



## General

This section provides the basic information about the park or trail and the organizations responsible for it.

<b>Park/Trail ID #</b> 15-027D	<b>Funding Application</b> 17-0070-F	<b>Park/Trail Name</b> Cannon Valley Trail
<b>Last Update</b> June 29, 2017		
<b>District</b> 6	<b>Project Name</b> Bridge Replacement and Repair - Cannon Valley Trail	

### Project Description

Project Summary Cannon Valley Trail (CVT) is a non-motorized recreational trail on a former railroad right-of-way connecting Cannon Falls, Welch and Red Wing in Goodhue County. It opened in 1986 and now enjoys over 100,000 visitations annually. Developed primarily for bicycling, in-line skating, hiking and cross-country skiing the Trail parallels the Cannon River through dramatic topography and scenery. This Project is for the replacement of three existing 100+ year old railroad era timber trestle trail bridges that have extensive damage and decay. The Project also includes the repair of one flood damaged abutment of another bridge. A 2017 Feasibility Report (bridge engineering analysis) recommends replacement and repair within one to three years. These replacements and repair is the highest priority Capital Improvement Plan (CIP) project in the 2017 CVT Comprehensive Plan Update. Completion of this Project is a tangible and essential outcome necessary for CVT to remain open and safe. Project Description Detail CVT occupies a former railroad right-of-way that includes nineteen bridges – sixteen of which are 100+ year old trestles that were decked and railed in 1985/86 for trail use. The 2017 Feasibility Report found that three of the railroad era bridges require replacement within one to three years due to extensive damage and decay. Furthermore, the west abutment on a fourth bridge has shifted likely due to flood impacts and requires immediate repair to avoid further damage to the bridge and trail closure. These bridges, with Minnesota Department of Transportation inventory numbers, are: • R0481: 134' long timber trestle with extensive damage and decay • R0483: 55' long timber trestle with extensive damage and decay • R0484: 115' long timber trestle with extensive damage and decay • 25604: 180' long steel truss with shifting west abutment pulling bridge out of alignment The 2017 Feasibility Report recommends the three railroad trestles be replaced with 10' wide steel truss bridges of similar length. Steel truss bridges are preferred as they are more durable than other alternatives, such as timber-panel lam. Wood is preferred for decking but final engineering will determine the best surface for durability, accessibility and safety. Final engineering will determine the character of the bridge railings. Nearly all existing bridges have a railing design character inspired by the pattern of rails and track. This design character contributes to the CVT 'brand' by visually connecting to its railroad

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inheritance. There is interest in the replacement bridges also making this contribution. 2017 CVT Comprehensive Plan Update Implementation Recommendations On May 23, 2017 the Trails governing Joint Powers Board approved the Cannon Valley Trail Comprehensive Plan Update (Plan Update). This Plan Update and the accompanying CIP in the total amount of \$12,084,800, stress the urgency of bridge replacement as described in the 2017 Feasibility Report and lists the three replacements and one repair as the number one CIP priority. The serious risk is that if the bridges are not replaced as required, partial or complete closure of CVT may become necessary. For many bridges there are no bypass options due to extreme topography. Any lengthy closure would be very damaging to the CVT program and local community as well as being a significant loss of recreational opportunity for the citizens of Minnesota. Bridge replacement detail in the Plan Update is located on pages 70 – 71 and a summary of Capital Improvement Projects on page 123.

