

Transportation

Projects Summary

(\$ in thousands)

Project Title	Priority Ranking	Funding Source	Project Requests for State Funds		
			2018	2020	2022
Rail Grade Separations on Crude Oil Rail Lines	1	GO	\$ 17,642	\$ 0	\$ 0
Stone Arch Bridge	2	GF	\$ 4,600	\$ 0	\$ 0
Rochester Public Transit Bus Storage Garage Expansion	3	GO	\$ 4,000	\$ 0	\$ 0
State Airport Improvement Program	4	GO	\$ 45,150	\$ 15,000	\$ 15,000
Facilities Capital Improvement Program	5	THB	\$ 40,000	\$ 40,000	\$ 40,000
Minnesota Rail Service Improvement Program	6	GO	\$ 8,000	\$ 8,000	\$ 8,000
Highway Railroad Grade Crossing	7	GO	\$ 12,000	\$ 12,000	\$ 12,000
Local Bridge Replacement Program	8	GO	\$ 100,000	\$ 100,000	\$ 100,000
Local Road Improvement Fund Grants	9	GO	\$ 100,000	\$ 100,000	\$ 100,000
State Plane Purchase	10	GF	\$ 10,000	\$ 0	\$ 0
Safe Routes to School Infrastructure Program	11	GO	\$ 3,000	\$ 3,000	\$ 3,000
Port Development Assistance Program	12	GO	\$ 10,000	\$ 10,000	\$ 10,000
Passenger Rail Program	13	GO	\$ 11,000	\$ 0	\$ 0
Total Project Requests			\$ 365,392	\$ 288,000	\$ 288,000
General Obligation Bonds (GO) Total			\$ 310,792	\$ 248,000	\$ 248,000
General Fund Cash (GF) Total			\$ 14,600	\$ 0	\$ 0
Trunk Highway Bonds (THB) Total			\$ 40,000	\$ 40,000	\$ 40,000

Rail Grade Separations on Crude Oil Rail Lines

AT A GLANCE

2018 Request Amount: \$17,642

Priority Ranking: 1

Project Summary: \$17.642 million in state funds is requested to construct a grade separation at the Trunk Highway 47/Ferry Street crossing in Anoka. This is a high priority crossing along a crude oil corridor in which oil or other hazardous materials are transported.

Project Description

This capital request will provide funding to construct a bridge over the Burlington Northern Santa Fe (BNSF) mainline at Trunk Highway 47/Ferry Street in Anoka. This crossing was identified in the Crude by Rail Grade Crossing Study as a high priority for a grade separation. Trunk Highway 47 is a two lane roadway that crosses BSNF Railway’s two mainline tracks that serve a mix of high speed freight, commuter and passenger rail traffic. There are between 40 and 80 trains per day, including 12 Northstar Commuter Rail trains (traveling during the peak periods) and two Amtrak trains. The train’s timetable speeds are 75 mph for Northstar Commuter Rail and Amtrak trains and 60 mph for freight trains. The Anoka Station for the Northstar Commuter Rail, operated by Metro Transit, is located 1,500 feet to the east of the railroad crossing on 4th Avenue.

Project Rationale

Bakken shale crude oil is a high risk rail commodity transported through Minnesota. Bakken crude oil has been involved in numerous catastrophic incidents in the last several years, including the Lac Megantic, Quebec, derailment and fire that killed 47 persons in July 2013. Additional incidents involving explosion and fire have occurred in Casselton, ND; Lynchburg, VA; Mount Carbon, ND; Galena, IL and Heimdal, ND. These incidents highlight the potential safety risks involved with the significant traffic increase and large volumes of hazardous material shipped by rail.

In 2014, the Minnesota Legislature directed MnDOT to conduct a study of the effects of crude oil by rail transportation in the state and also provided \$2 million for safety improvements along oil corridors. The resulting Crude by Rail Grade Crossing Study identified the Trunk Highway 47 crossing as a priority for grade separation.

At this site four property damage only crashes occurred in 1972, 1973, 1976 and 1986. One fatal crash occurred in 2003 resulting in four fatalities where a teen driver appeared to drive around the gates. Between 2010 and 2014 there were 19 vehicle-vehicle related crashes within 150 feet of the railroad crossing on Trunk Highway 47 of which 17 were rear end and likely due to queuing and delays related to the railroad crossing. None of these were fatal or serious injury crashes.

Traffic delays related to trains and extended gate down times result in driver frustration and delays. A rail grade separation can reduce delays to the motoring public and to emergency responders who are hindered by trains crossing roadways.

Project Timeline

Preliminary Design Completion (underway now): December, 2017
Final Design/Preparation of design Build RFP: April 2018 – March 2019
Construction: June 2019 – Sept 2020

Other Considerations

MnDOT has completed a feasibility study and is developing the preliminary design for this crossing. Total project costs are estimated to be approximately \$21 million. In addition to this request, \$3 million of Federal grade crossing safety funds will be used in FY 2020 for construction. Metro District is evaluating the project to determine if it should be design-build or design-bid-build.

Impact on Agency Operating Budgets

None

Description of Previous Appropriations

The Minnesota Legislature has appropriated the following for the Grade Crossing Safety program along crude oil corridors:

2014 \$2.0 million general fund

2015* \$5.0 million general fund

2017 \$71.124 million general obligation bonds

Projects identified in Laws 2017 Special Session, Ch. 8

City of Moorhead – 21st St. S., \$42.262 million

Anoka County – Hanson Blvd., \$14.1 million**

City of Red Wing – Sturgeon Lake Rd., \$14.762 million

* Note: The 2015 appropriation did not provide funding specifically for crude oil corridors. Instead, the appropriation provided funding for “rail grade crossing safety improvements.” These funds could be used for either crude oil corridors or replacement of antiquated equipment.

