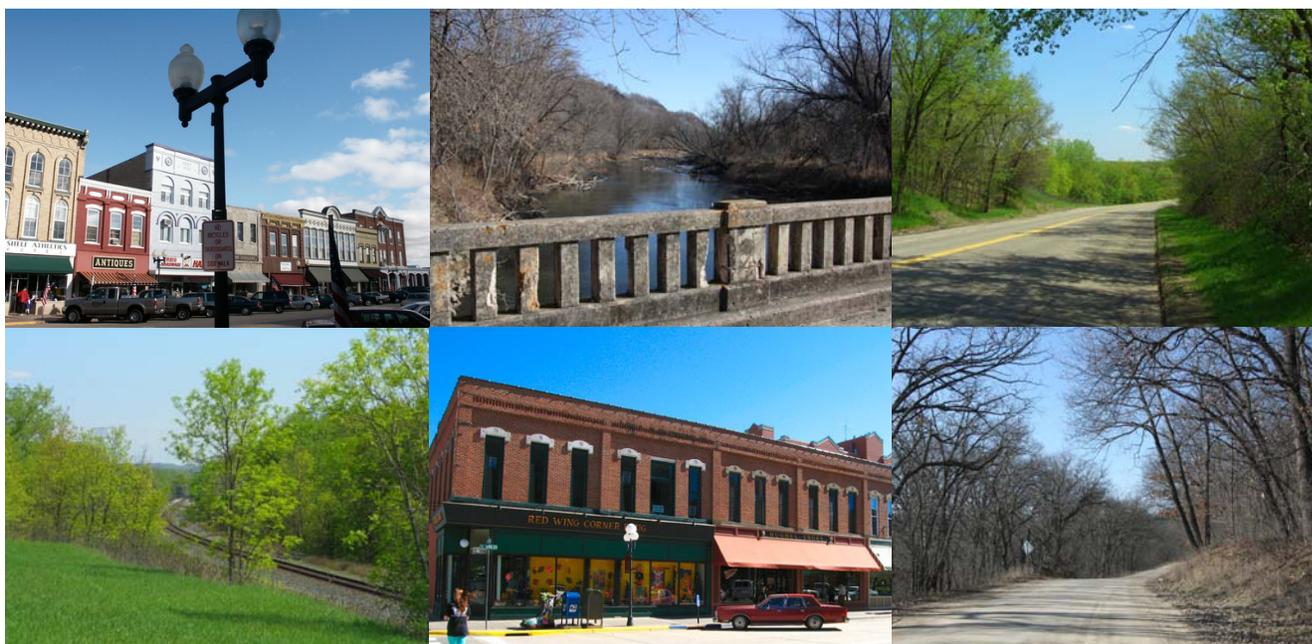


MASTER PLAN REPORT

Hastings - Red Wing Trail



PARKS AND TRAILS COUNCIL OF MINNESOTA

APRIL 2009

PREPARED FOR:



PARKS & TRAILS COUNCIL OF MINNESOTA
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IN COLLABORATION WITH THE FOLLOWING FUNDING PARTNERS:

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Introduction and Acknowledgments

INTRODUCTION

In April of 2008, the Parks and Trails Council of Minnesota agreed to serve as a project coordinator and secured funding commitments from project partners to hire a consultant to prepare the Hastings–Red Wing Trail Master Plan. Contributing project partners included Dakota County, Goodhue County, City of Hastings, and City of Red Wing. This document represents the results of the planning process, which was completed in March of 2009.

PUBLIC INVOLVEMENT IN THE PLANNING PROCESS

Given the notable interest in the project, the general public and surrounding landowners were invited to participate in the planning process on numerous occasions. Through formal and informal meetings, members of the community had direct access to the consultant team and Task Force. The public's input throughout the planning process proved very fruitful and greatly influenced the final plan.

PROJECT TASK FORCE OVERSIGHT

A 15-member Task Force was assembled to provide oversight and input on key planning issues. The Task Force included representatives from each of the project partners, plus representatives from the National Park Service, Ravenna Township, and Welch Township.

ACKNOWLEDGMENTS

The consultant team would like to thank the Parks and Trails Council of Minnesota for coordinating the project. A thank you is also extended to Task Force members for taking the time to participate in the project and sharing individual and collective insights that played an instrumental role in shaping the planning process and coming to final conclusions.

Finally, the consultant team extends a thank you to interested residents and property owners who took the time to attend meetings, write letters, and make phone calls so that we could understand the issues first hand and find solutions that seemed reasonable, balanced, and respectful of varying opinions.

Sincerely,

Jeff Schoenbauer, RLA
Principal-in-Charge / Project Manager

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PROJECT FUNDING PARTNERS

Funding for the project was provided by Dakota County, Goodhue County, City of Hastings, and City of Red Wing. Without these generous contributions, the project would not have been possible.

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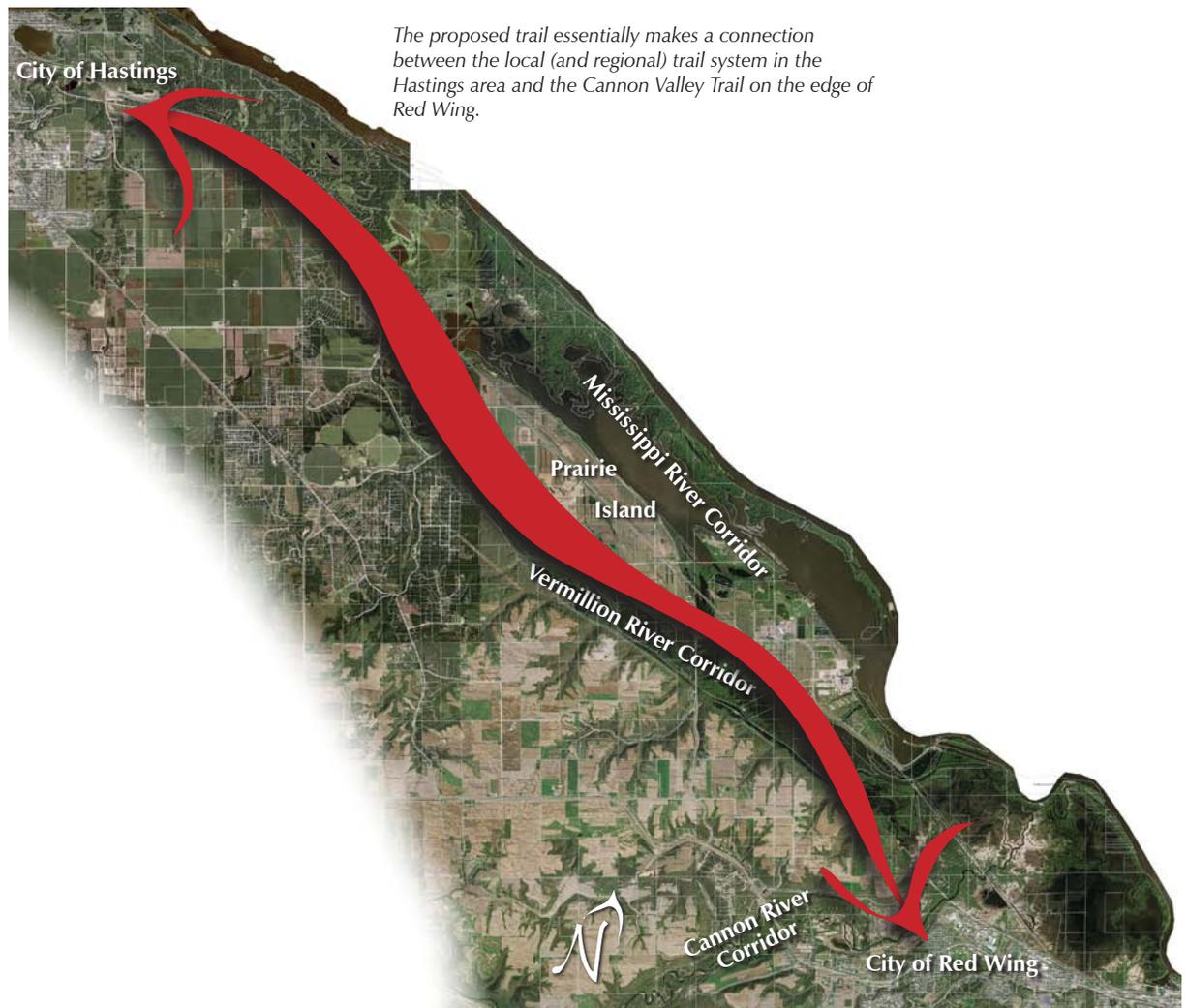
Section 1

Planning Context and Background

PROJECT SCOPE

The project focused on preparing a comprehensive master plan for the Hastings–Red Wing Trail, as defined by the study area illustrated in figure 1.1.

FIGURE 1.1 – STUDY AREA AERIAL IMAGE



RATIONALE FOR PREPARING A MASTER PLAN FOR THE HASTINGS – RED WING TRAIL

For years, various local advocacy groups have fostered the idea of developing a trail corridor between Hastings and Red Wing that would complement other existing and planned local, regional, and state-level trails in this area of the state. In 2004, the Parks and Trails Council of Minnesota conducted an initial exploratory feasibility study. In 2007 an informal committee was formed to further the conversation to determine the feasibility of developing a trail along this corridor.

Note: The Cannon Valley Trail receives about 100,000 visits each year.



Long-distance trails in a scenic setting are consistently one of the most popular recreational facilities in Minnesota.

An outgrowth of the committee's work was for the Parks and Trails Council to serve as a project coordinator and secure funding commitments from project partners to hire a consultant to undertake a public process and prepare a master plan for the trail corridor. In April of 2008 the project formally got underway. A Task Force with representatives from each of the project partners was appointed to oversee development of the master plan.

KEY POINTS IN SUPPORT OF THE TRAIL

Development of the Hastings–Red Wing Trail is supported by two key points:

- The trail will provide very high recreational value given the scenic qualities of the Vermillion and Mississippi River corridors
- The trail would tie together numerous local and regional trails into a more cohesive, interlinked, and extensive system

As stated in a 2004 report by the Parks and Trails Council, Minnesota has one of the country's most well developed statewide system of long-distance, multiuse trails. To that end, Red Wing is already connected to Cannon Falls via the Cannon Valley Trail, and will be eventually connected to Pine Island and Rochester by the Goodhue Pioneer and Douglas State Trails. Hastings will eventually be connected to South St. Paul by the Mississippi River Regional Trail and to Afton via the Point Douglas and St. Croix Valley Regional Trails.

Local trail system plans, such as those planned for Hastings, also call for an extensive network of trails that will connect to the growing system of regional and state trails in the area. As observed by local advocates, the missing link is making the trail connection between Hastings and Red Wing, which takes full advantage of the scenic values of the Vermillion and Mississippi River corridors.



The natural qualities of the Mississippi Vermillion Rivers are particularly appealing for developing a high quality destination trail.

RECOGNIZING THE RISK OF OPPORTUNITY LOST

As defined in this and other sections, development of a trail following this corridor already poses numerous challenges – ranging from land acquisition costs and landowner concerns to technical issues such as missing bridges. As time goes on, the challenges will only increase due to future subdivision of land, escalating land values, and continued deterioration of the already aging rail grade proposed as the corridor for part of the trail. This, in turn, makes development that much more complex and costly in the future. Formally evaluating the potential for developing the trail corridor before the opportunity to do so becomes even more difficult was one of the most compelling reasons for project partners to come together and complete this master plan in 2008 and 2009. As time goes on, the potential for lost opportunity only becomes greater.

INTERFACE WITH OTHER PLANS AND PUBLIC LANDS WITHIN THE STUDY AREA



The Hastings–Red Wing Trail Master Plan is consistent with, and complementary to, the vision, goals, and policies of several other plans and public lands affecting the study area, as the following considers.

DAKOTA COUNTY 2030 PARK SYSTEM PLAN: GREAT PLACES, CONNECTED PLACES, PROTECTED PLACES

This updated plan (2008) continues to include extension of the Mississippi River Regional Trail from Hastings toward Red Wing as part of Dakota County’s long-range vision for trails and greenways. Ultimately, trail users would enjoy an uninterrupted system of trails between Red Wing, St. Paul, Minneapolis, and points beyond if these plans are fully implemented.

VERMILLION RIVER WATERSHED PLAN

The *Framework of the Vermillion River Watershed Plan* states the objective of “increasing public access to the Vermillion River and providing places that offer a variety of water resource-related outdoor experiences will provide direct benefit.” Developing a trail along this corridor will provide greater public access to and awareness about the Vermillion River and surrounding natural and scenic qualities. This could result in increased public support for preserving the natural qualities and character of the corridor.

MISSISSIPPI RIVER TRAIL

The Mississippi River Trail is one of ten National Millennium Trails, and is in development as a 10-state cycling route along the banks of the Mississippi River from its headwaters in Itasca State Park to the Gulf of Mexico. The route is currently designated on a combination of roads and trails, and will eventually be marked with signs. Between Hastings and Red Wing, the trail follows existing county roads. Although this serves the more experienced bicyclists, development of the separated paved trail would expand use and accommodate a much broader range of users.

MISSISSIPPI RIVER GREENWAY

The Friends of the Mississippi River completed a plan to “protect and restore important environmental landscapes” along the Mississippi River in eastern Dakota County. The plan identifies areas for protection that contained slopes greater than 18%, rare species, shorelands, and wetlands. It also linked these areas to linear greenways. As is the case with the Vermillion River, developing a trail along the Mississippi River corridor will provide greater public access to and awareness about the river and surrounding natural and scenic qualities. This would result in increased public support for preserving the natural qualities and character of the corridor.

LOCAL TRAIL SYSTEM PLANS

Development of the Hastings–Red Wing Trail will complement and significantly expand locally planned trails in both Hastings and Red Wing. Hastings’ trail system plan already identifies this trail as part of its plan. Red Wing’s bicycle map already shows a trail connection to Prairie Island. Development of this trail would further enhance opportunities for bicyclists and pedestrians, and promote each community as trail destinations for tourists and out-of-town visitors.

NEGOTIATED APPROACH TO ACQUIRING PROPERTY

As a matter of policy, Dakota County, Goodhue County, City of Red Wing, and City of Hastings each negotiate in good-faith with property owners to acquire land for parks, open space, and trails. Although eminent domain remains a legal option, it is not the preferred approach and is infrequently used for this purpose.

Inherent to the negotiation process is that it can be time consuming to work through the various issues a landowner or group of landowners might have that affect their willingness to sell property or otherwise provide an easement for the trail. This is especially the case here, where at least some of the affected landowners have publicly stated that they are currently uninterested in selling land for the trail corridor. Whether these opinions change over time after more direct discussions and negotiation have occurred has yet to be seen.

In part because of these uncertainties, the Task Force concluded that some flexibility needed to be built into the plan (in the form of optional routes) should the primary route not be achievable due to the inability to acquire land, or any number of other developmental factors that might arise.

In cases where a property owner is interested, negotiations will require a good-faith assessment of land values along with other assurances to protect the property owner's interest. For example, in many cases, negotiations will need to address hunting rights, property access issues, and concerns about trespassing and public safety.

On the positive side, the total number of private landowners along the primary route is relatively small, with some owning significant segments of the old rail grade that the route is proposed to follow. Informal discussion with a few of the key landowners during the public process suggests that finding workable agreements is plausible, but only if the important details as defined in this plan can be worked out to everyone's satisfaction.



Developing the trail will require acquiring privately-owned land through a negotiation process. As the photos illustrate, this includes acquiring additional right-of-way along Ravenna Trail (left) and acquiring portions of a long abandoned rail grade (right), much of which is privately owned.

LAND USE OR OTHER CONFLICTS

Aside from the issues related to acquiring land for the trail corridor, there are no other major land use issues appearing to be in conflict with development of the trail. The one uncertainty that does remain is whether or not the Prairie Island Indian Community has a formal interest in pursuing the optional trail route as proposed in Section 3, either as an alternative to the primary route or as a loop off of that route.

DEMOGRAPHIC TRENDS INFLUENCING DEMAND FOR THE TRAIL

One of the more important trends affecting use of the trail is population growth. In the metropolitan area, population is expected to continue to grow by a substantial amount over the next 20 to 30 years. As shown in the following table, the population forecast reveals that the population in Dakota and Goodhue Counties is expected to grow significantly, with the former showing a 46% increase from 2000 to 2030. Although out of the Metropolitan area, Goodhue County is expected to grow as well, with a 25% increase in population of the same time period.

REGIONAL POPULATION FORECAST

Population forecasts stratified by regional park agency jurisdiction. (Source: Metropolitan Council.)

| County/City | Population Estimates | | | % Increase from 2000 | |
|--------------------------|----------------------|---------|---------|----------------------|------|
| | 2000 U.S. Census | 2020 | 2030 | 2020 | 2030 |
| Dakota County | 355,904 | 488,750 | 520,010 | 37% | 46% |
| Suburban Hennepin County | 648,287 | 798,930 | 859,900 | 23% | 33% |
| Washington County | 201,130 | 316,083 | 365,590 | 57% | 82% |
| Anoka County | 298,084 | 407,710 | 425,260 | 37% | 42% |
| Scott County | 89,498 | 186,800 | 221,770 | 109% | 148% |
| Carver County | 70,205 | 163,830 | 195,400 | 133% | 178% |
| Suburban Ramsey County | 224,195 | 251,260 | 269,500 | 12% | 20% |
| St. Paul | 286,840 | 320,000 | 331,000 | 11% | 15% |
| Minneapolis | 382,747 | 423,000 | 435,000 | 11% | 14% |
| Bloomington | 85,172 | 90,500 | 93,000 | 6% | 9% |
| Goodhue County | 44,127 | 52,150 | 55,170 | 18% | 25% |

Note: Suburban Hennepin County does not include Bloomington or Minneapolis, and Suburban Ramsey does not include St. Paul.

This growth trend in Dakota and Goodhue Counties is important for a couple of reasons. First, the demand for high quality recreational facilities, especially trails, is expected to grow substantially over the next 20 years. Second, as previously alluded to, a growing population puts more pressure on land development in high-value areas, such as along the river valley. This will make acquiring land more difficult and costly.

RECREATIONAL TRENDS RELATED TO TRAILS



Participation in outdoor activities increasingly competes with technology-based recreation for people's discretionary time, creating more sedentary time. High quality outdoor facilities such as this trail can help entice people of all ages to lead a healthy lifestyle.



Recent findings by the Metropolitan Council, MN DNR, and other agencies suggests that future growth in participation in many areas of outdoor recreation is not as assured as was the case a decade or two ago. In numerous activities, research indicates that participation rates are expected to actually decline as Minnesotans shift their activity patterns based on evolving interests, age, and access to newer forms of recreation. Other key findings pertinent to this plan include:

- Decreasing participation in nature-based activities: fishing, hunting, wildlife-watching, state park attendance, etc.
- Growing disconnection with nature, which impacts personal development, societal well-being, stewardship of natural areas; also contributes to nature-deficit disorder in youth
- Barriers to getting outdoors include time, family obligations, work responsibilities, lack of money, weather, bugs (uncontrollable environment), lack of outdoor skills and equipment, lack of information and knowledge, and concerns about personal safety
- More ethnically diverse population with more widely varying expectations
- Obesity/health issues on the rise, with lifestyle choices a key factor
- Greater diversity in recreation opportunities available to all age groups
- Funding issues – less Local Governmental Aid (LGA) and other public dollars for acquisition and capital improvements; suggests greater need for non-traditional approaches
- Technology is competing for people's discretionary time and creating more sedentary time
- Energy costs are rising and limiting people's willingness to travel very far for recreation
- Climate change is impacting our natural resources and weather

The shift away from active, programmed sports and activities (like softball) to more passive/informally organized social activities (like walking or biking clubs) is especially noticeable, particularly with older age groups. At the adult level, this can be attributed to an aging population in combination with changing personal interests.

A 2004 study by MN DNR forecasts participation in outdoor recreational activities out to 2014. The study finds that participation in outdoor recreational activities is expected to decline in virtually all areas of recreational pursuit. Only walking and running are expected to increase in participants and participant hours. Participation in bicycling and in-line skating is projected to decrease over this time period.

From the research, it is clear that changing demographics are an issue and will affect participation in various recreational pursuits over time – with the more active (and aging) boomers giving way to currently less active generations that follow. This generalized leveling off of participation is also evident in regional trail visitor counts, in which overall visits have remained very static in recent years. In 2007, total regional trail visits alone were over 7.2 million, as documented by the Metropolitan Council Annual Visitation Survey.

On the more optimistic side, a number of regional studies over the last decade have been conducted to determine recreational trends associated with the regional park and trail system. These studies looked at residents' desires for a variety of recreational opportunities and their perspectives on

current facilities and future needs. The main generalizations from these studies that have application to the Hastings–Red Wing Trail include:

- Walking or biking around the neighborhood, in large natural parks, or along a close by trail corridor remain top activities, with over 85% of respondents being at least interested in this activity
- Individual sports and activities are becoming more and more preferred over organized ones, at least at the adult level
- People value parks and trails even if they do not regularly use them
- There is an especially strong desire to set aside land for nature areas/open space, bike paths, and general use trails

Although participation levels are not expected to show much real growth in the near future, walking and bicycling nonetheless remain by far the most popular recreational pursuits in terms of participation. Further, the projected growth in population in Dakota and Goodhue County will still likely result in an increase in overall trail usage, perhaps substantially.

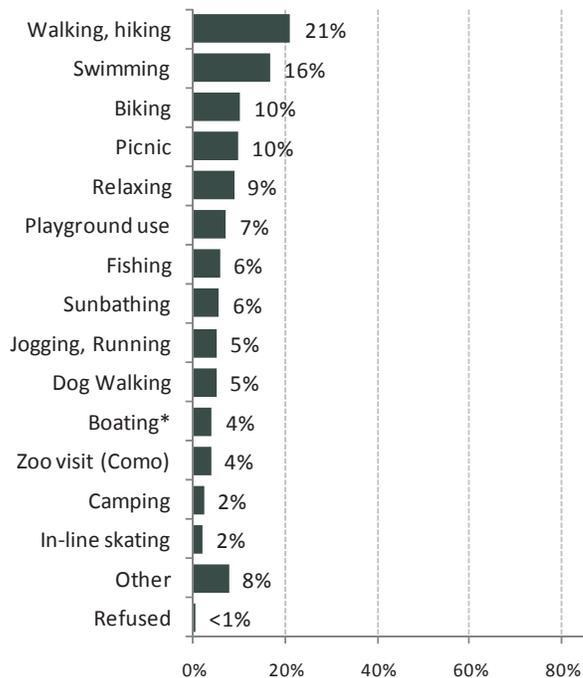
Another caveat to projecting participation is the uncertainty to which active living campaigns will affect participation trends in trail usage. If people do become more active, walking and bicycling would likely be one of the main forms of recreation that an individual would participate in.

In terms of activities visitors currently engage in when visiting regional parks and trails, bicycling tends to be predominant use, as Metropolitan Council's *Regional Parks and Trails Survey 2008* findings suggest and illustrated in figure 1.2.

FIGURE 1.2 – ACTIVITY PATTERNS, REGIONAL PARKS AND TRAILS
(Source: Metropolitan Council Regional Parks and Trails Survey 2008.)

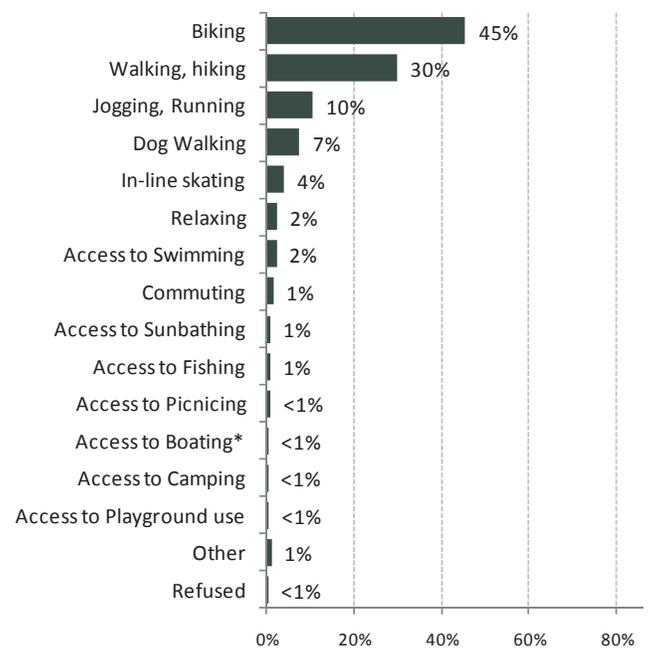
PARKS: PRIMARY ACTIVITIES

Highlights the primary activities park visitors engage in when visiting a regional park.



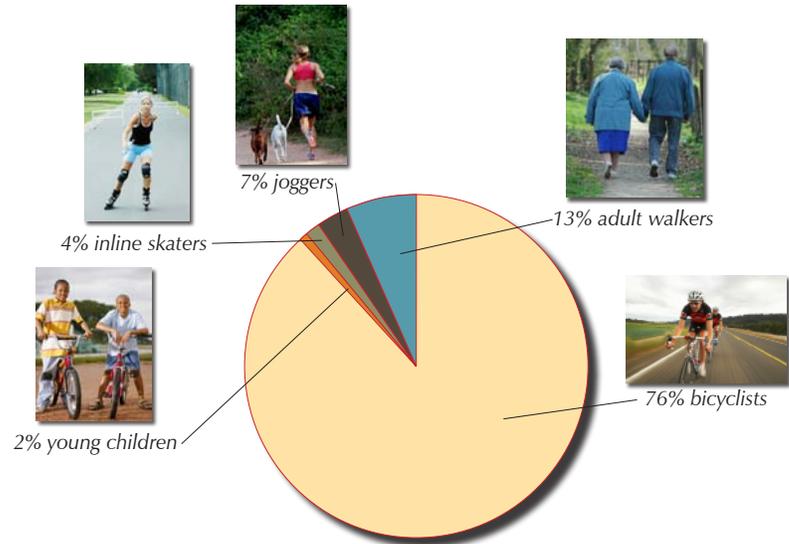
TRAILS: PRIMARY ACTIVITIES

Highlights the primary activities park visitors engage in when visiting a regional trail.



A recent study by Three Rivers Park District finds that bicyclists account for an even higher percentage of users, as figure 1.3 illustrates.

