



I-35 Connects

MIC and MnDOT
I-35 CORRIDOR PLAN
Implementation Plan | November 2023



Duluth-Superior
Metropolitan Interstate Council
A Division of ARDC



**BOLTON
& MENK**



DEPARTMENT OF
TRANSPORTATION



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IMPLEMENTATION PLAN OVERVIEW

Implementation of the I-35 Corridor Plan will require continued jurisdictional partnerships over a multi-year period. To ensure clarity and prioritization of the following action steps, the Implementation Plan is structured as a matrix, organized with the following components:

- **Action Step:** The recommended action to be taken
- **Relationship to I-35 Design Future:** Outline of relationship to I-35 related projects, operations, or design
- **Cost:** Estimated cost using 2023 dollars
- **Lead:** Jurisdiction responsible for delivery of the action step
- **Support:** Jurisdiction responsible for supporting the delivery of the action step
- **Description, Potential Funding:** Summary description of the action step, potential funding sources

The Matrix is further separated into three time periods, based on known or anticipated delivery, and to help prioritize action step delivery based on technical analysis findings and input from the public and agency partners.

- **Short Term:** (2024-2029) – aligns with current funding opportunities and/or the STIP
- **Medium Term** (2030-2034) – aligns with the CHIP and projects anticipated to move into the CHIP
- **Long Term:** (2035+) - funding is less certain and/or may be safety- or opportunity-driven projects

Consideration of Multimodal and ITS Improvements

As MnDOT and its partners pursue future area studies and projects, emphasis should continue to be given towards identifying areas of multimodal network and Intelligent Transportation System (ITS) improvements. By connecting into or enhancing the existing multimodal network, MnDOT supports more and safer mobility options for transportation modes. Evaluating ITS improvement opportunities furthers operational safety and efficiency, especially amidst dramatic use fluctuation like what is seen in the Duluth area. Collectively, these project considerations support MnDOT's Livability Initiative, Statewide Multimodal Transportation Plan, and ITS design and evaluation processes.

FUNDING PROGRAM CHEAT SHEET

Local Dollars:

STIP: State Transportation Improvement Program

CHIP: Capital Highway Investment Plan

Local: City/County funding

Federal Competitive Dollars:

HSIP: Highway Safety Improvement Program

SMART: Strengthening Mobility and Revolutionizing Transportation

ATTAIN: Advanced Transportation Technology and Innovation

RAISE: Rebuilding American Infrastructure with Sustainability and Equity (federal)

INFRA: Infrastructure for Rebuilding America (federal)

RCN: Neighborhood Access Program

CDS or CPF: Community Designated Funding or Community Project Funding (Earmarks)

TAP: Transportation Alternatives Program (federal)

Non-Federal Competitive Dollars:

State Bonding Bill Request

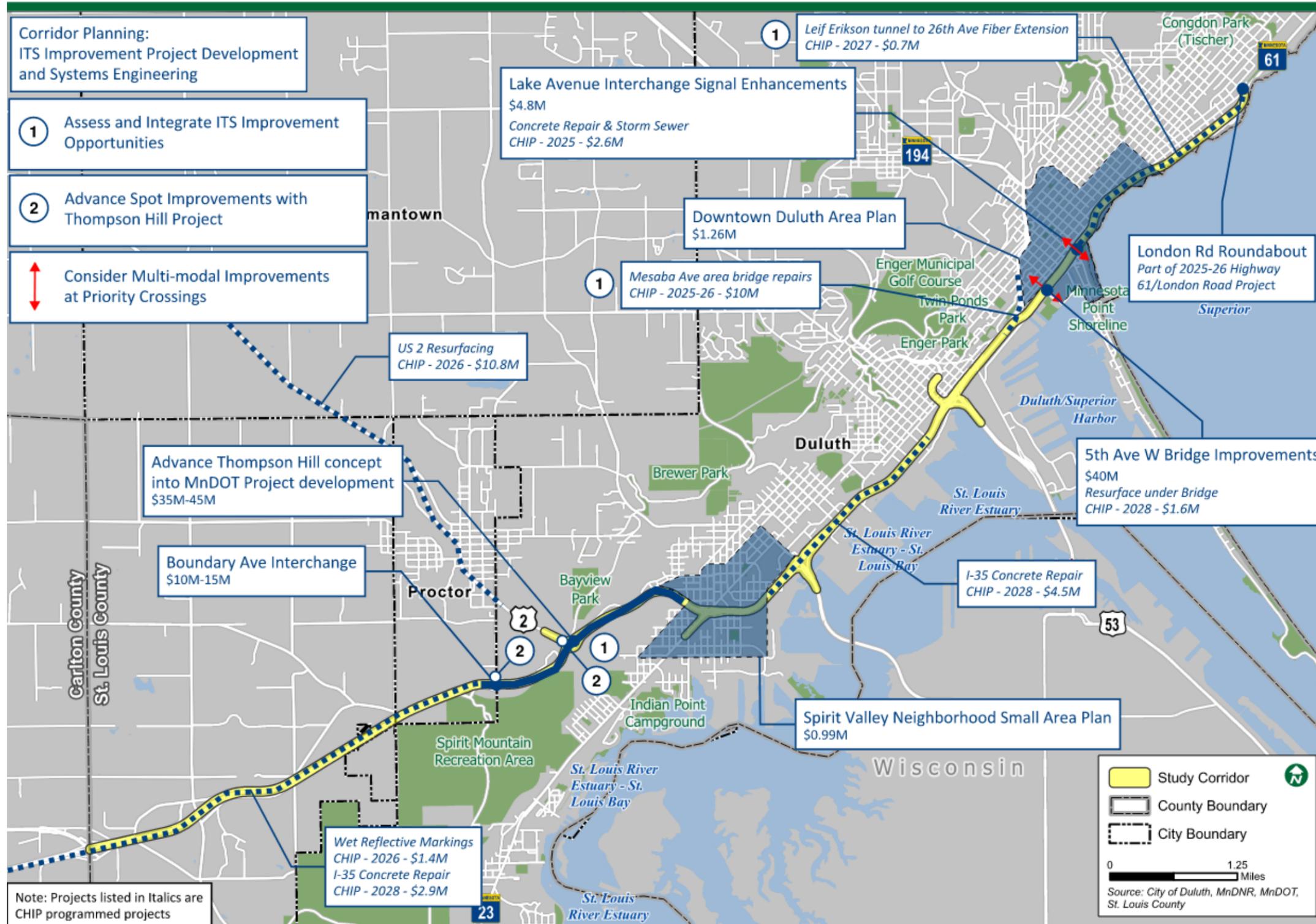
LRIP: MnDOT Local Road Improvement Program Funds (state)

