students to walk and bicycle to school;
- sidewalk improvements;
- traffic calming and speed reduction improvements;
- pedestrian and bicycle crossing improvements;
- on-street bicycle facilities;
- off-street bicycle and pedestrian facilities;
- traffic diversion improvements within two miles of the school;
- public awareness campaigns and educational materials;
- traffic education and enforcement in the vicinity of a school;
- student sessions on bicycle and pedestrian safety, health and environment;
- or
- training, including SRTS training workshops that target school and community audiences

Local Match: NONE

Other Requirements: Projects eligible for funding must be within two miles of an elementary and/or middle school (kindergarten through eighth grade).

Contact Information: Kathy Ridnour
Safe Routes to School program coordinator
Office of Systems Planning
800 Lincoln Way
Ames, IA 50010
515-239-1713

kathy.ridnour@dot.iowa.gov

For More Information: <http://www.dot.state.ia.us/saferoutes/>

Application Deadlines: October 1st

⁴⁰ Iowa DOT, Office of Systems Planning. 2007. *Sources for Trail Funding*. Available at <http://www.sysplan.dot.state.ia.us/fedstate_rectrails_Funds_Opp.htm>.

⁴¹ See Section 4, "Implementation" for more information regarding Phasing.

B. THE GREATER CEDAR RAPIDS COMMUNITY FOUNDATION

Purpose: The Greater Cedar Rapids Community Foundation (GCRCF) announced a new grant program in 2006, the Linn County Endowment Fund. This program gives priority to enhancing quality of life and community development outside the Cedar Rapids metropolitan area. The Linn County Endowment Fund was created by the Iowa Legislature. It is funded by state legislation that distributes half of one-percent of the state's gambling revenues to non-gambling counties.

Other Requirements: Cannot be a project that is typically funded through taxing authority.

Contact Information: The Greater Cedar Rapids Community Foundation, 200 Fist Street SW, Cedar Rapids, IA 52404

For More Information: <http://www.gcrf.org/page26896.cfm>

Application Deadlines: June 15th

C. IOWA CLEAN AIR ATTAINMENT PROGRAM

Purpose: funds street, transit, or trail projects that help maintain Iowa's clean air quality by reducing transportation related emissions

Local Match: 20%

Other Requirements: application forms must be submitted with emission reduction calculations

Contact Information: ICAAP Manager
Wendele Maysent
wendele.maysent@dot.iowa.gov
515-239-1681

For More Information: <http://www.sysplan.dot.state.ia.us/icaap.htm>

Application Deadlines: October 1st

D. AMERICORPS

Purpose: agencies, communities, or non-profit groups can sponsor personnel to assist in a variety of activities. Funds must be used to operate or plan community service programs. Programs could include trail building, environmental education and community restoration work.

Contact information: Iowa Department of Natural Resources
Parks, Recreation, and Preserves Division
Wallace State Office Building
Des Moines, IA 50319
515-281-5145

For more information: <http://www.americorps.org>

II. PRIORITY II FUNDING PROGRAMS:

*These funding sources should be pursued when implementation of Phase II is being considered.
Phase II generally recommends pedestrian improvements in conjunction with road improvements.*

A. FEDERAL TRANSPORTATION ENHANCEMENT FUNDS- STATEWIDE

Purpose: Fund projects related to surface transportation that provide for additional uses of infrastructure, or scenic improvements. Funds can be used for bike and pedestrian facilities, safety improvements, educational activities, landscaping and beautification, or preservation and conversion of abandoned rail corridors.

Local Match: 30%

Other Requirements: Project must have a relationship to surface transportation, and it should meet the following criteria:

- Provision of facilities for pedestrians and bicyclists;
- Provision of safety and educational activities for pedestrians and bicyclists;
- Acquisition of scenic easements and scenic or historic sites;

All funded activities (projects) must be accessible to the general public or targeted to a broad segment of the general public.

Contact Information: Nancy Anania
Transportation Enhancements Program Manager
nancy.anania@dot.iowa.gov
515-239-1621

For More Information: Iowa Department of Transportation's Office of Systems Planning, 515-239-162, <http://www.enhancements.org>

Application Deadlines: October 1st

B. TRANSPORTATION ENHANCEMENT PROGRAM - REGIONAL

Purpose: enhancement or preservation activities of transportation related projects.

Local Match: 20%

Other Requirements: Trail projects may fall into one of three categories: trails and bikeways, historic preservation, or scenic and natural resources.

Contact Information: Metropolitan Planning Organization (MPO) and Regional Planning Alliances (RPA)

<http://www.sysplan.dot.state.ia.us/rpampocontact.htm>

For More Information: http://www.sysplan.dot.state.ia.us/trans_enhance.htm

Application Deadlines: varies

C. TRAFFIC SAFETY IMPROVEMENT PROGRAM

Purpose: Traffic safety, traffic control, research

Contact Information: Iowa Department of Transportation

The appropriate district engineer contact can be found via the website link below:

<http://www.dot.state.ia.us/tsip.htm>

Application Deadlines: August 15

D. PEDESTRIAN CURB RAMP CONSTRUCTION PROGRAM

Purpose: Construction of ADA compliant curb ramps system

Local Match: 45%

Contact Information: Iowa Department of Transportation

The appropriate district engineer contact can be found via the website link below:

<http://www.dot.state.ia.us/tranreg.htm>

E. BIKES BELONG

Purpose: Assist local agencies and cities in developing bicycle facilities that will be funded by TEA-21 and provides matching grants up to \$10,000.