**Note: The enacted amount to construct a rail grade separation at Hanson Blvd in Anoka County is separate from the 2018 request to complete a grade crossing separation at Trunk Highway 47 and Ferry Street in the City of Anoka.

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Stone Arch Bridge

AT A GLANCE

2018 Request Amount:	\$4,600
Priority Ranking:	2
Project Summary:	\$4.6 million in state funds is requested for the inspection, scoping, final design and construction of the Stone Arch Bridge repairs. The bridge is ineligible for Trunk Highway Fund dollars, therefore General funds are requested.

Project Description

This funding request will address condition deficiencies including cracking of the stone masonry and mortar, cracking and spalling of concrete and corrosion of metal components.

The Stone Arch Bridge current construction scope includes:

- Deck repairs of spalling concrete and bituminous
- Painting of truss to arrest corrosion
- Settlement repairs from 1965 on Pier 6
- Replacement of tie rods and/or washers due to corrosion
- Concrete repairs in several areas with a significant portion to fix repairs done in 1965
- Painting over areas where graffiti is present
- Repair sea wall undermining
- Replacement of masonry block (throughout structure)
- Masonry repair (or shotcrete) and tuckpoint Piers 1-11: assuming 3 feet in vertical swath around the perimeter of pier stone (50 percent mortar joints in this area).
- Addition of downspouts at drain locations to inhibit deterioration around drains
- Install galvanic anodes on concrete spalls up to 2 feet below waterline (Piers 5-7, upper part of concrete encasement at downstream noses and east pier faces).
- Install monitoring system as supplied by MnDOT. Include special riprap (4 feet diameter) as required to anchor monitoring system.

MnDOT has submitted several requests for funds to repair the bridge in recent years, including a \$2.5 million capital request in 2016 and a similar operating request in 2017. As time goes by without repairs, the bridge will continue to deteriorate, resulting in more repairs at a higher cost in the future.

Project Rationale

The Stone Arch Bridge is in need of repairs based on prior inspections and condition ratings. The bridge is used as a pedestrian and bicycle trail and is a highly visible tourist attraction in the Twin Cities metro area. Daily activities and special events provide economic inflows to the surrounding area businesses. In addition to being a civil engineering landmark, it is listed on the National Register of Historic Places.

The State of Minnesota is the custodian of this bridge and responsible for the structure. The City of Minneapolis maintains the bridge deck. The structure has never been a part of the trunk highway system and the agency has very limited funding to monitor, maintain and repair the bridge since MnDOT is primarily funded with the Trunk Highway Fund. This bridge was acquired by MnDOT as part of the Rail Bank Program. The program is part of the Minnesota Rail Service Improvement (MRSI) Program which acquires and preserves abandoned rail line for future transportation use.

Project Timeline

Acquiring consultant – July 2018 to November 2018

Inspection – May 2019 (allowing time for weather/flow issues)

Scoping – November 2018 to February 2019

Structure rec development and final design/check/plans – February 2019 to July 2019

Construction – July 2019 to September 2020

Other Considerations

The outcomes of not granting this request may result in significant impacts to those that rely on the bridge. They include higher cost of repairs as the bridge continues to deteriorate, increased risk of closing the bridge due to lack of repairs, which will impact the use of the bridge by tourists, businesses, bicycles and pedestrians as well as the City of Minneapolis' use of the bridge for events. There are no alternative plans if this request for funding is not granted.

Impact on Agency Operating Budgets

This project will not have an impact on MnDOT's operating budget as Trunk Highway Funds cannot be used since the bridge is not on the trunk highway system.

Description of Previous Appropriations

None

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Rochester Public Transit Bus Storage Garage Expansion

AT A GLANCE

2018 Request Amount: \$4,000

Priority Ranking: 3

Project Summary: \$4 million in state funds to construct and equip an addition to the City of Rochester’s existing bus storage facility located at 4300 East River Road NE, Rochester, Minnesota to accommodate the needs of its expanding transit service and bus fleet inventory.

Project Description

The capital request is for the expansion of Rochester Public Transit’s (RPT) Operations Center. This is their number one capital priority.

Designed and built during 2012, with long range expansion plans in mind, RPT’s current facility, totaling 93,320 square feet, has a storage capacity of 60 buses. This requested addition would expand the current bus storage area with 32, 45 foot bays, totaling an additional 40,000 square feet.

Construction costs are estimated at \$5 million. Of this, \$4 million (80 percent) is proposed to be state funded and \$1 million (20 percent) is to be funded by the City of Rochester.

Project Rationale

Greater Minnesota Transit facilities support the Greater Minnesota Public Transit Participation program described in Minnesota Statutes 174.24. Some of these facilities protect and maintain assets, such as buses, used in the delivery of transit services to the citizens of Minnesota. Storing buses indoors maximizes their useful service life and makes pre and post-trip inspection more thorough. Other facilities, like bus stops and transit hubs, provide a more comfortable trip for Minnesotans using transit. All of these projects contribute to the following transportation goals in Minnesota Statute 174.01, Sub. 2:

- Provide multimodal and intermodal transportation facilities and services to increase access for all persons and businesses and to ensure economic well-being and quality of life without undue burden placed on any community.
- Provide transit services to all counties in the state to meet the needs of transit users
- Provide for and prioritize funding of transportation investments that ensure that the state's transportation infrastructure is maintained in a state of good repair.
- Increase use of transit as a percentage of all trips statewide by giving highest priority to the transportation modes with the greatest people-moving capacity and lowest long-term economic and environmental cost.
- Reduce greenhouse gas emissions from the state's transportation sector.

Rochester’s recently adopted Transit Development Plan projects a required fleet of 85 fixed route and 8 paratransit buses for a total fleet inventory of 93 buses by CY 2021.

Project Timeline

A conceptual design and budget have been prepared for this project and the City of Rochester has secured funding for Predesign, Design Development and Construction Administration.