LPP: MnDOT Local Partnership Program

MHFP: Minnesota Highway Freight Program Funds (state)

AT: MnDOT Active Transportation Program

SHORT TERM 2024-2029



SHORT TERM 2024-2029

ACTION STEP	RELATIONSHIP WITH I-35 DESIGN FUTURE	COST (2023 EST)	LEAD	SUPPORT
Seek funding and conduct a Spirit Valley/West Duluth Neighborhood Small Area Plan	A comprehensive vision of the Spirit Valley/West Duluth area will provide critical land use, transportation, and economic development vision, and input into future I-35 access and operation designs, ensuring redesign decisions align with and support neighborhood goals.	\$990,000	City of Duluth**	**
<p>Public Feedback & Need: Spirit Valley / West Duluth lacks a comprehensive, city-led vision that considers land use, transportation, public space, and economic development. Outcomes from this study can help align local public and private investments, and provide additional input for future design solutions of the I-35 corridor and interchanges identified in this study.</p>				
<p>Description: A Neighborhood Small Area Plan for Spirit Valley should establish a comprehensive vision for the neighborhood, while considering and refining recommendations from the Irving Fairmount Brownfields Revitalization Plan, West Duluth Revitalization Plan, Duluth's 2035 Comprehensive Plan, other relevant plans, and planned area capital projects.</p> <p>A Neighborhood-scale small area plan establishes detailed goals, policies, and implementation guidance for land use, transportation and connectivity, placemaking, public spaces, market and economic development potential, and utilities and public infrastructure.</p> <p>Key outcomes of a Spirit Valley Neighborhood Small Area Plan should establish:</p> <ul style="list-style-type: none"> • Neighborhood-level land use and economic development goals • A redevelopment framework for the Spirit Valley Mall site • A framework for guiding future transit investments, particularly BRT • Recommendations for local transportation-network improvements, considering vehicle and truck access needs, multimodal network, I-35 crossing locations, future land use and public space expectations. This may also include recommended modifications to I-35 design concepts currently advancing through project development phases. • A housing needs assessment and implementation plan • Connectivity and circulation needs with the Irving and Fairmount neighborhoods. <p>Potential Funding: RCN Planning Grant*, Cost Participation from City of Duluth and MnDOT,</p> <p>*Recommend planning grant request cover entire project footprint</p> <p>** City of Duluth, MIC, and MnDOT intend to enter into an agreement to jointly lead and develop this plan.</p>				