Contact Information: Bikes Belong Coalition, Ltd.
1368 Beacon Street, Suite 116
Brookline, MA 02446
617-734-2800

For More Information: <http://www.bikesbelong.org>

Application Deadlines: March 1 to June 1 each year. - Awards made in early fall

III. PRIORITY III FUNDING PROGRAMS:

These funding sources should be pursued after all priority I & II funding opportunities have been pursued and/or when implementation of Phase III is being considered. Phase III generally recommends grade separated, natural trails, which is the requirement of many of these programs.

A. STATE RECREATIONAL TRAILS PROGRAM

Purpose: The State Recreational Trails Program funds public recreational trails.

Local Match: 25%

Other Requirements: the trail must be maintained as a public facility for a minimum of 20 years. Proposed projects must be part of a statewide, regional, area-wide, or local trail plan.

Contact Information: Iowa Department of Transportation
Office of Systems Planning
Steve Bowman
800 Lincoln Way
Ames, IA 50010
515-239-1337
steven.bowman@dot.iowa.gov

For More Information: http://www.sysplan.dot.state.ia.us/fedstate_rectrails.htm

Application Deadlines: January 2nd and July 1 dependant upon

B. NATIONAL RECREATIONAL TRAILS FUND

Purpose: It can be used to construct and maintain motorized and non-motorized recreational trails and trail related projects.

Local Match: 20%

Other Requirements: NONE

Contact Information: Iowa Department of Transportation
Office of Systems Planning
Steve Bowman
800 Lincoln Way
Ames, IA 50010
515-239-1337
steven.bowman@dot.iowa.gov

For More Information: http://www.sysplan.dot.state.ia.us/fedstate_rectrails.htm

Application Deadlines: varies

C. LAND AND WATER CONSERVATION FUND

Purpose: provides 50% grants for acquisition and development of outdoors recreation areas and facilities.

Local Match: minimum 50%

Other Requirements: Grants are made to the State of Iowa or its political subdivisions.

Contact Information: Iowa Department of Natural Resources
Sherry Arntzen

Parks, Recreation, and Preserves Division
Wallace State Office Building
Des Moines, IA 50319
(515) 242-6233

For More Information: <http://www.iowadnr.com/>
Application Deadlines: March 15

D. RESOURCE ENHANCEMENT AND PROTECTION PROGRAM (REAP)

Purpose: Corridor Protection and Greenway Establishment

Local Match: None

Other Requirements: REAP provides 100% grants to cities and counties for open space protection and passive outdoor recreation.

Contact Information: Iowa Department of Natural Resources
Ron Harrison
Parks, Recreation, and Preserves Division
Wallace State Office Building
Des Moines, IA 50319
(515) 281-5973

For More Information: <http://www.iowadnr.com/>
Application Deadlines: August 15

E. ECONOMIC DEVELOPMENT ADMINISTRATION

Purpose: offers grants for public facilities, including port facilities, tourism facilities, planning assistance etc.

Local Match: 50%

Other Requirements: Public works projects can include trail and other recreational facilities.

Contact Information: United States Department of Commerce
Economic Development Administration
<http://www.eda.gov>

For More Information: <http://www.doc.gov/eda/html/prgtitle.htm>

F. WILDLIFE CONSERVATION AND APPRECIATION

Purpose: funds initiatives for which the principal purpose is to provide opportunities for the public to use and enjoy fish and wildlife through non-consumptive activities.

Other Requirements: Trail Development and Acquisition pertaining to non-game wildlife enjoyment, including trails and waterways.

Contact Information: U.S. Fish and Wildlife Service,
(703) 358-2156 or
(800) 344-9453

For More Information: <http://www.fws.gov/>
Application Deadlines: March, July and December

G. RIVERS AND TRAILS CONSERVATION ASSISTANCE PROGRAM

Purpose: Established to increase demand to conserve rivers and provide trail opportunities.

Local Match: does not provide financial assistance

Other Requirements: assists by: building partnerships, assessing resources, developing concept plans, public participation, and identifying potential sources of funding

Contact Information: National Park Service
Mark Weekley
1709 Jackson Street
Omaha, NE 68102
(402) 221-3483

For More Information: <http://www.nps.gov/>

H. AMERICAN GREENWAYS KODAK AWARDS PROGRAM

Purpose: Provides grants ranging from \$500 to \$2,500 to local greenway projects. Funds can be used for activities relating to local greenway planning and development.

Contact information: The Conservation Fund
1800 North Kent Street, Suite 1120
Arlington, VA 22209

For more information: www.conservationfund.org
or <http://www.conservationfund.org/?article=2106>

I. CONSERVATION ALLIANCE

Purpose: fund grassroots conservation organizations and their efforts to protect rivers, trails, and wild lands for non-motorized recreation. Grants are made annually.

Contact information: John Sterling
Conservation Alliance
259 West Santa Clara Street
Ventura, CA 93001
(805) 667-4741

For more information: <http://www.conservationalliance.com/>

J. THE NATIONAL TRAILS ENDOWMENT

Purpose: Provide grants to organizations working to establish, maintain, and protect foot trails. Grants ranging from \$1,000 to \$10,000 will be awarded to organizations and non-profits with a trail related focus.