## Project Area Maps

CVT Bridge Locations Map

[http://dms.gmrptcommission.org/uploads/funding/17-0070-F/Bridge Locations Map\\_9cc5f8.pdf](http://dms.gmrptcommission.org/uploads/funding/17-0070-F/Bridge%20Locations%20Map_9cc5f8.pdf)

<b>Organization</b> Cannon Valley Trail Joint Powers Board	<b>Lead Contact</b> <b>Full Name</b> Scott Roepke	<b>Lead Contact</b> <b>Title</b> Trail Manager
<b>Mailing Address</b> 825 Cannon River Avenue	<b>City</b> Cannon Falls	<b>State</b> Minnesota
<b>Zip</b> 55009	<b>Phone</b> 5072630508	<b>Email</b> trailmanager@cannonvalleytrail.com

## Funding

### Legacy Pillars:

- Connect People and the Outdoors
- Acquire Land and Create Opportunities
- Take Care of What We Have
- Coordinate Among Providers

## Project Outcomes

### Connection to Pillars

Parks and Legacy Plan Pillars Addressed

Connect People and the Outdoors

Summary: CVT immerses people in an outstanding natural and scenic landscape but this experience is threatened with closure due to bridges in need of immediate replacement or repair.

The CVT provides a nearly 20 mile long flat to gently sloping paved trail surface through the rugged topographic of the Lower Cannon River valley. The scenic qualities of the Trail experience combined with the proximity to the high population areas of the Twin Cities and Rochester with an accessible surface and grade

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provides significant recreational benefit to Minnesotans. These attributes increase life-long recreation participation, especially to an aging population as Minnesota is experiencing. A continuous navigable and ADA compliant Trail experience from Cannon Falls to Red Wing is dependent upon the existing nineteen bridges being structurally sound and safe. Without the necessary bridge replacements and repair, the benefits provided are at serious risk.

#### **Acquire Land and Create Opportunities**

Summary: Land acquisition is not required as part of this Project. However the Project is essential for the preservation of the existing recreational opportunities. Furthermore, the three bridges proposed for replacement are currently only 8' 4" wide and the replacements will be 10' wide creating a safer condition. CVT's strategic location close to the Twin Cities Metropolitan Area (30 – 45 minute drive) and Rochester (45 minutes) conveniently serves a large portion of Minnesota's population.

#### **Take Care of What We Have**

Summary: The proposed Project is about ensuring the continuation of the high quality CVT experience through the replacement of three failing bridges and repair of a fourth to prevent failure.

Cannon Valley Trail opened in 1986 and after 30 years of operations has enjoyed nearly three million visitations. The continuity of the Trail is dependent upon the nineteen bridges being safe and sound for public use and crossing by heavy equipment for maintenance and construction needs and the provision of emergency services (25 ton capacity). The useful life of the sixteen 100+ year old railroad trestles is nearly over and replacement of all sixteen is recommended within ten years beginning with the three bridges described in this grant request. Replacement of these three bridges will insure the continuation of the high quality CVT recreational experience visitors have when traveling the CVT through the Lower Cannon River valley. There are no bypass alternatives at the bridge locations due to extreme topography and the adjacent Cannon River. Replacement is essential and within the timeline described in the 2017 Feasibility Report.

The fourth bridge in this grant request involves the repair of one abutment that has shifted likely due to flood impacts. This steel truss bridge was built in 2005, crosses Belle Creek and is battered by frequent and severe flood events including 2010 and 2012. The west abutment has shifted and is starting to pull the bridge out of alignment. Repair is essential to prevent expensive damage to the bridge.

#### **Coordinate Among Providers**

Summary: This Project is a cooperative effort between the CVT Joint Powers Board; cities of Cannon Falls, Red Wing; Goodhue County; and citizen advocates.

CVT is a result of citizen and government action and cooperation, starting with the private purchase of the railroad right-of-way through private/government partnerships for development and operations. This Project continues this collaboration and involves close coordination between the governments that are part of the CVT Joint Powers Board – the Cities of Cannon Falls and Red Wing, and Goodhue County; and citizen support. The City of Red Wing Engineering Department is providing professional project management services. Nearly the entire local cash match of \$351,715 is from private donations secured by the Joint Powers Board for capital improvements. Goodhue County owns the CVT property and the Board of Commissioners approved a resolution of support for this grant application.

#### **Connection to Regional Values**

##### **Connection to Regional Values**

CVT is regionally significant and was designated as a regional trail by the Greater Minnesota Regional Parks and Trails Commission in 2015. It enjoys 100,000 visitations annually with, according to 2017 survey data, 57% from Minnesota outside of Goodhue County and 5% from out of State. CVT is a critical component for the provision of recreation to Minnesota and Goodhue County.