SHORT TERM 2024-2029

ACTION STEP	RELATIONSHIP WITH I-35 DESIGN FUTURE	COST (2023 EST)	LEAD	SUPPORT
<p>Seek funding and conduct a Downtown Duluth Area Plan, to encompass both Downtown and Canal Park, incorporating an area market study.</p>	<p>A comprehensive vision of downtown will provide critical land use, transportation, and economic development inputs into future I-35 operations and design, ensuring redesign decisions align with and support downtown goals.</p>	<p>\$1,260,000</p>	<p>City of Duluth**</p>	<p>**</p>
<p>Public Feedback and Need: Downtown and Canal Park lack a comprehensive vision that considers land use, transportation, public space, and economic development for this economic heart of the region. Outcomes from this study can establish a long desired area vision, while aligning local public and private investments, and providing additional input for future design solutions of the I-35 corridor and interchanges identified in this study.</p>				
<p>Description: An Area Plan for Downtown Duluth should establish a comprehensive vision for the both Downtown and Canal Park, while considering recommendations from Duluth's 2035 Comprehensive Plan, Imagine Canal Park Community Engagement Summary Report, 2023 Economic Development Study Summary and Recommendations, other relevant plans, and planned area capital projects.</p> <p>A Downtown-scale area plan establishes detailed goals, policies, and implementation guidance for land use, transportation and connectivity, placemaking, public spaces, market and economic development potential, and utilities and public infrastructure. As the heart of the city and region, Duluth's Downtown Plan has the potential to set the tone for the surrounding areas growth and change. Further, with planned improvements for the 5th Ave bridge in 2028, a downtown area plan has the opportunity to inform final design of the bridge segment.</p> <p>Key outcomes of a Downtown Duluth Area Plan should establish:</p> <ul style="list-style-type: none"> • Downtown area land use and economic development goals • A market assessment of downtown and canal park, identifying key industries and land uses to target within redevelopment opportunities • A vision for stitching together the physical and psychological separations between downtown, Canal Park, and the Lake front • A framework to guide future transportation and transit investments, particularly BRT • Recommendations for local transportation-network improvements, considering vehicle and truck access needs, multimodal network, and future land use and public space expectations. This may also include recommended modifications to current and future I-35 design concepts. • An office and housing needs assessment and implementation plan • Sightline and multimodal connections to major destinations and public spaces across the Downtown area. • A parking study of Canal Park to determine current usage and need expectations in relation to long-range land use visions. • An implementation framework that leverages the network of local and regional partners that operate in the downtown area. <p>Potential Funding: RCN Planning Grant*, Cost Participation from City of Duluth and MnDOT, CDS/CFP*</p> <p>*Recommend planning grant request cover entire project footprint</p> <p>** City of Duluth, MIC, and MnDOT intend to enter into an agreement to jointly lead and develop this plan.</p>				

SHORT TERM 2024-2029

ACTION STEP	RELATIONSHIP WITH I-35 DESIGN FUTURE	COST (2023 EST)	LEAD	SUPPORT
<p>Review and refine the 5th Ave W bridge concept, using recommendations and outcomes from the Downtown Duluth Area Plan; advance the bridge concept into project development.</p>	<p>A refined and/or affirmed 5th Ave W bridge design between Downtown and Canal Park should serve local and regional traffic needs, promote multimodal connectivity and livability, and support a long-range planning vision for the Downtown area.</p>	<p>\$40M Bridge Replacement (\$1.6M programmed for resurfacing under the bridge)</p>	<p>MnDOT</p>	<p>City of Duluth</p>
<p>Public Feedback & Need: Improved access and safety of bike and ped crossings at the 5th Ave bridge between Downtown and Canal Park, and further refinement of the 5th Ave "Peanut Roundabout" bridge concept design identified in this I-35 Corridor Plan</p>				
<p>Description: The 5th Avenue bridge is planned for reconstruction in 2028. As project development on the peanut roundabout concept is initiated, recommendations from the Downtown Duluth Area Plan and other relevant studies, planned improvements, or city goals, should confirm final design layouts and connectivity. This may include:</p> <ul style="list-style-type: none"> • Alterations to bridge alignment, design, or ornamentation • The type, location, and alignment of multimodal facilities, particularly bike infrastructure • The need to accommodate transit or be transit-ready, particularly for future BRT • Roadway design needs based on anticipated capacity and future use patterns • Consideration of event-based traffic or access demands from the DECC and surrounding destinations <p>Potential Funding: RCN Planning Grant*, CHIP</p> <p>*Recommend planning grant request cover entire project footprint</p>				
ACTION STEP	RELATIONSHIP WITH I-35 DESIGN FUTURE	COST (2023 EST)	LEAD	SUPPORT
<p>Roadway design and signal enhancements at the Lake Avenue, to improve pedestrian safety and crossings.</p>	<p>Making modifications to the Lake Avenue interchange should promote pedestrian safety at these key crossings between Downtown and Canal Park.</p>	<p>\$4.8M Signal Enhancement (\$2.6M programmed for concrete repair & storm sewer)</p>	<p>MnDOT</p>	<p>MIC, City of Duluth</p>
<p>Public Feedback & Need: Improved access and safety of bike and ped crossings at the Lake Ave bridge between Downtown and Canal Park, and further refinement of the Lake Ave bridge concept design identified in this I-35 Corridor Plan</p>				
<p>Description: Making minor upgrades and changes to the existing SPUI signal system at the Lake Avenue interchange may provide cost-effective solutions to remedy pedestrian safety and discomfort at a high-volume intersection. Potential phasing and signal system equipment upgrades include:</p> <ul style="list-style-type: none"> • Pedestrian Omit on Flashing Yellow Arrow (POOFYA) phasing • Leading Pedestrian Interval (LPI) phasing • Restricted right turn phasing via blank out signage <p>Potential Funding: CHIP</p>				