Contact information: American Hiking Society
Attn: National Trails Endowment
1422 Fenwick Lane
Silver Spring, MD 20910

For more information: <http://www.americanhiking.org/alliance/fund.html>
or <http://www.americanhiking.org/index.html>

K. WATCHABLE WILDLIFE / FOREST LEGACY PROGRAM

Purpose: to manage wildlife resources and people and to provide sustainable recreational benefits to those who wish to observe, photograph and otherwise enjoy wildlife through activities other than hunting and fishing.

Other Requirements: opportunities to enhance the attractiveness of a trail and as a means of increasing public awareness of wildlife.

Contact Information: John Walkowiak
Forestry Services Bureau
502 East 9th Street
Des Moines, IA 50319
(515) 281-596

For More Information: <http://www.iowadnr.com/>
or www.iowadnr.com/forestry/aonr3.html

APPENDIX II: Proposal Cost Estimates

Source: Costs based upon estimating methods provided by: Iowa Department of Transportation. Iowa Trails 2000: Connecting People and trail. Local Community Planning for Bicyclists and pedestrians, a handbook for local communities. Available online at: <http://www.iowabikes.com/trails/pec-bikeHandbook/TOC.html>

Segment #	Segment Name	Description	Location	Cost
5	Bryant/Cornell Connector	Install an 8'-10' grade separated cement sidewalk on the North side of Bryant Rd. to 10th Ave. In the future, when 10th Ave. is upgraded, install <i>bike lane markings</i> . In the interim, install signs along this route alerting motorists to bicyclists.	Bryant-10th 10th Ave	\$52,998
5	Bryant/Cornell Connector Subtotal			\$53,735
9	Cornell/MVCSD, (ES/MS/HS)	Install <i>bicycle lanes</i> when 10th Ave. is upgraded. In the interim install signs along this route alerting motorists to bicyclists and have pedestrians use the existing sidewalk on the West/South side of 10th Ave.	10th Ave--7th College Blvd. (between 7th & 5th) 7th Ave (between College Blvd and Schools) 5th Ave (between 10th & Palisades)	\$1,818 \$380 \$0 \$0
9	Cornell/MVCSD, (ES/MS/HS) Subtotal			\$2,198
6	Cornell/Memorial Connector	Utilize the existing sidewalk and extend it to 10th Ave. Install a <i>crosswalk</i> across 10th Ave.	Existing	\$0
6	Cornell/Memorial Connector Subtotal		Needed Connector to 10th Ave	\$3,427
6	Cornell/Memorial Connector Subtotal			\$3,427
2	Davis/Cornell Connector	Install <i>widened sidewalk</i> on North side of street (5'-8' cement). In the interim, install "Shared Street" signs.	8th St	\$56,814
2	Davis/Cornell Connector			\$56,814
3	Davis/Elliott Connector	Extend the <i>concrete path</i> coming from the skate park using the same dimensions and materials.	Within Elliott Fields	\$41,359
3	Davis/Elliott Connector			\$41,359

Segment #	Segment Name	Description	Location	Cost
4	Davis/Memorial Connector	Install <i>new stairs</i> leading from Memorial Park to 2nd Street N. Improve crosswalks and use <i>existing sidewalk</i> on the West side of 4th Ave. N. Use 2nd Ave the <i>existing sidewalk</i> on the North side of 6th Street to the West side of 2nd Ave. NW to Davis Park. Also install signs along this route alerting motorists to bicyclists.	4th Ave to 6th St to	\$10,000
4	Davis/Memorial Connector			\$10,000
7	Memorial/Underhill Connector	<i>Complete and link the existing sidewalk</i> segments on the North side of 3rd Street NE. <i>Improve the crosswalks</i> and install "Shared Street" signs.	3rd Ave	\$18,773
7	Memorial/Underhill Connector Subtotal			\$18,773
8	Memorial/MVCSD Connector	Use the <i>existing widened sidewalk</i> on the Northwest side of 5th Ave. SW. Upgrade the crosswalk at 4th Street SW.	5th Ave (btw 1st St & 10th Ave)	\$500
8	Memorial/MVCSD Connector Subtotal			\$500
12	MVCSD Connector Trails (rest of system)	Trails on school grounds are at the discretion of the school district. Efforts should be made by the school district, city and Cornell to connect their respective trails.		\$0
12	MVCSD Connector Trails Subtotal			\$0
11.1	MVCSD/Nature Park Connector, North Branch	Install a standard sidewalk on the South side of 3rd Street SE from Nature Park to A Ave. SE. Use the existing sidewalks on either side of A Ave. SE to the existing sidewalk on the South side of 4th Street. Upgrade the crosswalk at 1st Ave. and install "Shared Street" signs.	portion needing sidewalk remainder on A & 4th	\$27,089
11.1				\$500
11	MVCSD/Nature Park Connector, North Branch Subtotal			\$27,589