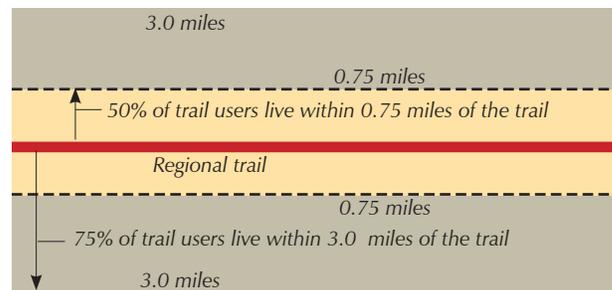
FIGURE 1.3 – USE PATTERNS ON THREE RIVERS PARK DISTRICT TRAILS
(Source: Three Rivers Park District.)



Given these findings, it is relatively clear that bicycling will be the predominate use of the trail.

With respect to where trail users will come from, recent research by the Metropolitan Council indicates that the majority of trail users live within three miles of the trail they are using, as figure 1.4 illustrates.

FIGURE 1.4 – TRAVEL DISTANCES FOR TRAILS
Source: Metropolitan Council



This suggests that the majority of the day-to-day use of the trail will be from local residents, although the overall appeal of this trail corridor could be expected to draw users from a larger geographical area – especially on weekends and holidays. **Assuming use levels are consistent with the Cannon Valley Trail and other similar regional-type trails, initial yearly visitation to this trail is anticipated to be in the 100,000 and 150,000 range.**

Section 2

Vision and Public Value Statement

OVERVIEW

The undertaking of this planning process was based on the presumption that a paved destination-type trail between Hastings and Red Wing would be of high local, regional, and state value. Conversely, developing this type of trail poses direct and indirect impacts to private and public landowners along the corridor. It also affects the personal values of residents and their perceptions about the quality of life of the region. Depending on one's perspective, developing a destination trail of this type between these two communities may or may not be considered to be of high public or personal value.

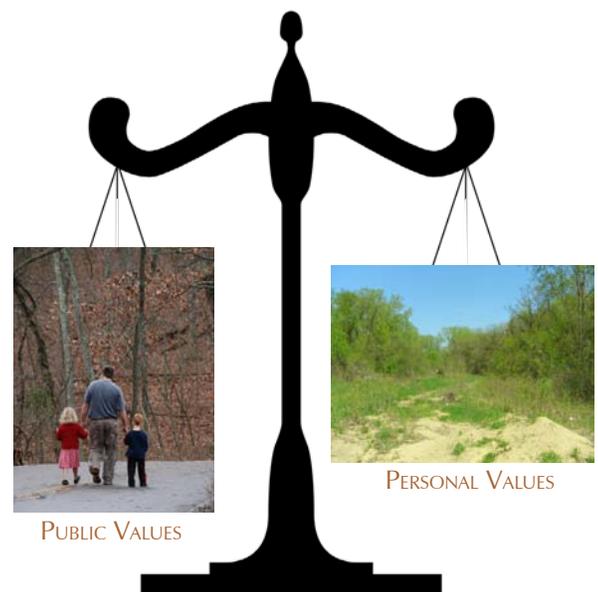
Respecting that this diversity of opinion was likely to exist, the Task Force wanted an inclusive public process that allowed all interested parties to participate and define issues of importance. This section summarizes the findings from the public process and describes how those findings help shape the vision for the Hastings–Red Wing Trail.

PUBLIC PROCESS - BALANCING PUBLIC AND PERSONAL VALUES

As defined in *Section 1 –Planning Context and Background*, discussions about a trail between Hastings and Red Wing go back many years. Over this time frame, the prospect of developing this trail has and continues to bring out individual passions both for and against. Recognizing the challenges of gaining consensus, the Task Force placed a great deal of emphasis on engaging stakeholders in forthright manner, being flexible in planning outcomes, and ultimately finding a reasonable balance between public and personal values. Personal values refer to issues such as direct impact on personal property, perceived loss of privacy, quality of life, and so forth. Figure 2.1 graphically illustrates this balancing act.

The overarching objective of the public process was to plan for the common public good and serve the interests of the broader community within the context of respecting the concerns of individual stakeholders. It is within this context that the forthcoming vision and public value statement is presented.

FIGURE 2.1 – BALANCING ACT OF VALUES



VISION STATEMENT



Active lifestyles are considered vital to maintaining good health and wellness.

The vision for the master plan is to establish a state or regional-level trail corridor between Hastings and Red Wing that offers high recreational value, which is defined as being:

- Visually appealing (i.e., provide scenic values) and located in a pleasant, natural open space corridor wherever possible
- Contiguous and safe with limited interruptions and impediments to travel
- Built to a design standard that encourages high levels of use by targeted user groups for recreation, fitness, and transportation

The plan further envisions direct linkages with adjoining local and regional trail systems to maximize contiguous trail opportunities throughout the region. Although a primary route is defined under the plan, optional routes are also included to provide some flexibility to adjust to uncertainties related to land acquisition and technical design issues that may arise at the point of implementation.

ACTIVE LIVING BY DESIGN – A COMPLEMENTARY VALUE

The “active living by design” movement spreading across the country is a complementary value of the Hastings–Red Wing Trail. As often defined, active living by design is a way of life that integrates physical activity into daily routines. Key principles of this movement as it pertains to this plan include:

- Physical activity is a behavior that can favorably improve health and quality of life
- Everyone, regardless of age, gender, language, ethnicity, economic status or ability, should have safe, convenient and affordable choices for physical activity
- Transportation systems, should be more diverse and provide safe, convenient and affordable access to housing, worksites, schools, local businesses, and community services
- Parks and trails, should be safe, accessible and part of a transportation network that connects destinations of interest, such as housing, worksites, schools, community services and other places with high population density
- Municipalities and other governing bodies should plan for ongoing interdisciplinary collaboration, promotion of facilities, behavioral supports, policies that institutionalize the vision of active living, and routine maintenance that ensures continued safety, quality and attractiveness of the physical infrastructure

The following provides an overview of pertinent findings from research that supports the active living by design movement and development of trails such as the Hastings–Red Wing Trail.

PHYSICAL ACTIVITY/PREVENTING OBESITY

Physical inactivity causes numerous physical and mental health problems, is responsible for an estimated 200,000 deaths per year in the United States, and contributes to the obesity epidemic. The design of communities and the presence or absence of parks, trails, and other quality public recreational facilities affects people’s ability to reach the recommended 30 minutes each day of moderately intense physical activity. A growing number of studies show that people in activity-friendly environments are more likely to be physically active in their leisure time.

FINDINGS FROM THE PUBLIC PROCESS – AN EXPRESSION OF INTEREST AND CONCERN

Note: Refer to Appendix A for verbatim comments submitted by open house participants.

For example, research findings clearly indicate that better access to facilities, pleasant surroundings, safe places, walkable neighborhoods, and activity-friendly environments all encourage higher levels of active recreation. Proximity, connectivity, and design quality of trails can be added to this list to encourage more active lifestyles.

This is especially the case with children, where better access to healthy choices is vital to reducing the rate of obesity. Since the 1970s the percentage of obese children 6 to 11 years old has tripled. Obesity has doubled among preschool children and adolescents. Turning these statistics around means increasing children's physical activity and improving eating habits.

ACCESSIBILITY

Being able to reach or access a variety of destinations (e.g., parks, retail areas, tourist sites, workplaces, health services, grocery stores) is critical to many dimensions of a healthy community and healthy personal lifestyle.

MENTAL HEALTH

A number of studies have demonstrated how being outdoors and in direct contact with nature leads to increased mental health and psychological development. Recent data show that depression and other mental-health disorders will account for some of the world's largest health problems in upcoming decades. People do not have to actively use nature to benefit from it; rather, visual exposure is enough. It is important to consider that different groups of people have differing views of what constitutes nature in the built environment, with variation by education level, age, ethnicity, profession, residential location, etc.

The public process directly associated with preparing this master plan began in April of 2008 with the establishment of the *Hastings–Red Wing Trail Planning Task Force*. Public input into the planning process began with a landowner meeting in April to uncover issues and concerns specific to landowners along the potential corridor. This was followed by three public open houses and a number of Task Force meetings to consider public input. The process was structured to allow all interested parties ample opportunity to participate.

Public comment at each of the public meetings was extensive, with each meeting well attended. In general, most of those attending the landowner and public open houses expressed two primary reasons for attending: 1) they were local property owners that might be affected by the trail; and 2) they actively hunt or otherwise recreate on adjoining properties and were concerned about loss of access. Although other residents attended and expressed their views, much of the discussion centered around issues associated with landowner concerns and hunting. The following summarizes the key findings from the landowner meeting and three open houses (one held in Hastings, the other two in Red Wing).



Maintaining ability to hunt is a concern of property owners along the proposed trail corridor.

OVERALL CONSENSUS

Overall, support for or against the trail was mixed, although it was clear that those opposing the trail outnumbered those in favor at the open houses. Opposition to the trail was especially strong with hunters who see the trail as an imposition to that activity. Hunters specifically did not want to be the ones “left out” if the trail is built and conflict between user groups arises. Based on comments at these meetings, the tradition of hunting remains strong in this area. Hunters in attendance also raised safety concerns between hunting activity and trail users. Other than landowners and hunters, others speaking against the trail felt that it was simply not needed or a waste of taxpayer money.

Most, but not all, landowners attending the open houses had uncertainties about selling or allowing a trail easement to be placed across their property – most notably expressing concerns about being treated fairly in such a transaction. Some also stated that building the trail would prove to be too technically difficult and costly.

Although in the minority, some open house attendees spoke out in favor of the trail, believing that planning for it now showed foresight. Advocates felt the trail would be a great amenity to them and other families for recreation and exercise. Some stated that planning for it now ensured that the trail plan would be in place as land ownership changed, making it easier to negotiate acquisition of an easement through private property. Importantly, these participants tended to be less vocal during the public meetings, with many stating that they were only comfortable expressing their views in private given the dynamic of the meetings.

Although some advocates did ultimately speak out, it was nonetheless clear that the majority of those voicing their opinion at the landowner meeting and the two public open houses were skeptical about the trail and the effect it might have on their properties.

PROPERTY OWNER ISSUES

Although an effort was made to inform participants that a negotiation approach to acquiring land was being proposed, it was clear that many property owners remain skeptical about selling any of their property for a trail corridor, at least at this point in time. Loss of privacy, use of property for hunting, concerns about trespassing and safety, and concerns about how “fair market value” would be established were the biggest issues expressed by landowners. Lacking answers to these questions, the majority are currently unwilling to make any commitments or even show interest in selling their properties for a trail corridor. Clearly, additional interaction with landowners will be necessary to make sure that these and other issues are clearly understood and adequately addressed.

Although additional interaction will help individual landowners make informed decisions, it cannot be assumed that they will uniformly change their minds. This uncertainty reinforces the Task Force’s conclusion that alternative or optional routes needed to be included in the plan to provide some flexibility at the point of implementation.

SAFETY AND CRIME

Concerns and perceptions about crime (vandalism, trespassing, personal safety of family, etc.) were raised at the public meetings. Safety concerns relative to the trail being close to an active rail line were also raised. Concerns about the safety of hunters and trail users being in the same proximity were noted. For the trail to be successfully implemented, each of these issues will have to be fully addressed.

TECHNICAL CHALLENGES

Some participants had specific concerns about the technical feasibility of developing a trail along the corridor. Examples of perceived technical challenges include:

- Lack of space – due to steep slopes along corridor, limited ROW, low ground, etc.
- Environmental concerns – shoreline setback, bluff protection, watershed district requirements
- Wildlife impact concerns – disturbing wildlife and migration patterns
- Maintaining private access – for hunting, fishing, and general access to private property via the old rail grade for such things as logging (which is the only possibility in many areas due to surrounding wetlands)
- Cost concerns – with some suggesting taxes should be spent on roads
- Managing ATV access – good access, such as to hunting land, and bad access, such as trespassing
- Easement width – how wide will the corridor need to be for the trail plus extra for construction and maintenance

FUNDING OPTIONS

The issue of funding the trail was raised at the open houses. Project planners identified three main options and sought comment, including:

- Local-regional partnership – seemed to get a less favorable response since funding would have to come from local sources; some in attendance were adamantly opposed to this approach if it adversely affected their property values and taxes
- State trail designation – more favorable since the funding would come through state-level sources, thus not affecting local taxes as directly
- Non-profit operation (such as Cannon River Trail approach) – received some support since users would help pay for the trail

For some, the last option was also seen as a means to ensure that operations and maintenance funding would be more assured, with some being concerned that the lack of dedicated funding for maintenance would result in trash problems, poorer upkeep, and less policing.

OTHER USES

A number of open house attendees expressed an interest in, or wondered about, accommodating other trail uses under the master plan, including equestrian, cross-country skiing, and ATV riding. With the exception of accommodating informal skiing along the trail corridor, attendees were reminded that the focus of the master plan is on defining options for developing a paved trail for bicyclists, walkers, joggers, and inline skaters. Although developing equestrian trails may be a viable option on public lands along the river corridor, the limited width of the old rail grade poses constraints to accommodating this facility directly adjacent to the paved trail.



Limited right-of-way (top) and environmentally sensitive areas (bottom) are both technical challenges within the trail corridor that will need to be dealt with.

PUBLIC VALUE ISSUES AFFECTING THE HASTINGS–RED WING TRAIL

INFLUENCE OF THE PUBLIC PROCESS ON PLANNING OUTCOMES

Whereas forthcoming research findings suggests that a regional or state-level trail between Hastings and Red Wing would be of high public value, findings from the public process underscores the fact that local issues and concerns must be successfully addressed if the trail is to ever be built. This is especially the case with landowners, in which successful implementation of any given trail alignment rests with the ability of implementing agencies to address individual landowner and stakeholder issues and concerns.

Given the uncertainty of predicting which landowners would ultimately agree to selling land for the trail, the Task Force determined that the master plan needed to include a number of routing options for further consideration at the point of implementation. Although a preferred route is identified, its ultimate implementability will be based on how well the inherent issues and concerns previously defined can be solved. Lacking success in that regard, other alternatives will need to be considered if development of this trail corridor is to remain truly viable.

As alluded to in the last paragraph, past research suggests that destination trails of this type offer high public value by providing the type of recreational amenity that a significant portion of the population would actually use, and like to have available near their home. As was defined in *Section 1 – Planning Context and Framework* (under Recreation Participation Trends), the use of trails is expected to remain one of the most sought after forms of outdoor recreation.

The public value of a trail such as this is strengthened by evidence suggesting that potential down sides, like crime, trespassing, and littering, generally do not manifest themselves to the degree that some might imagine. For additional context, the table on the next page provides an overview of key research findings that affected the Task Force’s perspective on the public values associated with developing a destination-type trail between Hasting and Red Wing.

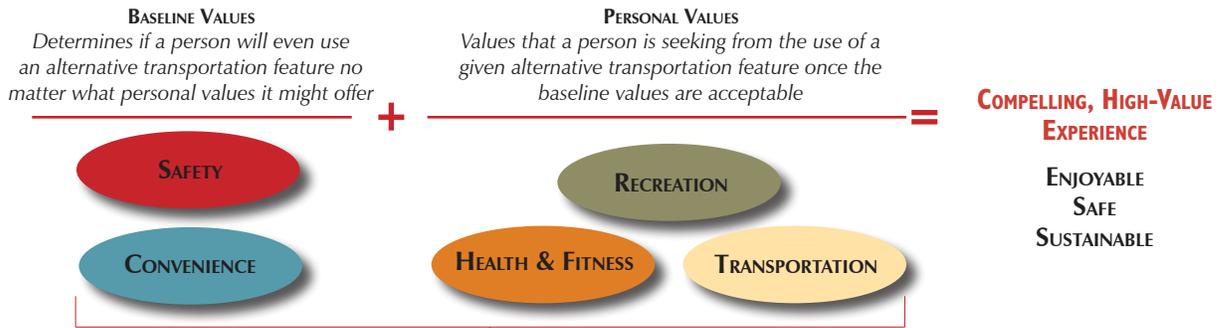
PERTINENT RESEARCH RELATED TO DESTINATION TRAILS SIMILAR TO THE HIAWATHA TRAIL

| VARIABLE | DISCUSSION |
|---|---|
| DEMAND FOR TRAILS | <p>From a regional perspective, trails are the highest ranked recreational activity. Survey results conclude:</p> <ul style="list-style-type: none"> • Walking, especially within the neighborhood, is the #1 ranked recreational activity, with 85% of respondents <u>being interested</u> in this activity* • Walking in natural areas and large parks is the #2 ranked recreational activity, with 78% of respondents <u>being interested</u> in this activity* • Leading activity for Minnesota adults is walking/hiking outdoors, with 54% <u>actually participating</u> annually <p><i>Source: Recreational trends survey conducted by the University of Minnesota Survey Research Center on behalf of the Metropolitan Council* and 2004 Outdoor Recreation Participation Survey (MN DNR)</i></p> |
| USE OF SIMILAR TYPE TRAIL | <p>The following summarizes the dynamics of trail use of the Gateway Trail based on regional trail use surveys:</p> <ul style="list-style-type: none"> • 80% of trail users are adult • Median age of trail users is 40-44, although youth use is growing • 80% of trail users live within the county or city where the trail is located • Proximity of the trail to one's place of residence is very important to discovering it • Visiting new areas was not all that important to trail users • 95% use the trail for recreation, 4% for commuting, and 1% for getting to retail stores • Walking is the most popular use (39%), biking second (31%), and jogging third (18%) • Use of the trail has increased dramatically in the last sixteen years <p><i>Source: Metropolitan Council – Twin Cities Regional Trail Visitor Study (1999).</i></p> |
| IMPACT OF A RETROFITTED TRAIL ON ADJACENT PROPERTIES | <p>The following summarizes the results of a survey related to a new trail retrofitted into an area:</p> <ul style="list-style-type: none"> • Usage – 75% of adjacent property owners use the trail (many of which were against the trail being developed) • Problems – over 95% of the adjacent property owners reported no problems with the trail (such as loitering, litter, and trespassing) • Economic impacts – vast majority reported that they believed that the trail would have no negative impact on their property values, with many believing that it could even increase values • Values – 75% say living near the trail offers distinct advantages, such as ease of access, convenience, exercise, and so forth <p><i>Source: Lake Wobegon Regional Trail, Stearns County.</i></p> |
| POLICING AND CRIME | <p>Review of policing issues associated with trails yields the following:</p> <ul style="list-style-type: none"> • Incidents of crime associated with trails is so low that local police do not keep track of it separately • The contention that trail users routinely commit crimes to adjacent properties is not supported by crime statistics and evidence • Biggest area of concern with crime is at parking lots, where occasionally theft from the cars of trail users occurs; theft from cars in parking lots is not unique to trails, but occurs at parks, shopping centers, and other areas where the opportunity for a quick getaway exists) <p><i>Source: Interviews with Local and County Police Departments.</i></p> |
| SAFETY OF DEVELOPED TRAILS | <p>Discussions with local cities that have retrofitted trails into similar settings yields the following with respect to safety for the trail user:</p> <ul style="list-style-type: none"> • Actual and perceived pedestrian safety is improved when off-street trails are added along busy roads simply because people are no longer walking along the shoulder of the road where traffic speeds can be up to 55 MPH and shoulder widths are often very narrow • The incidence of conflict between pedestrians and vehicles at driveway crossings has not been found to be a major issue, with few reported occurrences of accidents (Note, however, that both the driver and the trail user have a responsibility to watch out for each other similar to any crosswalk or sidewalk system common in many cities) • Adhering to accepted design standards and practices for trails, including driveway crossings, is important to maintaining a safe pedestrian environment |

DEVELOPING A HIGHLY VALUED TRAIL

A key concept of the master plan for the Hastings–Red Wing Trail is ensuring that it is developed to the highest level of quality achievable to entice high levels of use by a variety of users. The values ascribed to various forms of trails are important because they are at the core of why a person uses a particular trail on a repeat basis. Studies clearly indicate that users make a distinction between trails based on their perception of personal value, as Figure 2.2 illustrates.

FIGURE 2.2 – PERSONAL VALUES ASCRIBED TO ALTERNATIVE TRANSPORTATION FEATURES
 Source: MN DNR’s Trail Planning, Design, and Development Guidelines (2007)



Attention to the principles of quality trail, pedestrian-way, sidewalk, and bikeway design when the system is being planned will help ensure that each of these values will be maximized, resulting in high-quality system to which users will return time and again

As the graphic illustrates, safety and convenience are baseline determinants for whether a person will even use an alternative transportation feature irrespective of its quality. Once these two values are perceived as being acceptable, then the personal values will be given more consideration by the user. The following considers each of these values in greater detail.

SAFETY

A sense of physical and personal safety is the most important value in that without it people are disinclined to use alternative transportation modes irrespective of how many other values might be provided. Physical safety can be relatively assured through good planning and design. Personal safety, which relates to a sense of well-being while using the system, is a less tangible yet still very important factor that cannot be taken lightly.

CONVENIENCE

Convenience is important to day-to-day use of a trail. Although convenience is important, its influence is still tempered by recreational value. No matter how convenient, a poorly designed trail in an uninteresting setting will have limited recreational value. Alternatively, a well-designed trail in an interesting setting will tend to draw users from a greater distance, especially on weekends.

RECREATION

Of all the values ascribed to a trail, its recreational value is one of the most important in terms of predicting its level of use, assuming that safety and convenience are not issues.



Providing the user with a safe and scenic trail experience is the key goal.



Providing high quality interconnected trails is vital to enticing people be more active and lead healthier lifestyles.

In general, trails offering a high-quality recreational experience are those that:

- Are scenic and located in a pleasant setting, natural open space, or linear corridor buffered from traffic and the built environment
- Provide a continuous and varying experience that takes visitors to a variety of destinations and is a destination unto itself
- Offer continuity with limited interruptions and impediments to travel

This underscores that trail development criteria must go beyond simply providing miles of trails, sidewalks, and bikeways – with considerable emphasis being placed on the quality of the experience as much or more than quantity. While high-value, well located trails often pose more challenges to implement, the increased user value will likely prove to be very high and worth the investment. Communities or regions that have successfully integrated these types of trails often highlight them as key to their quality of life.

HEALTH AND FITNESS

Health and fitness is a growing and increasingly important user value that cannot be overlooked nor understated. Fortunately, this value is generally achieved if safety, convenience, recreational, and transportation values are met. Most critical to accommodating this value is developing an interlinking system that provides numerous route options of varying lengths as necessary to accommodate the types of uses envisioned.

TRANSPORTATION (COMMUTING)

The transportation (commuting) aspect of a trail is valuable to a subset of the overall user population. Although this is traditionally a value that appeals to a smaller group of users, an underlying goal of developing interconnecting trails is to entice recreational, fitness, and utilitarian users to use them more and more for transportation.

VALUE COMPARISON BETWEEN VARIOUS TYPES OF TRAILS

MN DNR's *Trail Planning, Design, and Development Guidelines* defines a variety of trail classifications, each of which serving a particular purpose in meeting trail user needs. The Hastings–Red Wing Trail falls under either a destination or linking trail classification, depending on its location and other characteristics, as the following defines:

- **Destination trails** are paved trails for walking, jogging, bicycling, and inline skating *located within a greenway, open space, park, parkway, or designated trail corridor*
- **Linking trails** are paved trails that emphasize safe travel for walking, jogging, bicycling, and inline skating *to/from parks and destinations around the community. Linking trails are most often located within road rights-of-way.*

The distinction between the two classifications is important due to the variability in their value to various types of trail users. The following table provides an overview of the most common types of trail and bikeway users, and preferences that are likely to be of most importance.

VALUES AND PREFERENCES OF COMMON USER GROUPS

| User Group | Values and Preferences | Symbols |
|---|--|---|
| Family Group – Various Modes | Safety and convenience are top priorities, followed by a pleasant recreational experience. Controlled, traffic-free access to trail is preferred. Length of trail is less important than quality of experience. |  FAMILY |
| Recreational Walker, Bicyclists, and Inline Skater | Same as family user group, with trail continuity and length also being important for repeated use. 20 miles of connected trails are needed for bicyclists, at a minimum. This user group is also more comfortable with street crossings. Looped and interconnected routes are preferred over out-and-back for variety. |  RECREATIONAL |
| Fitness Walker/Jogger, Bicyclists, and Inline Skater | Length of trail and continuity are most important, although an appealing setting is also desired. Bikers will often use a combination of roads and trails to create a desirable loop, which is much preferred over out-and-back routes. |  FITNESS |
| Transportation Walker, Bicyclists, and Inline Skater | Directness of route is important. Will use a combination of sidewalks, trails, residential streets, and roads that are relatively safe, convenient, and direct. Bike lanes/routes are preferred on busy roads to improve safety. Bicyclists are not overly dependent on trails, but will use them if convenient and not too heavily used by families and recreational users, who tend to slow them down. Walkers need a trail or sidewalk. |  TRANSPORTATION |

Figure 2.3 provides a comparative analysis of trails and bikeways relative to the values and preferences of the various user groups listed above.

FIGURE 2.3 – COMPARATIVE ANALYSIS OF CLASSIFICATIONS RELATIVE TO USER GROUP VALUES AND PREFERENCES

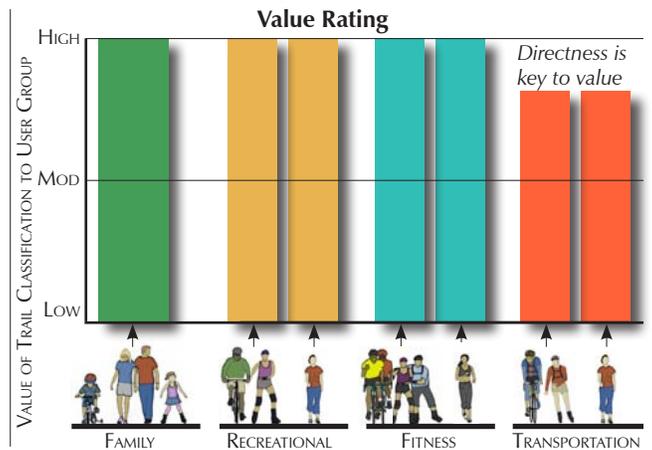
Source: Brauer & Associates, Ltd. –Trail Values and Preferences Handbook

DESTINATION TRAIL – GREENWAY OR PARKWAY SETTING



Value Statement

Desirable and safe environment for family and recreational outings in appealing setting away from traffic and distractions. If continuity is provided and design standards adhered to, also serves fitness users very well. Sometimes lack of directness reduces value to transportation user.