Construction Documents Complete	3-31-2018
Construction Solicitation & Award	7-15-2018
Construction Complete	7-31-2019

Other Considerations

This Operation Center addition is crucial to RPT's planned service expansion needs.

Impact on Agency Operating Budgets

The proposed project will increase Operating Subsidies to cover increased facility operational expense.

Description of Previous Appropriations

Bond funds were appropriated in the following years for other Greater Minnesota transit projects:

2012 - \$6,400,000 GO Bond
2014 - \$1,500,000 GO Bond

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State Airport Improvement Program

AT A GLANCE

2018 Request Amount: \$45,150

Priority Ranking: 4

Project Summary: \$16.5 million for the proposed State Airport Improvement Program, which provides grants to local governments for projects and navigational aids and systems owned by the state or local government. This includes clear zone land acquisition, navigational aids and lighting, non-runway pavements, arrival departure buildings and hangars. Also, an additional \$28.65 million for specific projects.

Project Description

Funds appropriated for this program, for this year and in the future, will be used for the following areas:

- Land acquisition for safety clear zones (approximately \$320,000).
- Installation and rehabilitation of navigational aids and lighting statewide (approximately \$2.52 million).
- Non-runway pavement projects statewide (approximately \$8.7 million).
- Airport arrival departure building projects statewide (approximately \$1.625 million).
- Airport hangar projects statewide (approximately \$3.335 million).

In addition to the program, this year there are four additional requests to fund the following project:

- \$4 million for a multi-purpose hangar/office facility to accommodate the US Army’s Winter Artificial Ice Testing program at Duluth International Airport. During the off season (May through September) the facility would be available for transient aircraft and any other revenue generating uses.
- \$4.4 million for facilities for corporate aircraft operations and storage at the Bemidji Regional Airport. Phase 1 of the project includes taxilanes construction estimated at \$975,000. Phase 2 provides apron surrounding the hangar building area estimated at \$3,425,000.
- \$20 million state funds requested for improvements to DNR airtanker bases at airports throughout the state.
- \$250,000 for MnDOT's Office of Aeronautics office building on 222 East Plato Blvd, Saint Paul, MN. The project will include ensuring bathrooms are ADA compliant, replacing windows throughout the office building and reconstructing the parking lot.

In all instances the program and specific projects include environmental, design, engineering, construction, removal, rehabilitation and all other activities necessary for project completion that are typically included in airport projects under Chapter 360 of Minnesota law

Project Rationale

MnDOT’s Office of Aeronautics, in collaboration with stakeholders from airports throughout the state, seeks to establish the State Airport Improvement Program to provide funding for capital improvements

that will benefit state airports as follows:

- Clear Zone Land Acquisition Projects: the clear zone is an area off the ends of runways that must remain free of obstructions. Airport ownership of this land ensure continued safe operations of the airport.
- Navigational Aids: MnDOT owns approximately half of the navigational aids in the state. These navigational aids are essential to the safe and efficient operation of our transportation system. The state is currently working with Rochester International Airport (RST) to upgrade the airports instrument landing system to CAT II. This will allow RST to be accessible by airlines and general aviation aircraft in a wider array of weather conditions. Once complete, the assets associated with this upgrade will be transferred to FAA. As such, the RST CAT II is *not* eligible for bonding. This project is and will continue to consume several years of the Navigational Aids budget from the state airports fund. This request allows us to continue to install and rehabilitate navigational aids at other airports for facilities that MnDOT and/or local government will own.
- Non-runway Pavement Projects: Many areas of airport pavement are ineligible for federal funding. These areas are essential to the efficient operations of the airport.
- Airport Arrival Departure Building Projects: Many arrival departure buildings are decades old or non-existent. This funding would rehabilitate existing facilities and install new arrival and departure buildings.
- Airport Hangar Projects: Airport-owned hangars serve as a source of revenue for the airport to remain sustainable.

Project Timeline

The majority of the airport improvement projects would be constructed in in FY 2019 and 2020, however some work may extend until 2023.

Other Considerations

The \$16.5 million in state funds for airport improvement projects statewide would leverage more than \$30 million in federal funds and \$10 million in local funds.

Impact on Agency Operating Budgets

Although grants would be administered by MnDOT staff, we do not anticipate new or additional operating budget needs related to this activity. Many of these projects rehabilitate the existing aviation system. We do not anticipate new or additional local government operating needs for those projects. Some projects may expand the system by building a new facility. MnDOT provides operational funding to airports based on a formula that considers infrastructure. A local match to these funds is required. This formula is periodically updated, therefore additional state and local operating dollars may be needed for those projects.

Description of Previous Appropriations

MnDOT receives an annual appropriation from the state airports fund to acquire, construct, improve, maintain and operate airports and other air navigation facilities. Laws 2017 Special Session, Ch. 8, appropriated \$2.33 million for the Rochester International Airport, \$6.62 million for the Duluth International Airport and \$3.5 million for the Civil Air Patrol Training Facility from the State Airports Fund.

In addition, MnDOT has received state general obligation bonds for statewide runway pavement projects. Individual airports have received state general obligation bonds for airport improvement projects, such as reconstruction of airport terminal buildings.

2014 \$7.2 million in GO bonds

2017 \$3.0 million in GO bonds

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Facilities Capital Improvement Program

AT A GLANCE

2018 Request Amount: \$40,000

Priority Ranking: 5

Project Summary: \$40 million in state funds for MnDOT’s Facilities Capital Improvement Program. The funds extend the useful life of existing facilities through renovation and expansion to meet current operational needs. When renovation and expansion of existing facilities is not feasible, new buildings may be constructed under this program. Strategic investments reduce long term operating costs and improve energy efficiency.

