

EXECUTIVE SUMMARY



Mississippi Skyway Preliminary Engineering Report

CITY OF RAMSEY, MINNESOTA
DECEMBER 2014



EXECUTIVE SUMMARY

Project Need and Intent

The Mississippi Skyway pedestrian bridge will provide a critical direct pedestrian and bicycle connection between the City of Ramsey's 400-acre pedestrian-oriented 'COR' development, the Ramsey Northstar Station, Ramsey Park & Ride and the resources associated with the Mississippi River and attendant regional amenities. Currently, Trunk Highway 10 (TH 10) and the parallel BNSF Railway Company and Metro Transit Northstar Commuter Rail railroad corridor are barriers to safe pedestrian and bicycle access between The COR and the river.

At its heart, the project is about overcoming boundaries to safe bicycle and pedestrian circulation while expanding and enhancing multi-modal transportation, economic development and recreational options to promote a livable, vibrant region and community.

Regional Amenities and Connections

The Mississippi Skyway provides the connection between regional amenities creating an effective nexus between housing, transportation, employment and recreation. The Mississippi Skyway will link existing and future public investments with a single project, enhancing the value of each.

Mississippi River

The Mississippi River, known as America's Treasure, is a vital ecological feature on a global, national, and regional scale. The stretch of river from Ramsey and Dayton down through the Twin Cities area to Hastings is designated as a National Park entitled the Mississippi National River and Recreation Area (MNRRA). The river within Ramsey is also a part of the State's Wild and Scenic River system. A prominent part of the MNRRA is the 273-acre Mississippi West Regional Park in Ramsey, which includes an existing trail from the river to the touchdown point of the proposed skyway. The master plan for the park forecasts an interpretive center to compliment the native plant community restorations and recreational river access.

Regional Trail Connections

The Mississippi River Regional Trail from Mississippi West Regional Park to Anoka will be complete in the Spring of 2015. This trail is also designated US Bikeway #45 with attendant trail connections to the entire Metropolitan Park and Trail system.

The Mississippi Skyway will also allow the Central Anoka County Trail to be re-aligned through Ramsey's COR to the Mississippi River Trail and Mississippi West Regional Park.

The Central Anoka County Trail will provide several direct regional connections to:

- » *Bunker Hills Regional Park*
- » *Coon Creek Regional Trail*
- » *Cities of Anoka, Blaine and Coon Rapids park and trail systems*
- » *City of Ramsey's 50 miles of trails*
- » *Rum River Central Regional Park*