For 30 years CVT has provided a high quality experience on a moderate grade – difficult to achieve with the dramatic topography of southeastern Minnesota. CVT is in an essential strategic location to provide the

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connection to existing and proposed trail development to the west (Mill Towns State Trail and two County parks on Lake Byllesby), south (Goodhue Pioneer State Trail), southeast (Mississippi Blufflands State Trail) and north (Hastings – Red Wing Trail). Without CVT, connections would be extremely problematic if not impossible.

#### User-Friendly Component

Replacement of the three bridges and abutment repair of a fourth is essential to maintain the continuity of CVT. There are no viable bypass options. Quite simply, without the bridges being open and safe, significant portions of the Trail would be closed. Therefore bridge replacement and repair is necessary to continue to provide a quality, user-friendly, ADA compliant recreational experience. Furthermore, the three existing bridges needing replacement are only 8' 4" wide with wood decking prone to algae type growth creating occasional slippery conditions. The replacement bridges would be 10' wide with better decking creating a safer experience.

To reduce negative impact to recreational use during the construction of the bridges and abutment repair, CVT proposes to accomplish the work primarily during the winter months. This strategy may also result in lower bids for construction as contractors are sometimes looking for winter work.

#### Master Plan Component

As described elsewhere in this application, completion of this Project is the number one priority in the CIP contained in the 2017 CVT Comprehensive Plan Update. Replacement of the three bridges and repair of the fourth is essential for the continuity and safe use of CVT.

#### Providing Access to Natural and Cultural Resources

CVT is steward to significant natural resources including nearly 20 locations of state and federal plants listed as of special concern or endangered. CVT provides access to other high quality resources such as native prairie and maple/basswood, walnut and floodplain forests. CVT also owns, or is immediately adjacent to, six archaeological sites including prehistoric village sites and burial mounds. Maintaining the continuity of CVT is essential for management, access and interpretation of these resources to visitors.

## Project Readiness

### Project Lead

CVT has taken the necessary steps to position the Project to be ready for implementation. This includes completing an engineering study of the bridges that are part of this Project, professionally prepared cost estimates, approving the 2017 CVT Comprehensive Plan Update with positions the Project as the top capital improvement priority and securing the 25% local cash match contribution. Furthermore, qualified personnel have been assigned to the project as described below.

#### Lead Applicant Qualifications

The Joint Powers Board, comprised of representatives from the governments of Cannon Falls, Red Wing and Goodhue County, has managed the CVT for 31 years. The Joint Powers Board has access to, and the support of, professional staff from the three units of government such as planners, engineers, surveyors and financial management to ensure effective governance.

The Joint Powers Board employs a full time manager with nearly 20 years of park/trail management experience. Scott Roepke, Trail Manager will serve as the contact between the GMRPTC, the Board and public.

#### Lead Applicant Representative Qualifications

Mr. Scott Roepke

507.263.0508

trailmanager@cannonvalleytrail.com

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Mr. Roepke has supervised the operation, maintenance, programs, development and staff of the Cannon Valley Trail for 18 years. These responsibilities are performed in accordance with the policies, priorities and direction established by the Joint Powers Board.

Mr. Roepke has managed numerous Cannon Valley Trail construction projects including Belle Creek Bridge Replacement, Mile 16 Trail Realignment and Asphalt Restoration. He provided oversight including application details, securing contracts, implementation, reimbursement and closure. He has successfully completed 10 substantial construction projects involving numerous grant and other funding sources.

Mr. Roepke received a Bachelor of Science degree in Park and Land Management from the University of Wisconsin in 1993.

#### **Project Manager Qualifications**

This Project requires a qualified engineer to engage with, and supervise the design and construction work. These services will be provided by Mr. Jay Owens, City Engineer, Red Wing, MN.