SHORT TERM 2024-2029

ACTION STEP	RELATIONSHIP WITH I-35 DESIGN FUTURE	COST (2023 EST)	LEAD	SUPPORT
Advance I-35 concepts for the Thompson Hill area into MnDOT project development	Reconstructing this challenging portion of the interstate will mitigate safety and operation issues and would benefit from moving into the MnDOT project development process for additional feasibility and design attention.	Varies (see below)	MnDOT	City of Proctor, City of Duluth, MIC, St. Louis County
<p>Public Feedback & Need: The roadway and ramps within the Thompson Hill area are in poor condition, are unsafe, see high levels of congestion, and have poor geometry.</p>				
<p>Description: The Thompson Hill area of the I-35 corridor, between the Boundary Ave interchange and Central Avenue, is in poor condition, and rehab is included in the 2028-2029 CHIP. This area also features substandard geometry, and operates with unacceptable levels of congestion and crashes. Reconstructing this 1.4mi segment will require critical coordination on significant challenges, including:</p> <ul style="list-style-type: none"> • Reconstruction of 2 railroad bridges, potential replacement of 2 additional structures (part of \$35M - 45M project estimate) • Consideration of removing access to Cody Street (part of \$35M - 45M project estimate) • Environmental impacts due to widening near culturally and environmentally sensitive areas (part of \$35M - 45M project estimate) • Reconstruction of Boundary Ave interchange for safety and to support Proctor's gateway and development (\$10M - 15M) • Geometric modifications at Boundary Ave/Skyline Pkwy, and US 2/Skyline Pkwy (TBD) <p>Progressing concepts developed within this feasibility study, including reconstruction of the Boundary Ave Interchange, should be progressed to MnDOT project development to allow for additional feasibility and design evaluation, while beginning to program improvements for funding.</p> <p>Potential Funding: CHIP</p>				
ACTION STEP	RELATIONSHIP WITH I-35 DESIGN FUTURE	COST (2023 EST)	LEAD	SUPPORT
London Road roundabout	The terminus of I-35 at TH 61/London Road is planned to be reconstructed as a multi-lane roundabout, which will bookend improvements made to the TH 61 corridor.	Part of 2025-2026 London Rd / Hwy 61 Project	MnDOT	City of Duluth
<p>Public Feedback & Need: The current intersection is unsafe with many crashes, and high levels of congestion at peak hours.</p>				
<p>Description: The existing signal at the I-35 and TH 61/London Road intersection operates poorly during peak hours, and with a high number of crashes. The TH 61/London Road corridor is planned to be reconstructed in 2025 and will feature multiple roundabouts to facilitate traffic calming, improved safety, and pedestrian and bike infrastructure. A multi-lane roundabout at the interstate's northern terminus at TH 61 will improve safety and operations at a key regional intersection.</p> <p>Potential Funding: Project is already programmed</p>				

SHORT TERM 2024-2029

ACTION STEP	RELATIONSHIP WITH I-35 DESIGN FUTURE	COST (2023 EST)	LEAD	SUPPORT
Assess and integrate ITS improvement opportunities supportive of planned STIP/CHIP projects, moving ITS Improvements into project development and systems engineering	Enhancing planned STIP/CHIP projects with supportive ITS enhancements, such as variable speed limit studies, can lead to additional and flexible corridor operation and safety improvements, while maximizing long-range impact potential of planned improvement projects.	Varies	MnDOT	MIC, City of Duluth
<p>Public Feedback & Need: ITS improvements can support safer and more efficient roadway operations, and should be evaluated for all planned STIP/CHIP projects</p>				
<p>Description: STIP/CHIP project may accommodate and benefit from ITS enhancements. An initial step should be to conduct a Variable Speed Limit Study, which is a technical study through MnDOT's Innovative Ideas Program that provides inputs necessary to determine warrants and potential effectiveness of utilizing variable speeds along segments of I-35. Findings from this, and other ITS related studies should inform ITS solution utilization along the corridor, with the intent to improve safety and travel time reliability throughout the corridor.</p> <p>Identified projects that may benefit from ITS improvements:</p> <ul style="list-style-type: none"> • Mesaba Avenue area bridge replacements/repair (2025-26 - \$10M) • Leif Erikson Tunnel to 26th Ave fiber extension (2027 - \$.7M) • West Duluth I-35 Concrete Repair (2028 - \$4.5M) • US 2 Resurfacing (2026 - \$10.8M) • Spirit Mountain Area <ul style="list-style-type: none"> o Wet Reflective Markings (2026 - \$1.4M) o Concrete Repair (2028 - \$2.9M) <p>Potential Funding: CHIP, MnDOT (Innovative Ideas Program)</p>				