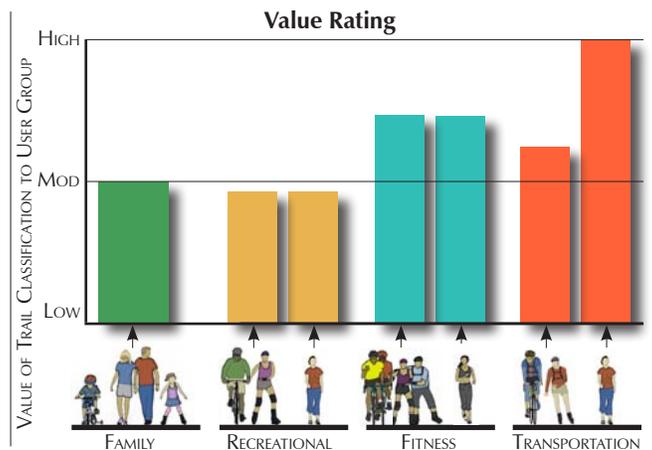


LINKING TRAIL – ROAD RIGHT-OF-WAY SETTING



Value Statement

Provides safe and often convenient travel for families, but recreational value diminishes as separation from traffic decreases and traffic volumes increase. If continuity is provided, still has value to fitness and transportation users getting from one place to the next.

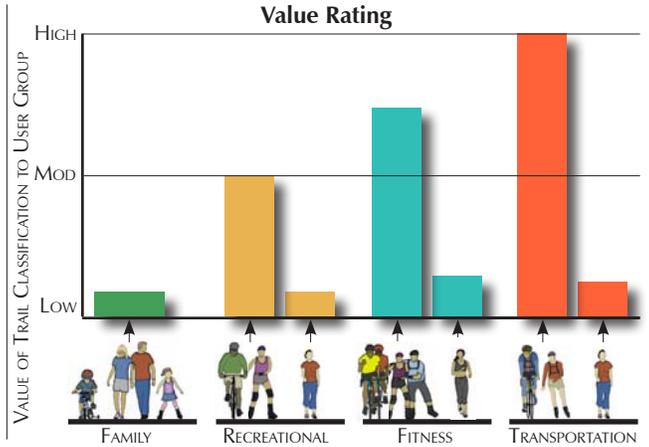


ON-ROAD BIKEWAY – BIKE LANE AND BIKE ROUTES



Value Statement

Families will rarely use if traffic volumes are high and for other perceived safety reasons. Recreational users will use more frequently as a means to connect to another trail or less-busy road. Fitness and transportation users will use if convenient, direct, or in a pleasant setting. Meeting desirable design standards is important.



As the comparisons illustrate, the type of trail or bikeway facility that is developed (and resultant quality of the experience relative to expectations) greatly affects whether or not a given targeted user group will routinely use it. *The important point is that quality of experience indeed matters and that any deviation from an optimal classification, alignment, and design detail will directly affect whether or not the trail will be fully successful (i.e., routinely used).*

For the Hastings–Red Wing Trail, developing a “destination” trail will offer the highest overall value to a trail user, with a “linking” trail being used only when necessary where development of a destination trail is not feasible. The distinction between the primary and optional routes defined in Section 3 – Trail and Bikeway Master Plan are based on this qualitative premise.

LEVERAGING THE TRAIL FOR ECONOMIC DEVELOPMENT/TOURISM OPPORTUNITIES

Although the exact economic impact is hard to discern, development of a high quality trail between the historic towns of Hastings and Red Wing can only add to their appeal as tourist destinations, as is perhaps the case with the Prairie Island Casino.

In an age where the economic vitality of small towns is always a concern, development of the trail brings along with it the prospect of enticing new visitors to these communities during the spring, summer, and fall tourist seasons.



The trail offers the prospect of adding to the vitality of the downtown areas of Hastings (shown) and Red Wing.

Photo by Yann Noel.

CONCLUSIONS

The input gained from the public process, along with other information provided in this section, greatly influenced planning outcomes and points of emphasis in the plan. As defined in *Section 3 – Trail and Bikeway Master Plan*, a variety of alignment options are provided to build in necessary flexibility given the many factors affecting development of the trail.

Irrespective of which alignment is ultimately selected, an overarching principle of the plan is that maintaining a high level of trail quality is essential to enticing high levels of use. This will only occur if the facilities meet or exceed the expectations of targeted user groups as defined in this section. This requires a steadfast commitment to the use of optimal design standards and maximizing the aesthetic qualities of the trail experience when the master plan is implemented.

Section 3

Trail and Bikeway Master Plan

OVERVIEW

The *Hastings–Red Wing Trail Master Plan* is the end result of an extensive public process that allowed property owners, citizens, and public officials to weigh in on trail alignment options and related issues and concerns. After thoughtful consideration of public input, the Task Force concluded that the master plan should include a primary along with optional routes to provide some implementation flexibility, as defined in this section.

TRAIL CLASSIFICATIONS USED FOR THE HASTINGS-RED WING TRAIL

From Hastings to Red Wing, three trail and bikeway classifications will be used to accommodate targeted user groups and complete the corridor. The classifications as illustrated in figure 3.1 are consistent with MN DNR’s *Trail Planning, Design, and Development Guidelines* (2007). The distinction between types is important in that each serves a particular purpose in meeting the needs of a given set of user groups.

FIGURE 3.1 – OVERVIEW OF TRAIL CLASSIFICATIONS USED FOR THE HASTINGS-RED WING TRAIL



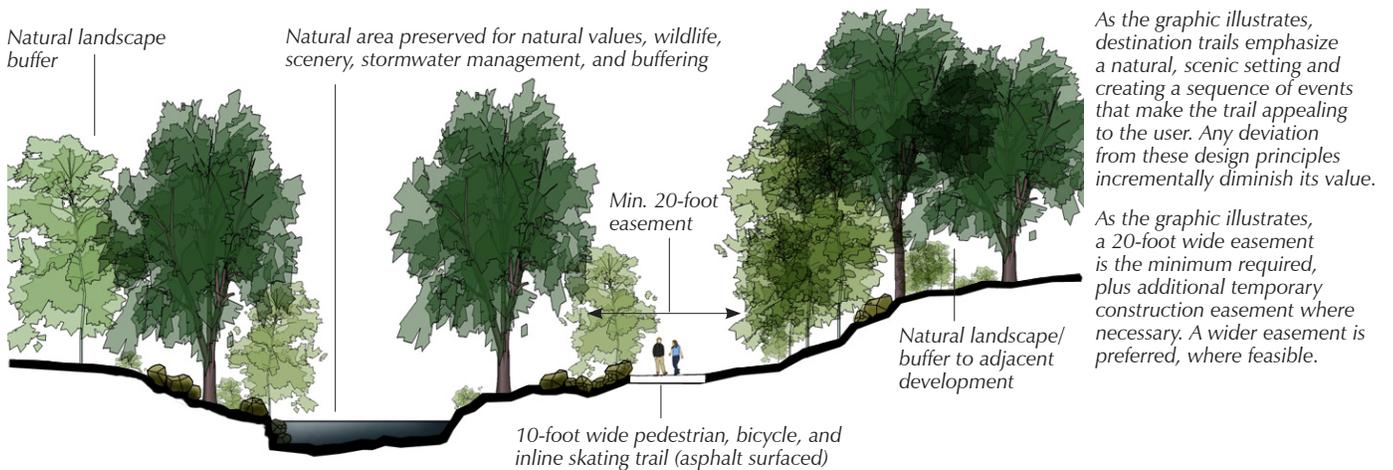
With the Hastings–Red Wing Trail, the goal is to maximize the use of “destination” trails since these offer the highest overall recreational value. Where “linking” trails are used (such as along Ravenna Trail Road), minimizing impediments to travel and maximizing the appeal of the corridor are important to encouraging high use levels of use for recreation, fitness, and transportation.

As the following trail classifications highlight, development of the trail will be consistent with accepted technical standards as defined by MN DNR's *Trail Planning, Design, and Development Guidelines* (2007). This will ensure that the trail will meet the quality and safety expectations of the various targeted user groups.

DESTINATION TRAIL

Destination trails are paved trails located within a conservation corridor, park, parkway, or designated trail corridor. As the name implies, the high recreational value of this type of trail often makes it a destination unto itself. Destination trails have a particular emphasis on continuity and are the major conduits for travel within and between trail systems. Figure 3.2 illustrates a typical destination trail setting, accompanied by photos highlighting this type of trail in various applications offering high recreational value.

FIGURE 3.2 – DESTINATION TRAILS IN RAIL-TO-TRAIL TYPE SETTING



At a minimum, all destination trails will be consistent with regional trail standards, which is a 10-foot wide asphalt trail suitable for walking, bicycling, and inline skating. If higher levels of use are envisioned at the time of implementation, a 12-foot width may be appropriate. The trail should meet accessibility standards whenever possible, which as a general rule means grades of 5 percent or less.

Destination trails in natural open space corridor and rail-to-trail settings. The left photo illustrates the general character of trails located within a conservation corridor, with the right photo within a rail-to-trail ROW. In each case, the trail is located away from roadways and traffic. Maximizing the use of destination trails located within scenic natural settings is a focus of the trail plan.

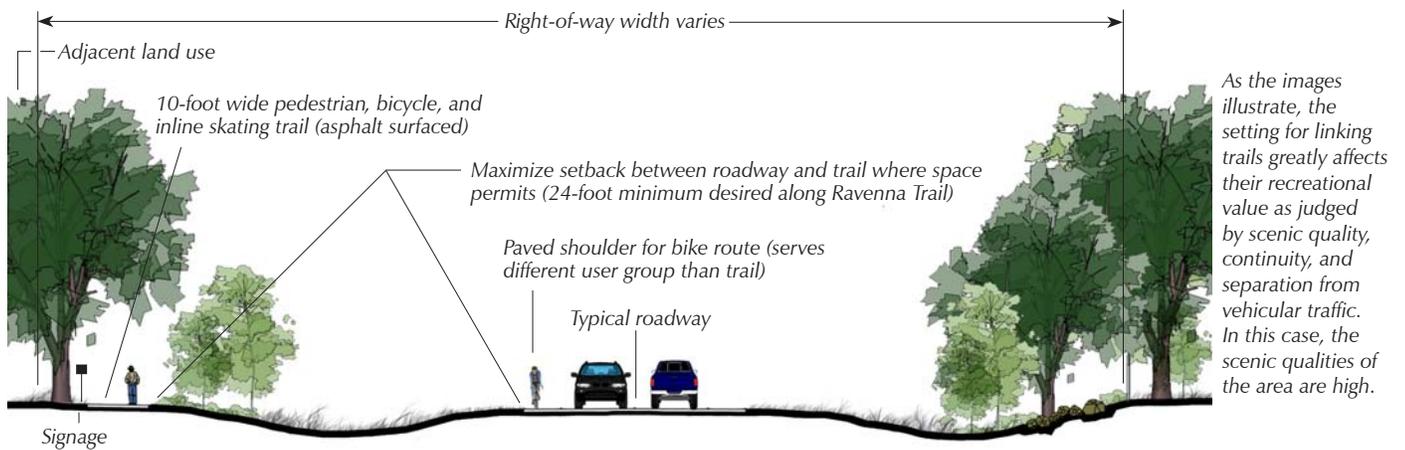


LINKING TRAILS

The main difference between linking and destination trails is their location, which can affect their recreational value. In this setting, the linking-type trails that follow Ravenna Trail will still provide significant recreational value given the scenic qualities of the area. Nonetheless, being closer to vehicular traffic (safety, noise, odors) and having to deal with more driveway and road crossings reduces the recreational value of linking trails in comparison to destination trails.

Figure 3.3 illustrates a typical linking trail, accompanied by photos of actual trails in various settings.

FIGURE 3.3 – RIGHT-OF-WAY-BASED LINKING TRAILS



As with destination trails, linking trails will be consistent with regional trail standards, which is a 10-foot wide asphalt trail suitable for walking, bicycling, and inline skating. All linking trails should meet accessibility standards whenever possible, which as a general rule means grades of 5 percent or less. In addition to the *Minnesota Trail Planning, Design, and Development Guidelines* (MN DNR 2007), Mn/DOT's *Bicycle Facility Design Guide* will also be used as a technical guideline.

Linking trails along rural roadways.

The left photo illustrates the general character of a trail located within a road ROW with acceptable separation from the road edge. With the right photo, the linking trail adds a much needed pedestrianway in this area, but its proximity to the edge of the road reduces its recreational appeal.



ON-ROAD BIKEWAYS

On-road bikeways (i.e., bike lanes and bike routes) are paved segments of streets or roads that serve as a means to safely separate bicyclists from vehicular traffic. Bikeways generally allow a cyclist to go faster than on trails and offer more continuity in surfacing and intersections. Complementing destination and linking trails with on-road bikeways as proposed under this plan enhances the overall trail corridor by making it more complete and user friendly. For advanced bicyclists, bikeways are important conduits to longer routes in the rural areas of the county.

The distinction between a *bike lane* and *bike route* is the level of exclusiveness and the setting. A bike lane is a designated portion of the street defined by striping, signing, and pavement markings for the *preferential or exclusive use of bicyclists*. A bike route is a shared portion of the street that provides some separation between motor vehicles and bicyclists. State statutes define a bike route as a “street signed for encouragement of bicycle use.” Most people would recognize a bike route as a paved shoulder with route signage and perhaps drive lane striping. Along Ravenna Trail and County Road 18, a bike route is being proposed.

Bike routes along rural road sections. As both photos illustrate, width is the most important factor in providing a safe riding environment for bicyclists, with 6 feet being the recommended minimum where space allows for higher speed roads in the countryside.



For ***bike routes***, a minimum of 6 feet is the recommended shoulder width for roadways where speeds exceed 50 mph. By staying with a preferred 6-foot width standard, use levels can be enhanced since the less experienced bicyclists will be more comfortable using the corridor than would be the case with a narrower shoulder. Continuity of a bike route through an intersection is also important to safety and encouraging higher levels of use. In addition to the *Minnesota Trail Planning, Design, and Development Guidelines* (MN DNR 2007), Mn/DOT's *Bicycle Facility Design Guide* will also be used as a technical guideline.

PROPOSED PRIMARY AND OPTIONAL TRAIL AND BIKEWAY ALIGNMENTS

As defined in Section 2, the proposed trail corridor between Hastings and Red Wing exhibits scenic qualities and landscape features well suited to developing a high value destination trail that would appeal to many types of trail users. Given the corridor's high amenity value, the prospect of this trail becoming a very successful regional/state-level recreational facility is seemingly high and a worthy public pursuit.

Although of potentially high value, developing a trail along this corridor poses numerous practical and technical challenges that will have to be addressed. On the practical side, acquisition of privately-owned land under a willing seller context is the most significant implementation issue. As defined in Section 2, landowners along the corridor are generally (but not exclusively) unconvinced about the need for the trail and hesitant about selling any land until they have greater assurance that it would be assessed and purchased at fair market value. Other factors influencing landowners willingness to sell include maintaining access to their property and retaining their right to hunt on their own and adjoining properties. Preventing trespassing is another concern that would have to be addressed.

Although these landowner-related issues are not unique to this situation, changing attitudes will require direct discussions and negotiations with each landowner to ensure they have a clear understanding of their options. Ultimately, finding win-win outcomes will only occur after landowners gain more confidence that their interests are understood and respected and that they have been dealt with fairly.

Acquisition issues aside, technical challenges will also undoubtedly affect decisions on the final design and alignment of the trail. The practicalities of avoiding wetland areas, stabilizing old rail grades, replacing washed-out drainage crossings and bridges, and even dealing with exposed bedrock will all factor into final decisions on trail alignment at the point of implementation.

Given the circumstances, the Task Force concluded that the master plan should include a primary and optional routes to provide some implementation flexibility. In general, the primary route represents a preferred and, conceivably, reasonably implementable alignment – assuming land acquisition and technical challenges can be successfully addressed.

The optional routes are provided for one or more reasons as defined in this section, including providing:

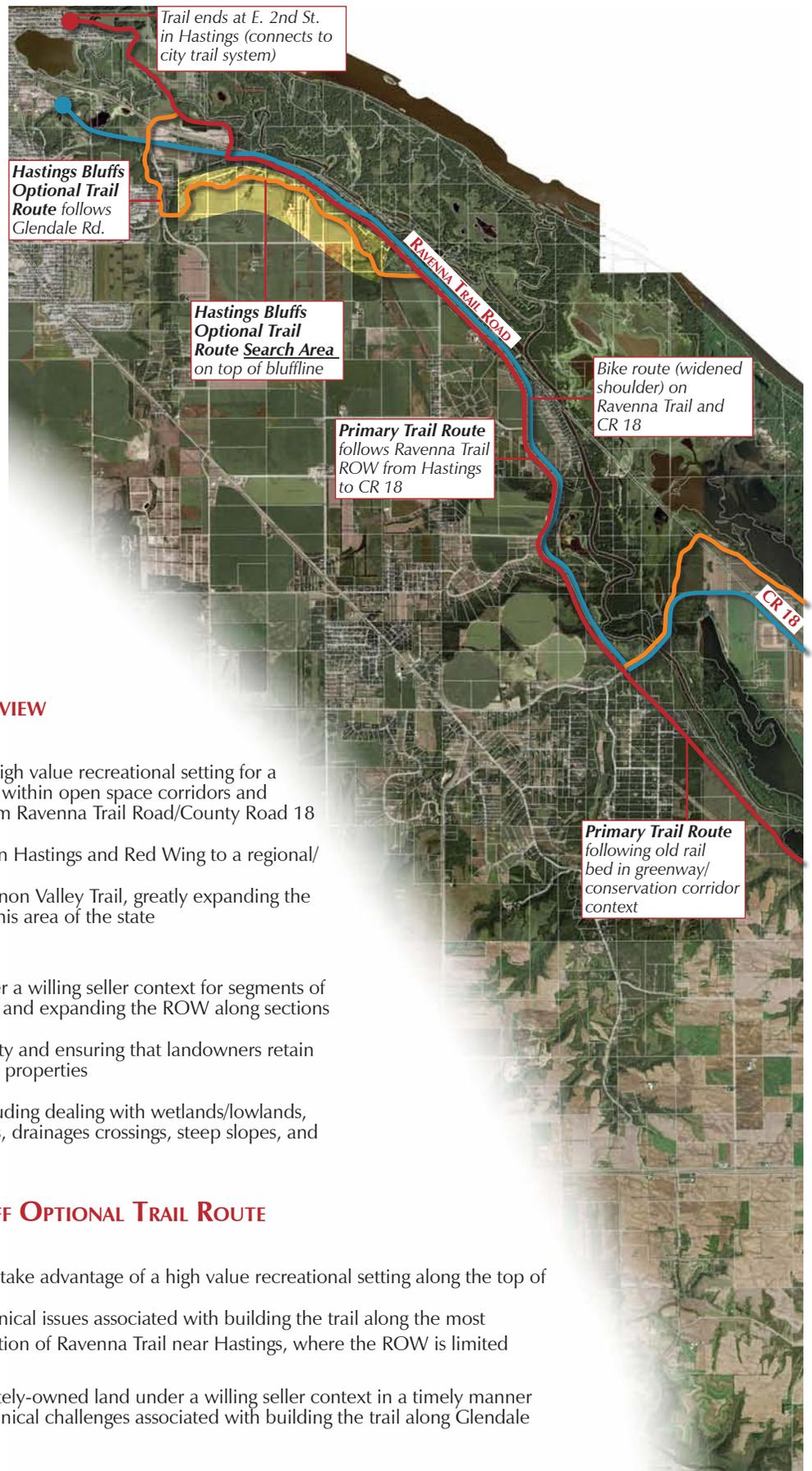
- An alternative alignment if the primary route proves unachievable (for any number of reasons)
- An alternative alignment of equal or higher recreational value that might turn out to be more achievable than the primary route at the point of implementation
- An opportunity to add a loop off of the primary route

Figure 3.4 on the next two pages illustrates the primary and optional trail routes. It also illustrates a bikeway route (i.e, widened shoulder) to complement the trail and serve a subset of bicyclists that prefer to ride on the roadway in addition to, or instead of, trails. A more detailed segment by segment overview of the primary and optional routes are provided thereafter.

FIGURE 3.4 – PRIMARY AND OPTIONAL TRAIL ROUTES (SPANS PAGES 3.6 AND 3.7)

LEGEND:

- PRIMARY TRAIL ROUTE
- OPTIONAL TRAIL ROUTE
- OPTIONAL TRAIL ROUTE SEARCH AREA
- ON-ROAD BIKE ROUTE (WIDENED SHOULDER)
- CANNON VALLEY TRAIL (EXISTING)



PRIMARY TRAIL CORRIDOR OVERVIEW

KEY VALUES:

- Opportunity to take advantage of a high value recreational setting for a trail, especially the segments located within open space corridors and those following the old rail grade from Ravenna Trail Road/County Road 18 intersection south to Red Wing
- Ability to connect local trail systems in Hastings and Red Wing to a regional/state-level recreational facility
- Opportunity to complement the Cannon Valley Trail, greatly expanding the miles of regional/state-level trails in this area of the state

KEY CHALLENGES:

- Acquiring privately-owned land under a willing seller context for segments of the trail that follow the old rail grade and expanding the ROW along sections of Ravenna Trail Road
- Maintaining access to private property and ensuring that landowners retain ability to hunt on their and adjoining properties
- Preventing trespassing
- Addressing technical challenges, including dealing with wetlands/lowlands, river crossings, eroded old rail grades, drainages crossings, steep slopes, and exposed bedrock

HASTINGS BLUFF OPTIONAL TRAIL ROUTE

KEY VALUES:

- Opportunity to take advantage of a high value recreational setting along the top of the bluff
- Avoids the technical issues associated with building the trail along the most challenging section of Ravenna Trail near Hastings, where the ROW is limited

KEY CHALLENGES:

- Acquiring privately-owned land under a willing seller context in a timely manner
- Addressing technical challenges associated with building the trail along Glendale Road.

PRAIRIE ISLAND OPTIONAL TRAIL ROUTE

KEY VALUES:

- Provides an acceptable alternative to the primary trail route, if the primary route proves unachievable
- Opportunity to take advantage of a high value recreational setting if the trail is located within a greenway/conservation corridor as shown on the plan
- Opportunity to create a trail loop if the primary route is also developed

KEY CHALLENGES:

- Formal adoption of the trail route by the Prairie Island Indian Community; under their own formal review process, the Tribe might find it advantageous, or not, to consider the proposed route, as well as other alignments
- Acquiring privately-owned land under a willing seller context in a timely manner
- Addressing technical challenges associated with crossing rivers and backwater areas, where the existing bridges are not wide enough to accommodate the trail without some retrofitting

COLLISCHAN ROAD/CANNON BOTTOM ROAD OPTIONAL TRAIL ROUTE

KEY VALUES:

- Provides an acceptable alternative to the primary trail route, if that proves unachievable
- Opportunity to take advantage of a segment of an abandoned yet historically-significant road

KEY CHALLENGES:

- Limited ROW along Collischan Road
- Addressing technical challenges associated with the Collischan Road corridor, especially dealing with the steep slopes and limited buildable space on either side of the road

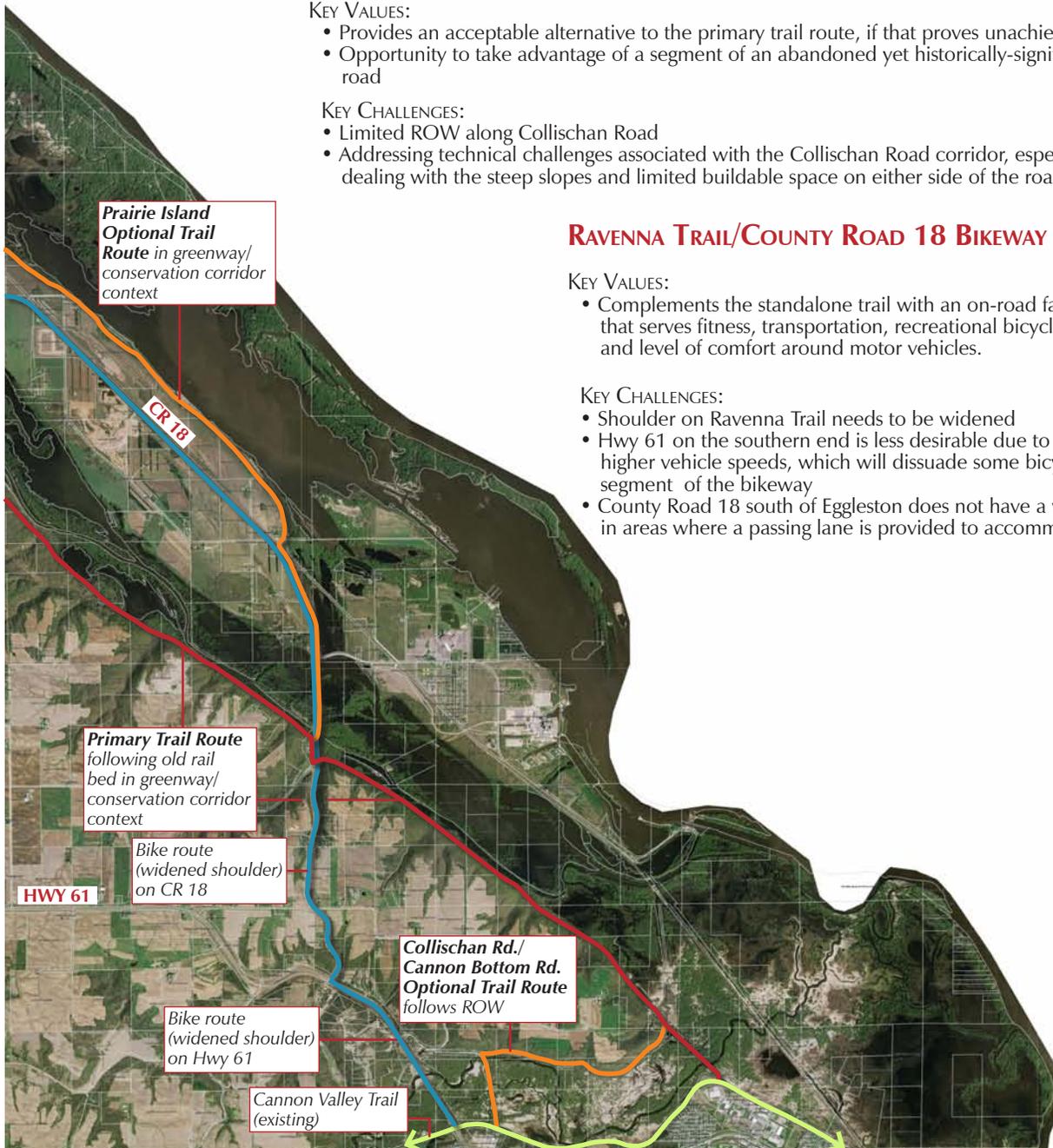
RAVENNA TRAIL/COUNTY ROAD 18 BIKEWAY (BIKE ROUTE)

KEY VALUES:

- Complements the standalone trail with an on-road facility (wide shoulder) that serves fitness, transportation, recreational bicyclists with higher skills and level of comfort around motor vehicles.