Mr. Jay Owens  
P.E., 651.385.3625  
jay.owens@ci.red-wing.mn.us

Mr. Owens has been with the City of Red Wing for over 20 years, serving as City Engineer for 13 of those years. Mr. Owens has extensive experience in the areas of civil engineering design, procurement, NEPA compliance, environmental law and policy, land management, surface water management, contract management, and construction administration.

Mr. Owens has managed multiple municipal infrastructure construction projects that have utilized a variety of local, state, and federal funding sources during his tenure as City Engineer. His administrative duties have included staff supervision, preliminary engineering reports, cost estimating, preliminary project engineering, engineering design, construction document preparation, project management, and presentations to the public and elected bodies.

Mr. Owens received a Bachelor of Science degree in Civil Engineering from the University of Minnesota in 1997.

#### **Implementation Timeline**

Timeline:

March 2018: Prepare Request for Proposal (RFP) for Engineering, Construction Inspection and other professional services required. CVT understands this is before grant award and authorization to use grant funds. To meet preferred project timeline, preparation of the RFP before the grant is awarded is necessary. CVT accepts this responsibility.

July 2018: Grant awarded, RFP issued.

August 2018: RFP responses due, reviewed and contract(s) with qualified firm(s) executed.

September – November 2018: Design and engineering of three bridges and abutment repair. Final construction and bid documents prepared.

November – December 2018: Project bidding, competitive bids received and bid(s) awarded.

January – June 2019: Permits secured, bridge construction and abutment repair.

June/July 2019: Project completion and closeout

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The preferred implementation time is partially dependent upon weather and water level conditions. Extremes weather conditions may require adjustments to the timeline.

### **Design Standards**

Standards to be Applied

The bridges will be designed according to the American Association of State Highway and Transportation Officials (AASHTO) LRFD Guide Specifications for the Design of Pedestrian Bridges. These are the specifications used by the Minnesota Departments of Transportation and Natural Resources. These specifications include meeting ADA requirements.

### **Local and State Permitting**

Permits are expected to be required for at least some of the work, including Bridge R0481 over Trail Run Creek and 25604 over Belle Creek for the abutment repair. Permits will be applied for and secured.

### **Project Cost Breakdown**

#### **Key Development Elements with Associated Costs**

Construction cost estimates were prepared by Erickson Engineering, Bloomington, MN and are included in their 2017 Feasibility Report on Improvements to the Cannon Valley Trail (January 13, 2017). The cost estimates also include a 5% cost escalation provision (based on MnDOT directives for state projects). Using standard cost estimating practices, additional necessary costs were calculated for engineering (12% of 'hard' costs), construction administration (6%) and construction contingency (20%). A detailed cost estimated is included as an attachment.

Request for Proposal – Engineering and Construction Inspection - \$0 (Provided by City of Red Wing)

- A pre-grant requirement to meet preferred project time line. Necessary to define scope of services required.

Engineering Services for bridge design and abutment repair - \$122,500

- Necessary to insure professional design and engineering to meet all standards and outcomes

Construction Inspection Services - \$61,000

- Necessary to insure construction meets specifications and standards. Service to be provided by contracted services and City of Red Wing engineering staff.

Construction – New bridges – total \$1,188,350

Bridge R0481: \$500,400

Bridge R0484: \$428,050

Bridge R0483: \$259,900

- New bridges insure safety and continuity of CVT

Construction – Bridge 25604 Abutment Repair - \$35,000

- Abutment repair insures the prevention of damage to the bridge and continuity of CVT

Total Project Cost: \$1,406,850

### **Funding Request Breakdown**

Please use valid currency formats (e.g. \$100,000/100,000/100000)

### **Grant Funding Request**

\$1,055,135

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<b>Local Match #1</b>	<b>Funder #1</b>
\$351,715	0
<b>Local Match #2</b>	<b>Funder #2</b>
0	0
<b>Local Match #3</b>	<b>Funder #3</b>
0	0
<b>Local Match #4</b>	<b>Funder #4</b>
0	0
<b>Local Match #4</b>	<b>Funder #5</b>
0	0