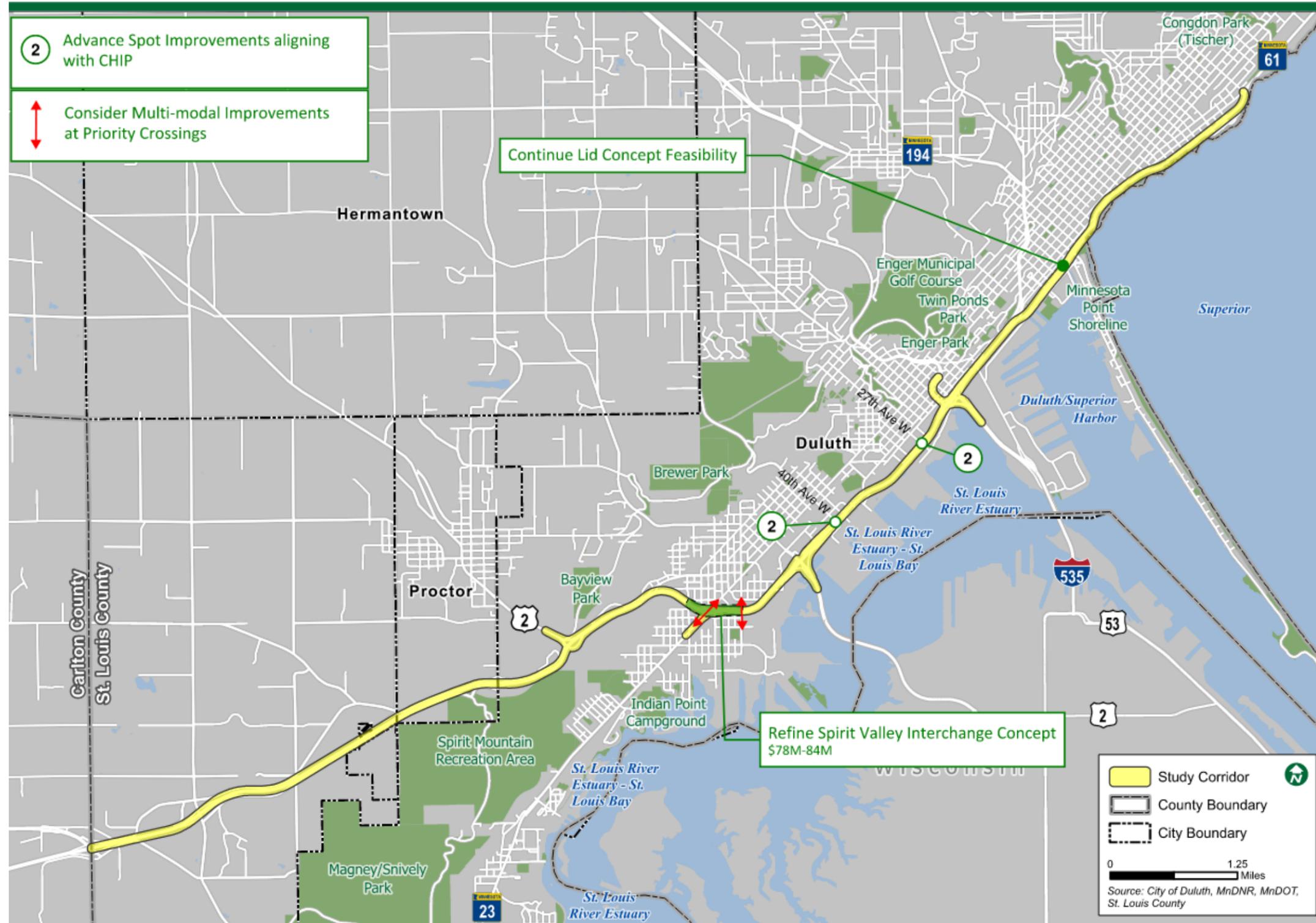
MEDIUM TERM 2030-2034



Duluth Area I-35 Corridor Plan
Duluth-Superior Metropolitan Interstate Council

I-35 Implementation Plan - Medium Term (2030-2034)