KEY CHALLENGES:

- Shoulder on Ravenna Trail needs to be widened
- Hwy 61 on the southern end is less desirable due to traffic volumes and higher vehicle speeds, which will dissuade some bicyclists from using this segment of the bikeway
- County Road 18 south of Eggleston does not have a wide-enough shoulder in areas where a passing lane is provided to accommodate a bike route



The following provides a general overview of the primary and optional trail routes, with greater detail of each segment starting on page 3.10

PRIMARY TRAIL ROUTE

From north to south, the primary trail route begins in the City of Hastings at the end of East 2nd Street, where the trail connects with the local trail system master plan, which was updated in 2008. From East 2nd Street, the trail traverses southwest through existing open space along the Vermillion River until reaching Ravenna Trail/County Road 53. The most challenging aspects of this trail segment include crossing the Vermillion River, crossing an active rail line, and finding stable soils to build the trail.

Once to Ravenna Trail, the primary trail route heads south within the road right-of-way until the junction of County Road 18. There are advantages and disadvantages to locating the trail on each side of the road. The advantage of the south/west side of the road is the greater sense of open space than is the case on the opposite side, where the trail would be located within a relatively narrow corridor between the road and railroad tracks. The disadvantage of the south/west side is having to deal with more frequent driveway crossings and the need to acquire additional right-of-way in certain areas. Although crossing back and forth to take advantage of the best opportunities on either side of the road is a possibility, this introduces new concerns about safety and continuity which are not as easily addressed. Detail design of the corridor will require more indepth evaluation of technical issues of placing the trail on one side of the road versus the other.

Although the primary trail route follows the road right-of-way along Ravenna Trail from Hastings to County Road 18, the setting is appealing in terms of scenery and overall recreational value – with the lowlands of the Vermillion River and Mississippi River on one side and bluffs, farmland, and scattered woods on the other side of the road corridor. From the junction of Ravenna Trail and County Road 18, the primary (and most desirable trail route) continues south/west cross-country until it intersects with the Cannon Valley Trail near Red Wing. This segment mostly follows an old, long abandoned (and now partially privately owned) rail bed along the Vermillion River and Mississippi River backwaters. As defined in Section 2, addressing landowner issues on an individual basis to negotiate land acquisition for the trail is the key factor in establishing this alignment. From a development standpoint, the key challenge along this entire section of old rail bed is reestablishing the grade in places where it has eroded or washed out over time. In spite of technical challenges, this alignment is the most appealing of the options due to its scenic qualities and very high recreational value.

HASTINGS BLUFFS OPTIONAL TRAIL ROUTE

As illustrated on the map in figure 3.4, this optional route follows Glendale Road from Ravenna Trail to the top of the bluff, where it then heads south/west along the bluff line until it ultimately reconnects with the Ravenna Trail road right-of-way. This optional trail route is an appealing alternative to the primary trail route as proposed along Ravenna Trail for several reasons: 1) it provides a scenic trail setting on the bluff overlooking the river valley; 2) it is located away from the road in a greenway-type setting; and 3) it avoids many of the technical challenges associated with the Ravenna Trail right-of-way south of Hastings where the right-of-way is narrow.



From the edge of Hastings, the trail will initially head south following the Ravenna Trail right-of-way corridor until the intersection with County Road 18.



From the junction of Ravenna Trail and County Road 18, the trail will continue heading south following an old rail grade until near its junction with the Cannon Valley Trail.

The reason this alignment is defined as an optional versus the primary trail route is due to the inherent uncertainty associated with acquiring a trail easement along the top of the bluff. The timing of trail development relative to the timing of future land use decisions by landowners will greatly affect whether this alignment is achievable. Given these uncertainties, the goal with including this optional route in the master plan is to identify the opportunity before it is lost and provide a basis for discussion at the local level with landowners as land use decisions are made in the future. If a mutually-acceptable (and economically-viable) agreement can be reached with landowners, ***this trail alignment takes preference over the route along Ravenna Trail for the reasons previously cited.***

As illustrated in figure 3.4, a more broadly-defined trail search area is shown for this alignment in recognition that some flexibility will be needed in locating a trail in response to existing landforms (especially ravines) and any development scenarios that might arise. Importantly, the optimal location for the trail is within a bluff-edge greenway/conservation corridor to maximize its recreational value, scenic qualities, and continuity.

PRAIRIE ISLAND OPTIONAL TRAIL ROUTE

As illustrated on the map in figure 3.4, this optional route initially follows County Road 18 onto Prairie Island, at which point the most desirable alignment follows the edge of the Mississippi River and its backwaters within a greenway/conservation corridor context. On the lower (southern) end of the island, the trail would again follow County Road 18 and reconnect with the primary trail route shown on the overall plan. Placing the trail in a greenway/conservation corridor setting is much preferred over providing a trail entirely along County Road 18 due to its much higher recreational value and scenic qualities. Notably, development of this trail route entails some technical challenges, as defined on page 3.16 under *Trail Segment Detail Map #4*.

Importantly, this optional trail route has been introduced to, but not formally considered by, the Prairie Island Indian Community. Consequently, it is presented here as an option for consideration should the primary route not be achievable due to land acquisition or technical issues. Under their own formal review process, the Tribe might find it advantageous, or not, to consider the proposed route as well as other alignments. The Tribe, at its discretion, might also decide that it is desirable to develop this trail route even if the primary route as proposed is developed. In doing so, an appealing trail loop would be created that many trail users would find beneficial.

COLLISCHAN ROAD/CANNON BOTTOM ROAD OPTIONAL TRAIL ROUTE

As illustrated on the map in figure 3.4, this optional route avoids crossing the wetland/lowland and Cannon River on the lower section of the primary trail route by following the Collischan Road right-of-way and historic Cannon Bottom Road to make a connection with the Cannon Valley Trail. The most challenging aspect of this alignment are the steep slopes on either side of Collischan Road. Even if this route is not selected, developing the Cannon Bottom Road as scenic and historic destination off of the Cannon Valley Trail has considerable merit.

TRAIL SEGMENT DETAIL MAP #1

SEGMENT DESCRIPTION / OVERALL CHARACTER

As the map on page 3.11 illustrates, the primary trail route begins at the end of East 2nd Street, where the trail connects with the local trail system. From East 2nd Street, the trail traverses southwest through existing open space along the Vermillion River until it reaches Ravenna Trail/County Road 53. In this greenway-type setting, the trail would meet destination trail criteria, including scenic setting, continuity, and separation from roads and the built environment. Buffering the trail with vegetation and landforms from a proposed waste water treatment facility is recommended to minimize the visual impact of the facility.

Once to Ravenna Trail, the primary trail heads south within the road right-of-way, which is a bit restricted on this end. Although the primary trail route follows Ravenna Trail, the setting is still appealing – with the lowlands of the Vermillion River and Mississippi River on one side and bluffs, farmland, and scattered woods on the other side of the road corridor. Note that the limited right-of-way and technical challenges of this section of Ravenna Trail make the *Hastings Bluffs Optional Trail Route* described on page 3.12 an appealing alternative.

DEVELOPMENT ISSUES AND CONSTRAINTS

The most challenging aspects of developing the early part of this trail segment include crossing the Vermillion River, crossing an active rail line, and finding stable soils to build the trail. (Two bridges will be likely be required across the river between East 2nd Street and Ravenna Trail.) The crossing of the active rail line and Ravenna Trail should preferably occur at either a controlled intersection or via a grade-separated crossing to maximize safety and trail continuity.

Locating the trail on either side of Ravenna Trail along this segment has advantages and disadvantages, with each side posing technical issues. On the south/west side of the road (away from the river), steep slopes and exposed rock outcrops encroach into the right-of-way in various areas and will restrict trail design options. More extensive driveway crossings also affect development of the trail on this side of the road.

On the north/east side of the road, variable grades, vegetation, and ditch characteristics will be the most significant design constraints. Finding a workable alignment may require encroachments into the railroad right-of-way as well. On either side of the road, at-grade crossing of side roads should be adequate, if well designed.

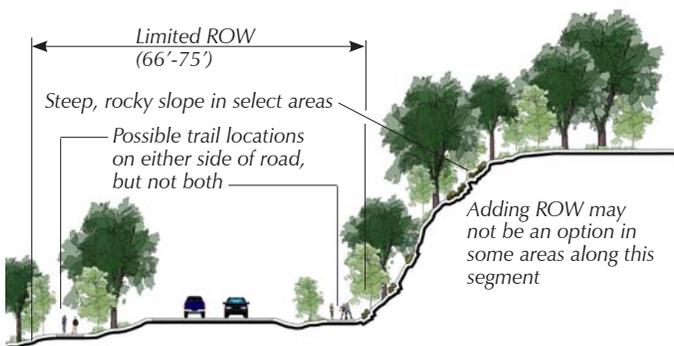
RIGHT-OF-WAY AND PRIVATE PROPERTY FACTORS

The limited right-of-way that ranges from 66 to 75 feet through this segment poses some issues. Although acquiring more right-of-way has merit, that may not be of value in some areas where buildable space is limited due to steep slopes and the proximity of the active railroad tracks. In these instances, the trail might have to be closer to the road edge than typically desirable. With respect to private property encroachments issues, input during the public process suggests that some adjoining property owners are not in favor of the trail, while others see it as being desirable assuming their personal concerns about buffering and driveway crossings can be adequately addressed.

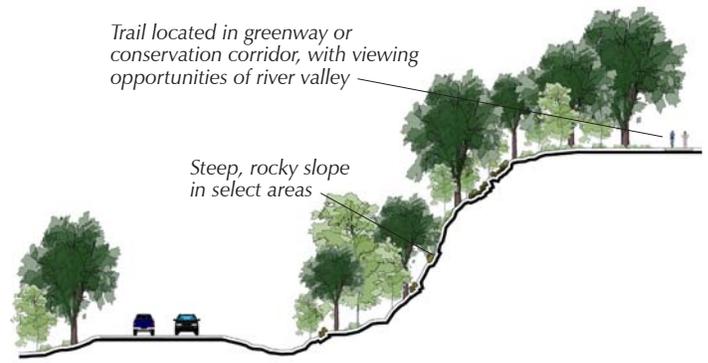
OPTIONAL TRAIL ALIGNMENTS THIS SEGMENT

Refer to Trail Segment Detail Map # 2 on page 3.12 for an overview of the *Hastings Bluff Optional Trail Route*, which would replace this segment along Ravenna Trail.

CHARACTER SKETCHES OF TRAIL DEVELOPMENT THIS SEGMENT



Primary Trail Route – limited right-of-way, rocky slopes, and variable ditches adjacent to the road are development issues that will affect the character and cost of developing the trail along this segment.

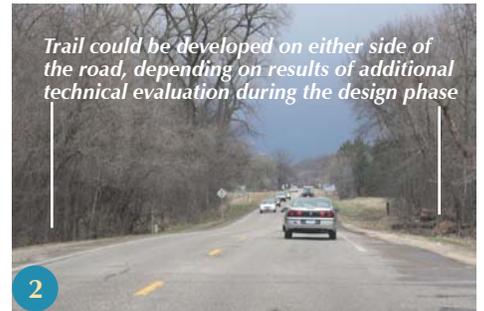


Hastings Bluffs Optional Trail Route – this option offers numerous technical and scenic advantages over route along road, if land can be successfully acquired in a timely fashion.

PHOTO IMAGES OF THIS SEGMENT



(Looking southeast) In several areas, steep, rocky slopes encroach into the ROW. The characteristics of adjoining ditches also varies considerably.

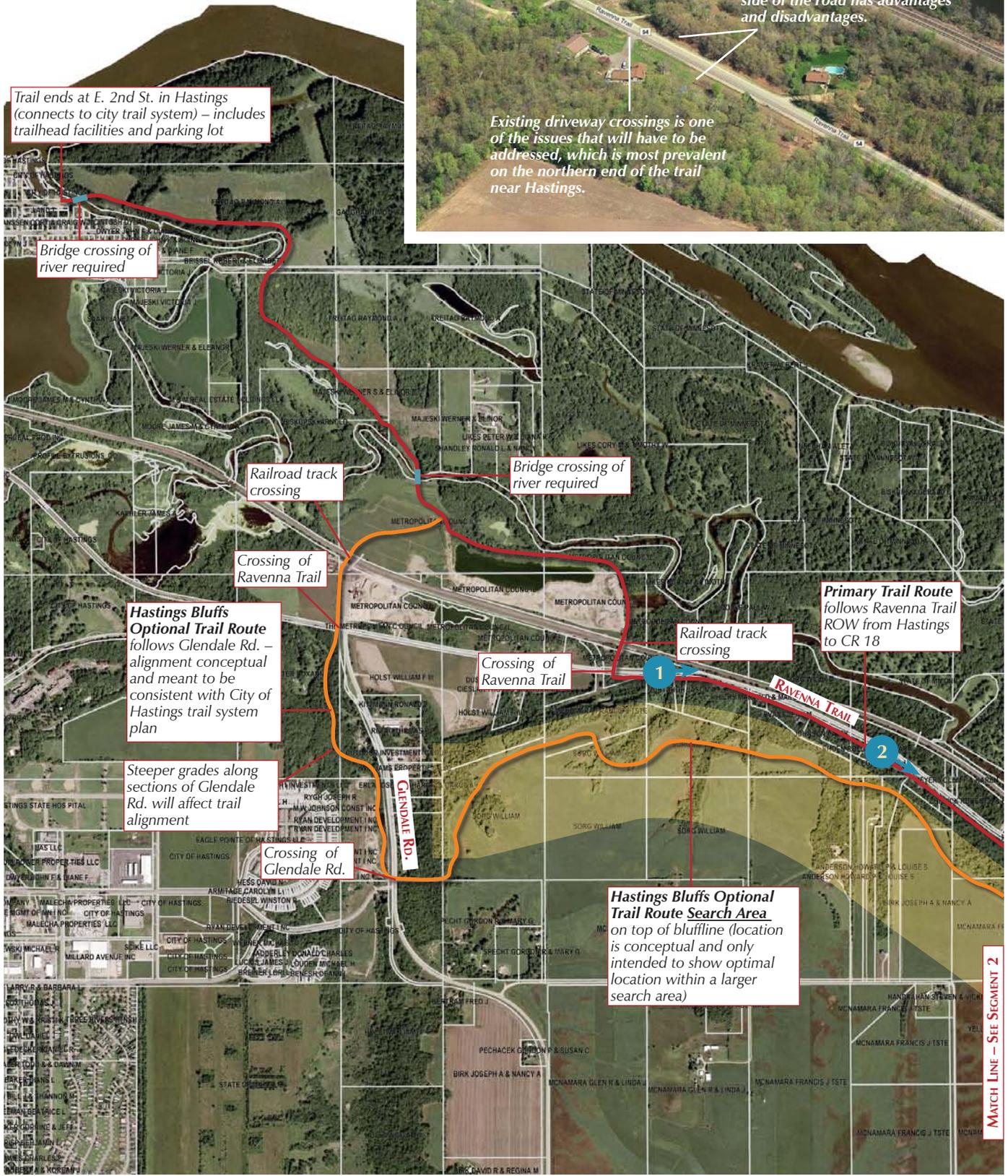


(Looking southeast) Typical ROW on the northern end Ravenna Trail varies from 66 to 75 feet, which limits the separation between the trail and road if additional ROW is not acquired.

Trail could be developed on either side of the road, depending on results of additional technical evaluation during the design phase

DETAIL MAP #1
(Goes with page 3.10 description)

DETAIL AERIAL IMAGE



TRAIL SEGMENT DETAIL MAP #2

SEGMENT DESCRIPTION / OVERALL CHARACTER

As the map on page 3.13 illustrates, the primary trail route continues along the Ravenna Trail right-of-way, which is still of limited width for much of this segment. As the photos and aerial images suggests, the landscape opens up more and takes on a rural agricultural character, which is still pleasant and adds diversity to the trail experience.

DEVELOPMENT ISSUES AND CONSTRAINTS

Locating the primary trail route on either side of Ravenna Trail along this segment continues to have advantages and disadvantages, albeit technical issues become less imposing the further south one travels along this corridor. On the south/west side of the road (away from the river), the steeper slopes and occasional rock outcrops give way to agricultural fields, with fewer driveway crossings to contend with.

On the north/east side of the road, variable grades, vegetation, and ditch characteristics continue to be most significant design constraints. Finding a workable alignment on this side will likely continue to require encroachment into the railroad right-of-way until the point where Ravenna Trail breaks away from paralleling the railroad tracks. On either side of the road, at-grade crossing of side roads should be adequate if well designed.

RIGHT-OF-WAY AND PRIVATE PROPERTY FACTORS

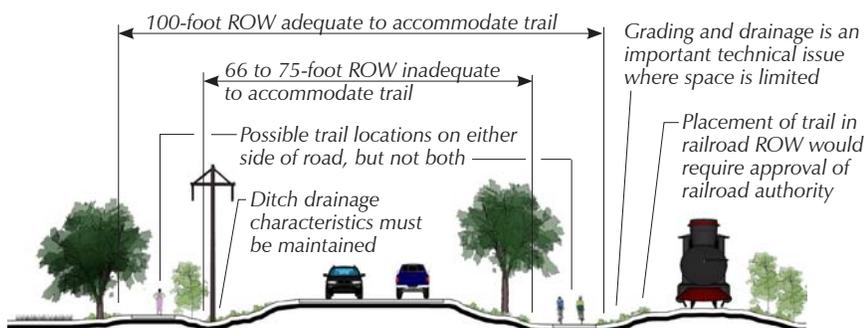
The limited right-of-way ranging between 66 to 75 feet continues along Ravenna Trail until the point where the road breaks away from the railroad track right-of-way, where it increases more consistently to 100 feet. If the trail is built on the south/west side of the road, acquiring more right-of-way will be necessary to provide desirable separation between the road and trail until the point where the right-of-way increases to 100 feet. As with segment #1, private property encroachments issues will continue to be of concern to adjoining property owners and will have to be addressed in more detail as part of the design phase.

OPTIONAL TRAIL ALIGNMENTS THIS SEGMENT

As illustrated on the maps on pages 3.11 and 3.13, this optional route (defined as the *Hastings Bluffs Optional Trail Route*) follows Glendale Road from Ravenna Trail to the top of the bluff, where it then heads south/west along the bluff line until it ultimately reconnects with the Ravenna Trail road right-of-way. As noted on page 3.8, this alignment is defined as an optional versus the primary trail route due to the inherent uncertainty associated being able to acquire a trail easement along the top of the bluff. As previously noted, the goal with including this optional route in the master plan is to identify the opportunity before it is lost and provide a basis for discussion at the local level with landowners as land use decisions are made in the future.

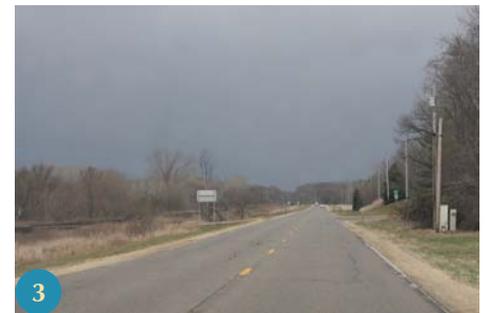
As illustrated on the maps, a more broadly-defined trail search area is shown for this alignment to allow some flexibility in locating the trail in response to existing landforms (especially ravines) and development scenarios that might arise in the future. Importantly, the optimal location for the trail would be within a bluff-edge greenway/conservation corridor to maximize its recreational value, scenic qualities, and continuity. A greenway corridor setting would also provide some buffering between the trail and adjoining development, if or when that occurs.

CHARACTER SKETCHES OF TRAIL DEVELOPMENT THIS SEGMENT



Primary Trail Route – limited right-of-way along parts of this segment is the most significant issue either side of the road. Typically, the separation between the road and trail should be at least 25 feet, which is not achievable when the right-of-way is 66 to 75 feet.

PHOTO IMAGES OF THIS SEGMENT



(Looking southeast) Limited right-of-way, ditches, driveway crossings, and utility features will have to be contended with whichever side of the road the trail is placed.

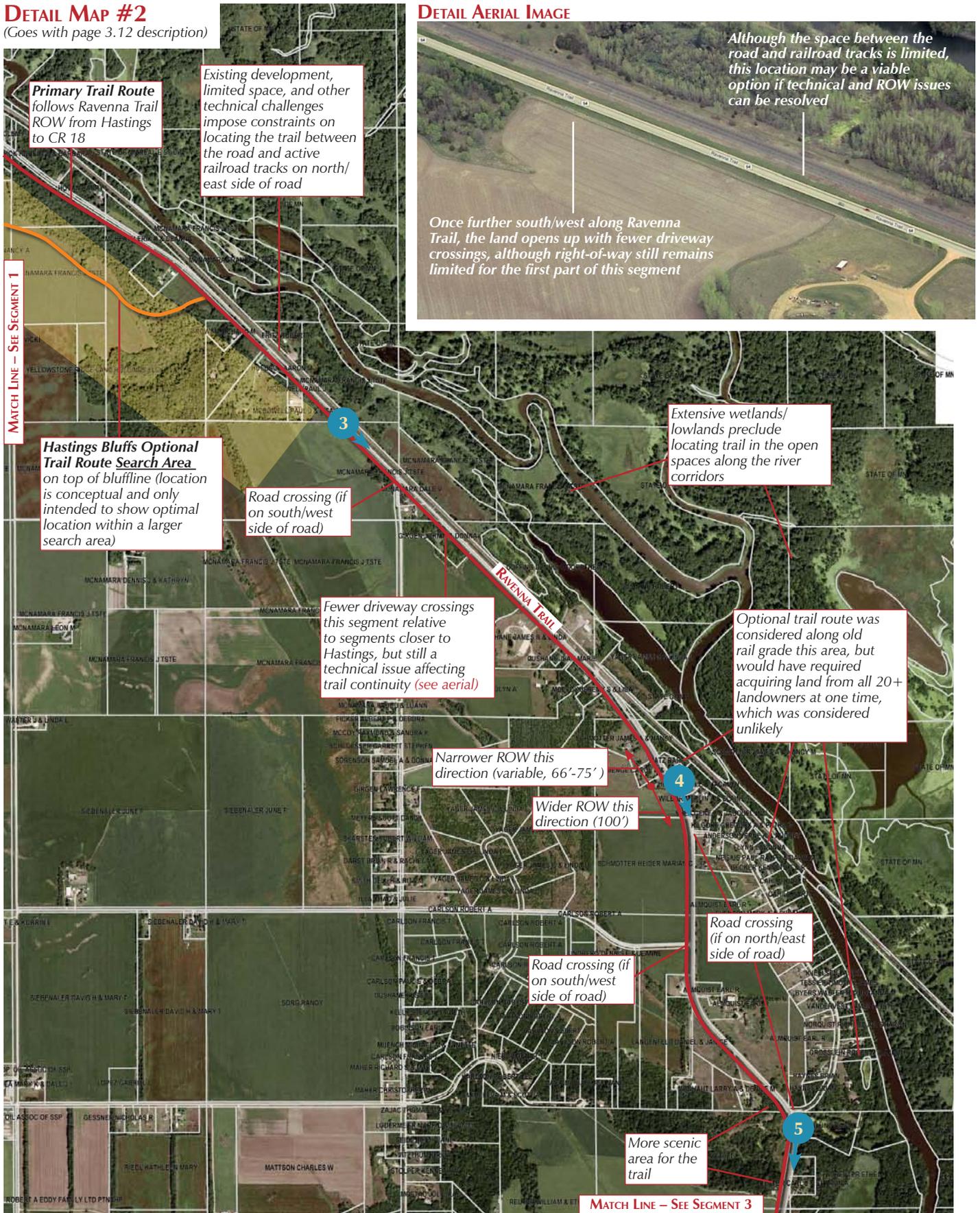


(Looking southeast) Landscape opens up as the further south one travels on Ravenna Trail. The right-of way also widens on the southern end of this segment.



(Looking southeast) In several areas, wooded areas and drainages are encountered, adding interest as well as technical challenges.

DETAIL MAP #2
(Goes with page 3.12 description)



DETAIL AERIAL IMAGE



TRAIL SEGMENT DETAIL MAP #3

SEGMENT DESCRIPTION / OVERALL CHARACTER

As the map on page 3.15 illustrates, the primary trail route continues along the Ravenna Trail right-of-way until it reaches the junction with County Rd. 18, where it traverses cross-country following an old, long abandoned rail grade along the Vermillion River and Mississippi River backwaters. The trail continues on the old rail grade until it reaches the Cannon Valley Trail on the edge of Red Wing. As the photos and aerial images suggests, the landscape gets more scenic along Ravenna Trail the further south one travels. Once to the old rail grade, the trail context changes significantly from a linking trail along a road to a destination trail within a greenway or conservation corridor setting – which makes for a very appealing and high value trail experience. Trail continuity and the lack of driveway and road crossings also enhances the trail experience relative to the segments following Ravenna Trail.

DEVELOPMENT ISSUES AND CONSTRAINTS

Along Ravenna Trail, the wider 100-foot right-of-way makes it more feasible to develop the trail without acquiring additional property. Whereas either side of the road could accommodate the trail, the south/west side has fewer driveway crossings and fewer adjacent wetlands to contend with. In addition, a south/west side location better positions the trail to take advantage of an old rail grade located directly adjacent to the road right-of-way on the last section along Ravenna Trail. This would allow for more separation between the trail and edge of road in a pleasant wooded setting.