City of Ramsey, or the Center of Ramsey referred to as The COR

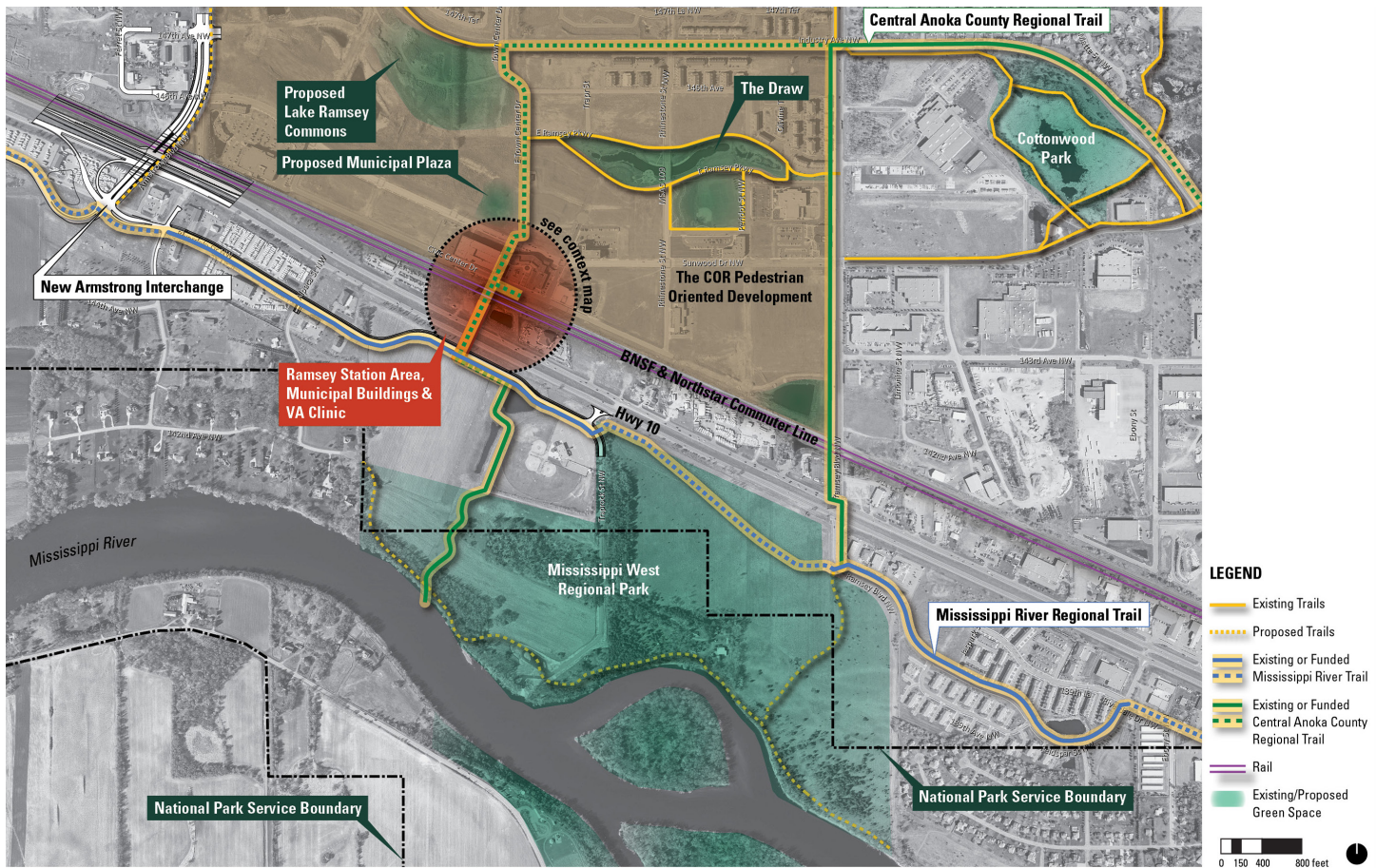
The City of Ramsey, with the Metropolitan Council, has envisioned a multi-modal town center entitled The COR with access via commuter rail, car, bicycle, and on foot. The 'COR' development is a planned 400 acre mixed-use and transit-oriented development site located north of TH 10 between CSAH 83 and CSAH 56. In the next years, the site is projected to add 6,550 people and 2,830 jobs. The COR includes a mix of residential housing choices for people of all incomes.

Establishing parks and creating quality recreational and open space opportunities remains a high priority for the City. The CITY OF RAMSEY 2030 COMPREHENSIVE PLAN UPDATE identifies the need to "Create vehicular and non-vehicular linkages to neighboring communities and between city neighborhoods, trails, recreation, work and shopping" as a component of their future planning checklist. This project serves to continue to develop non-vehicular modes of transportation, and link all of the area's transportation systems in the spirit of that goal.

Ramsey Northstar Commuter Rail Station and Park & Ride

The Ramsey Northstar Commuter Rail Station and Park & Ride facility, equipped with publicly available Electric Vehicle charging stations, provide accessible, affordable and quick transit access to the larger metro region. The station is adjacent to The COR and would be directly connected to the Mississippi Skyway pedestrian bridge, enhancing ridership and accessibility.

Opened in November 2012, the Northstar Station provides a 35-minute ride to the region's largest job center, downtown Minneapolis. Furthermore, at the Northstar's terminus at Target Field Station in downtown Minneapolis, Blue Line light rail transit connections are available to the airport, Mall of America, and scattered employment sites in Minneapolis neighborhoods. The Green Line provides additional access to the University of Minnesota, Downtown Saint Paul, and many Saint Paul neighborhoods. The Mississippi Skyway will expand access to these publicly funded investments.



Appendix E, Figure 1 – Project Location and Trail Map

Alternatives and Barriers to Safe Pedestrian Movement

The Mississippi Skyway would provide a safe grade-separated pedestrian and bicycle connection between The COR and the Mississippi River and across the existing barrier of the TH 10 corridor and rail line.

TH 10 is a 4-lane divided highway that is a primary east-west route in Anoka County, serving as a commuter corridor to the Minneapolis/St. Paul Metropolitan Area with annual average daily traffic of 43,500 vehicles per day in the project area.

BNSF runs parallel to TH 10. There has been a nearly 40 percent increase in freight traffic since 2012, when approximately 48 freight trains passed through each day. In addition to freight trains, these tracks also facilitate the Northstar Commuter Rail system.