Project Description

This capital funding request will provide support for MnDOT’s building infrastructure needs. Agency facilities are strategically located across the entire state so that customer needs, especially snow and ice operations and system emergencies are addressed promptly. These facilities provide building space for staff, equipment and material including snow plows and salt. MnDOT owns and operates 1,075 buildings at 269 sites. The types of buildings include: truck stations, regional headquarters and maintenance sites and research facilities.

Facility plans are based on data captured in the Enterprise Real Property Facilities Condition Assessment and operational deficiency evaluations completed on 884 of MnDOT’s facilities. This assessment indicates that overall, 135 buildings are rated excellent, 431 are rated good, 244 are rated fair, 53 are rated poor, and 21 are rated crisis/emergency. The capital funds would begin to address these needs and be used for renovation and expansion, as well as constructing buildings to meet current operational needs.

MnDOT has instituted a two phase process that includes “Design Fee Funding” and “Construction Funding” requests. This process gives more accurate estimates for building construction funding requests and a better planning tool for the future. The first phase, “Design Fee Funding” requests, include consultant fees for schematic design, design development, land acquisition and construction documents, including construction cost estimates completed at each stage.

These estimates will be used for the second phase, "Construction Funding Requests" in a later biennium. “Construction Funding Requests” include cost of construction, special inspections and testing, construction administration by the design consultants and incidental costs related to contract letting, as well as the contract letting and completion of the work.

The capital request will be used to complete \$40 million of the listed project proposals. Project proposals have been prioritized based on need, condition an operational deficiencies of the existing facilities and overall economic benefit.

MnDOT’s Office of Maintenance, Building Services Section, works with regional district staff, to identify a list of potential terminal improvement projects for 2018 and beyond. For each project, MnDOT identifies a range for costs; the amounts below reflect the high end of project estimates to

account for risks and potential unforeseen expenses.

Design Fees:

New Virginia Headquarters Building, \$2.6M

New Jordan Truck Station, \$800,000

Windom Headquarters Addition, \$800,000

Anoka and Elk River and Consolidation \$670,000

Design Fees and Construction Funding:

New Wheaton Truck Station, \$5.5M

Northfield Truck Station Replacement, \$9.6M

Construction Funding:

Eden Prairie Truck Station Addition and Renovations, \$14.1M

Mendota Heights Truck Station Addition and Renovations, \$14.7M

Project Rationale

The purpose of the Facilities Capital Improvement Program is to provide a systematic approach to the maintenance, renovation and replacement of MnDOT buildings. Continued maintenance and improvement to facilities is essential to supporting MnDOT's core mission:

Plan, build, operate and maintain a safe, accessible, efficient and reliable multimodal transportation system that connects people to destinations and markets throughout the state, regionally and around the world.

Project Timeline

Eden Prairie Truck Station Addition and Renovations

Construction: Aug 2019

Mendota Heights Truck Station Addition and Renovations

Construction: July 2020

New Virginia Headquarters Building

Design: Sept 2019

New Jordan Truck Station

Design: Sept 2019

Windom Headquarters Addition

Design: Sept 2019

Anoka and Elk River Consolidation

Design: Sept 2019

New Wheaton Truck Station

Design: Aug 2019

Construction: May 2020

Northfield Truck Station Replacement

Pre-design: Aug 2019

Design: Nov 2019

Construction: July 2020

Other Considerations

None

Impact on Agency Operating Budgets

These funds will assist MnDOT facilities' adherence to Executive Order 11-12 requirements by reducing energy use on a BTU/square foot/year basis.

Description of Previous Appropriations

All previous appropriations were given on a project basis

2012

Rochester Headquarters Remodel

\$17.593M in TH bonds

Willmar District Headquarters

\$7.500M in TH funds

Plymouth Truck Station

\$5.600M TH funds

Cambridge Truck Station

\$3.300M TH funds

Crookston Hq/Eden Prairie/Mendota Heights Truck Station Design Fees

\$1.100M TH funds

2014

Willmar District Headquarters

\$4.370M TH funds

Little Falls Truck Station

\$3.580M TH funds

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Minnesota Rail Service Improvement Program

AT A GLANCE**2018 Request Amount:** \$8,000**Priority Ranking:** 6

Project Summary: \$8 million in state funds is requested for the Minnesota Rail Service Improvement (MRSI) Program to acquire land, predesign, design and construct freight rail projects that improve freight rail service in Minnesota. These funds would provide grants and long-term no-interest loans to regional railroad authorities, shortline/regional railroads, and shippers to improve rail facilities, increase rail shipping and support economic development.

Project Description

This capital request will provide funds for the MRSI Program. Solicitations for grants and loans will be issued and applications taken. Regional and statewide freight studies, as well as the 2015 State Rail Plan, identify needs that may be addressed by the MRSI Program.

Funds appropriated to the MRSI Fund are used for projects in the following program areas:

Freight Rail Economic Development Grant Program:

The Minnesota Legislature provided the MRSI program with the authority to issue grants for freight rail service improvements that support economic development in 2017. This program will provide grants to railroads, shippers, local governments and other qualified applicants for eligible public or privately owned freight rail projects that demonstrate a clear tie to economic development.

Capital Improvement Loan Program:

Both railroads and shippers are eligible to receive interest-free loans for capital improvements. Typical projects include upgrading small segments of rail lines, construction and extension of rail spurs, bridge replacement or upgrade and development of loading or unloading facilities. Recipients must meet certain criteria to protect the investment of Minnesota taxpayers.

Rail Line Rehabilitation Program:

The Rail Line Rehabilitation Program is a partnership program with a rail authority, rail shippers and MnDOT. This program loans money to rail authorities to rehabilitate operating, but deteriorating, rail lines. The program requires shipper financial participation and projects must meet criteria to protect the investment of Minnesota's taxpayers. Rehabilitation loans have included 29 state-funded rehabilitation projects.