On the old rail grade, developing the trail will require some regrading, culvert replacement, and a few bridges to address decades of erosion and general deterioration. In spite of these technical issues, the old rail grade remains the most viable option given the extent of surrounding lowlands/wetlands or steep slopes common to the river corridor and adjacent bluffs.

RIGHT-OF-WAY AND PRIVATE PROPERTY FACTORS

Along Ravenna Trail, the right-of-way is wider along this section and should generally be adequate to maintain desirable separation between the trail and road edge. Notably, there are a few segments where existing ditches and side slopes adjacent to the road may require additional right-of-way to build the trail.

With respect to the old rail grade, significant segments of the corridor are privately owned land, although some sections are owned by the State of Minnesota. Fortunately, the number of land owners is limited, improving the prospects for being able to negotiate acquisition.

OPTIONAL TRAIL ALIGNMENTS THIS SEGMENT

Refer to page 3.16 for an overview of the *Prairie Island Optional Trail Route*, which would take the place of (or augment) the segment along the old rail grade as described above.

CHARACTER SKETCHES OF TRAIL DEVELOPMENT THIS SEGMENT



Primary Trail Route – after crossing County Rd. 18, the trail essentially follows an old rail grade, which will require regrading, culvert replacement, and a few bridges to make it suitable for developing the trail.

PHOTO IMAGES OF THIS SEGMENT



(Looking southeast) Nearing the end of Ravenna Trail, an old (now privately owned) rail grade parallels the road right-of-way. Acquiring this alignment would provide more separation between the trail and the road.

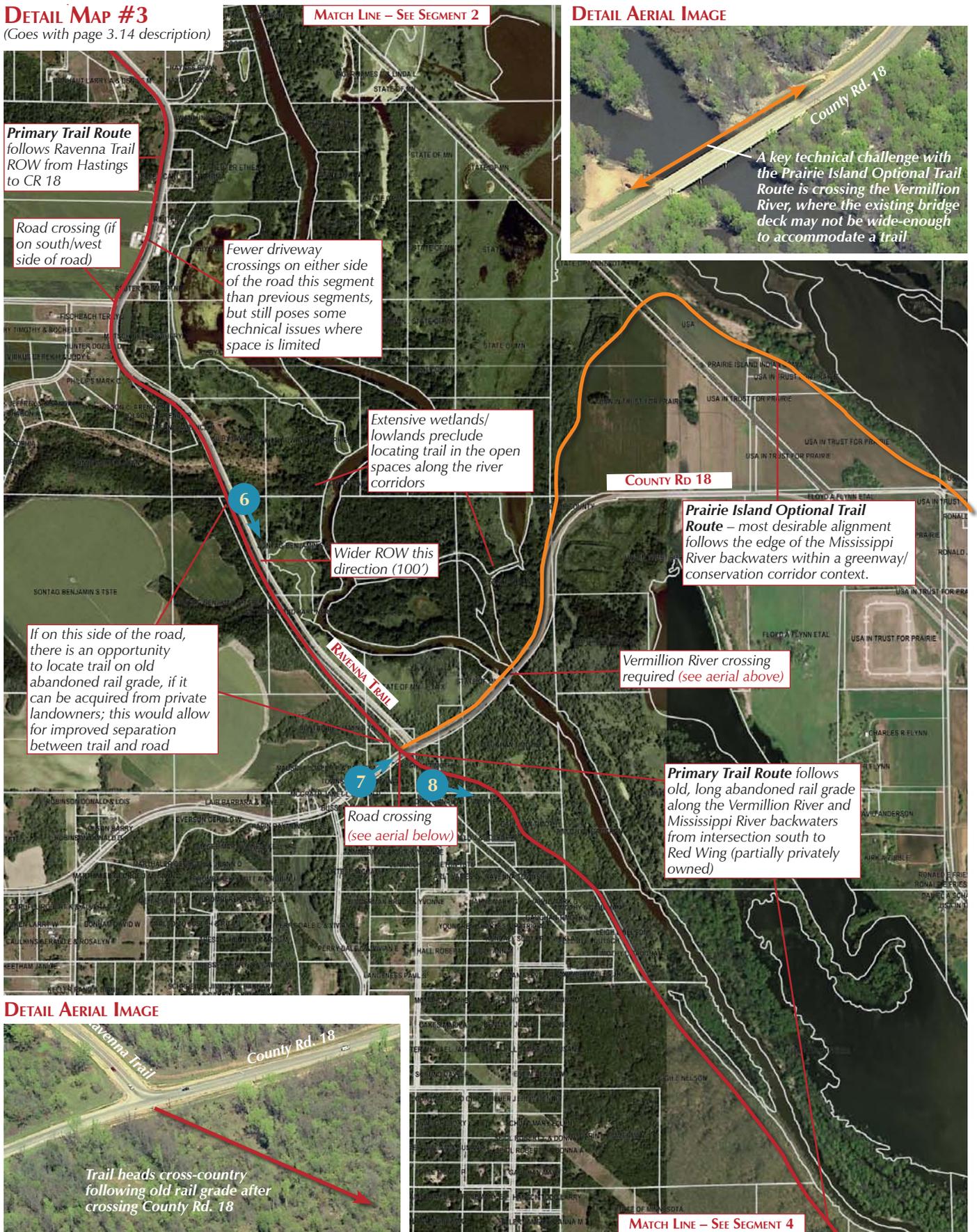


(Looking east) At the intersection of Ravenna Trail and County Road 18, the primary trail route leaves the road corridor and traverses cross-country following an old rail grade, which is privately owned and would have to be acquired.



(Looking southeast) While the old rail grade still exists, it has overgrown and eroded in numerous locations. Nonetheless, the rail grade provides a relatively stable existing corridor for the trail.

DETAIL MAP #3
(Goes with page 3.14 description)



DETAIL AERIAL IMAGE



DETAIL AERIAL IMAGE



TRAIL SEGMENT DETAIL MAP #4

SEGMENT DESCRIPTION / OVERALL CHARACTER

As the map on page 3.17 illustrates, the primary trail route continues along the old rail grade, continuing to offer a very scenic and high value trail experience. The rail grade throughout much of this section is adjacent to the base of the bluff on one side and edge of waterways on the other, making for an even more appealing setting than some of the earlier segments.

DEVELOPMENT ISSUES AND CONSTRAINTS

As with the previous segment, developing the trail on the old rail grade will require regrading, culvert replacement, and a few bridges to address decades of erosion and general deterioration.

RIGHT-OF-WAY AND PRIVATE PROPERTY FACTORS

As previously stated, some segments of this section of old rail grade are privately owned, with the remainder owned by the MN DNR.

OPTIONAL TRAIL ALIGNMENTS THIS SEGMENT

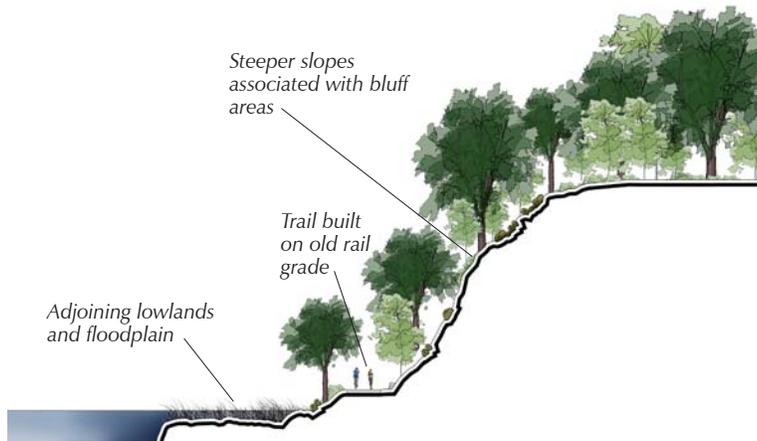
As illustrated on the maps on pages 3.15 and 3.17, the *Prairie Island Optional Trail Route* initially follows County Road 18 onto Prairie Island, at which point the most desirable alignment follows the edge of the Mississippi River backwaters within a greenway/conservation corridor context. On the lower end of the island, the trail would again follow County Road 18 across the river and reconnect with the primary trail route shown on the overall plan. Placing the trail in a greenway/conservation corridor setting is much preferred over providing a linking-type trail entirely along County Road 18 due to its much higher recreational value and scenic qualities.

One of the most significant challenges with this optional route is retrofitting the existing bridges (or building new ones) to accommodate the trail. A couple of other likely technical challenges will also have to be addressed if this route is selected, with the first relating to the trail crossing a siding and mainline tracks of CP Rail. Since trains are frequently parked on the siding track (waiting for higher priority trains to pass on the mainline track), trail users could be blocked from crossing the tracks for extended periods. Unless this pattern of train parking changes, the only alternative would be providing a grade-separated crossing.

The other likely challenge relates to the frequency of flooding in the vicinity of the Vermillion River and the area northeast of County Road 18 near North Lake, which is more of an issue than is the case with the primary trail route (which is generally on higher ground). Consequently, trail closures could be more frequent and hence troublesome for trail users, especially in the spring of the year.

As stated on page 3.5, this optional trail route has been introduced to, but not formally considered by, the Prairie Island Indian Community. Given the stated challenges associated with developing this route, the primary trail route remains the most advantageous option for the main trail, with this optional route perhaps best considered as a potential secondary loop.

CHARACTER SKETCHES OF TRAIL DEVELOPMENT THIS SEGMENT



Primary Trail Route – benched in at the base of the bluff, the old rail grade is the only cost-effective location for the trail to be placed. As with other sections, regrading, culvert replacement, and a few bridges will be required to make the rail grade suitable for developing the trail.

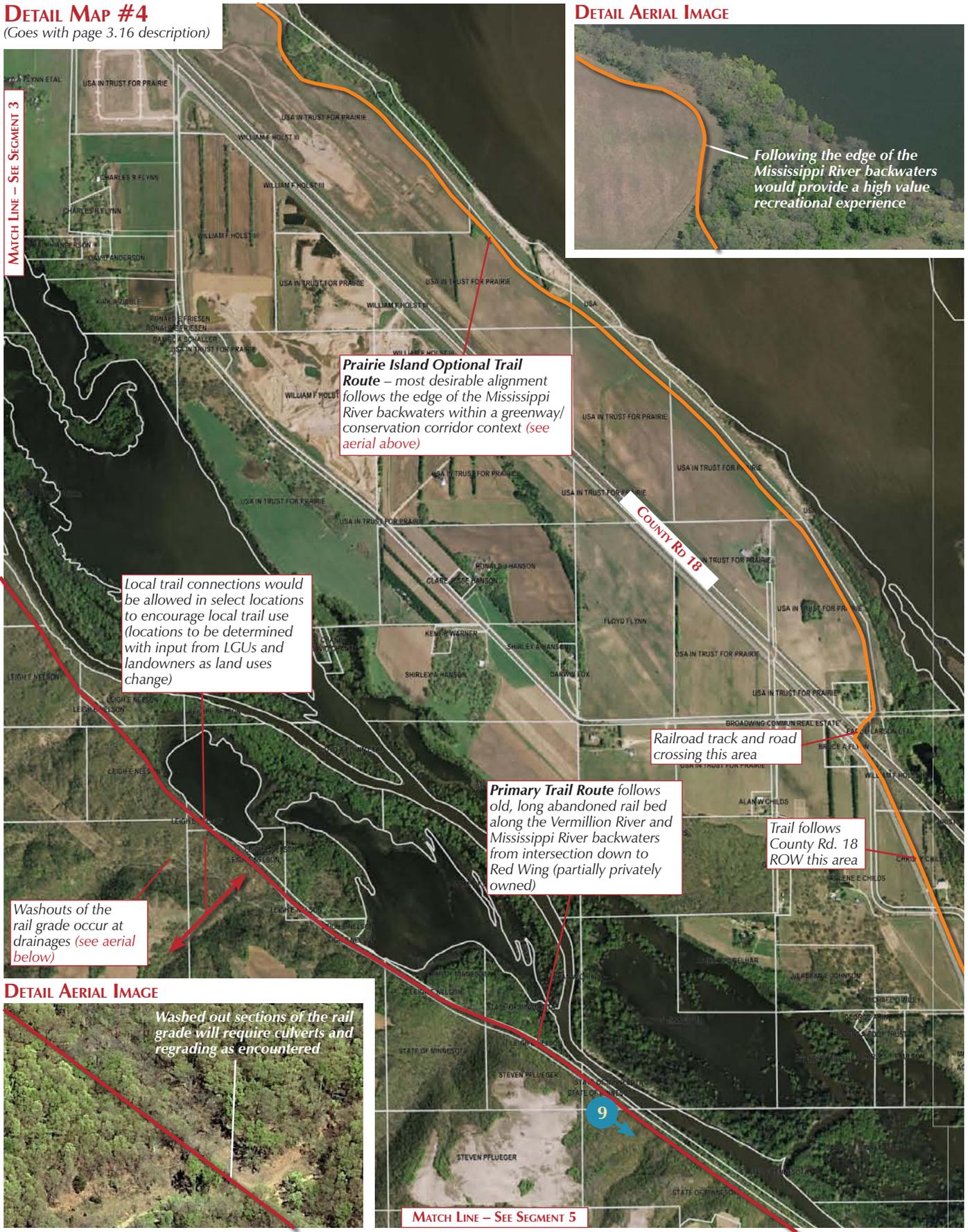
PHOTO IMAGE OF THIS SEGMENT



(Looking southeast) Along this segment of the primary route following the old rail grade, wooded slopes adjacent to waterways are common and add considerable interest to the trail experience.

DETAIL MAP #4
(Goes with page 3.16 description)

DETAIL AERIAL IMAGE



TRAIL SEGMENT DETAIL MAP #5

SEGMENT DESCRIPTION / OVERALL CHARACTER

As the map on page 3.19 illustrates, the primary trail route continues along the old rail grade, continuing to offer a very scenic and high value trail experience. As with the last segment, the rail grade throughout much of this section is adjacent to the base of the bluff on one side and edge of waterways on the other, providing a compelling location for the trail.

DEVELOPMENT ISSUES AND CONSTRAINTS

On the rail grade itself, development of the trail will continue to require some regrading, culvert replacement, and bridge replacement to address decades of erosion and general deterioration. The more challenging aspect of this segment is finding an acceptable route in the vicinity of Eggleston, where an existing residential development exists. In this same area, the trail will cross County Rd. 18 in a relatively busy area of traffic. The road is also fairly wide in this location, which would be intimidating to more casual or family trail users. Given these circumstances, a grade-separated crossing is recommended to maximize safety and continuity. As the photos suggest, there seems to be enough grade to place a pedestrian tunnel without significantly affecting finished road grades.

Another factor affecting development of this and other segments of the trail is maintaining access for private property owners and hunters. As shown in the character sketch below, one approach is to provide a controlled access forest service-type road or trail that can accommodate an ATV or maintenance vehicle. Access would be limited to property owners and controlled with gates.

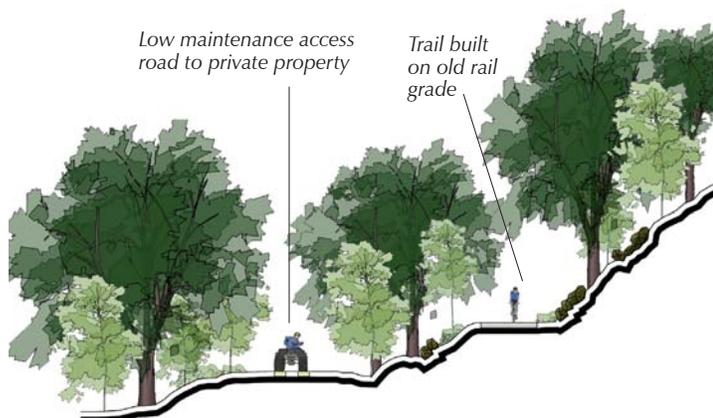
RIGHT-OF-WAY AND PRIVATE PROPERTY FACTORS

As was the case with previous segments, some sections of old rail grade are privately owned. The most complicated land acquisition situation is around Eggleston, where some of the existing trailer homes are located directly adjacent to or on the old rail grade. Given this, the location of the trail as shown is conceptual and subject to refinement. Its final location will require negotiation with individual property owners and the those living in the neighborhood to ensure that all issues are understood and adequately addressed. If done well, the trail could become a high value recreational amenity to this small community. As noted under development issues, addressing private property owners' concerns about maintaining access will need to be addressed.

OPTIONAL TRAIL ALIGNMENTS THIS SEGMENT

Refer to page 3.16 for an overview of the *Prairie Island Optional Trail Route*, which would take the place of the segment along the old rail grade as described above. As previously stated, the most significant challenge with this optional route is retrofitting the existing bridges (or building new ones) to accommodate the trail. This is especially the case with the bridge crossing associated with this segment, as highlighted on the aerial image.

CHARACTER SKETCHES OF TRAIL DEVELOPMENT THIS SEGMENT



Primary Trail Route – in select areas, maintaining access for private property owners and hunters will be an important issue. One approach is to provide a controlled access forest service-type road or trail that can accommodate an ATV or maintenance vehicle. Access would be limited to property owners and gated.

PHOTO IMAGES OF THIS SEGMENT



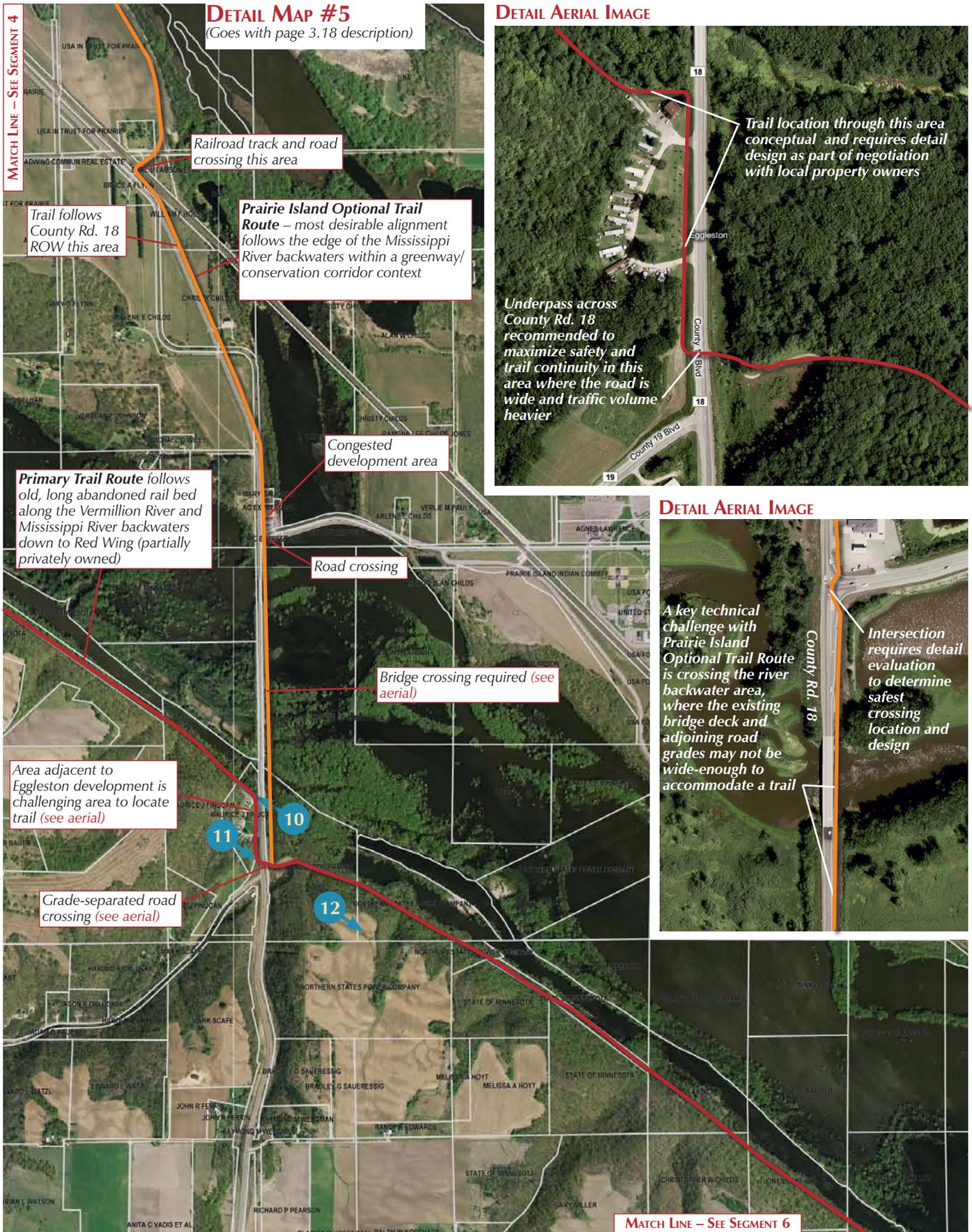
(Looking northwest) An existing residential trailer court is located along old rail grade off of County Rd. 18. Acquiring an easement through this section will require careful consideration of options.



(Looking southeast) Given the traffic levels, sight lines, and road width, a grade-separated crossing is recommended at this location.



(Looking southeast) As with much of the old rail grade, brush removal and remedial grading will be necessary to prepare the grade for building the trail.



TRAIL SEGMENT DETAIL MAP #6

SEGMENT DESCRIPTION / OVERALL CHARACTER

As the map on page 3.21 illustrates, the primary trail route continues along the old rail grade until it intersects with the Cannon Valley Trail in Red Wing. As with the last couple of segments, the rail grade throughout much of this segment follows the edge of waterways adjacent to the base of the bluff. It remains a very scenic corridor for the trail.

DEVELOPMENT ISSUE AND CONSTRAINTS

On the rail grade itself, developing the trail will continue to require some regrading and culvert replacement to address erosion and general deterioration. If the primary trail route is followed, crossing the Cannon Valley and surrounding lowlands and backwaters will be the most challenging development issue associated with this segment. This will require the use of boardwalks in the lowland areas and a new pedestrian bridge over the river.

As with the previous segment, maintaining access for private property owners and hunters remains a development constraint that will have to be addressed. (See segment #5 for additional discussion on this issue.)

RIGHT-OF-WAY AND PRIVATE PROPERTY FACTORS

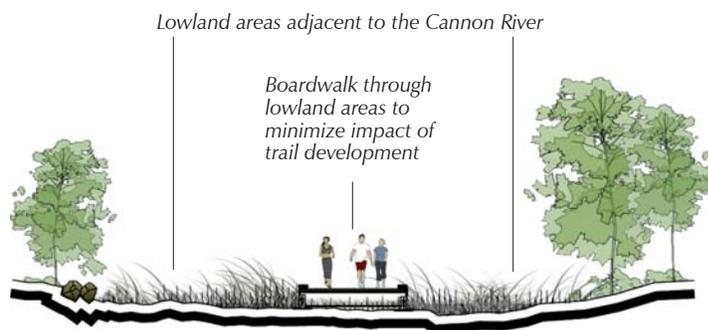
As was the case with previous segments, some segments of this section of old rail grade are privately owned. As noted, addressing private property owners' concerns about maintaining access will need to be addressed.

OPTIONAL TRAIL ALIGNMENTS THIS SEGMENT

As illustrated on the map, an optional route is provided if making a direct connection to the Cannon Valley Trail becomes too technically challenging and/or costly relative to following the Collischan Road and Cannon Bottom Road route. Although this route avoids crossing the wetland/lowland area and the Cannon River, it too poses some technical challenges, especially the steep slopes and limited buildable space on either side of Collischan Road. Limited right-of-way may also be an issue.

On the positive side, this route is scenic and takes advantage of the historic Cannon Bottom Road, which already has a bridge across the river and an established grade across lowland areas. It is also already closed to vehicular uses. Even if this route is not selected, using this old roadbed as a out-and-back destination off of the Cannon Valley Trail has considerable merit.

CHARACTER SKETCHES OF TRAIL DEVELOPMENT THIS SEGMENT



Primary Trail Route – boardwalks will likely be needed in areas adjacent to the Cannon River. The extent to which this area floods and provisions for that occurrence will have to be examined during the design phase. The outcome of that evaluation will factor into whether the primary or optional route is the most viable from a technical and cost perspective.

PHOTO IMAGES OF THIS SEGMENT



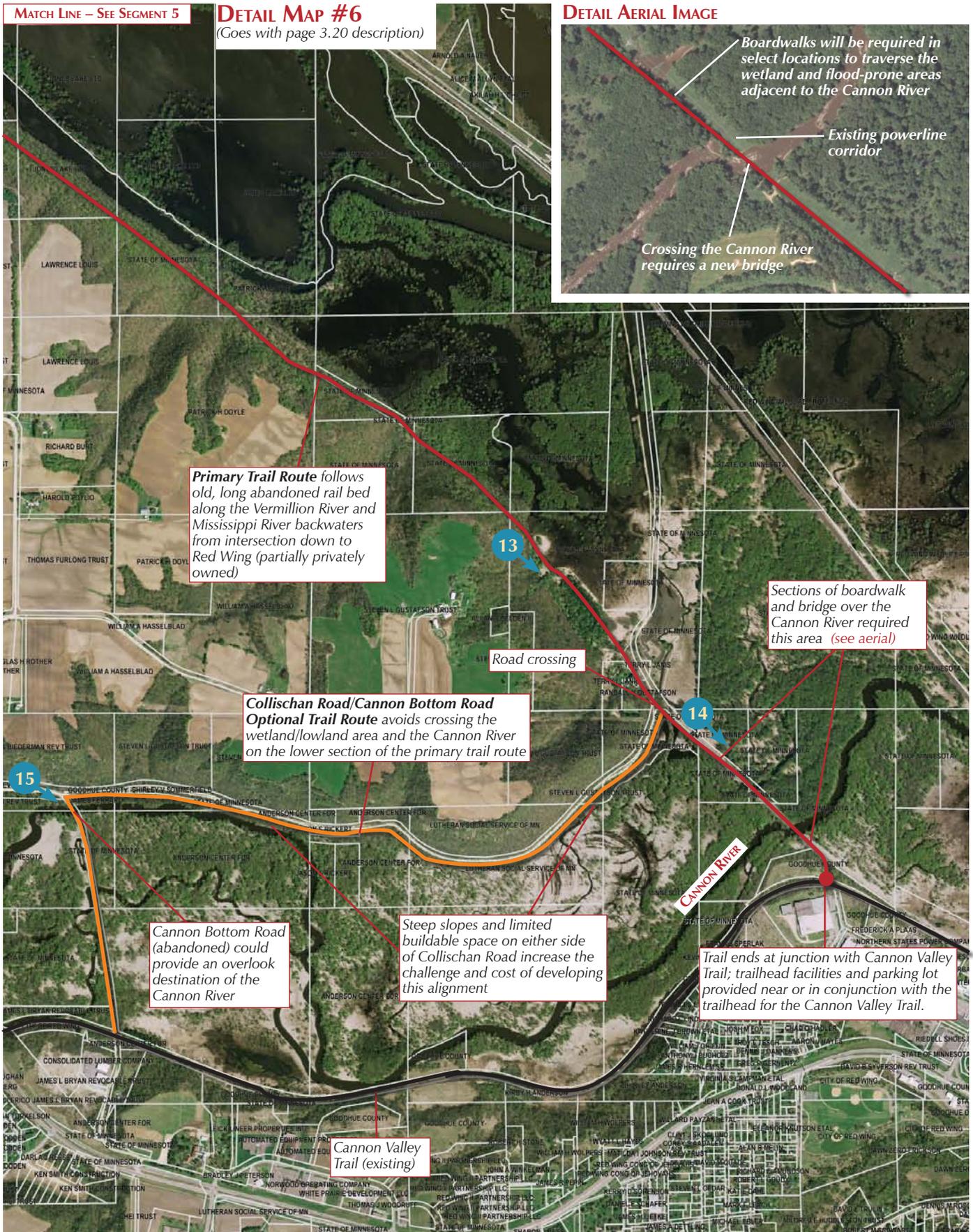
(Looking southeast) In some areas, the existing rail grade is very stable and often used by landowners and hunters to access remote areas.