August 2023



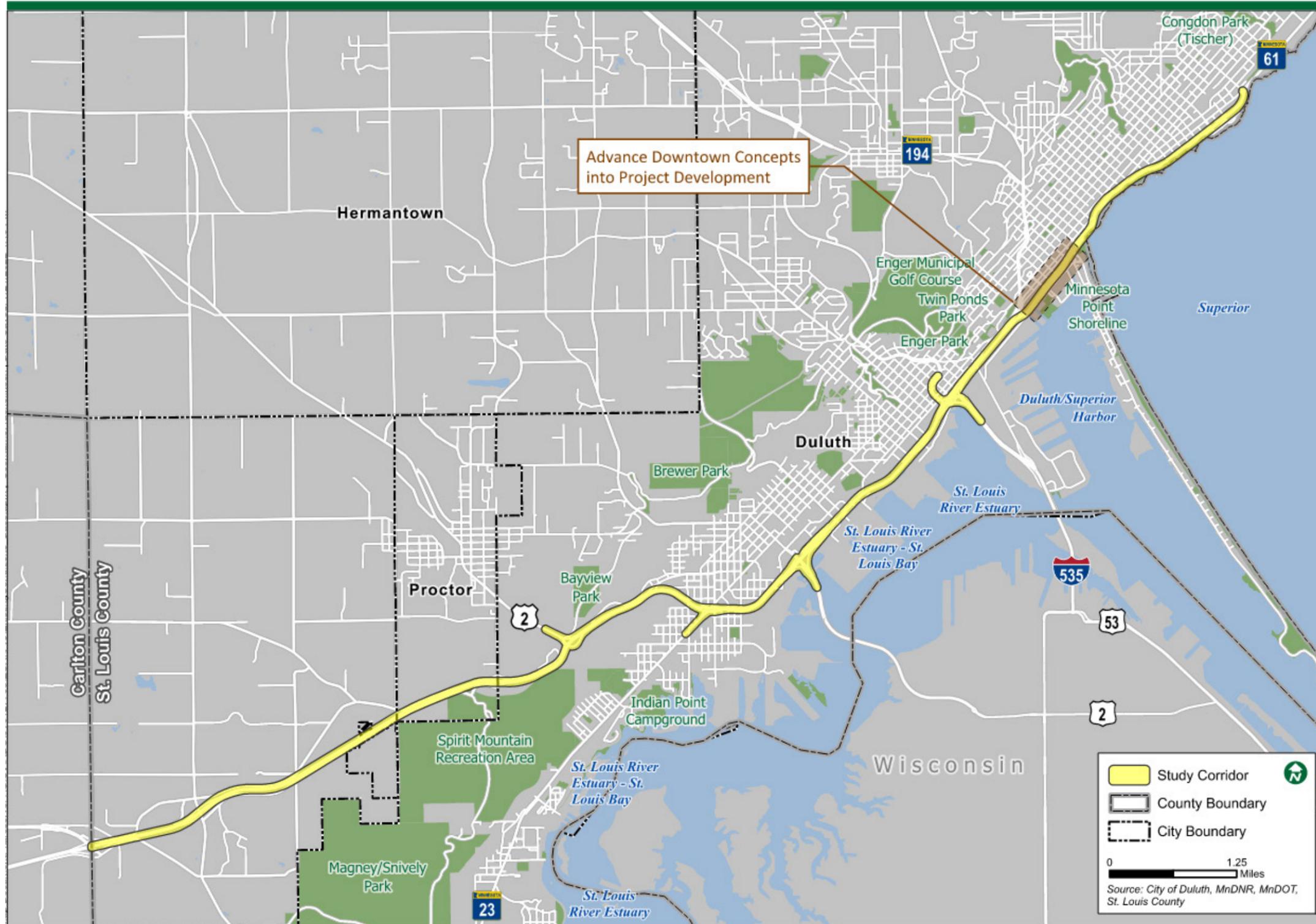
MEDIUM TERM 2030-2034

ACTION STEP	RELATIONSHIP WITH I-35 DESIGN FUTURE	COST (2023 EST)	LEAD	SUPPORT
<p>Refine (as needed) the Consolidated Interchange concept based on the Spirit Valley/West Duluth Neighborhood Small Area Plan recommendations and advance the concept into project development.</p>	<p>A refined or affirmed design for the Spirit Valley interchange should serve local and regional traffic, connectivity, and livability needs, while aligning with a long-range area planning vision.</p>	<p>\$78-84M</p>	<p>MnDOT</p>	<p>City of Duluth</p>
<p>Public Feedback & Need: The intersections and interchanges in the Spirit Valley / West Duluth area should be redesigned to promote safety, access, and neighborhood economic activity. Further refine the Consolidated Interchange concept design identified in this I-35 Corridor Plan.</p>				
<p>Description: As project development of the interchange is initiated, recommendations from the Spirit Valley Neighborhood Small Area Plan, and other relevant studies, planned improvements, or city goals, should inform and confirm final design layouts and connectivity. This may include:</p> <ul style="list-style-type: none"> • Alterations to interchange alignment or design to accommodate neighborhood transportation and land use vision • The presence, type, and connectivity of multimodal facilities, particularly bike infrastructure • The need to accommodate transit, particularly future BRT • Adjacent roadway and ramp design needs based on anticipated capacity, design vehicle, and future use patterns. • Consideration of access and traffic demands related to development future of the Spirit Valley Mall site • Drainage management and locations <p>Potential Funding: CHIP, RCN Planning Grant*, RAISE Planning Grant, CDS/CFP</p> <p>*Recommend planning grant request cover entire project footprint</p>				
ACTION STEP	RELATIONSHIP WITH I-35 DESIGN FUTURE	COST (2023 EST)	LEAD	SUPPORT
<p>Continue to study and refine the feasibility of the Downtown segment Lid Concept, using recommendations from the Downtown Duluth Area Plan to determine purpose, function, location, and design.</p>	<p>While the I-35 Corridor Plan study began to study design alternatives to the downtown segment of I-35, additional design and evaluation should be conducted using recommendations from the Downtown Duluth Area Plan to determine a transformative future design vision for the I-35 corridor such as the Lid Concept.</p>	<p>TBD</p>	<p>MnDOT, MIC</p>	<p>City of Duluth</p>
<p>Public Feedback & Need: Physical crossings between Downtown and Canal Park are limited and difficult. The physical and psychological barrier created by the interstate could be addressed by solutions such as the Lid design concept design identified in this I-35 Corridor Plan.</p>				
<p>Description: The "Lid Concept" from this study gestures to the potential for a transformative rethinking of the design and operations of the I-35 corridor through downtown. In the absence of additional Downtown area planning and visioning however, it is difficult to determine specific design solutions that can both sufficiently address I-35 operational needs, and support local livability goals. Further, the I-35 Corridor Plan anticipated that additional feasibility work would be required to determine the viability of alternative, transformational design concepts, and therefore did not conduct detail feasibility assessments of the Lid Concept. It is not anticipated the interstate will be removed, future studies therefore should assess the potential for various design solutions for the downtown segment of I-35 that align with and support long-range area goals.</p> <p>Potential Funding: RCN Planning Grant*, RAISE Planning Grant*, CDS/CFP*</p> <p>*Recommend planning grant request cover entire project footprint</p>				