Rail Bank Program:

The Rail Bank Program acquires and preserves abandoned rail lines and right-of-way for future transportation use. Once acquired, MnDOT has a financial responsibility to maintain abandoned railroad property placed in the Rail Bank Program.

Project Rationale

The MRSI Program was created in 1976 and funding was first authorized in the form of general fund appropriations. In 1982, a Constitutional Amendment allowed for GO bonds to be used for the improvement and rehabilitation of public and private rail facilities (Minn. Constitution, Art. 11, sec. 5(i)). Total state appropriations, combined with federal grants and funding from railroads, shippers, and local units of government, and with loan repayment proceeds, have driven rail investments exceeding \$146.2 million.

The MRSI Program seeks to preserve and enhance rail service in the state. MRSI assists rail users (shippers) and rail carriers (railroads) with infrastructure improvements, as well as preservation of rail corridors through land banking in support of economic development.

Minnesota's short line and regional railroads provide a critical function in the rail network. Short line and regional railroads are lighter-density railroad lines that have typically been spun off larger railroads and operate independently. Short line and regional railroads provide important freight connections between communities and national and international markets served by the Class 1 railroads. Many of the smaller railroads in Minnesota are in need of capital improvements and rehabilitation to be able to operate safely and reliably. In addition, businesses that wish to ship or receive goods by rail must have adequate rail infrastructure, such as rail spurs, sidings and loading equipment. The MRSI Program assists with such needs.

Since its inception, the program has helped fund 205 capital improvement projects to railroads and shippers, 25 rail line rehabilitation projects, 5 purchase assistance projects to regional rail authorities and 17 rail bank purchase projects.

Project Timeline

Timelines for projects funded under this program will not be known until funds are appropriated, project applications are solicited and projects are selected. It is anticipated that projects will be required to meet project delivery timelines allowed by the funding source in order to be eligible for funding.

Other Considerations

Traditionally, demand for the loan program fluctuates based on the economy, condition of the freight rail system, commercially available interest rates, emerging trends and may other factors. The grant program, signed into law in 2017, will allow for funding of projects supporting economic development that may not otherwise qualify for public or private financing. It will also work to further the goals of the Minnesota State Rail Plan.

Impact on Agency Operating Budgets

This would fund an existing program. There is no known impact to state operating budgets at this time.

Description of Previous Appropriations

2012	\$0.0
2013	\$0.0
2014	\$0.0
2015	\$0.0
2016	\$0.0
2017	\$1.0 million in GO bonds (grants only)

Since the 1970s, between \$1.0M and \$12.0M has been appropriated for this program each biennium. Direct project level appropriations (both state bonding and federal assistance) are also administered through the MRSI program.

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Highway Railroad Grade Crossing

AT A GLANCE

2018 Request Amount:	\$12,000
Priority Ranking:	7
Project Summary:	\$12 million in state funds to be used to replace approximately 40 aging highway/rail grade crossing safety gates and signal warning systems across the state.

Project Description

This capital request will provide funding to repair or replace a portion of the aging grade crossing warning devices in the state. Approximately 40 of the oldest highway/rail grade crossing signal systems on local roads in the state will be replaced with flashing light signals and gates at a cost of approximately \$300,000 per location, or \$12 million total.

Projects to replace aging signal systems are prioritized and submitted as candidate projects by each operating railroad. MnDOT then selects projects based on a number of factors, including roadway traffic volumes, train counts/speeds, crash history and safety concerns.

Installing signals at grade crossings that are currently not signaled continues to be MnDOT’s highest investment priority for the grade crossing safety program. MnDOT uses federal funds for the installation of new (not replacement) systems at hazardous locations on both local and state roads.

A federal set-aside program pays 100 percent of the cost of these safety improvements. The \$5.4 million in federal dollars available annually provides funding for only an estimated 18 projects per year, a small percentage of the state’s grade crossing safety needs. This program can be used to fund replacement of antiquated equipment, but doing so reduces the number of safety improvements that can be made across the state.

Trunk Highway funds, when available, are used for signal system replacement on trunk highway crossings.

Project Rationale

The reliability and credibility of grade crossing warning devices is of utmost importance to the traveling public. Rapid advancements in technology has made older grade crossing warning devices obsolete and, at times, difficult to repair due to lack of parts. When a crossing signal malfunctions, the lights will flash in the same manner as if a train were approaching the crossing. The flashing of the lights will continue until the problem is corrected, which could take several hours. Drivers can confuse a signal with a long warning time with one that is malfunctioning. This confusion can lead a driver to make an assumption that a signal has malfunctioned resulting in the driver’s decision to cross the tracks despite the flashing signal or lowered gates. Clearly this can have an adverse consequence if a train is approaching.

There are approximately 1,500 railroad highway/rail grade crossings signals in the state of Minnesota. The normal life cycle for highway/rail grade crossing signals is 20 years. These signal systems need

to be replaced as they get to the end of their design life. Based on MnDOT's inventory data, there are over 300 signal systems that should be replaced. In order to manage this process, MnDOT has developed a statewide life cycle planning process, including a proposed funding mechanism to make these improvements that will administer the state's investment in grade crossing warning devices. This life cycle planning process must address the need to replace approximately 75 signal systems per year. To date, sufficient funding has not yet been identified.

Since older signal systems tend to experience more problems with malfunctioning equipment than newer equipment, signal modernization needs to be an integral component of MnDOT's efforts to maintain safety at highway/rail grade crossings.

MnDOT estimates it would cost approximately \$22 million per year (75 crossings per year x \$300,000) to fully address the state's highway/rail grade crossing signal modernization needs.

Project Timeline

- Project selection (includes solicitation, technical review, estimate) 4 months
- Agreement development and execution: 2 months
- Project Construction: up to 18 months
- Project Closeout (includes final inspection, audit) 4 months

Other Considerations

A portion of appropriated funds for this activity may be used for consultant project management assistance. A small portion of Federal funds may be included in each project to ensure pre-emption of state and railroad tort liability.