(Looking southeast) Making the crossing from Collischan Road to the Cannon Valley Trail across the Cannon River and surrounding lowlands is the most imposing technical issue on the southern end of the trail.



(Looking south) Using the historic Cannon Bottom Road as either an optional route for this trail or as a destination off of the Cannon Valley Trail is included in the master plan.





(Looking south) Ravenna Trail from Hastings to the junction of County Road 18 does not have an adequate shoulder to accommodate a bike route.



(Looking east) County Road 18 from the junction of Ravenna Trail, across Prairie Island, and over to Eggleston has been upgraded to include a wide-enough shoulder to accommodate a bike route. Unfortunately, the uphill sections south of Eggleston have a passing lane that takes up much of the shoulder, which leaves inadequate width to also accommodate a bike route.

Note: An alternative to the State Highway 61 alignment suggested during the planning process is to follow County Road 46 from County Road 18 to Collischan Road and then over to the Cannon Valley Trail via the Cannon Bottom Road. The challenge with this alignment is that these roads are now gravel and extremely steep in spots. As such, the cost-benefit of this route versus State Highway 61 is suspect, but worthy of further consideration as road upgrades are planned.

BIKEWAY (BIKE ROUTE)

As illustrated on figure 3.4 on pages 3.6 and 3.7, a bikeway is proposed from Hastings to Red Wing to complement the standalone trail, primarily following Ravenna Trail and County Road 18. As previously defined, bikeways are on-road facilities that serve recreational, fitness and transportation bicyclists that have a higher level of comfort around motor vehicles.

Importantly, the goal under this master plan is to highlight this bike route as a value-added opportunity for further consideration as roadways are upgraded in the future. The main value of the route is that it provides additional options for road bicyclists by creating a looped system of trails and bikeways between Hastings and Red Wing.

Although establishing the bike route adds value, some challenges will have to be resolved before it can become reality, as the following considers.

HASTINGS TO EGGLESTON VIA RAVENNA TRAIL AND COUNTY ROAD 18

On the north end, the bikeway ties into the local bikeway and trail system as defined under the *City of Hastings Parks, Open Space, and Trail System Plan*. From north to south, the bikeway follows Ravenna Trail from Hastings to the junction with County Road 18. Unfortunately, this road segment does not currently have a wide-enough paved shoulder to be classified as a bike route. Adding one when it is upgraded in the future is the most cost effective and hence recommended approach to accommodating a bike route along Ravenna Trail.

With respect to County Road 18, the segment that traverses Prairie Island has already been upgraded with a shoulder wide enough to accommodate a designated bike route.

EGGLESTON TO RED WING VIA COUNTY ROAD 18 AND STATE HIGHWAY 61

On the southern end, the objective is to link the bikeway to the Cannon Valley Trail and local streets in Red Wing. However, south of Eggleston, establishing a bike route along County Road 18 is not currently possible due to the addition of passing lanes along several uphill sections, which leaves too narrow of a shoulder to accommodate a safe bike route. Since reducing lane widths is not an option, the only viable solution is to widen the shoulder, which poses technical challenges (i.e., steep embankments, drainage issues, etc.) that could prove costly to address.

Another limiting factor on the southern end is making the connection from County Road 18 into Red Wing, in which the most viable option at present is to follow State Highway 61 into the city, either via a bike route or developing a linking trail within the right-of-way. Although a wide shoulder exists, traffic levels and speeds make this route less desirable as a bike route than is the case with Ravenna Trail and County Road 18.

Given the challenges associated with upgrading the shoulder on County Road 18 south of Eggleston, along with the stated limitations of State Highway 61, the most likely nearer-term opportunity is to expand the shoulder on Ravenna Trail when the road is upgraded to complement the one already available on County Road 18 on Prairie Island. Although this would not complete the full bike route as envisioned, it would give bicyclists more safe riding options in this area than is currently the case.

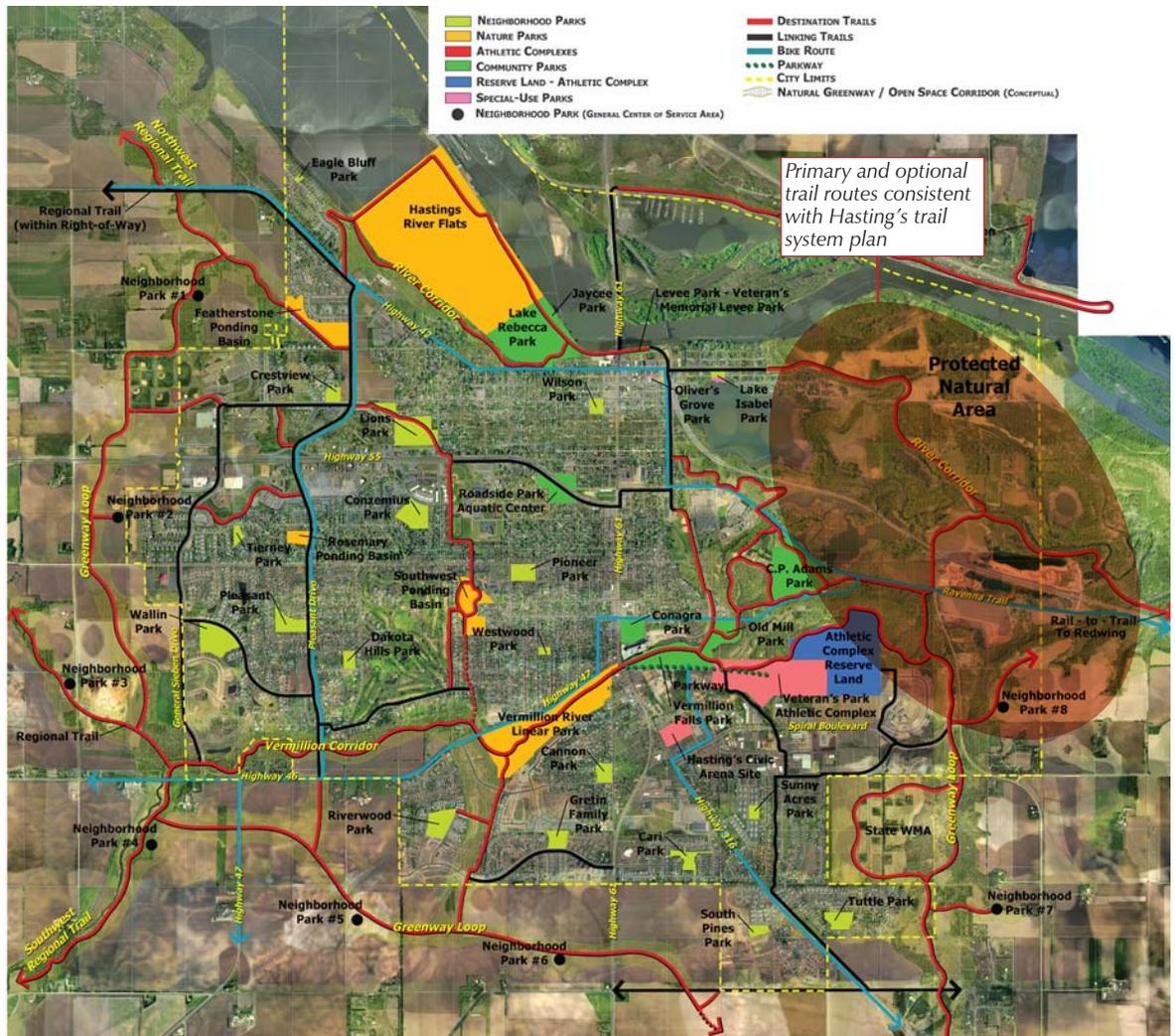
TRAIL INTERCONNECTIONS

Key “big picture” opportunity statement!

As stated on page 1.2, the Hastings-Red Wing Trail is a key part of an expanding interconnected system of local, state, and regional trails in this area of Minnesota. Red Wing is already connected to Cannon Falls via the Cannon Valley Trail, and will eventually be connected to Pine Island and Rochester by the Goodhue Pioneer and Douglas State Trails. Hastings will eventually be connected to South St. Paul by the Mississippi River Regional Trail and to Afton via the Point Douglas and St. Croix Valley Regional Trails.

As previously stated in this section, the Hastings-Red Wing Trail will connect directly with local trail plans for both cities. In Red Wing, the trail will connect directly to the Cannon Valley Trail, and subsequently the local trail and sidewalk system. In Hastings, the proposed plan is consistent with the City’s recently updated trails plan (2008), as figure 3.5 illustrates.

FIGURE 3.5 – CITY OF HASTINGS PARKS, OPEN SPACE, AND TRAIL SYSTEM PLAN



As figure 3.5 illustrates, both the primary and optional trail routes are consistent with the local trail plan for Hastings. As also illustrated, Hastings's trail system interconnects with three existing or planned regional-level trails in Dakota and Washington Counties via a greenway system encircling the city. Once developed, the Hastings-Red Wing Trail will play a major role in linking these trails to the Cannon Valley Trail near Red Wing, creating a remarkable interconnected high-value trail system throughout this region.

The Hastings-Red Wing Trail is also consistent with Dakota County's overall 2030 Parks, Lakes, Trails, and Greenways Vision, as figure 3.6 illustrates.

FIGURE 3.6 – DAKOTA COUNTY PARKS, LAKES, TRAILS, AND GREENWAYS VISION, 2030

Dakota County Parks, Lakes, Trails and Greenways Vision, 2030

What's New?

GREAT PLACES: Destination Parks

- * New Regional Park in Vermillion Highlands
- * More things to do in parks
 - Winter activity area
 - Gathering and celebration areas
 - Swimming and water play areas
- * More popular "park basics"
 - Enhanced picnicking
 - Biking and accessible trail loops

CONNECTED PLACES: Greenway Trails

- * "Bring parks to people" – Linear parks connect parks, schools, lake trails, playgrounds, libraries, and the Minnesota and Mississippi Rivers.
- * Walking, biking, and in-line skating
- * Public agencies work together to create 200 miles of greenways using mostly publicly-owned land.

PROTECTED PLACES: Green Infrastructure

- * Enhance and protect park resources
- * Protect stream corridors in public/private partnerships
- * Protect natural areas and open space in public/private partnerships

DAKOTA COUNTY PARK SYSTEM and COLLABORATIVE OPEN SPACE PROTECTION

-  Dakota County Parks
-  Federal, State, and Other Regional Open Space
-  Existing and Planned Regional Greenways
-  Regional Status Discussion with Metropolitan Council
-  Example City Greenways (route concepts)
-  Stream Conservation Corridors and Greenways
-  Destinations: City Parks, Schools, Lakes, Libraries
-  Privately-Owned Protected Farmland (FNAP)
-  Private/Public Protected Natural Areas (FNAP)
-  Potential Rail to Trail Opportunities

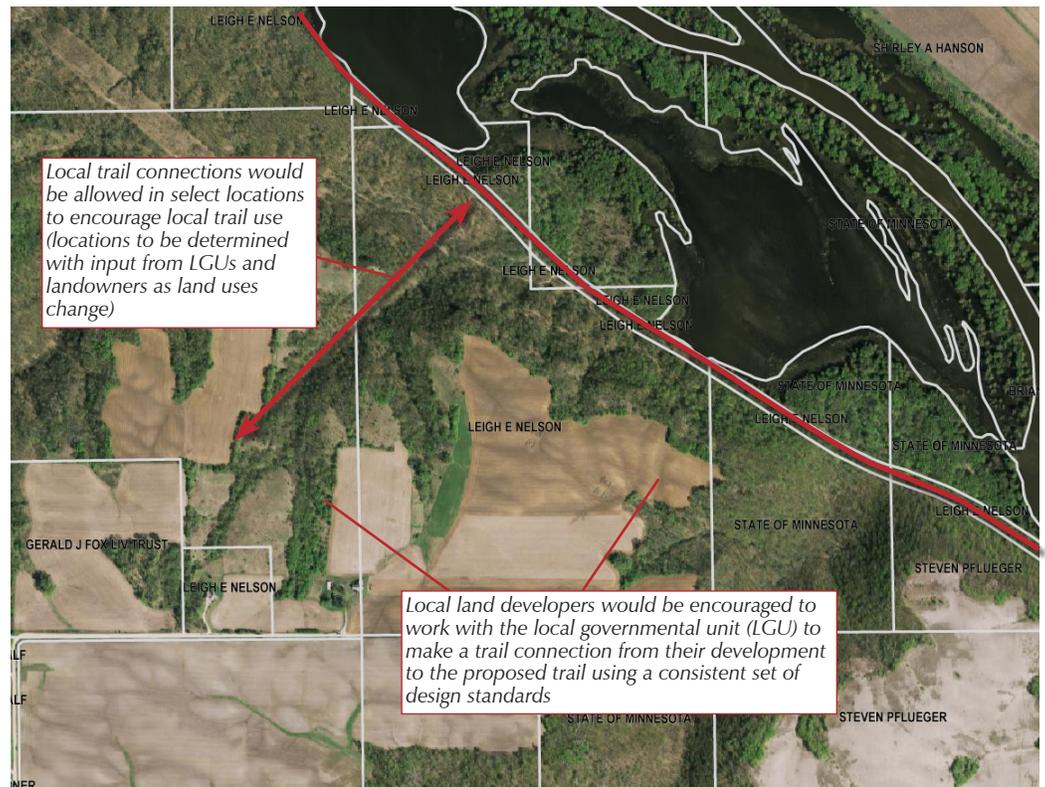


NEIGHBORHOOD-LEVEL CONNECTIONS TO THE PROPOSED TRAIL

Neighborhood-level connections to the proposed trail are both allowed and encouraged to maximize its value to local residents. The exact locations for connections will be determined at the local level as new development is planned and approved over time. Figure 3.7 provides an example of the type of local connections envisioned along this trail corridor.

FIGURE 3.7 – EXAMPLE OF LOCAL CONNECTION TO PROPOSED TRAIL

Note: Example is for illustration only and does not necessarily represent an actual location for a local connection.



There are two key qualifiers related to making neighborhood-level connections to the proposed trail:

- Local trail design standards should be consistent with the standards proposed for this trail to ensure a common level of quality, safety, and design detail
- Actual locations should be consistent with local trail system plans and related requirements

TRAIL DESIGN ELEMENTS

Trail design elements are important considerations as the trail corridor is developed. The following considers important factors that will require detailed technical evaluation at the time of plan implementation.

PARKING AREAS/TRAILHEADS

As illustrated on the overall trail plan (figure 3.4), trailheads with parking are proposed on either end of the trail. In Hastings, providing a parking lot at the end of East 2nd Street is proposed. In Red Wing, trailhead facilities and parking lot will be provided in conjunction with the trailhead for the Cannon Valley Trail.

Initially, smaller parking lots are envisioned (20 spaces each) with room for expansion over time if demand warrants. In addition, suitable existing local public parking lots will be identified on trail maps to accommodate the demand for parking during peak periods of trail use. The intent is to maximize the use of existing and convenient public parking lots first and only add parking as demand warrants. This will avoid over-development of parking lots and incurring additional cost for pavement, stormwater management, and maintenance and an increased need for policing. As use patterns evolve and demand becomes better understood over time, additional parking and trailhead facilities can be provided as warranted.

At the trailheads, a *Trailhead Service Level II* is envisioned, which includes a common set of facilities as figure 3.8 illustrates.

FIGURE 3.8 – TRAILHEAD SERVICE LEVEL II

(Source: Minnesota Trail Planning, Design, and Development Guidelines (MN DNR 2007).

| TRAILHEAD SERVICE LEVEL II – COMMON FACILITIES AND LOCATIONS | | |
|--|---|--|
| Trailhead Level | Typical Facility Considerations | Typical Locations |
| Level II Trailhead | <ul style="list-style-type: none"> • Permanent or portable restroom facilities • Parking, with accessible spaces • Drinking fountains • Telephone for emergency • Seating area • Security lighting • Trail information kiosk • Bicycle racks • Shady area • Waste receptacles • General landscaping • ADA accessible throughout | <p>Level II trailheads are of a smaller scale than Level I and often located in a local, county, regional, or state park to serve a broader need. Level II trailheads can also be located at designated major trail access points.</p> |

LEVEL II TRAILHEAD IMAGES



(Left) A simple parking area with 10 to 20 spaces is typically adequate for most access points.



(Right) Portable restrooms are desirable amenities if there is a clear need. Otherwise, they can be costly to maintain.

AT-GRADE AND GRADE-SEPARATED CROSSINGS OF ROADWAYS

As defined on detail maps of each of the trail segments, a number of locations for at-grade and potential grade-separated crossings have been identified. In all cases, applicable *Minnesota Trail Planning, Design, and Development Guidelines* (MN DNR 2007) and Mn/DOT's *Bicycle Facility Design Guide* will also be used to ensure that crossings are safe and meet appropriate standards.

With grade-separated crossings, determining whether an underpass (or bridge) is ultimately needed at a given location will be determined during the design phase, at which time a number of important variables will be duly considered. This includes detail evaluation of traffic volumes, roadway speeds, crossing distance, turning movements, and practical issues such as site topography. For reference, figure 3.9 provides baseline standards and guidelines for determining where a grade-separated crossing is most appropriate.

FIGURE 3.9 – GUIDELINES FOR DETERMINING ROADWAY CROSSING TREATMENT
(Source: *Minnesota Trail Planning, Design, and Development Guidelines* (MN DNR 2007).)

The following table provides general guidelines for roadway crossings at intersections based on speeds, and vehicular volume. The "good" standard is recommended when the trail is used by a large number of children, seniors, or disabled people. Good is also recommended if the trail crossing is heavily used and if the trail is a main recreational corridor. Source: Mn/DOT's *Bikeway Facility Design Manual* (2006).

| Posted Speed | Standard | Type of Crossing Depending on Speed and Volume of Traffic | | | |
|--------------|--------------|---|----------------------------------|-----------------|-----------------|
| 50+ mph | | Grade Separated | | | |
| 45 mph | Good | Grade Separated | | | |
| | Satisfactory | Traffic Signals | | | |
| 40 mph | Good | Traffic Signals | | Grade Separated | |
| | Satisfactory | Crosswalk + Median Refuge Island | | Traffic Signals | |
| 30 mph | Good | Crosswalk + Median Refuge Island | Traffic Signals | | Grade Separated |
| | Satisfactory | Crosswalk | Crosswalk + Median Refuge Island | Traffic Signals | |

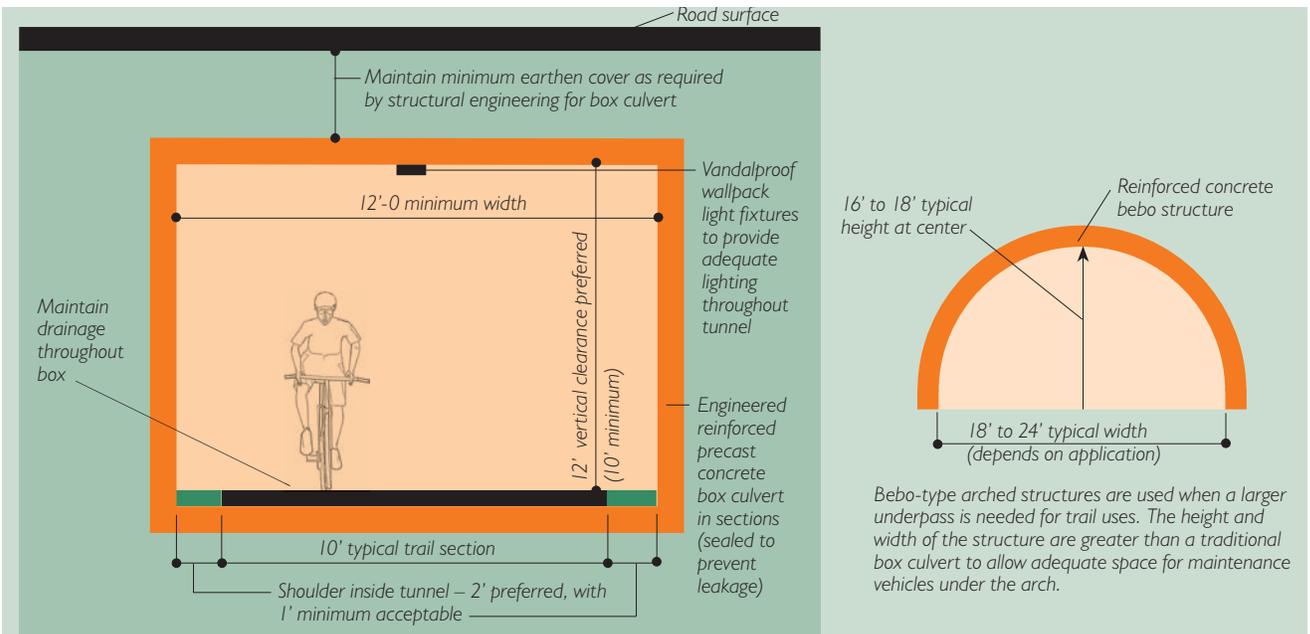
Vehicular Volume (Average Daily Traffic) 2,000 4,000 6,000 8,000 10,000 12,000

Notes:

- The type of crossing selected at an intersection between a main and secondary road is usually the same as for the main road.
- If more than three lanes are to be crossed, the intersection should have a refuge or median island. Where pedestrians or bicyclists wait at an island, a push button or bicycle-sensitive traffic detection device may be desirable.
- At large intersections of very busy roads, pedestrian and bicycle traffic should be separated by grade from both the main and secondary road, instead of using signals.
- Along main roads, crossings should be at intersections. If a midblock crossing is unavoidable, there must be good sight distances. If the speed limit is over 40 mph, consider lowering the speed limit through the crossing area to 40 mph.

If required, figure 3.10 provides baseline standards and guidelines for constructing an underpass.

FIGURE 3.10 – GRADE-SEPARATED CROSSINGS – UNDERPASSES
 (Source: Minnesota Trail Planning, Design, and Development Guidelines (MN DNR 2007).



TYPICAL BOX CULVERT TUNNEL

BEBO ARCH SPECIAL-USE TUNNEL



Contrast of sightlines. Both of these box culverts provide adequate light for visitor safety. The light opening in the center of the box culvert in the right photo greatly improves visibility and will be more accepted by the user. Notably, in both of these cases the shoulder is minimal due to site limitations. For this not to be an issue, visual cues, adequate sightlines, and signage before entering the tunnels are important to alert trail users to a narrowed section.



Ornate. Both of these tunnels are appealing visual features of the trail, rather than a distraction. In the left photo, the box is wide and provides a shoulder and drainage all the way through the tunnel. In the right photo, the ornate character of the box culvert makes it more of a gateway than an impediment to travel. The hardscape around the entrance is also a visual cue for bicyclists and in-line skaters to slow down.

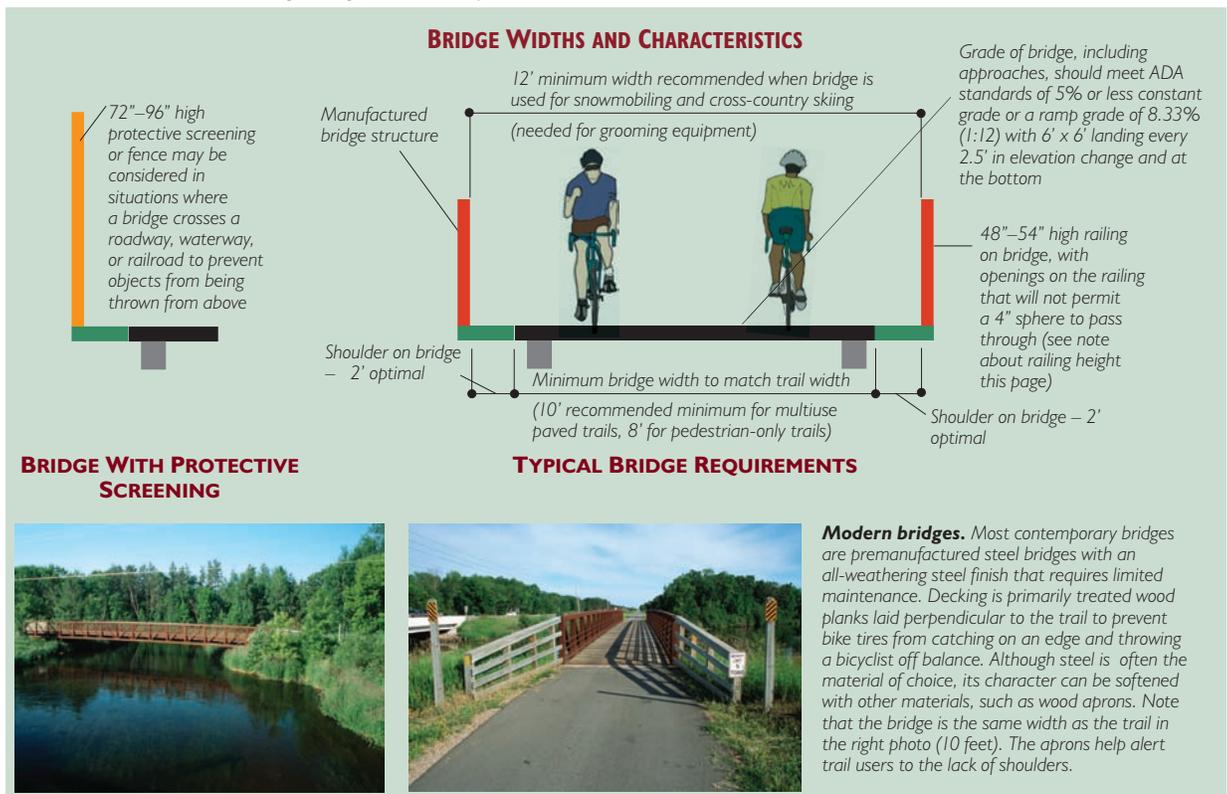
ANTICIPATED BRIDGES AND BOARDWALKS NEEDED TO SPAN DRAINAGES AND RIVERS

As identified on the trail segment maps, replacement of missing or construction of new bridges and boardwalks will be necessary to build the proposed trails. This includes:

- Four to six bridges along the old rail grade are anticipated, although this will have to be clarified during the detail design phase due to lack of access to review some sections of private property (using culverts in lieu of bridges in select locations may also be an option to reduce costs)
- One bridge crossing the Cannon River near Red Wing
- Two bridges crossing the Vermillion River near Hastings

Figure 3.11 provides baseline standards and guidelines for constructing bridges.