**Non-Eligible Local Match**  
15000

**Non-Eligible Item Description**

Request for Proposal – Engineering and Construction Inspection, bidding management - \$5,000

- Provided by City of Red Wing Engineering staff

Communications with Public on Project and Trail closure, trail signs, etc. - \$5,000

- Provide by Trail Manager and Joint Powers Board

Contract Management, Grant Administration and Project Closeout - \$5,000

- Provided by City of Red Wing Engineering and CVT staff

Total GMRPTC Non-Eligible Cost - \$15,000

**Total Funding**

\$1,406,850

**Percentage of local match**

0.25

**Completion Timeframe**

Substantial completion expected June 2019

**Funder #1**

Cannon Valley Trail Joint Powers Board

**Funder #1 Resolutions**

CVT JPB Actions

[http://dms.gmrptcommission.org/uploads/funding/17-0070-F/CVT Joint Powers Board Actions\\_829830.pdf](http://dms.gmrptcommission.org/uploads/funding/17-0070-F/CVT%20Joint%20Powers%20Board%20Actions_829830.pdf)

**Funder #2**

None

**Funder #3**

None

**Funder #4**

None

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**Funder #5**

None

## Attachments

Doc Name	Description	Url
Project Area Map	CVT Bridge Locations Map	<a href="http://dms.gmrptcommission.org/uploads/funding/17-0070-F/BridgeLocationsMap_9cc5f8.pdf">http://dms.gmrptcommission.org/uploads/funding/17-0070-F/BridgeLocationsMap_9cc5f8.pdf</a>
Additional Attachment	Bridge Cost Estimate	<a href="http://dms.gmrptcommission.org/uploads/funding/17-0070-F/BridgeCostEstimate_a23eb2.pdf">http://dms.gmrptcommission.org/uploads/funding/17-0070-F/BridgeCostEstimate_a23eb2.pdf</a>
Additional Attachment	2017 Bridge Engineering Report	<a href="http://dms.gmrptcommission.org/uploads/funding/17-0070-F/2017CVTPlanAppendixC-BridgeFeasibilityReport_8c4820.pdf">http://dms.gmrptcommission.org/uploads/funding/17-0070-F/2017CVTPlanAppendixC-BridgeFeasibilityReport_8c4820.pdf</a>
Additional Attachment	2017 CVT Comprehensive Plan Update	<a href="http://dms.gmrptcommission.org/uploads/funding/17-0070-F/2017CVTComprehensivePlanUpdate-Final_3da25a.pdf">http://dms.gmrptcommission.org/uploads/funding/17-0070-F/2017CVTComprehensivePlanUpdate-Final_3da25a.pdf</a>
Additional Attachment		<a href="http://dms.gmrptcommission.org/uploads/funding/17-0070-F/">http://dms.gmrptcommission.org/uploads/funding/17-0070-F/</a>
Additional Attachment	Goodhue County Commissioners Grant Resolution	<a href="http://dms.gmrptcommission.org/uploads/funding/17-0070-F/GoodhueCountyCommissionersGrantResolution_b03800.pdf">http://dms.gmrptcommission.org/uploads/funding/17-0070-F/GoodhueCountyCommissionersGrantResolution_b03800.pdf</a>
Additional Attachment	Bridge Condition Images	<a href="http://dms.gmrptcommission.org/uploads/funding/17-0070-F/BridgeConditionImages_34e018.pdf">http://dms.gmrptcommission.org/uploads/funding/17-0070-F/BridgeConditionImages_34e018.pdf</a>
Funder Resolution One	CVT JPB Actions	<a href="http://dms.gmrptcommission.org/uploads/funding/17-0070-F/CVTJointPowersBoardActions_829830.pdf">http://dms.gmrptcommission.org/uploads/funding/17-0070-F/CVTJointPowersBoardActions_829830.pdf</a>