Impact on Agency Operating Budgets

The funding of this program will require resources to develop and administer the contracts. Since this program is not eligible for Trunk Highway funds, General funds will be needed to support the program.

Description of Previous Appropriations

2012	\$2.0 million GO bonds
2014*	\$2.0 million GO bonds
2017	\$1.0 million GO bonds

*The 2014 legislature (2014 Minnesota Session Laws, Chapter 294, Article 1, Section 16 Subd 5) provided a \$2 million bond appropriation "to design, construct, and equip new rail grade crossing warning safety devices of active highway/rail grade crossings or to replace active highway/rail grade crossing warning safety devices that have reached the end of their useful life." These funds were used to replace 6 antiquated equipment projects and 3 other safety upgrades.

In addition to this funding, the program receives \$1,000,000 annually from the Minnesota grade crossing safety account in the special revenue fund (Minnesota Statutes Section 219.1651). This account is used for smaller safety improvements at crossings such as circuitry upgrades.

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Local Bridge Replacement Program

AT A GLANCE

2018 Request Amount:	\$100,000
Priority Ranking:	8
Project Summary:	\$100 million in state funds to fund the rehabilitation or replacement of local bridges across the state.

Project Description

This capital request will provide funding to replace or rehabilitate deficient bridges owned by local governments throughout the state. The 2016 Bridge Annual Report identifies 15,077 deficient bridges on the local system. Of these, over 1,000 are structurally deficient with a sufficiency rating less than 80 and/or are functionally obsolete. The average construction cost to replace a bridge in 2017 was \$430,000. Counties and cities have passed city council or county board resolutions prioritizing 1,014 deficient bridges for replacement over the next five years with an estimated total replacement cost of \$560 million. To date in 2017, 70 statewide local bridge projects, totaling \$30 million in construction costs, have been funded from the following sources: federal aid (\$6.5m), state aid (\$8.1m), state bonds (\$0.8m), township (\$10.4m), and local (\$4m) funds.

Project Rationale

Preserving the structural integrity and historic heritage of Minnesota’s bridges is a top priority for MnDOT and local agencies. Bridges are critical links in the state’s transportation system. State financial assistance to local units of government is necessary because of the significant number of bridges and because the replacement cost is too much for local agency transportation budgets to bear with local funds alone.

State bridge replacement funds are used in two ways: 1) to leverage or supplement other types of bridge replacement funding, including federal-aid, state-aid and town bridge funds and 2) for engineering and construction of local city bridges with a population less than 5,000 and county and city bridges that have no other funding source. The majority of these bridges require local governments to assume costs for design and construction engineering, right of way, bridge removal and items not directly attributable to the bridge, such as approach grading and roadway surfacing costs.

A small percentage of local bridges compete for Federal Aid through the Area Transportation Partnership (ATP) process. These federal projects require matching local funds and bridge bond funds are considered a first priority for the local match on federal bridge projects in the State Transportation Improvement Plan (STIP). The current STIP has 21 bridge projects identified for funding in the next biennium (18/19), with \$20 million in Federal funds requiring \$50 million in additional local match funding.

In 2017, MnDOT completed a comprehensive statewide Local Historic Bridge Study with a focus on the state’s historic bridges that are not DOT-owned. The study determined 169 local bridges are listed in, or eligible for listing in, the National Register for Historic Properties. These bridges are an important part of the state’s historic heritage and some of the oldest bridges in Minnesota. The estimated

preservation costs for construction is \$74 million.

Two important major bridges on the priority bridge replacement list are Bridge 62080 (Kellogg Ave. over I-94) in St. Paul and the Historic Duluth Lift Bridge, Bridge L6116. Both are significant to cities transportation network. Estimated replacement cost for the St. Paul Kellogg Avenue Bridge is approximately \$60 million and the rehabilitation cost of the Historic Duluth Lift Bridge is approximately \$10 million. In 2014, the rehabilitation of the historic Franklin Ave. over Mississippi River cost \$43 million funded with a combination of funding sources including \$12.3 million of state transportation bond funds.

Project Timeline

N/A

Other Considerations

None

Impact on Agency Operating Budgets

Administration of this program through MnDOT's State Aid for Local Transportation Division will be completed using the existing organization and budget.

Description of Previous Appropriations

- 2012 \$ 30.0 million GO bonds
- 2014 \$12.3 million GO bonds
- 2014 \$20.7 million General Fund
- 2015 \$7.41 million GO bonds
- 2016 \$00
- 2017 \$49.212 million in GO bonds

Laws 2017 Special Session, Ch. 8

City of Isle - Malone Island, \$.8 million

City of Minneapolis - 10th Ave Bridge, \$31.875 million

Local Bridge Replacement Program Only, \$16.537 million

Project Contact Person

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Local Road Improvement Fund Grants

AT A GLANCE

2018 Request Amount: \$100,000

Priority Ranking: 9

Project Summary: \$100 million in state funds for rural road safety projects, routes of regional significance projects and the local share of trunk highway improvements.

Project Description

This capital request is for the Local Road Improvement Program. This will provide funding assistance to local agencies for construction, reconstruction or reconditioning projects. This includes:

- \$20 million to assist counties with rural road safety projects to reduce traffic crashes resulting in deaths, injuries and property damage.
- \$70 million to assist cities, counties or townships with local road projects with statewide or regional significance and reduce traffic crashes, deaths, injuries and property damage.
- \$10 million to assist local agencies with paying for the local share of improving trunk highways through their communities.

Project Rationale

Local roads provide critical connections to the state’s interregional corridors and other trunk highways from towns, shipping points, industries, farms, recreational areas and other markets. A well-developed local system is vital to any solution for reducing congestion on trunk highways.