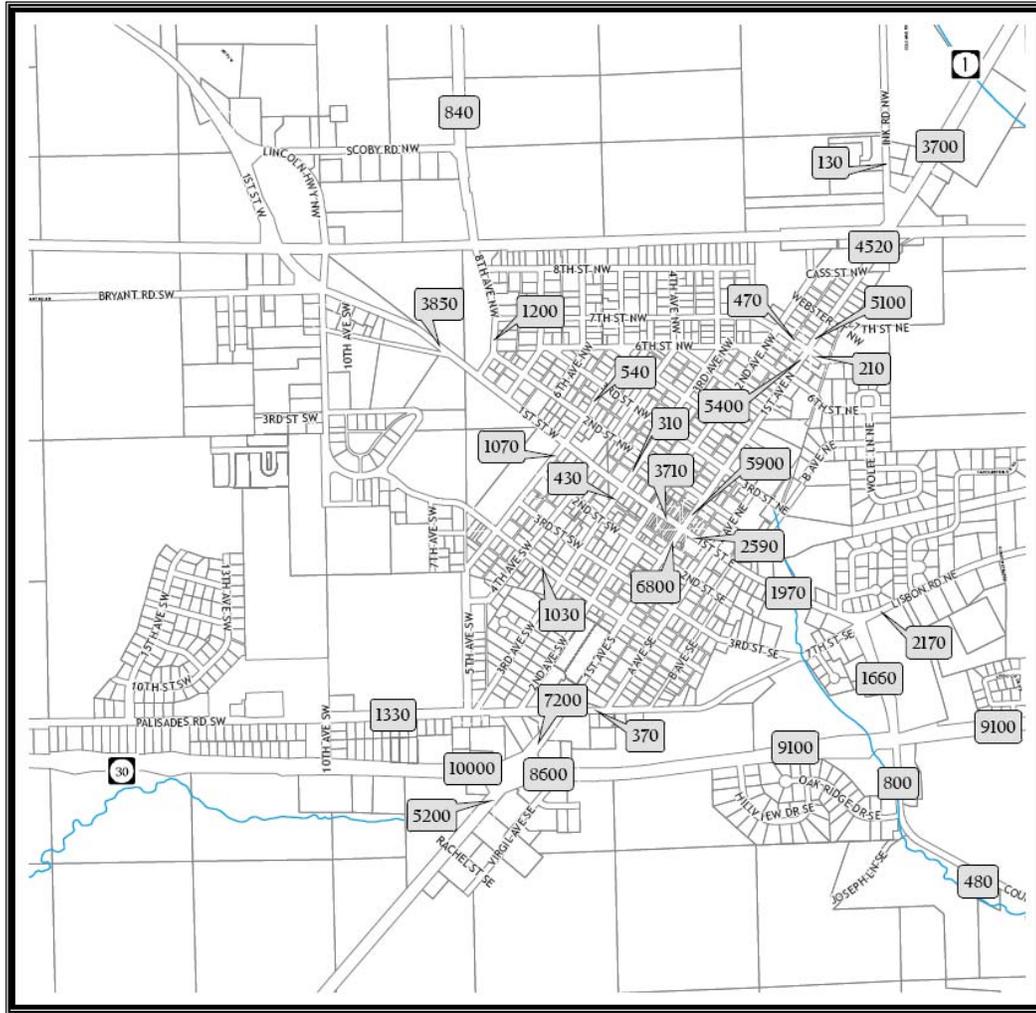
Segment #	Segment Name	Description	Location	Cost
11.2	MVCSD/Nature Park Connector, South Branch	Install standard sidewalk on north side of Palisades Rd. between 1st Ave. and Nature Park. <i>Install a crosswalk a 1st Ave. Use the existing sidewalk on the south side of Palisades Rd. between 1st Ave. and the school. Install signage.</i>	Palisades (between Nature Park & 1st Ave.) Palisades (btw 5th Ave and 1st Ave)	\$26,210 \$500
11	MVCSD/Nature Park Connector, South Branch Subtotal			\$26,710
15	Nature Park/South End Connector	<i>Install an 8-10' concrete grade separated trail in conjunction with future upgrade of 1st Street E and install crosswalk at Hwy. 30.</i>		\$85,004
15	Nature Park/South End Connector			\$85,004
13	MVCSD/South Park (Lot 32) Connector	Use the <i>existing sidewalk</i> on the North side of Palisades Rd.. <i>Install a crosswalk</i> at the West side of 10th Ave. to the South side of Palisades Rd. and use the <i>existing sidewalk</i> on the South side of Palisades Rd. to South Park. <i>Install a crosswalk</i> across Palisades Rd. between South Park and Lot 32. <i>Trails through Lot 32 may require special engineering due to drainage issues.</i> The city and school should work together to ensure that trails link up in this area.		\$60,461
13	MVCSD/South Park (Lot 32) Connector			\$60,461
10	Underhill/Nature Park Connector	<i>Install a widened sidewalk</i> along the North side of 1st Street E.		\$9,073
10	Underhill/Nature Park Subtotal			\$9,073

Segment #	Segment Name	Description	Location	Cost
MISC.	Signage	\$150/sign & Post, every 1/4 mile of connector distance	all non-future connectors	\$4,444
MISC.	Crosswalks	Crosswalks placed along connector routes, on the sides of streets designated in Map Three; for all non-future connectors; \$228 per crosswalk (estimate obtained from LL Pelling Co; Assumptions: Continental Style \$19/block (2'x6'), Appx 12 blocks/road width (estimate of 24' for each road); appx 37 crosswalks needed.	all non-future connectors	\$8,436
MISC.				\$12,880
1	Future North Connector	When development occurs and Scoby Rd. is upgraded to cement, an 8-10' grade separated cement trail should follow the road extension.		\$322,640
1	Future North Connector			\$322,640
16	Future South Connector	Install an 8-10' concrete grade separated trail in conjunction with future development.		\$376,303
16	Future South Connector Subtotal			\$376,303
14	Future West Connector	Install an 8-10' concrete grade separated trail in conjunction with future North/South connector road construction.		\$211,242
14	Future West Connector			\$211,242
Complete Proposal Total				\$1,318,708