In the Fall of 2014, the City of Ramsey constructed an extension of Riverdale Drive from Alpaca Street NW to Traprock Street NW at the regional park. This roadway extension is parallel to and

immediately to the south of the existing Minnesota Department of Transportation's ROW occupied by TH 10.

The closest alternate pedestrian and bicycle crossing of TH 10 is at Armstrong Boulevard when the new interchange design is constructed. A user traveling from the Ramsey Northstar Station to the proposed south touch-down point of the Mississippi Skyway by way of Armstrong Boulevard would travel an additional 1.7 miles or an estimated 35 minutes of walking time. Such an extensive non-direct route would be prohibitive from a user's standpoint, and will continue to invite illegal pedestrian crossings as has been problematic throughout the highway and railroad corridors.

Absent a pedestrian overpass, TH 10, the railroad corridor and the parallel Riverdale Drive will continue to act as a physical barrier between Ramsey's mixed-use development, commuter rail station, and regional investments on both sides of the highway and the amenities along the Mississippi River which could hinder sustainable development potential and economic growth in the region.

Mississippi Skyway Preliminary Engineering Report

SRF Consulting Group, Inc. was engaged to assess the feasibility of constructing a grade separated crossing over TH10 and Riverdale Drive. The study included the following objectives:

- » *Identify potential locations for a new pedestrian bridge crossing of TH 10 and Riverdale Drive.*
- » *Conduct preliminary analysis of alignments and profiles for further consideration in future design phases.*
- » *Identify impacts to adjacent private and public lands for possible Right-of-Way (ROW) easements and acquisitions.*
- » *Identify impacts to existing utilities.*
- » *Outline potential structure types and aesthetic options for consideration.*
- » *Provide an outline of future tasks to continue to move the project forward in compliance with anticipated funding requirements.*
- » *Review possible additional site development options for the surrounding site to facilitate pedestrian and bicycle connections to the approach areas.*

Throughout the process, multiple alignments were considered (see Appendix B & Appendix J). With assistance from the City, the preferred alignment selected was a straight alignment from the Ramsey Northstar Station over TH 10 and Riverdale Drive with a circular helix approach ramp on the south side of Riverdale Drive.

Wayfinding and bridge aesthetics were also taken into consideration. The proposed bridge aesthetics take their cue from the surrounding civic architecture including City Hall, the municipal parking ramp, and the Northstar Ramsey Station. Undoubtedly, MnDOT, local stakeholders and the greater community will have an interest in the visual quality of the structure. Further input from stakeholders will help ensure that the bridge will be an attractive and distinctive civic landmark that reflects community values.

Preferred Pedestrian Bridge Concept D

Seven different structure types were considered as feasible options for the pedestrian bridge. The City has identified Bridge Concept D in Appendix E as the preferred option, which includes dual bowstring truss center spans with concrete girder side spans. Preferred Bridge Concept D is described as follows:

- » *Visual emphasis is at the center of the bridge at the arcing trusses.*
- » *The new bridge will be distinct from the existing enclosed skyway but will complement its appearance.*
- » *Center trusses and vertical piers are the dominant architectural features.*
- » *A center pier is required in the TH10 median. Decorative railing enclosure creates an "open" experience on the deck without a roof.*

Estimated Project Costs and Funding Sources

A preliminary estimate of project costs has been developed based on the proposed pedestrian bridge options presented in this report. The preferred bridge concept costs are estimated at \$5.1 million to \$5.6 million. These costs are based on 2015 dollars and include a 10% contingency and an estimated 20% for engineering and construction administration cost.

In 2014, the National Parks Service (NPS) awarded the City a grant for construction related activity for the Mississippi Skyway pedestrian bridge. The "MISSISSIPPI RIVER SKYWAY BRIDGE - MISSISSIPPI NATIONAL RIVER AND RECREATION AREA (MISS)" grant provides total program funding of \$490,000 with a grant availability sun-set date in 2017.

The City is considering multiple additional funding options and partners for the final design considerations, construction, and maintenance of the proposed pedestrian bridge facility.

This report has conservatively assumed the use of typical Federal funding sources for purposes of estimating total project costs. Note that multiple Federal funding sources are available, and each may present a different set of specific project criteria.

Next Steps

The Mississippi Skyway pedestrian bridge project will likely require a Cooperative Construction Agreement between the City and MnDOT.