State assistance is needed to supplement local efforts and the Highway User Tax Distribution Fund in financing capital improvements to preserve and develop a balanced transportation system throughout the state. In 2002, the legislature created the Local Road Improvement Program (Minnesota Statute 174.52).

The fund for this program has three accounts:

- The Trunk Highway Corridor Projects Account provides funding assistance to local agencies with the local share of costs of improving trunk highways through their communities.
- The Local Road Account for Routes of Regional Significance provides funding assistance to local agency road projects that are significant to the state or region. Such projects may support economic development, provide capacity or congestion relief, provide connections to interregional corridors or other major highways or eliminate hazards. Some turn back projects meet the criteria for routes of regional significance.
- The Local Road Account for Rural Road Safety provides funding for projects on county state-aid highways intended to reduce traffic crashes, deaths, injuries and property damage.

Project Timeline

N/A

Other Considerations

None

Impact on Agency Operating Budgets

Administration of this program is funded with existing budgets within MnDOT's State Aid for Local Transportation Division.

Description of Previous Appropriations

2012 \$10.0 million GO bonds

2014 \$30.0 million General Fund

2014 \$24.4 million GO bonds

2015 \$8.9 million GO bonds

2016 \$00.00

2017 \$115.932 million GO bonds

Laws 2017 Special Session, Ch.8:

\$90.63 million for Legislatively identified projects

\$25.3 million for Local Road Improvement Program only

Project Contact Person

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State Plane Purchase

AT A GLANCE

2018 Request Amount:	\$10,000
Priority Ranking:	10
Project Summary:	\$10 million in state funds to purchase two new aircraft for the air transportation service and the sale of the current aircraft, the King Air C90 (55MN) and King Air 200 (70MN).

Project Description

This funding request is for two new aircraft. Minnesota Statute 360.024 identifies MnDOT as the agency for managing air transportation services for state employees. Agencies pay for this service based on a rate determined by MnDOT. Money is placed into a revolving account that is used for operating costs and maintenance. State law does NOT allow this fund to be used to replace aircraft.

MnDOT Aeronautics has been managing this air transportation service for several decades. Air transportation saves the state money by making efficient use of staff time thereby increasing productivity. For example, driving round-trip to Bemidji would require 8 hours of travel time, a full business day. Flying is only two hours round-trip. Most of the state of Minnesota is within one hour fly time of the St. Paul downtown airport. MnDOT uses a fly vs. drive calculator to help evaluate whether a trip is cost effective. As a result, our average passenger load is greater than four employees and our one-way trip time is typically less than one hour.

Project Rationale

The aircraft used for the air transportation services are aging. 55MN is 36 years old, and 70MN is 24 years old. As aircraft age, they cost more to maintain. A 30-year old airplane can have more than double the maintenance costs as a 5-year old airplane. In addition, increased time in maintenance reduces the number of days the aircraft are available. For example, in the past year the 36-year old airplane has been in maintenance 17 percent more days than the 24-year old. By age 30, aircraft typically spend nearly half their time in maintenance. Also, the 70MN engines are both due for overhauls, one in 2018 and one in 2019 for up to \$350,000 each.

MnDOT recommends replacement of these aircraft due to age and the coming expenses. MnDOT hired Conklin and de Decker (consultant firm) to verify our assessment, assess current usage and make recommendations for the number and type of aircraft we should own. The firm evaluated usage, operations, mission needs, and other factors and recommended replacing the two aircraft with two new/newer aircraft (report available upon request).

Project Timeline

Other Considerations

The final aircraft type would be determined through the request for proposal and subsequent procurement process. The estimated cost of purchasing two new aircraft, with the sale proceeds from the older aircraft, should be no more than \$10 million depending on the market value of the used

planes.

Impact on Agency Operating Budgets

Maintenance costs would be reduced on current aircraft.

Description of Previous Appropriations

None

Project Contact Person

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Safe Routes to School Infrastructure Program

AT A GLANCE

2018 Request Amount:	\$3,000
Priority Ranking:	11
Project Summary:	\$3 million in state funds for one solicitation of infrastructure projects that increase safe and convenient opportunities for children to walk and bicycle to school in communities across Minnesota.

Project Description

This capital request is to provide assistance in funding infrastructure projects that provide children with safe walking and bicycling routes to and from school. In 2012, the Legislature created a state Safe Routes to School (SRTS) Program, under Minnesota Statute 174.40. This capital funding will assist local communities in Minnesota by building infrastructure that increases bicycling and walking options for children near schools, leading to increased safety.

Project Rationale

In 2006, a federally-funded SRTS program provided grants to Minnesota communities to increase opportunities for children to walk and bicycle to and from school. Demand for the program exceeded funding under the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) federal appropriation. However, targeted federal funding was not identified specifically for the this program under the Moving Ahead for Progress in the 21st Century (MAP-21) or the Fixing America’s Surface Transportation (FAST) Act federal authorization bills.

In the previous two solicitations from 2013 and 2014, MnDOT received 145 applications from local schools and units of government requesting almost \$37 million for safety improvements near schools but could fund only \$4 million in 28 communities. Providing safe routes to school for Minnesota children has numerous benefits including reducing congestion around schools, reducing school transportation costs and providing an opportunity for physical activity which decreases obesity, improves health and supports academic achievement.

Project Timeline

- Summer 2018 – Application Materials Developed
- Fall 2018 – Solicitation Opens and Applications Available
- Winter/Spring 2019 – Project Selections Made and Announced
- Summer 2019 – Contracting Begins
- Summer 2021 – Projects Completed

Other Considerations

SRTS supports goals of many organizations that are working towards safety, health and educational excellence of school children. The program provides a cost-effective way for the state to invest in

providing school-aged children improved opportunities to walk or ride their bicycle to school. These decisions are made at the local level and take into consideration planning and context for the most appropriate infrastructure solutions for safety and access improvements.