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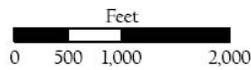
[INSERT APPENDIX III “CITY OF MOUNT VERNON SIDEWALK INVENTORY”]

APPENDIX IV-B: Traffic Flow Map of Mount Vernon, Linn County: 2005 Annual Average Daily Traffic



LEGEND

-  Average Daily Traffic Count
-  State Highway



Prepared by Kara J. Homan
Masters Candidate in Urban and Regional Planning
Created April 12, 2007
Data Sources:
Property Parcels: Linn County GIS
Traffic Counts: Iowa Department of Transportation,
Division of Planning and Programming, Office of
Transportation Data; 2005

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[INSERT APPENDIX V “MOUNT VERNON WORKTRIPS BY
WALKING OR BIKING”]

**APPENDIX VI:
TECHNICAL ADVISORY COMMITTEE MEMBERS**

TECHNICAL ADVISORY COMMITTEE MEMBERS	
Bethany Campbell Tvedt	<i>Parent Teacher Association Representative</i>
Dan Boggs	<i>Mount Vernon City Engineer</i>
Dan Schofer	<i>Head Cross Country coach at Cornell College</i>
Elizabeth Bach	<i>Senior at Cornell College, president of the Environmental Club</i>
Jeff Walberg	<i>Parks and Recreation Board Member</i>
Jeff Schwiebert	<i>Mount Vernon School District Superintendent</i>
Leon Tabak	<i>Computer Science Professor at Cornell College</i>
Marty Christensen	<i>Mount Vernon City Councilperson</i>
MaryBeth Konkowski	<i>Senior at Mount Vernon High School</i>
Stephanie Damon-Moore	<i>Senior at Mount Vernon High School</i>

Source: Bogdana Rus

APPENDIX VII:
SUMMARY OF PUBLIC INPUT
Surveys Collected February 20th and 22nd, 2007
Website Feedback: ongoing

I. VISUAL PREFERENCE SURVEY

A series of images were ranked by citizens from -10 (completely disapprove) to 10 (completely approve). 22 Surveys were collected. Averages were calculated for all images. The following summarizes the findings from the survey.

A. Level of Service (Type of Pedestrian Connection)

Most Preferred: Grade Separated Trails
Range of Scores: 5.14 to 6.32



Preferred: Lane Striping & Markings
Range of Scores: 3.50 to 4.00



Neutral/Somewhat Preferred:

Signage, Striping, or Limited Lane Striping
Range of Scores: -.27 to 2.68



B. Crosswalks

Most Preferred: Colored Brick/Cement or Raised Crosswalks
Range of Scores: 5.05 to 5.864



Preferred: “Blocked” Cross Walks and/or “Bump-outs” from Street
Range of Score: 3.81 to 4.78



Neutral/Somewhat Preferred: Standard Striped Crosswalks
Score: 2.78



II. AMENITIES SURVEY:

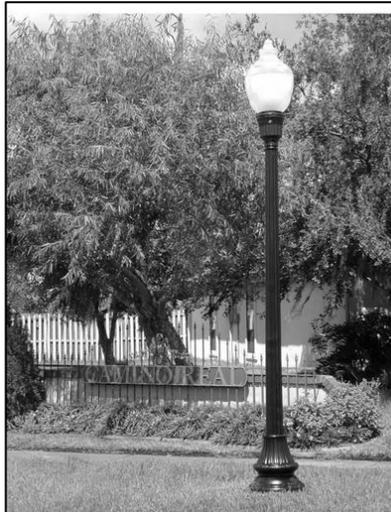
A series of amenities were ranked by citizens from -10 (least important) to 10 (important). 21 surveys were collected. Averages were calculated for all amenities. The following summarizes the findings from the survey.

A.	Trail Amenities Rankings	(ave. score)
1.	Lights	(7.38)
2.	Benches	(6.52)
3.	Trash Cans	(6.19)
4.	Drinking Fountains	(5.19)
5.	Bike Racks	(4.48)
6.	Message Centers/Kiosks	(3.00)

B. Preferred Style

Citizens were presented with three options for each amenity. They scored them from -10 (completely disapprove) to 10 (completely approve). The following shows the highest ranking images, based on mean scores.

1. Lights (Score: 4.33)



2. Benches (Score: 4.05)



3. Trash Cans (Score: 4.76)



4. Drinking Fountains (Score: 4.86)



5. Bike Racks (Score: 5.00)



6. Message Centers/Kiosks (Score: 3.30)



III. Alternative Route Proposal Survey

There were 14 total surveys collected in the Route Alternative Survey. The public was presented with a map showing the routes developed by the TAC, along with an accompanying questionnaire. Citizens were asked to circle issues they saw with the preliminary routes, to choose between alternatives where they existed, and were given the option to draw their own routes if they saw fit. Citizen preferences for route alternatives were used to determine the final recommended route.