MEDIUM TERM 2030-2034

ACTION STEP	RELATIONSHIP WITH I-35 DESIGN FUTURE	COST (2023 EST)	LEAD	SUPPORT
Advance and complete spot improvements that line up with the CHIP	There are a series of project locations identified in the CHIP, that have associated improvement opportunities that could further corridor safety, operations, and connectivity improvements as identified in the study.	Varies	MnDOT	City of Duluth
<p>Public Feedback & Need: There are several planned spot improvements identified in the CHIP, that will address access and safety concerns throughout the area.</p>				
<p>Description: Pairing study-identified spot improvements with larger projects that are programmed in the CHIP may reduce construction costs and the construction impacts to the driving public. As opportunities arise, conduct additional traffic control and crossing studies that considers the feasibility and impacts of design solutions like a roundabout, or improving bike and pedestrian facilities. Potential locations include:</p> <ul style="list-style-type: none"> • 40th Ave W (\$2.5-5M) • 27th Ave W (\$100,000 - 250,000) <p>Potential Funding: TA, HSIP</p>				
ACTION STEP	RELATIONSHIP WITH I-35 DESIGN FUTURE	COST (2023 EST)	LEAD	SUPPORT
Update the I-35 Corridor Plan	Revisit and update the I-35 Corridor Plan every 5-10 years to keep focus on progress.	Varies	MnDOT and MIC	N/A
<p>Public Feedback & Need: Implementation of the plan will take place over many years. Needs, priorities, and the availability of funding may change requiring adjustments in the plan.</p>				
<p>Description: Determine plan progress and the scale of an update needed and complete the update to adjust for current conditions, needs, priorities, and funding.</p> <p>Potential Funding: MIC, MnDOT</p>				