FIGURE 3.11 – GRADE-SEPARATED CROSSINGS – BRIDGES
(Source: Minnesota Trail Planning, Design, and Development Guidelines (MN DNR 2007).)



In addition to the bridges, development of the primary trail route will require sections of boardwalk near Red Wing to traverse lowland areas. Development of the optional route across Prairie Island will also entail some form of retrofitting existing bridges along County Road 18 to accommodate a trail.

SIGNAGE AND WAYFINDING

The signage program will provide wayfinding information, safety alerts, and reinforcing the relationship between various users groups and those users with motor vehicles. To be effective, signing and marking of the trail and bikeway must be uniform and consistent to command the attention of the trail user. Whereas signing and marking is warranted and important, over-signing degrades the usefulness of signs, causes distractions, creates a cluttered effect, is ineffective and wastes resources.

To maintain consistency, the *Minnesota Trail Planning, Design, and Development Guidelines* (MN DNR 2007) will be used as the primary guidelines for signage along trails. As excerpts from the MN DNR manual as illustrated in figure 3.12 highlight, trail signage falls into four categories, including:

- Regulatory, traffic control, and warning signs
- Trailhead and orientation signs
- Directional and routes guide signs
- Trail identification and warning signs for motorists

FIGURE 3.12 – TRAIL AND BIKEWAY SIGNAGE GUIDELINES
(Source: *Minnesota Trail Planning, Design, and Development Guidelines* (MN DNR 2007).)

Shared-Use Paved Trails 5

SHARED-USE TRAIL SIGNAGE AND STRIPING

For more information!
Refer to Mn/DOT's website (www.dot.state.mn.us/trafficeng/otepub/mutcd/index.html) for the complete MN MUTCD manual.

The MN MUTCD is the primary reference for general traffic control and safety sign standards along shared-use trails. Part 9 – Traffic Control Devices for Bicycle Facilities and Appendix C – Sign Listing are particularly useful in defining the standards for various types of signs found on trails, including stop, speed, hazard warning, grades, curves, directional, and authorized uses.

In addition to traffic control and safety, signs should provide useful trail and destination information in a consistent, uncluttered manner. This means only providing the signs really necessary in order to minimize visual distraction, maintenance, and ongoing costs. It is also important not to place signs that may inadvertently confuse motorists. (When signs are within a road right-of-way, it should be obvious to motorists that they are intended for trail users and signed in conformance with MN MUTCD standards.) The following provides examples of various types of signs most often associated with shared-use paved trails.

REGULATORY/TRAFFIC CONTROL/WARNING SIGNS

These signs are used to notify trail users of rules and laws associated with trails and alert users of potentially hazardous conditions on or adjacent to a trail, as the following photos illustrate.



Stop signs are classic warning signs and recommended at all roadway crossings. Note the difference in the size of the sign in these two photos. In general, smaller signs consistent with MN MUTCD standards are recommended for general application and to avoid visual clutter, with larger ones being used to get trail users' attention at more dangerous crossings.

Small, simple signs alerting trail users to which side of the path to use are appropriate at access points or whenever the trail configuration changes. The character of these signs should be consistent throughout the system to make reacting to them second nature to the trail user traveling at different speeds.

Warning signs alert trail users to a changed condition, such as a curve, narrowing of the trail, or steep grade. Such signs convey an important message and should be consistent with uniform standards. Consistent signing helps trail users react to the signs become second nature and increase their reaction time, resulting in a safer trail experience.

Regulatory and rules signs alert trail users to limitations on trail use and their responsibilities in using the trail. As with all signs, these should be of a consistent style and character so trail users become familiar with the set of rules and regulations common to a system of trails.

TRAILHEAD/ORIENTATION SIGNS

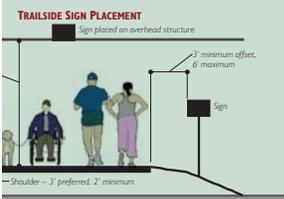
These signs highlight trail features and interconnections with other trails, and provide general "You Are Here" information. Trailhead and orientation signs come in many forms depending on the setting and information needs. In an urban area, trail kiosks are often informational as well as an architectural element and common identifier of a particular system. In a rural setting, these types of signs are often simpler. The following photos highlight a few examples of these types of signs.

Shared-Use Paved Trails 5

GENERAL GUIDELINES

Devices for Bicycle Facilities of the MN MUTCD provides the following graphic illustrates the most important ones.

TRAILSIDE SIGN PLACEMENT



Sign placed on overhead structure

3' minimum offset, 6' maximum

Shoulder – 3' preferred, 2' minimum

STRIPING GUIDELINES

Signs are used to indicate the separation of trail lanes in congested areas and to address specific safety concerns, including: lane narrowing, curves, and roadway crossings where sightlines are compromised and/or where speed is a concern. The following photos highlight the most common striping situations.



White line is used on busier trails to alert users to stay in their lane, along a trail is important in order to understand the pattern.

A solid yellow line is used to identify a no-passing area when approaching a curve or hill with limited sightlines. This is often accommodated with a trailside warning sign.

In some systems, a green center line is used in lieu of yellow as an identifier of a system of trails. If this approach is taken, maintain consistency to avoid confusion.

MINNESOTA DEPARTMENT OF NATURAL RESOURCES
TRAILS AND BIKEWAYS

- 525 -

TRAIL PLANNING, DESIGN, AND DEVELOPMENT GUIDELINES

MINNESOTA DEPARTMENT OF NATURAL RESOURCES
TRAILS AND BIKEWAYS

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TRAIL PLANNING, DESIGN, AND DEVELOPMENT GUIDELINES

MINNESOTA DEPARTMENT OF NATURAL RESOURCES
TRAILS AND BIKEWAYS

- 527 -

TRAIL PLANNING, DESIGN, AND DEVELOPMENT GUIDELINES

PROVISIONS FOR PROTECTING NATURAL RESOURCES ADJACENT TO THE TRAIL

Development of the trail will be consistent with MN DNR's *Trail Planning, Design, and Development Guidelines* (2007) as related to protection of natural resources and ecological sustainability. At the technical level, stewardship will focus on four priorities:

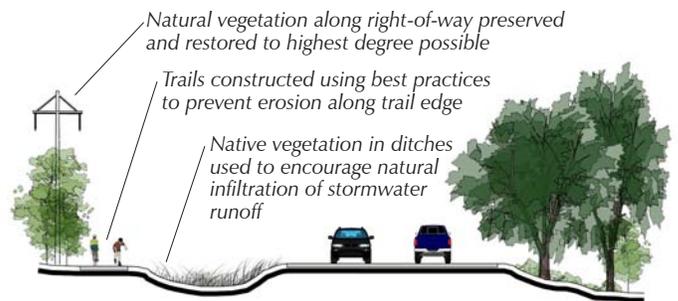
- Minimizing potential for erosion during construction
- Buffering adjacent ecological systems, especially wetland and river systems
- Enhancing the quality of natural resources within the corridor consistent with ecological prototypes for healthy systems
- Enhancing the natural scenic qualities of the corridor

Figure 3.13 illustrates these priorities relative to several trail cross-sections.

FIGURE 3.13 – OVERVIEW OF NATURAL RESOURCES STEWARDSHIP FOCUS

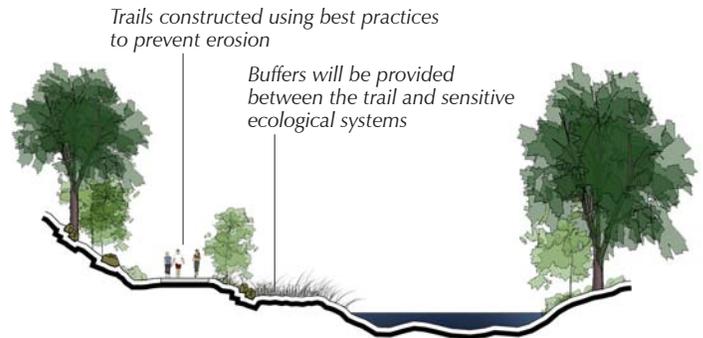
RIGHT-OF-WAY ALIGNMENTS

Stewardship of natural resources within these areas will focus on using construction techniques that minimize erosion, infiltrate stormwater, and enhance the natural character of the corridor over time. Management of invasive plant species will be a significant challenge and priority.



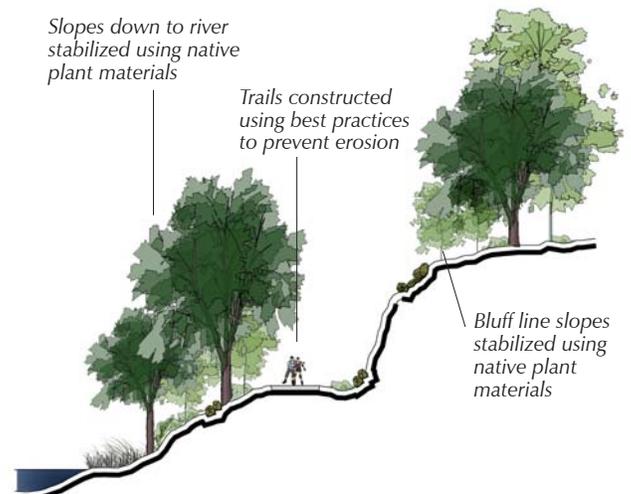
SENSITIVE AREA ALIGNMENTS

Stewardship of natural resources within these areas will focus detailed technical evaluation of ecological systems and locating the trail to minimize disruption and provide adequate buffers. Wildlife needs will also be considered.



OLD RAIL GRADE ALIGNMENTS

Stewardship of natural resources within these areas will focus on staying on already disturbed areas and stabilizing river embankments and bluff lines using native plant materials. Management of invasive plant species will be a significant challenge and priority along these segments.



With respect to development of this trail, managing stormwater is one of the most important factors in minimizing impacts to surrounding ecological systems. The main principles to accomplishing this are: 1) using natural methods to infiltrate stormwater; and 2) designing the stormwater system to preserve the natural hydrology of the surrounding site where the trail is being developed. Under this approach, stormwater runoff from the trail and other built features will, to the degree possible, be captured and treated prior to reaching downstream wetland, pond, and river systems.

In addition to MN DNR's *Trail Planning, Design, and Development Guidelines* (2007), other applicable best practices related to managing stormwater, preventing erosion, and limiting non-point water pollution that will be applied. The following highlights several publications that will be used as resources covering many relevant best practices.

URBAN SMALL SITES BEST MANAGEMENT PRACTICE MANUAL

Available through Metropolitan Council, *The Urban Small Sites Best Management Practice (BMP) Manual* provides information on tools and techniques to assist municipalities and watershed management organizations (WMOs) in guiding development and redevelopment. The manual includes detailed information on 40 BMPs that are aimed at managing stormwater pollution for small urban sites in a cold-climate setting. The BMP Manual is available online on the Metropolitan Council's website (<http://www.metrocouncil.org/environment/watershed/bmp/manual.htm>). Key sections that have application to trail development include the following:

- Runoff pollution prevention
- Impervious surface reduction
- Pavement management
- BMP maintenance
- Landscape design and maintenance
- Grading practices
- Soil erosion control
- Mulches, blankets, and mats
- Vegetative methods
- Sediment control
- Silt fences
- Inlet protection
- Temporary sedimentation basins/traps
- Check dams
- Stormwater treatment BMPs
- Infiltration systems
- Infiltration basins
- Infiltration trenches
- Filtration systems
- Bioretention systems
- Filter strips
- Wet swales
- Retention systems
- Wet ponds
- Detention systems
- Dry ponds
- Dry swales

MINNESOTA STORMWATER MANUAL

This manual is a valuable tool for those involved in stormwater management and conserving, enhancing, and restoring high-quality water in Minnesota's lakes, rivers, streams, wetlands, and ground water. The manual is a dynamic document and revisions will take place every two years, with the most recent version posted on the MPCA website (www.pca.state.mn.us/water/stormwater/stormwater-manual.html#manual.)

MINNESOTA POLLUTION CONTROL AGENCY

Minnesota Pollution Control Agency (MPCA) has developed a manual entitled *Protecting Water Quality in Urban Areas* to help local government officials, urban planners, developers, contractors and citizens prevent stormwater-related pollution. The manual contains detailed information about BMPs that can be used to protect lakes, streams and groundwater from stormwater-related pollution. The manual is available online through their website (<http://www.pca.state.mn.us/water/pubs/sw-bmpmanual.html>) and covers the following topic areas:

- Water quantity and quality
- BMP selection
- Comprehensive stormwater policies and plans
- BMPs for stormwater systems
- Stormwater-detention ponds
- Erosion prevention and sediment control
- Pollution prevention
- Models and modeling

PROVISIONS FOR MAINTENANCE OF THE TRAIL

One of the issues that came up at several open houses is concern about operations and maintenance of the trail once it is built. To that end, the following guidelines provide general recommendations for monitoring and maintaining the trail to prolong its life and provide a safe surface to travel on. An important complementary value of a well-maintained trail is that it encourages higher levels of use, which in turn serves as its own deterrent to undesirable activities, such as trespassing.

The guidelines are based on common practices in Minnesota and take into consideration climate and other site conditions. Note that the guidelines will still have to be tailored to site specific conditions once the trail is developed.

MONITORING AND INSPECTIONS SCHEDULE

Monitoring and inspections of all facilities should occur throughout the year to detect maintenance issues before safety is compromised. The following table provides an overview of inspections that can be completed during each season.

INSPECTIONS SCHEDULE CONSIDERATIONS

A routine inspection schedule is important for staying on top of maintenance issues and taking care of problems at an early stage. The following is a suggested seasonal schedule for inspections.

| Season | Inspection Focus |
|--------|---|
| Spring | Inspect for damage from winter use and freeze-thaw cycles. Check for erosion, plugged culverts, user and maintenance vehicle-caused damage, slumping, cracking, and other visible signs of surface imperfections. Record problems and schedule maintenance on a priority basis. |
| Summer | Inspect regularly. In addition to items listed for spring, inspect vegetation growth and encroachment and pay special attention to drainageways and ditches that may have eroded during the spring runoff. Record all problems and schedule maintenance on a priority basis. |
| Fall | Inspect regularly. Focus on maintenance that should be done before winter to avoid more damage during spring thaw. Pay special attention to culverts and drainageways that will be needed to handle spring runoff. Fill cracks. |
| Winter | This is a good time of year to check low areas and drainages that cannot be easily accessed during the summer. This includes culverts, ditches, and beaver ponds. |

GENERAL MAINTENANCE GUIDELINES

Maintenance of paved trails (and bikeways) falls into a number of basic categories, as the following briefly considers.

Vegetation Management

To maintain an acceptable clearance zone and preserve the integrity of the trail surface, vegetation along them needs to be managed. Preventing vegetation from breaking up the edges of the asphalt surface is especially important to trail longevity. If vegetation is left unchecked, cracking, crumbling, and surface holes can rapidly develop.

Herbaceous cover along the shoulders should be mowed to minimize encroachment problems. A 2- to 3-foot mowing strip is typically the minimum. If erosion has taken out vegetative cover, solve the problem before restoring vegetation.

Asphalt Crack Repair

Routine crack repair is critical to trail longevity. It is especially important to complete this work before winter. In areas where cracking is extensive and the subgrade is deemed stable by an engineer, an overlay can be used since the problem will not be resolved through crack filling. Note that drainage of the trail needs to be reviewed to make sure it is not compromised if an overlay is added. If so, the drainage issue must be corrected.

Repairing Crumbling Edges

Broken or crumbling edges are typically caused by either poor subgrade preparation before paving or heavy maintenance vehicles deflecting the asphalt surface and causing it to fail, especially in the spring during the frost-out period. Poor subgrade drainage can also be a factor in edge failure. If the trail, subgrade, and base material are poorly drained and remain wet, especially through freeze-thaw cycles, pavement failure can be expected, typically starting at the edge where the pavement is the weakest.

Cutting out the damaged area and inspecting the subgrade is required in these instances. If the patching area is large, removal of the entire area and replacement is recommended, since patches can annoy trail users.

Pitting and Grooving

Pitting and grooving can be caused by trail grooming or snowplowing equipment. If the damage is extensive enough to be of concern, an asphalt overlay of at least 1 inch is recommended. In the most severe cases, or when this is a routine problem (such as the approach to a bridge), using concrete for a section 30 feet or less is a common approach.

Slumping, Caving, and Holes

Slumping, caving, and holes can be attributed to many factors, including animals, erosion, culvert failure, settling at bridge approaches, and subgrade problems. To repair holes caused by animals, smooth them out, repack the subgrade, and fill with an asphalt patch, which should be compacted.

In situations where erosion and culvert failure are the problems, identify and address the cause before making the repair, and then use the patching approach previously described.

The area where an asphalt trail surface abuts a bridge deck is highly susceptible to separation, cracking, and slumping. Although specific repairs depend on the bridge design, the typical problem is the lack of a solid backing for the asphalt surfacing to be placed against or over. Either concrete or pressure-treated wood can often be used in these situations, although site-specific solutions are most common due to the variability of what can be encountered. The bridge manufacturer, who should be contacted to ensure that solutions do not compromise the bridge integrity, may have additional suggestions.

Sealcoating

Sealcoating relates to surface treatments used to cover minor surface imperfections and asphalt deterioration from weathering and oxidation. Although sealcoating has its advocates, it also poses some significant limitations, including:

- Short life span – with extreme variability between products
- Tendency for the finished surface to become slippery when wet unless a material such as sand or crushed rock chips are added (which is not desirable for most bicyclists and inline skaters)
- Incompatibility and inconsistency in products – with some products found to not bind to asphalt very well

For these reasons, the cost/benefit of sealcoating is uncertain and some maintenance departments forgo it and do an overlay on a shorter rotation with the money saved. Note that as products improve, the cost/benefit of sealcoating may become more justifiable. For best results, seal coating should be applied in the second year to prevent moisture from seeping into surface cracks and voids and to prevent the surface from drying out. Thereafter, seal coating every 3 to 5 years is common.

ROUTINE MAINTENANCE CONSIDERATIONS

In addition to seasonal monitoring and inspections, routine maintenance also needs to be undertaken. The following highlights a few areas of particular importance.

Snow and Ice Removal

To foster year-round use of the trail, a snow and ice removal policy and accompanying plan is necessary.

Sweeping

Loose sand and debris on the surface of all trails, pedestrian-ways, and bikeways should be removed at least once a year, normally in the spring. Sand and debris will tend to accumulate on bicycle shoulders because automobile traffic will sweep these materials from the automobile portions of the roadway.



Equipment attachments offer easy ways to accomplish routine trail maintenance, as shown.

HUNTING-RELATED ACCOMMODATIONS

As noted on several occasions in the document, maintaining access to private and public lands along the trail corridor for hunting remains an important local concern, as is the safety of trail users during the hunting season.

With respect to maintaining access, negotiations with landowners as property is acquired for the trail corridor will be the primary avenue for individual property owners to ensure this issue is adequately addressed. With respect to maintaining access to state-owned land, implementing agencies will work closely with MN DNR and local hunting groups to define access routes to established hunting areas. In select locations, this could include providing a low-maintenance access road, as illustrated in the character sketch on page 3.18.

As for safety, it is important to point out that hunting and other recreational pursuits can effectively coexist in an area if each party adheres to established laws and extends common courtesies. A nearby example of this in Dakota County is Spring Lake Regional Park Reserve, where hunting and archery have a long history of coexistence, whereby public park facilities (e.g., trails, group camping area) are near commonly used waterfowl hunting areas and an archery range.

ACCOMMODATING OTHER TRAIL USES

Part of ensuring safety during the hunting season is maximizing awareness by providing signage at key points along the trail to alert trail users of hunting activity and remind them to stay on the trail. In cases where safety concerns persist, limiting access to select sections of the trail during the hunting season is also an option to be considered at the local level.

As noted on page 2.5, the primary focus of the master plan is on defining options for developing a paved trail for bicyclists, walkers, joggers, and inline skaters. Although developing equestrian trails may be a viable option on public lands along the river corridor, the limited width of the old rail grade poses constraints to accommodating this facility directly adjacent to the proposed paved trail. Whether or not an equestrian trail system has merit in other areas is beyond the scope of this project and was therefore not extensively considered, other than noting that some open house attendees expressed an interest in this type of facility.

As also noted on page 2.5, accommodating informal cross-country skiing along the trail corridor is feasible, unless the decision is made to plow the trail for winter hiking and bicycling use.

Section 4

Implementation & Management Plan

OVERVIEW

Implementing the master plan for the Hasting–Red Wing Trail will require significant capital investment for land acquisition and development. Management of the trail will also incur ongoing costs for operations and maintenance. The following provides cost projections for developing the trail, along with an implementation strategy and overview of a management plan.

ACQUISITION AND DEVELOPMENT COST PROJECTIONS

The forthcoming cost projections define the potential costs associated with implementing the *Hastings–Red Wing Trail Master Plan* to reach an *optimal* level of development. The projections are based on a combination of site-specific development issues and professional judgments based on projects of similar characteristics. The projections are based on 2009 dollars, which will require inflation adjustments over time.

The intended use of the cost projections is to aid implementing agencies in developing an overall funding and implementation strategy, including:

- Defining the potential magnitude of the public investment needed to develop the trail
- Comparing the relative cost of one trail route over that of another
- Prioritizing and budgeting for capital improvement initiatives based on funding availability

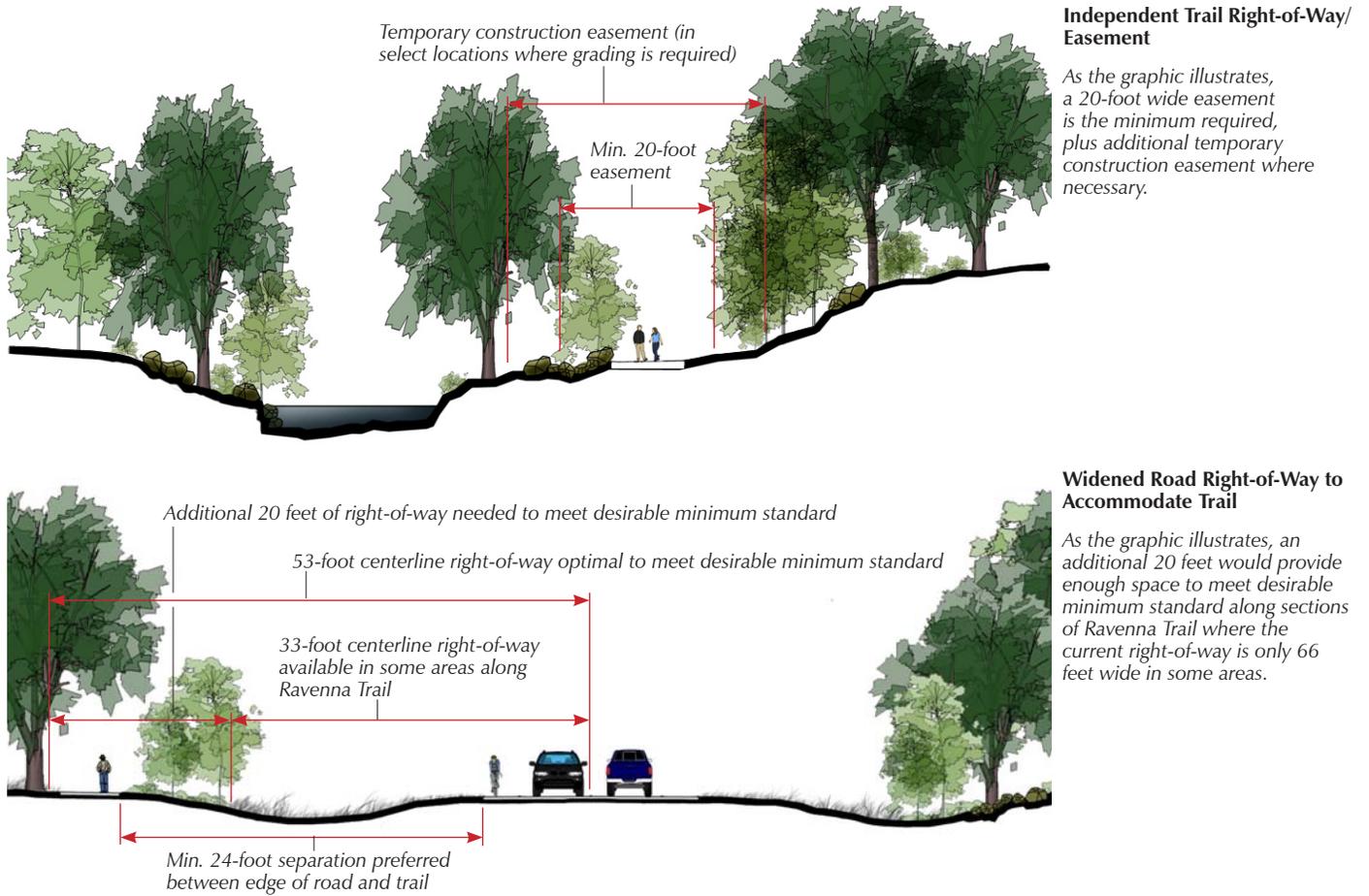
Implementation costs may vary, perhaps significantly, depending on the actual conditions found out in the field, final design, and economic conditions at the time of bidding and implementation. To remain relevant, the cost projections should be updated on a periodic basis to accommodate cost increases over time.