Written Comments Received for Connector Alternatives:

Connector Alternative Comments		Preference	
1	<i>Is shorter than option b</i>	yes	
	<i>Further from busy rail road</i>	yes	
	<i>Safest</i>	yes	
	<i>More direct</i>	yes	
	A <i>My preference would be a path (loop) around the outskirts of the city (Connectors 1A,3A, 10B,15, 16, 14, 5)</i>	yes	
	<i>Neither 1A or 1B. I'm not comfortable with a gravel road being a connection route</i>	no	
	<i>More direct</i>	yes	
	B	<i>The length probably wouldn't be any issue</i>	no
		<i>Too close to railroad</i>	no
		<i>Too close to Railroad track</i>	no
<i>Neither 1A or 1B. I'm not comfortable with a gravel road being a connection route</i>		no	
<i>By tracks</i>		no	
2	A	<i>It looks better, because it looks like it is more out of the way of houses</i>	yes
		<i>No preference</i>	n/a
		<i>Neutral</i>	n/a
		<i>Less traffic, probably easier to develop, corner by Davis too busy</i>	yes
		<i>Good idea-no sidewalk at present</i>	yes
	B	<i>No preference</i>	n/a
		<i>Neutral</i>	n/a
		<i>Closer to downtown, continuation of 4A</i>	yes
		<i>Good idea-no sidewalk at present</i>	yes

3	A	Depending on which route you take you might have to go on an extra sidewalk or non-route to get to your destination	yes
		Less residential	yes
		Prefer connecting by going through MVAC; also easy acces to Wolfe Addition	yes
		My preference would be a path (loop) around the outskirts of the city (Connectors 1A,3A, 10B,15, 16, 14, 5)	yes
		I like this the best-keeps walkers away from Hwy 1	yes
		Preferred route. If the kids have to cross Hwy 1, traffic will be going slower near the RR tracks	yes
		Close to tracks (start point)-trains stop cars	no
	B	Depending on which route you take you might have to go on an extra sidewalk or non-route to get to your destination	no
		These (implying 3B & 3C) might be better because it would be easier to see oncoming traffic from north	yes
C	Depending on which route you take you might have to go on an extra sidewalk or non-route to get to your destination	no	
	These (implying 3B & 3C) might be better because it would be easier to see oncoming traffic from north	yes	
	Bottom of hill?	no	

4	A	4A looks like it doesn't quite lead to Davis Park completely which might cause problems for people in whellchairs	no
		Makes more sense to continue from 2B	yes
		More direct from park	yes
		No preference	n/a
	B	It leads directly to Davis Park	yes
		Connects better with section 3	yes
		Nice route to 3B	yes

10	A	10 B looks like it leads to a road which may creat problems (implying this is the better option)	yes
		Prefer direct connection to nature park	yes
		This would be ideal because it's off the road	yes
		This would be more scenic, but probably more expensive	yes
		Good	yes
	Requires purchase of land	no	
	B	10 B looks like it leads to a road which may creat problems	no
		Shorter, cheaper	yes
		My preference would be a path (loop) around the outskirts of the city (Connectors 1A,3A, 10B,15, 16, 14, 5)	yes
		A sidewalk on this side would be better than the current situation	somewhat
good		yes	
10B is the road with less traffic	yes		

12	A	12A is a lot shorter	no
		Neutral	n/a
		More direct	yes
		Most direct	yes
	B	If you want exercise, you may want to take 12B	yes
		Neutral	n/a
		12A would cut trthrough sports fields, more attractive community	yes

MISC.	Could there be a connection through Cornell College property connection other areas to the Library?
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IV. WEBSITE FEEDBACK

The Project Website had an integrated discussion tool meant to be used by residents for input and questions. Despite publicizing the website at every possible opportunity, even in the local newspaper, no comments were posted. However, we believe that the website was used by the community to follow the informational updates continuously posted throughout the process.

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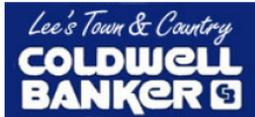
[INSERT APPENDIX VII (cont.) “MOUNT VERNON PARKS AND SCHOOLS
CONNECTION ROUTES: *ALTERNATIVE ROUTE PROPOSALS PRESENTED AT
PUBLIC FORUM*”]

APPENDIX VIII-A: MOUNT VERNON-LISBON SUN PLANNING PROCESS ARTICLE⁴²



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Committee planning trails

by Sarah Leavenworth · December 20, 2006

A group of area citizens initialized work last week on developing a plan for a community-wide trails and greenway system, led by three University of Iowa urban and regional planning graduate students.

A technical advisory committee comprising representatives of the school district, Cornell College and the city of Mount Vernon met Tuesday, Dec. 12 at Mount Vernon City Hall to discuss priorities, including location, use and safety issues associated with local trails.

The group was formed by urban and regional planning students Bogdana Rus, Kara Homan and Michel Ayer as a planning project requested by the city of Mount Vernon and required for their master's degree program.

Homan said the planning process was initiated in an effort to help the city achieve the trail and greenspace goals set forth in the Comprehensive Plan.

Last week's meeting - the first of three advisory committee meetings - focused on developing goals, prioritizing possible connection areas in the community and addressing other preliminary trail plan issues, and was described by Ayer as a "brainstorming session."

After a series of meetings this winter, citizens will be asked to participate in a March forum soliciting input on the committee's work.

The technical advisory committee was formed from a group of local volunteers, including Bethany Campbell Tvedt of Lisbon; Cornell College student Elizabeth Bach, Cornell professor Leon Tabak and cross country coach Dan Schofer; city engineer Dan Boggs and council member Marty Christensen, Mount Vernon High School seniors MaryBeth Konkowski and Stephanie Damon-Moore, parks and recreation member Jeff Walberg and school superintendent Jeff Schwiebert.

At the city hall meeting, Ayer explained the intent of the project, stating that he, Rus and Homan would compile existing data, collect information, research and solicit advice from the advisory committee to formulate a plan for a system of trails and greenways throughout Mount Vernon.