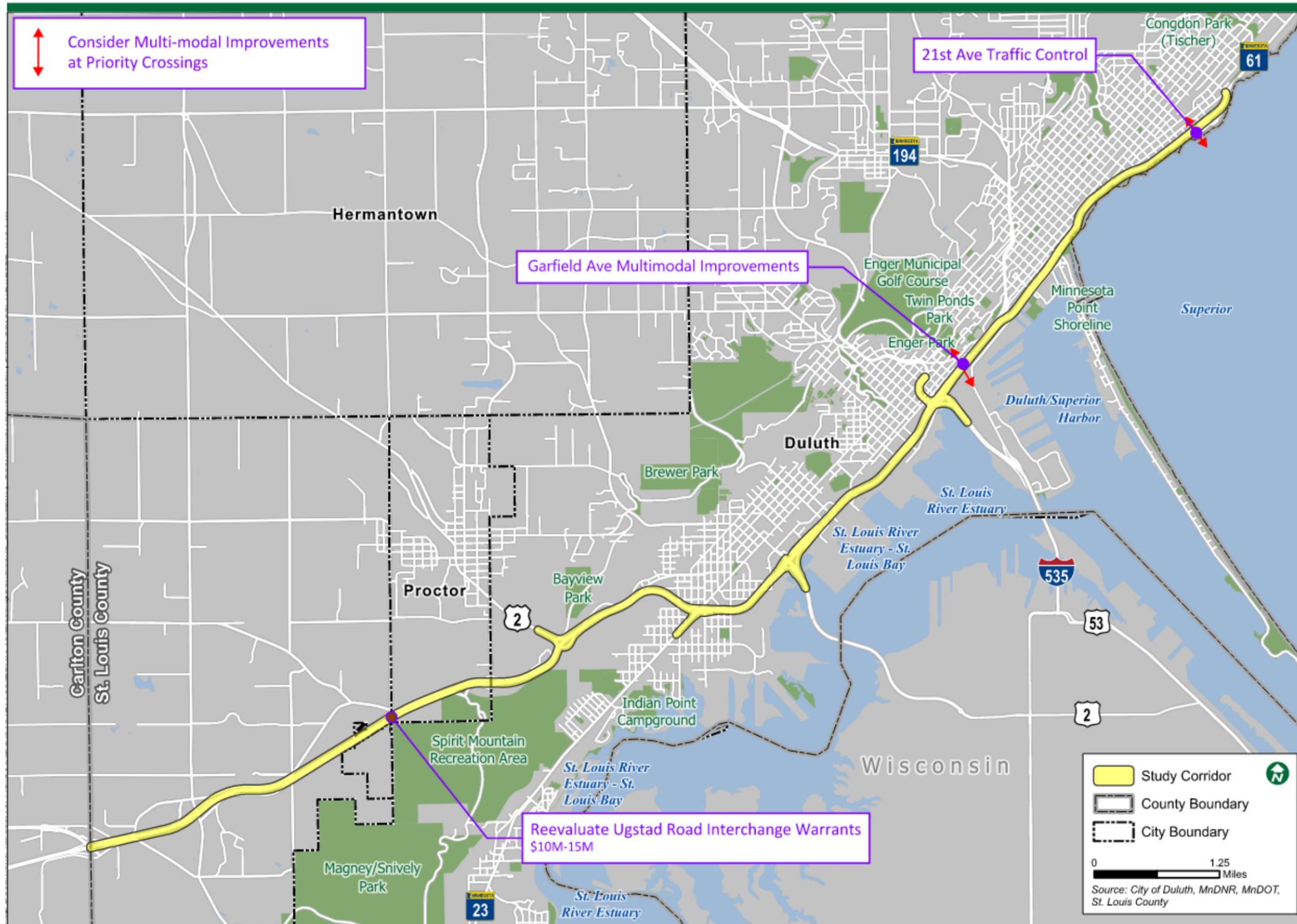
LONG TERM 2035+



LONG TERM 2035+

ACTION STEP	RELATIONSHIP WITH I-35 DESIGN FUTURE	COST (2023 EST)	LEAD	SUPPORT
<p>Following recommendations from the Downtown Duluth Area Plan, advance selected Downtown I-35 segment designs into project development, along with other identified relevant long-term infrastructure recommendations.</p>	<p>As the I-35 corridor reaches the end of its planned lifecycle over the next 10-20 years, stakeholders will be presented a chance to rethink the design and operations of the entire downtown segment of I-35 in a manner that ensures it supports long-term local and regional needs. Identifying and advancing concept designs into project development will allow for an interstate corridor aligned with area goals over the coming decades. ** build on mid-term action of lid.</p>	<p>TBD</p>	<p>MnDOT</p>	<p>City of Duluth</p>
<p>Public Feedback & Need: Physical crossings between Downtown and Canal Park are limited and difficult. The physical and psychological barrier created by the interstate could be addressed by many different design solutions that may be informed by future area planning. Advancing yet-to-be-identified concepts that promote interstate operations and area quality of life into project development will ensure a future design that best serves the region.</p>				
<p>Description: After the conclusion of a Downtown Duluth Area Plan, identified interstate design solutions should be moved into project development as the corridor concludes its planned lifecycle. This will ensure future corridor improvements that will be required over the coming decades will balance operational needs with a long-term area vision.</p> <p>Potential Funding: CDS/CFP</p>				

OPPORTUNITY-DRIVEN



OPPORTUNITY-DRIVEN

ACTION STEP	RELATIONSHIP WITH I-35 DESIGN FUTURE	COST (2023 EST)	LEAD	SUPPORT
Reevaluate justifications for an interchange at Ugstad Road, should future area land uses change significantly.	A future interchange at Ugstad Road is identified in the Proctor Comprehensive Plan. The timing of this improvement will be determined by local development and land use changes, and local infrastructure improvements.	\$10M-15M Cost of interchange	MnDOT/MIC	City of Proctor
<p>Public Feedback & Need: A future interchange at Ugstad Rd would provide an additional point of entry into Proctor, and potential economic development benefits</p>				
<p>Description: This feasibility study determined that an interchange at Ugstad Rd is not currently warranted per FHWA Interstate Access Request guidance. However, this should be reevaluated pending significant changes to future area land uses and development intensity. Local infrastructure must also be developed to accommodate traffic volumes an interchange may bring.</p> <p>Potential Funding: MnDOT, Align with other area studies or projects</p>				
ACTION STEP	RELATIONSHIP WITH I-35 DESIGN FUTURE	COST (2023 EST)	LEAD	SUPPORT
Consider multi-modal improvements during opportunity-driven project development at priority crossings location	Considering and integrating multimodal infrastructure at identified priority crossing locations could improve connectivity and circulation - reducing the historic barrier I-35 has represented.	TBD	MnDOT	City of Duluth
<p>Public Feedback & Need: Opportunity driven future projects should continue to consider multimodal improvements to promote access and safety for all users.</p>				
<p>Description: Address any remaining priority crossing locations identified by this study, while pursuing crossing improvements at additional priority crossing locations identified within future studies, including:</p> <ul style="list-style-type: none"> • 21st Avenue Traffic Control • Garfield Ave Multimodal Crossing Improvements <p>Potential Funding: HSIP, RCN, RAISE, TAP, MNDOT Active Transportation</p>				