Supporters will include Minnesota Department of Health, the Legislature's Childhood Obesity Task Force and over 35 other organizations that supported the 2014, 2015, 2016 and 2017 legislative proposals, including the American Heart Association, American Cancer Society, Coalition of Greater Minnesota Cities, Minnesota School Boards Association, Minnesota Association of School Administrators and the Bicycle Alliance of Minnesota.

These facilities will be built using current design and construction techniques to provide energy efficient, functionally proficient and economic facilities to support productive, healthy and safe working and traveling environments for employees and patrons.

Impact on Agency Operating Budgets

The proposed projects have no impact on state operating budgets as the program is already administered.

Description of Previous Appropriations

2014 \$1 million general funds
2017 \$1 million capital bonding

Project Contact Person

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Port Development Assistance Program

AT A GLANCE

2018 Request Amount: \$10,000

Priority Ranking: 12

Project Summary: \$10 million in state funds is requested for the Minnesota Port Development Assistance Program, which supports infrastructure needs of Minnesota’s public ports on the Great Lakes and Inland River Navigation Systems.

Project Description

This capital request is for the Port Development Assistance Program. The purpose of this program is to:

- Expedite the movement of commodities and passengers on the commercial navigation system.
- Enhance the commercial vessel construction and repair industry in Minnesota.
- Promote economic development in and around ports and harbors in the state.

Eligible projects are funded by program grants that provide up to 80 percent state funds and a minimum 20 percent local share.

Past project examples include replacement of a warehouse roof, rehabilitation of a barge terminal dock wall, a newly constructed municipal dock and rehabilitation of a dock area for truck parking.

Project Rationale

The Port Development Assistance Program helps to improve access to waterway transportation that benefits Minnesota industries and the public by upgrading facilities and infrastructure, as well as rehabilitating and expanding port capacity.

As part of the Capital Budget Request process, the four public ports provided a \$30-40 million list of future project needs for 2018 and beyond. The \$10 million request will be prioritized based on need, employment generated and overall economic benefit.

Project Timeline

Example project timeline:

July 1, 2018 - State Register Notice of Funds Availability/Request for Project Proposal Applications

September 30, 2018 - Deadline for Submission of Application

March 30, 2019 - Execution of Grant Agreement(s)

April 1, 2019 – March 30, 2021 – Project Construction

Other Considerations

Port Development funds can be used with federal and local dollars to complete projects that benefit a port. An example of this is the rehabilitation of Port Terminal Drive in Duluth. Federal and city funds

were used with Port Development Assistance funds to complete a total road project that would not have been possible without this partnership.

Impact on Agency Operating Budgets

The funding of this program will have no impact on department operating budgets or state operating subsidies.

Description of Previous Appropriations

2012 \$1.0 million GO bonds

2014 \$2.0 million GO bonds

2015 \$3.0 million General Fund

2017 \$5.0 million GO bonds

Since 1996, between \$0.5M and \$5.0M has been appropriated for this program each biennium.

Project Contact Person

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Passenger Rail Program

AT A GLANCE

2018 Request Amount: \$11,000

Priority Ranking: 13

Project Summary: \$11 million in state funds to provide non-federal matching funds for the implementation of passenger rail services along several corridors in the state and connecting Minnesota to the upper Midwest. These corridors include the Northern Lights Express (NLX) service to Duluth, a second daily Amtrak train between Chicago and the Twin Cities, and development of other corridors identified in the most recent 2015 State Rail Plan.

Project Description

This capital request will be used to continue required passenger rail corridor development work for new and expanded service.

- The second train to Chicago's environmental and predesign work are expected to be completed by December 2017. Current, project financial partners include WisDOT, the La Crosse Area Planning Organization, Ramsey County Regional Railroad Authority and the Minnesota High Speed Rail Commission. Requesting \$1 million to complete environmental work and service planning. Requesting \$3 million for the state's share of final design.
- There are several groups representing corridors identified in the 2015 State Rail Plan that have expressed interest in service development, including an I-35 corridor between the Twin Cities and Mankato and a project on the existing St. Cloud/Moorhead corridor. Requesting \$2 million for demonstration projects.
- The NLX project has completed preliminary engineering and will have necessary environmental approval by the fall of 2017. The estimated state-share of the final design work and any supplemental environmental documentation is \$5 million. Additional funding will need to be requested for construction and operations.

Project Rationale

Minnesota Statute 174.632 charges MnDOT with planning, designing, developing and constructing passenger rail services. The 2015 State Rail Plan further directs MnDOT to lead the development of passenger rail services and to participate with the Midwest Regional Rail Initiative in the development of a multi-state passenger rail system in the Upper Midwest.

Project Timeline

- The NLX project - final design in 2018, construction in to begin in 2019 - 2020 and operations as soon as 2020 - 2021.
- The second train from the Twin Cities to Chicago project - environmental work and service planning, in 2018, final design in 2019-2020.

- Emerging corridor(s) development and/or demonstration projects TBD, beginning as early as 2018-2019.

Other Considerations

The \$26 million in bonding from 2009 leveraged over \$40 million in federal funding. There is a 2 for 1 shared benefit with the freight rail system by addressing changing infrastructure needs, safety and capacity constraints. MnDOT has and will continue to utilize resources to design, construct and operate passenger rail services. A key element to implement a passenger rail system is to explore potential alternative funding methods, public /private sector funding opportunities, and potentially private sector project development and operations.

Impact on Agency Operating Budgets

Passenger rail planning is not Trunk Highway Fund eligible. Passenger rail planning and project development activities are funded through General Fund appropriations. In addition, eligible specific corridor project management activities are funded through general obligation bonds authorized in Laws 2009, chapter 93, article 1, section 11, subdivision 5. For FY 2018-2019 the biennial appropriation is \$1 million.

Description of Previous Appropriations

2009, \$26 million G.O. bonds.

Project Contact Person

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