The first task assigned to the committee was to rank "community assets," or specific locations in the city that committee members felt should be incorporated into a comprehensive trails plan.

A majority of committee members listed connections at community schools, the Mount Vernon Athletic Complex, Cornell College and uptown Mount Vernon as important factors in the trail plan.

Area parks, including Nature Park, Memorial Park, Davis Park and Bryant Park, were ranked highly by committee members, as was a safe Hwy. 30 crossing route. Committee members also noted the importance of connections to the city's "western frontier," including the Stonebrook subdivisions, the business district near the intersection of Hwys. 1 and 30, and Palisades-Kepler State Park.

The graduate students asked the committee to identify potential uses for new trails, which will help determine the types of trails that may be considered in the plan.

Committee members cited walking and biking as primary uses of a community trail system, and Ayer added that there are many options for the types of trails in certain parts of town. Some types of trails that are not possible in town - where Boggs estimated most street widths stand at 28 feet - may be more appropriate in areas of new development, he said.

Safety concerns discussed by the committee included the Hwys. 30 and 1 crossing, educating trail users about sharing the space, and visibility issues. The committee also discussed trails near the railroad, lighting and safety in potentially isolated areas of town, and the types of trails that would be most appropriate for users including children.

The committee plans to meet again next month.

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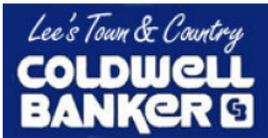
⁴² Leavenworth, Sarah. 2006. "Committee Planning Trails." *Mount Vernon-Lisbon Sun*. December 20. Available at <<http://www.mtvernonlisbonsun.com/article.php?viewID=696>>.

APPENDIX VIII-B:
MOUNT VERNON-LISBON SUN PUBLIC FORUM ARTICLE⁴³



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Trails explored at community forum

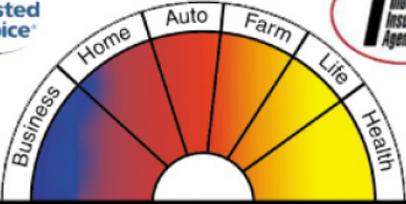
A Technical Advisory Committee (TAC) delving into a trail plan for Mount Vernon is holding a community involvement meeting next Tuesday and Thursday, Feb. 20 and 22, at the Washington Elementary School gym, any time between 4 and 7 p.m. each day.

The forum will feature input stations, allowing citizens to view the proposals, provide input regarding the connector routes, participate in a visual preference survey and give opinions regarding amenities such as park benches and bike racks.

The TAC comprises a group of representatives from the school district, Cornell College and the community, led by University of Iowa urban and regional planning graduate students Bogdana Rus, Kara Homan and Michel Ayer. The project, called the "Mount Vernon Parks and School Connection Plan," was requested by the city, and is designed to help Mount Vernon achieve trail and greenspace goals.

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Click here to move to web site!

A circular graphic divided into segments representing different insurance services: Business, Home, Auto, Farm, Life, and Health. The segments are colored in a gradient from blue to yellow. Logos for 'Trusted Choice' and 'Independent Insurance Agent' are also present.

Mount Vernon Insurance

Allied • United Fire Group • Grinnell Mutual
Employers • FarMutual • Midwest Family Mutual
Drive Progressive • Wellmark Blue Cross & Blue Shield

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⁴³ Leavenworth, Sarah. 2007. "Trails Explored at Community Forum." *The Mount Vernon Lisbon Sun*. February 17. Available at: <http://www.mtvernonlisbonsun.com/article.php?viewID=868>.

APPENDIX IX:
COMMUNITY INVOLVEMENT FORUM FLIER



Would you like to improve the pedestrian connections between Mount Vernon's parks and schools?

If so, please stop by the Mount Vernon Parks and Schools Connection Project's

COMMUNITY INVOLVEMENT FORUM

Tuesday February 20th
and
Thursday February 22nd

In the Elementary School Gym
Between 4 p.m. and 7 p.m.



This event is held at the same time as parent-teacher conferences. ***Please stop by at your convenience.***

The forum will allow you to:

1. See route proposals and give your input
2. Provide your preferences for types of routes
3. Identify important pedestrian amenities you would like to see in Mount Vernon

Your feedback is important and will play a key role in the final routes and plan!!!!

Check out the project website at:
www.myweb.uiowa.edu/bmrus



This project is sponsored by the City of Mount Vernon
Parks and Recreation Board
In cooperation with Graduate students from the University of Iowa
Urban and Regional Planning Program

ANNOTATED BIBLIOGRAPHY

Area 15 Regional Planning Commission. *Bicycle/Recreational Trail Plan Regional Planning Affiliation 15*. December 2005. Available at:

<http://www.area15rpc.com/PDF/Transit/Trails%20Plan-Dec05.pdf>

- Trails funding sources

Brunswick Bicycle and Pedestrian Advisory Committee. *Brunswick Bicycle and Pedestrian Improvements Plan*. Updated Sept 15, 2004. Available at:

<http://www2.curtislibrary.com/brunsplanning/bikeped9804.pdf>

- Identified 3 areas of action, 3Es: education, enforcement, and engineering/planning
- Great design and engineering details for different types of trails, e.g. shared lines, as well as traffic calming devices and street crossings

City of Ashland, Oregon. 2006. *Ashland Trails Master Plan*. Available at:

<http://www.ashland.or.us/Page.asp?NavID=9063>

- Describes each trail/corridor in detail
- This is an approach that we may wish to take ourselves, if we see fit

City of Marion, Iowa. 2006. *Master Trails Plan*. Available at:

<http://www.cityofmarion.org/pdf/parks/ExecSummaryDec05.pdf>

- Plan creates priority for Trail implementation
- Has different types of trails
- City of Mount Vernon, Iowa. 2006. "Subdivision Regulations." Chapter 166 of *Mount Vernon Code of Ordinances*.
- Will help us determine if there are regulatory barrier to the development of trails and green spaces, and help us recommend changes to the code

City of Mount Vernon, Iowa. 2006. "Zoning Regulations." Chapter 165 of *Mount Vernon Code of Ordinances*.