An Environmental Review Summary has been prepared (see Appendix H) to identify existing resources within the vicinity of the Mississippi Skyway project. An environmental review document will be needed to meet requirements of the National Environmental Policy Act. The type of document will be determined when funding is identified based on coordination with funding partners and federal agencies. The construction of the bridge is anticipated to be a Categorical Exclusion (Type II document; no significant environmental impacts are anticipated.)

Right-of-Way: Easements and land acquisitions can be negotiated at this time and should be prepared to satisfy Federal real estate acquisition statutes and regulations.

Utility coordination may begin with impacted utilities so that utility owners can begin to determine the extent of the impact and the preliminary resolution, whether it be modification or relocation.

MnDOT coordination may continue. A MnDOT State/Federal Aid project coordinator will need to be assigned for determining the State/Federal processes to be followed and for review of preliminary and final construction documents.

The draft preliminary bridge plans included in the report may be advanced to a complete preliminary plan for review and approval by the MnDOT Bridge Office Preliminary Plan Review Unit. Upon approval of the preliminary plan, the final design and plans may be prepared and reviewed per the Cooperative Construction Agreement Process.

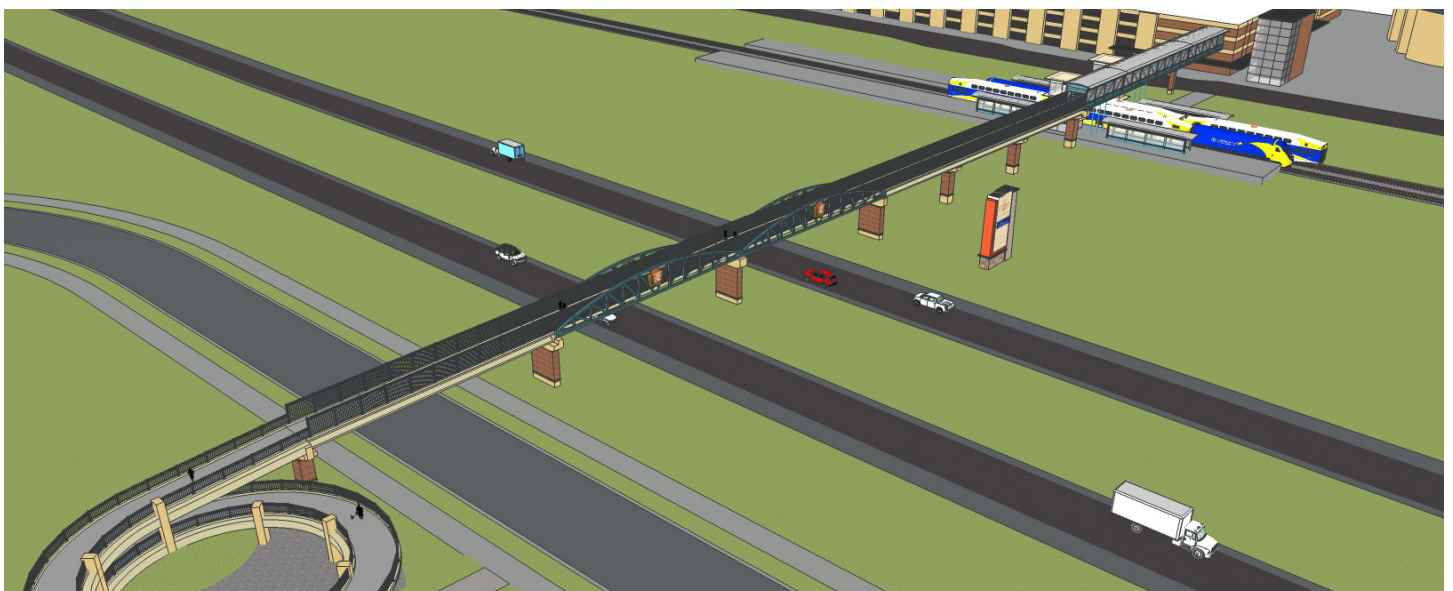
Preparation of funding applications and requests for letters of support may begin at this time while other steps outlined above are on-going.



Appendix E, Figure 20 – Preferred Concept D View from TH 10



Appendix E, Figure 19 – Preferred Concept D View of helix structure from the south



Appendix E, Figure 18 – Preferred Concept D Bird's eye view

THIS PAGE INTENTIONALLY LEFT BLANK