ACQUISITION COST PROJECTIONS

Projecting the cost for land acquisition is inherently challenging given the many variables that affect valuation, ranging from location to marketplace conditions. Working with landowners under a negotiated, willing seller context is also a major factor affecting the cost to acquire a right-of-way for the trail. In spite of the challenges, projecting the cost for land acquisition still serves a purpose by setting some baseline parameters for budgeting and starting a dialogue with landowners.

Acquisition of land for the trail falls into two categories: 1) acquiring additional right-of-way along existing roadways, such as Ravenna Trail; and 2) acquiring trail right-of-way/easement along an old rail grade and/or undeveloped land associated with the various trail routes. Figure 4.1 on the next page illustrates these two situations.

FIGURE 4.1 – RIGHT-OF-WAY ACQUISITION REQUIREMENTS



As figure 4.1 illustrates, a minimum of 20 feet of new road right-of-way is needed to accommodate the trail along narrower sections of Ravenna Trail or within an independent trail corridor, such as following the old rail grade alignment. For estimating purposes, this corridor width was used to determine the overall number of acres of land that will need to be acquired, at a minimum, to accommodate the trail.

The per acre value of land along the corridor is quite variable due to the differing land classifications encountered and the general economic trends at any point in time that affect valuations in the larger marketplace. For example, the value of recreational lands with limited agricultural or development potential (typically lowland-dominated) has been between \$2,000 and \$4,000 an acre. The value of agricultural lands has been between \$7,500 and \$12,000 an acre, and rural residential or residential reserve-type land up to \$50,000 an acre, or more closer to Hastings.

For estimating purposes, the higher end of each of these ranges was used since acquiring a relatively narrow strip of land versus an entire property will likely be more costly. The following table summarizes the projected costs to acquire right-of-way for the trail as related to the primary and optional trail routes defined under the plan.

PROJECTED COSTS FOR TRAIL CORRIDOR ACQUISITION

| Trail Segment | Description | Total Acres to Acquire* | Total Projected Cost |
|--|---|---|--|
| Primary Trail Route | Primary route from Hastings to Cannon Valley Trail connection. | 19 acres @ \$4,000/ac. 11 acres @ \$12,000/ac. | \$208,000 |
| Hastings Bluff Optional Trail Route | Optional route following Glendale Rd. and top of bluff near Hastings. | 1 acre @ \$4,000/ac. 8 acres @ \$50,000/ac. | Additional \$346,000 (\$404,000 minus \$58,000 for land acquisition allocated to the section of the primary route this route replaces) |
| Prairie Island Optional Trail Route | Optional route traversing Prairie Island. Assumes land values are consistent with agricultural lands. | 17 acres @ \$12,000/ac. | Additional \$166,000 (\$204,000 minus \$38,000 for land acquisition allocated to the section of the primary route this route replaces) |
| Collischan Rd./Cannon Bottom Rd. Optional Trail Route | Optional route following these roads. Assumes some additional ROW will be required along Collischan. | 4 acres @ \$4,000/ac. | Additional \$10,000 (\$16,000 minus \$6,000 for land acquisition allocated to the section of the primary route this route replaces) |

* Land already owned by the State of Minnesota along the corridor is not included in the land acquisition cost projections.

Note: In some instances, a land owner may only be willing to sell a larger property as opposed to a 20-foot strip. If so, overall acquisition costs would be higher than that shown in the above table.

As the table illustrates, the overall costs for land acquisition is relatively modest under the presumption of purchasing a 20-foot wide corridor using the previously defined land valuations. It also highlights that the primary route is the most cost effective, with each of the optional routes entailing additional costs for land acquisition if selected in lieu of the primary route. Importantly, these valuations become less and less certain the longer the time frame between completion of the master plan and implementation.

DEVELOPMENT COST PROJECTIONS

Projecting the costs for developing the primary or optional trail routes without the benefit of site surveys and design layouts offers certain practical limitations. Given this, it is important to underscore that the cost projections presented here are for planning purposes and that more detailed evaluation is required to firm up costs for funding initiatives.

The cost projections take into consideration assumptions regarding the basic conditions along each of the routes, which as noted in Section 3 pose some uncertainties – the most challenging of which is fully understanding the extent to which the old rail grade has deteriorated over time. Timing of development will also affect cost projections – which generally means costs will rise above what is shown the further out into the future development occurs.

The forthcoming cost projections are based on estimated unit costs on a per mile basis. Commonly, trail development ranges from \$190,000 to \$270,000 per mile for construction of a 10-foot wide asphalt trail, exclusive of bridges, underpasses, or other major add-on features. In this situation, given the uncertain condition of the old rail grade, a higher than average cost per mile can be expected to account for additional site preparation, culvert replacement, and miscellaneous related work. This also holds true for the trail segments within road rights-of-way, where dealing with rock outcrops and utilities will add to overall cost per mile to develop the trail. As such, \$250,000 per mile is used for the cost projection for general trail development.

In addition to general trail development, budget figures for building bridges, boardwalks, and miscellaneous development is included for the primary and optional trail routes. Miscellaneous development ranges from trailhead parking and kiosks to trail signage.

PROJECTED COSTS FOR TRAIL DEVELOPMENT

| Trail Segment | Unit/Budget Costs for Trail Development | Total Projected Cost |
|--|---|--|
| Primary Trail Route | 18 miles of trail @ \$250,000/mile = \$4,500,000 Budget for bridges, boardwalks, underpass, misc. extras = \$1,750,000 | \$6,250,000 |
| Hastings Bluff Optional Trail Route | 3.65 miles of trail @ \$250,000/mile = \$912,500 Budget for misc. extras = \$250,000 | Additional \$962,500 (\$1,165,500 minus \$200,000 for trail development allocated to the section of the primary route this route replaces) |
| Prairie Island Optional Trail Route | 7.0 miles of trail @ \$250,000/mile = \$1,750,000 Budget for bridges and misc. extras = \$1,000,000* * Does not include budget for grade-separated crossing of railroad tracks. | Additional \$1,450,000 (\$2,750,000 minus \$1,300,000 for trail development allocated to the section of the primary route this route replaces) |
| Collischan Rd./Cannon Bottom Rd. Optional Trail Route | 2.3 miles of trail @ \$250,000/mile = \$575,000 Budget for bridges, boardwalks, and misc. extras = \$325,000 | Break even option (\$900,000 minus \$900,000 for trail development allocated to the section of the primary route this route replaces) |

As the table illustrates, the primary route is the most cost effective to develop, with each of the optional routes entailing additional costs if selected in lieu of the primary route.

IMPLEMENTATION STRATEGY

The timing of implementing the Hastings-Red Wing Trail is contingent on a number of variables, most notably the availability of funding and the ability to acquire land in a timely manner. Optimally, full development of the trail under a single phase would be the most efficient and effective at achieving the highest public benefit. However, the unpredictability associated with funding appropriations coupled with uncertainties about land acquisition may ultimately require a phased approach to developing the trail. The following outlines the options available for funding trail development and acquiring land.

FUNDING STRATEGY

With respect to funding, the Task Force defined several options as being plausible. The first, and preferred, option is to seek state designation for the trail, with project funding being appropriated through the State of Minnesota, perhaps in concert with various regional, state, and federal grant programs. The primary rationale behind this option is the recognition that the trail traverses multiple jurisdictions within and outside the metropolitan area, making it a state-level recreational facility that will have broad-based appeal. Under this designation, a greater variety of partnership and grant opportunities can be considered than would be the case under a local or regional trail designation.

The second option is to create a regional partnership between Dakota County, Goodhue County, City of Hastings, City of Red Wing, and (potentially) the Prairie Island Indian Community. Under this scenario, each entity would participate at some level in funding development and operating the trail. The main limitation with this approach is the uncertain capacity of local and regional partners to appropriate adequate funding and/or ability to secure grants. Lacking that assurance, it becomes less certain and hence more challenging to move this option forward with the same level of confidence and timeliness as the preferred option.

A third option is to operate the trail similar to that of the Cannon Valley Trail, which is administered by a Joint Powers Board that acts as a small unit of government whose only function is to operate the Trail. The limiting factor here is that development funding still needs to come from another source or combination of sources as previously defined. Once built, a trail user fee would be charged to fund the operation and maintenance of the trail. It should be noted that some participants in the public process felt that a key advantage of this model was the perception that the Cannon Valley Trail receives a higher level of maintenance and, of equal importance, oversight than would otherwise be the case. Conversely, a concern about charging a fee is that it limits access to the trail to those that can afford to pay, or those willing to seek out a scholarship to offset the fee, if qualified and available. If a fee is charged, some reduction in use levels can be expected because some users will simply go elsewhere or not participate, which in turn reduces the value of the trail as a public recreational facility.

Irrespective of the funding option selected, successful implementation of the Hastings–Red Wind Trail will require a close working relationship among the current partners to shepherd the project forward, starting with formal adoption of the master plan.

LAND ACQUISITION STRATEGY

As noted in other sections of the report, acquiring land will be one of the more challenging issues facing the development of the trail. Although this is not unique to this situation, gaining landowners' confidence that they have been dealt with fairly will require direct discussions and negotiations to achieve an agreeable outcome. Given that each landowner situation is different, a variety of tools will likely need to be used to acquire or otherwise set aside land for the trail corridor. The tools or options most frequently discussed during the public process include:

- **Direct fee-title purchase** – in which the public entity takes full ownership of the property from a willing seller through a negotiated process.
- **Securing a permanent trail easement for a fee** – in which the public is granted use of the easement for the trail for a fee, but does not take direct ownership of the land.
- **Securing a permanent easement through land dedications for parks and trails** – in which a trail easement is secured as part of a larger private development project. In doing so, the developer meets part of their park and trail dedication obligations as typically required at the local level. The most likely scenario for this option relates to the *Hastings Bluff Optional Trail Route* defined in Section 3.

- **Acquiring or transferring development rights** – in which an LGU, land trust, or other developer purchases the development rights to a property, while the landowner continues to maintain ownership. Once the rights are purchased, the land can only be used for a specified purpose other than development. The land would typically be protected under a subsequent trail easement or other protection program. Transfer of development rights refers to setting aside land on one property for a public purpose by transferring or selling the right to develop that property to other properties within a designated district under strict guidelines. Both of these approaches ensure that there is no economic harm to the landowner or developer and that the LGU retains its desired density.
- **Donations** – in which land ownership is transferred to a public entity at no direct cost, with or without contingencies.
- **Land swaps** – this entails swapping or exchanging lands (through a legal framework) whereby a landowner transfers ownership of one parcel of land (for the trail corridor) in exchange for other lands of equal value, most often in the immediate area.

The last option was of particular interest to several landowners along the old rail grade corridor. Typically, this involved State of Minnesota land in which the landowner would consider exchanging private land along the trail corridor for state-owned land elsewhere adjoining their property.

In addition to land ownership issues, negotiations with individual landowners will also have to address other concerns expressed during the public process, as defined on page 2.3 in Section 2. Most notable of these with respect to affected property owners include concerns about the loss of privacy and retaining the ability to hunt, along with concerns about trespassing, safety of trail users (during hunting season), and maintaining access to remote parcels.

Whatever the strategy employed, the most important issue is to keep landowners informed, and be patient and fair with negotiations.

DEVELOPMENT STRATEGY

As previously noted, full development of the trail under a single phase would be the most efficient and effective at achieving the highest public benefit. That said, phased development may be required in response to funding availability, land acquisitions, and technical design issues and costs.

Prior to the first phase of implementation, preparing design development-level drawings for the entire corridor is recommended to gain a better understanding of the technical issues and costs associated with developing the trail. Whereas the master planning phase provides a baseline to work from, greater detail will be necessary to make sound decisions on final route selection and the cost-benefit of one option versus another. Gaining direct access to all of the private properties along the old rail grade will be required during the design development phase to develop a more complete understanding of site conditions affecting trail development, and which might also affect land acquisition negotiations.

MANAGEMENT PLANNING

As part of the implementation process, project partners will need to prepare a formal management plan focusing on the operations and maintenance (O&M) of the trail. The following provides an overview of key issues that such a plan would address in greater detail.

OPERATIONS

A key provision of the O&M plan will be defining which governmental unit(s) will be responsible for the operation and maintenance of the trail. Depending on the trail's designation, this could be a shared responsibility, or one LGU may take the lead. Further consideration of the merit of the Cannon Valley Trail model will also be part of this discussion, which inherently involves debate about whether the trail will be open to the public without charge or if a user fee will be applied (as is the case with the Cannon Valley Trail).

Irrespective of what approach is taken, the operation and maintenance of the trail will be consistent with established ordinances and policies already adopted by Dakota County, Goodhue County, City of Hastings, and City of Red Wing.

MAINTENANCE

Ongoing maintenance of the trail is essential to protect the public investment and provide users with a clean, safe, enjoyable recreational experience. As part of the O&M plan, clearly defined maintenance program and policies will be provided.

Accomplishing the maintenance needs of the trail will pose some economic challenges irrespective of who is responsible. As trails and other park land and facilities are further developed in the region, new or expanded maintenance services will need to be provided. All of the partners involved in the project recognize the need to remain committed to the maintenance of trails and parks. Realistically, it is unlikely that existing staff and budget resources will be sufficient to fully operate and maintain the trail once developed. Some level of new funding will be needed to support these activities.

LAW ENFORCEMENT AND POLICING

The operational plan will include provisions related to law enforcement and policing. In particular, trail users will be informed of trail rules and regulations in a variety of ways. Kiosks and signs will be strategically located to address specific information about allowable trail uses, permitted and prohibited activities, fees, and directions. Local and county law enforcement departments will respond to emergencies and criminal complaints following established protocols.

*Note: Additional information related to trail maintenance can be found on page 3.32 under **Provisions for Maintenance of the Regional Trail.***

PUBLIC INVOLVEMENT IN IMPLEMENTING THE MASTER PLAN

OUTREACH AND MARKETING

Public outreach and marketing of the trail will build upon programs already being implemented to varying degrees by Dakota County, Goodhue County, City of Hastings, and City of Red Wing. As with these programs, the outreach effort will have various components, including:

- **Printed Materials:** Involves the distribution on a regular basis of brochures and maps. Information will be distributed through city and county departments, libraries, community agencies, and other contacts throughout the region.
- **Electronic Communication:** Including web pages to inform citizens about the trail, including printable updates on implementation progress, maps, and brochures.
- **Other Outreach:** Other forms of outreach and marketing include displays at the local fairs, articles in local newspapers, the production of flyers and brochures and the display of information at City/County Service Centers. News releases and advertisements will be published in local community and metropolitan area newspapers that highlight upcoming public meetings and facility openings.
- **Marketing Initiatives:** As part of the O&M plan, a comprehensive marketing plan will be included to increase public awareness of the trail. In addition, the marketing plan will identify the need to expand and diversify marketing and communication efforts to advance trail use by minority populations and special needs groups.

Public interest in the trail is expected to remain high in the years to come, especially as it relates to the impact the trail will have on individual properties. Public involvement and comment should continue to be sought during the land acquisition, design, and construction phase to ensure that citizens have an opportunity to weigh in on the discussion and to ensure every precaution is taken to avoid unnecessary impacts to adjoining properties. Forums for broader public input (e.g., open houses and presentations) are also suggested as needed to communicate and exchange ideas with interested citizens.

The objectives associated with involving citizens in the implementation process include:

- Determining who the stakeholders are and their interest in a particular segment of the trail
- Understanding their needs and unique perspectives
- Identifying and understanding concerns and problems
- Developing alternatives and find appropriate solutions with input from stakeholders

Appendix A

Public Comments from Open Houses

OVERVIEW

The following are the comments from open house participants as submitted on comment cards made available at the open houses on April 29, 2008 and July 7, 2009.

Hastings – Red Wing Trail Master Plan

Verbatim comments from 4.29.08 meeting in Hastings and Red Wing

Comment 1:

Jake Lodewegan, 16905 Will Path

There are enough bike trails no one is complaining they need more. This trail is unrealistic due to all the issues you already no of. Opening ATV land / trails would be better spent money because there aren't any, but that's besides the point. I object.

Comment 2:

Kurt Cahill, 17450 Blackbird Trail, 612.366.2265

No money to give for trail, the economy can't afford it.

Comment 3:

Tim Tessier, 17700 Blackbird Trail, 651.438.1168

As a land owner I don't want a trail in my back yard or on my land. That will never change.

Comment 4:

Bob Niebur, 1510 Highland Drive, Hastings, MN, 651.437.1383

It a ridiculous Idea, we are we are in a recession. Hastings doesn't have any money so it's a waist of time to discuss it and a waist of money money we don't have.

Comment 5:

Jan Langenfeld, 17715 Ravenna Trail, 651.437.2891

I live along Ravenna Trail and would consider it a privilege to live a bike trail. Everyone has their special interest – mine is bike riding, walking

Comment 6:

Justin Aaron, 621 8th St. West, Hastings, MN 55033, 651.587.7948

- Transportation money should be spend on roads and bridges not bike trails
- WMA affected all throughout Vermillion River Watershed
- Clean watershed will be affected
- Tax dollars should be spend towards other things like actual transportation
- Hunting rights will be affected throughout Core WMA of Vermillion River Watershed
- This is a perfect example of how the county should push back at the state and fight the fact that tax dollars are being spent on things like this

Comment 7:

Duane Zimmerman, 1311 West Ave, Red Wing, 651.385.6075

To tell you the truth I don't understand why this proposal is even being talked about. There are so many other more concerning issues that need funding for than a paved bike path. How much more wilderness must be destroyed before its enough. Putting pavement through is destroying.

Hastings – Red Wing Trail Master Plan Verbatim comments from 7.7.09 meeting open house in Red Wing

Comment 1:

Heidi Jones, Planning Commission Member, Red Wing, 388.0389

Please accept the plan so the process can move forward. I believe landowners' issues can be solved over the long term. I spoke with several advocates for the trail – 1) draw/amenity for a progressive community to draw younger workers; 2) world-class scenery; 3) healthy lifestyles; 4) connection to nature for youth.

Comment 2:

Paul Doq, 5777 Mt. Carmel Rd, Welch, 651.253.7282

For the trail

Comment 3:

Tim Gaughan, 20690 Rowan Ave, 651.438.2805

- 1) Will the property taxes by the trail go up?
- 2) When will the trail close for winter?
- 3) Will I lose my rights of attorney use on trail when it's closed?
- 4) How far from trail (feet) will hunting be shut down?
- 5) Show me the money. It won't be cheap.

Comment 4:

Larry Lucken, 17120 200th St E, 651.437.6194

Totally against this trail. The government is in the red and people being laid off. Who will be able to pay for it?

Comment 5:

Barry Hovan, 13675 Ravenna Trail, 651.480.8414

From what I have seen 90% of land owners are not in favor of the proposed trail. Why does this issue keep coming to the surf ace? To me if the government officials are listening to the land owners it would be abolished.

Comment 6:

Gene Shea, 17261 Blackbird Trail, 651.437.0457

I liked the idea the trail was away from my road Blackbird Trail, but many of the other landowners are against this plan. For me these are my good friends what the word is what want. And that is no trail at this time.

Comment 7:

Eric J. Legler, 15485 Ravenna Trail, East Hastings, 651.757.5338

My land is no for sale. If the is a trail it should be in 33 foot right of way of County Road 54.

Comment 8:

Legh Nelson, 21725 155 Ave, Welch, MN 55089, 651.222.6065
I am strongly for building this trail on the RR bed.

Comment 9:

Jim Pribyl, 1137 Nelson Ave., RW, 388.1523

Landowner – would take away only viable access to our recreational land – i.e., hunting and fishing.

Comment 10:

Scot Johnson, 1127 Putnam, Red Wing, 388.1876

- 1) I am supportive of completing the master plan.
- 2) Ravenna Trail was repaved with a wider shoulder this summer.
- 3) Were the costs for wetland mitigation included in the cost estimates?
- 4) Much of the old railroad grade is state forest land. Does DNR Forestry support the trail?
- 5) We need to be creative so keeping it in the hands of locals or non-profit at this time is a good strategy.

Comment 11:

Renee Lorence, 405 1/2 W. 3rd St, Red Wing, MN

This trail is an excellent link for this region of MN. It will play a vital role in healthy recreation but also in tourism by encouraging bike riding/overnight bike trips.

Comment 12:

Bob Niebor, 1510 Hiland Dr, Hastings, MN, 651.437.1383

The public is against it. It's a waste of money.

Comment 13:

Dag Risenh, 1620 Central Park, 380.8576

Go trail go

Comment 14:

Bryan Kaul-Ranholie, 15675 Ravenna Trail, 480.8414

If you put this trail in hunters that own the land or hunt on friends land won't get to because if they shot they could hit someone. Just stop. People are going to fight it off.

Comment 15:

Mary Olson, 2621 Hallquist Ave, Red Wing, MN 55066, 388.2006

The impact of land being taken away not now but in the future. This is not a very pleasant way to live. Having important meetings you must attend to protect your land for 10-30 years with no input as to dates or times that work with schedules. Thw time commitment to protect what's ours. If I could have the amount of money you are predicting the trail will cost and the actual amount I would be able to retire. You have to know your estimate is dishonest. An estimate should be in the ballpark.

Comment 16:

John Friedrich, 1739 Twin Bluff, Red Wing, MN 651.388.8561

Please leave my private land that I pay taxes on alone. I own hundreds of feet of private land between Co. Rd. 18 & Collischan Rd. The "Abandoned Railroad Bed."

Comment 17:

-----Original Message-----

From: dave close [mailto:justbluffin61@gmail.com]

Sent: Thursday, July 09, 2009 10:29 AM

To: Peterson, Brian

Subject: HASTINGS-RED WING TRAIL

Brian,

My wife and I attended the meeting Tues. July 7th. We heard one man claim that the \$150,000.00 per mile cost of the trail would be a bad investment for the taxpayer. Someone, perhaps you need to tell these people that the people of this state have voted and passed an increase in sales tax of .00375, 30- 40 million to be allocated or earmark for this purpose. This money will be either spent here in our area or somewhere else.

Another young women spoke in objection to the trail saying that this was a rape of the land and that some parts of the trail would cross Indian holly ground {Babbling Springs} She went on to say that as a child she had been there many times and enjoys taking her children there now. What this lady fails to realize, and someone needs to tell her, that she currently is trespassing on private property. When the state owns the land her and her children and others can enjoy this beauty, legally.

Sincerely,

David and Juleen Close

Comment 18

You keep wanting to push the Bike trail down Ravenna Trl and across 200th in Dakota Co. and if you do , God Help the Bike Riders !! At least once a week someone blows through the stop sign and ends up where you want to put the trail through and every 3-6 months someone either dies or goes to the Hospital at that intersection, This one happened last friday and he was sent to the Hospital. You need to find a different way than, to cross over 200th.....FYI...Tim Gaughan

Comment 19:
 Pete Olson, 1933 Grand View Ave, RW, MN, 388.1422
 Vote no. unacceptable. See following.

PETE OLSON 388-1433

As an owner of Private Property on the route of the proposed bike trail I will say again that I am against this trail. My property ownership group has been clear and consistent over the last 5 years or better that we have zero interest in selling land for the purpose of a trail.

We were invited to an informational meeting over a year ago by Brauer and Associates where they presented their plan. They were received by a roomful of very irate property owners from Goodhue and Dakota Counties. We were told that no route had been selected and they would be taking comments into consideration in their plan. At this time after once again stating word like NO and NEVER we suggested an alternative path through Prairie Island, crossing the Vermillion River and linking up with Collishan Road bypassing our property. They said they would look into this.

As you see their draft with many route alternatives this route is absent from their report. We have been told that this route would be too costly with a crossing at the Vermillion River. So today the only route they show today is the one going through our property. I find it funny that if cost is an issue they would have to build up to 3 bridges and an underpass beneath County Road 18 just to get to our property. They also propose to link up with the Cannon Valley Trail by following Collishan Road and utilizing the 3 closed bridges there. The same bridges the city has already voted to remove. It appears the only water they can't cross is the Vermillion where we asked them to. What in the world will they do when the trail reaches the Missouri or the thousands of other waterways on the way to the Gulf of Mexico.

The city shows this direct Prairie Island route as part of its comprehensive plan. Why are they not demanding this in Brauer and Associates proposal. I would think that a direct link to the Prairie Island Community would serve both communities and be in Red Wings best interests.

The city has placed a great deal of emphasis on preserving green and open space yet they are on board with an asphalt proposal. We seem to be the only ones truly working to protect the environment as asphalt is development. I think this wasn't true why wouldn't they pave some trails in the boundary waters, as its sure pretty up there. This is a very rugged and scenic area which is why I enjoy this property. Land such as this between Red Wing and the Cities just does not exist and the idea of opening up my property to the 3 million or so people in the Twin Cities does not work for me. The land as I know it would cease to exist. This land is currently heavily used by Hunters, Brauer and Associates has no idea how heavily. So although biking may be popular you would be repurposing this land for one recreational pursuit over another, this should have been looked at and not merely blown off.

We have been told by City Planners and Brauer and Associates that the 2 can coexist but we all no that when a dog chases after a biker or someone hears a few gunshots close by what would happen next. We have been told that we would still have access to our property, perhaps on an ATV trail alongside the bike trail in the ditch. First of all I don't have an ATV and second you would sink to your eyeballs in mud once off the railroad grade I find it funny that Brauer and Associates values the railroad grade but in their acquisition cost figures they base their costs on just acquiring a skinny strip and valuing it as marginal swampland. They should be looking at paying for every cubic yard of fill that they plan on building when figuring their costs. By bisecting the lowlands of my property just short of 200 acres it essentially makes my property worthless for what I use it for. They would not only be buying my property but buying out my passion.

Based on what I have said I urge the city to vote to not accept this proposal, do right by the taxpayers and to protect the property rights of landowners. We have been told that a trail over private property can only happen if the land is acquired from willing sellers of which we are not and will never be.

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