- Provides understanding of the land uses and densities that we have to work with in Mount Vernon
- It could potentially help us locate trails in places that may see greater use

City of Oldsmar, Florida. 2004. *Park Connection Trail Master Plan*. Available at:

http://www.ci.oldsmar.fl.us/ParksRecCult/trail_plan.htm

- Most similar to what we are trying to achieve with Mount Vernon
- Focus is on connecting existing parks, and provides a nice template follow from start to end

City of Richland, Washington. 2006. *Parks, Trails and Open Space Master Plan*. Available at: <http://www.ci.richland.wa.us/RICHLAND/Parks/index2.cfm?FileName=/docs/1/docs/Master%20Plan%20-%20Final.6-1-06.pdf>

- Inventories schools facilities and parks facilities
- Serves as a good model to use for the purpose of the Mount Vernon Plan

City of Sammamish, Washington. 2005. *Trails, Bikeways and Paths Master Plan*. Available at: <http://www.ci.sammamish.wa.us/TrailsPlan.aspx>.

- Good example of a priority matrix, which assigns weights for different factors (such as aesthetics, potential uses, etc.)

City of Scottsdale, Arizona. 2003. *Scottsdale Trails Master Plan: On the Right Trail*. Available at: <http://www.ci.scottsdale.az.us/trails/plan/default.asp>

- Existing conditions section of the plan is useful to us because they do an analysis of existing city regulations and policies (e.g. CIP, Subdivision Regulations, etc) and point out some barriers to implanting trails, as well as some opportunities

Graduate Program in Urban and Regional Planning. *City Of Fairfield Bikeway & Walkway Plan: Transportation Alternatives for a Safe and Healthy Community*. May 2006. Available online at: http://www.myweb.uiowa.edu/agalluzz/Link_pages/Fairfield%20B&W%20Plan.pdf

- Inclusion of public art and bicycle/pedestrian amenities
- Funding sources
- Phasing

Iowa Department of Transportation. *Iowa Trails 2000: Connecting People and trail. Local Community Planning for Bicyclists and pedestrians, a handbook for local communities*. Available online at: <http://www.iowabikes.com/trails/ped-bikeHandbook/TOC.html>

- Offers detailed step by step guidance for local communities in planning for local pedestrian/bike trail system as well as design guidelines, cost analysis, implementation and operation and maintenance
- Provides information specific to the context of trail planning in Iowa

JCCOG Transportation Planning Division. *Johnson County Shared Use trails Plan*. Available online at:

<http://www.jccog.org/documents/jctrailsplan.pdf>

- Technical advisory committee
- Criteria for phasing out the project

Linn County Conservation Board. 1992. *The Proposed Interurban Greenway Trail: Cedar Rapids to Mount Vernon, Iowa*.

- Feasibility study for the interurban trail
- Although we are not working directly on this project, our plan will connect the trail to the city-wide trail system, thus we need to know the logistics of this trail to ensure proper integration

Pilkington, R. and D. Chaplain. 1997. *Summary of Community Development Planning Session*. Developed by the Institute for Decision Making, University of Northern Iowa.

- Summarizes finding from a planning session regarding redevelopment of “Uptown”
- Option of using a SSMID to improve “Uptown” was analyzed as well as other strategies of improving the Gateway and Industrial districts

Prairie Du Chien Community Development. *Prairie Du Chien Area Bicycle/Pedestrian Trail Plan*. Available online at: <http://www.developmentplanning.net/bikepath/>

- 6000 population
- Extensive public participation opportunities. Conducted interviews with school children, major employers, and civic organizations.
- Detailed research in terms of safety. e.g traffic counts, accident data

RDG Crose Gardner Shukert. 1995. *The Mount Vernon Plan: A comprehensive plan for Mount Vernon, Iowa*.

- Most recent Comprehensive Plan for the City and serves as the fundamental basis for our planning process
- Specifically calls for and interconnected green network, thus giving us a firm backing to urge the formation of trails

Sheetz, S, Vittetoe, A, and C. Weaver. 2000. *Mount Vernon Economic Development Plan*.

- Assesses Mount Vernon’s economic viability and proposes several strategies to improve this—such as Senior Citizen development and the increased marketing of the City

Tolley, Ronald. 1997. *The Greening of Urban Transport: planning for walking and cycling in Western cities*. Second Edition. New York: John Wiley & Sons.

- Compiles information regarding planning for bicyclists and pedestrians
- Insight into different strategies, principles, prospects, and pitfalls involved in integrating these networks into today’s auto-centered transportation systems
- Draws heavily from advances made in Europe, but also touches on American cities

Trails West, Ministry of Sport and Recreation. 1998. *Focus on Trail Planning*.

- Excellent overview of trail planning process