Application

13861 - 2020 Roadway Modernization

14304 - Dakota County Project 86-41, CSAH 86 (280th Street) from the westerly Dakota County line to CSAH 23 (Galaxie Avenue) in Eureka and Greenvale Townships.

Regional Solicitation - Roadways Including Multimodal Elements

Status:	Submitted
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What Grant Programs are you most interested in?	Regional Solicitation - Roadways Including Multimodal Elements			

Organization Information

Name:	DAKOTA COUNTY
Jurisdictional Agency (if different):	
Organization Type:	County Government
Organization Website:	
Address:	TRANSPORTATION DEPT
	14955 GALAXIE AVE
*	APPLE VALLEY (City) Minnesota (State/Province) 55124 (Postal Code/Zip)
County:	Dakota
Phone:*	952-891-7100 Ext.
Fax:	
PeopleSoft Vendor Number	0000002621A15

Project Information

Project Name	Reconstruction of CSAH 86 from west Dakota County line to CSAH 23 (Galaxie Avenue) in Dakota County
Primary County where the Project is Located	Dakota
Cities or Townships where the Project is Located:	Eureka and Greenvale Townships
Jurisdictional Agency (If Different than the Applicant):	

Brief Project Description (Include location, road name/functional class, type of improvement, etc.)

Reconstruction of CSAH 86 (280th Street A-Minor Arterial) from west Dakota County line to CSAH 23 (Galaxie Ave) in Eureka and Greenvale Townships. This project will address roadway safety concerns and geometric deficiencies by: reducing the number & severity of run off the roadway type crashes with the addition of 8 foot bituminous shoulder; provide increased safety for pedestrians/bicyclists; and adding turn lanes and bypass lanes at intersections to improve roadway operations/safety through the area. This east/west A-Minor Arterial route begins at the western edge of Scott County connecting the growing communities of New Prague, Elko/New Market to the rural township areas of eastern Dakota County and ultimately US Hwy 52. This route is approximately 46 miles in length from TH 169 to TH 52 in Dakota County. This reconstruction segment represents the last remaining section of CSAH 86 within Dakota County to be reconstructed.

The specific improvements proposed as part of this project fit well with the overall transportation system in the area. These improvements include reconstructing the existing 2-lane roadway, adding 8' bituminous shoulders, flattening out side slopes/ditches, and adding turn lanes and by-pass lanes at "T" intersections from west Dakota County line to CSAH 23 (Galaxie Ave) in Dakota County. This project includes intersection modification to address safety. Aligning, consolidating and removing access along the corridor will increase safety along the corridor.

(Limit 2,800 characters; approximately 400 words)

TRANSPORTATION IMPROVEMENT PROGRAM (TIP) DESCRIPTION - will be used in TIP if the project is selected for funding. See MnDOT's TIP description guidance.

CSAH 86, WEST DAKOTA COUNTY LINE TO CSAH 23, RECONSTRUCT AND WIDEN SHOULDERS

Project Length (Miles)

3.6

to the nearest one-tenth of a mile

Project Funding

Are you applying for competitive funds from another source(s) to implement this project? No

If yes, please identify the source(s)

Federal Amount $4,800,000.00

Match Amount $1,200,000.00

Minimum of 20% of project total

Project Total $6,000,000.00

For transit projects, the total cost for the application is total cost minus fare revenues.

Match Percentage 20.0%

Minimum of 20%
Compute the match percentage by dividing the match amount by the project total

Source of Match Funds State Aid, Local

A minimum of 20% of the total project cost must come from non-federal sources; additional match funds over the 20% minimum can come from other federal sources

Preferred Program Year

Select one: 2024

Select 2022 or 2023 for TDM projects only. For all other applications, select 2024 or 2025.

Additional Program Years:

Select all years that are feasible if funding in an earlier year becomes available.

Project Information-Roadways

County, City, or Lead Agency Dakota County

Functional Class of Road A-Minor Arterial

Road System CSAH

TH, CSAH, MSAS, CO. RD., TWP. RD., CITY STREET

Road/Route No. 86

i.e., 53 for CSAH 53

Name of Road 280th Street

Example; 1st ST., MAIN AVE

Zip Code where Majority of Work is Being Performed 55010

(Approximate) Begin Construction Date 03/01/2024

(Approximate) End Construction Date 11/01/2024

TERMINI:(Termini listed must be within 0.3 miles of any work)

From: **(Intersection or Address)**	Scott/Dakota County Line
To: **(Intersection or Address)**	West intersection of CSAH 23 (Galaxie Ave)
DO NOT INCLUDE LEGAL DESCRIPTION	
Or At	
Miles of Sidewalk (nearest 0.1 miles)	0
Miles of Trail (nearest 0.1 miles)	0
Miles of Trail on the Regional Bicycle Transportation Network (nearest 0.1 miles)	0
Primary Types of Work	GRADE, AGG BASE, BIT SURF, CULVERT, GUARDRAIL
Examples: GRADE, AGG BASE, BIT BASE, BIT SURF, SIDEWALK, CURB AND GUTTER,STORM SEWER, SIGNALS, LIGHTING, GUARDRAIL, BIKE PATH, PED RAMPS, BRIDGE, PARK AND RIDE, ETC.	

BRIDGE/CULVERT PROJECTS (IF APPLICABLE)

Old Bridge/Culvert No.:	
New Bridge/Culvert No.:	
Structure is Over/Under (Bridge or culvert name):	

Requirements - All Projects

All Projects

1.The project must be consistent with the goals and policies in these adopted regional plans: Thrive MSP 2040 (2014), the 2040 Transportation Policy Plan (2018), the 2040 Regional Parks Policy Plan (2018), and the 2040 Water Resources Policy Plan (2015).

Check the box to indicate that the project meets this requirement. Yes

2.The project must be consistent with the 2040 Transportation Policy Plan. Reference the 2040 Transportation Plan goals, objectives, and strategies that relate to the project.

Briefly list the goals, objectives, strategies, and associated pages:

Goal: A. Transportation System Stewardship (p. 2.17)

Sustainable investments in the transportation system are protected by strategically preserving, maintaining, and operating system assets. Objectives: A. Efficiently preserve and maintain the regional transportation system in a state of good repair.: A1. Regional transportation partners will pace the highest priority for transportation investments on strategically preserving, maintaining, and operating the transportation system. A2. Regional transportation partners should regularly review planned preservation and maintenance projects to identify cost-effective opportunities to incorporate improvements for safety, lower-cost congestion management and mitigation, transit, bicycle, and pedestrian facilities. (p. 2.18)

The CSAH 86 reconstruction is an investment to upgrade the last remaining segment of CSAH 86 within Dakota County that has aged pavement/subgrade and lacks adequate turns lanes, bypass lanes and shoulders. This will create a continuous safe and reliable corridor from Interstate 35 east to Trunk Highway 52.

Goal: B Safety and Security (p. 2.20) The regional transportation system is safe and secure for all users.

Objectives: A. Reduce crashes and improve safety and security for all modes of passenger travel and freight transport. Strategies: B1. Regional transportation partners will incorporate safety and security considerations for all modes and users

throughout the processes of planning, funding, construction, operations. (p. 2.20) B6. Regional transportation partners will use best practices to provide and improve facilities for safe walking and bicycling, since pedestrians and bicyclists are the most vulnerable users of the transportation system. (p. 2.23)

Reconstruction of CSAH 86 will include safety improvements that will affect all modes of traffic including movement of freight and agriculture. Incorporation of
turn lanes, bypass lanes and widened paved shoulders will create a consistent and reliable corridor for all users including all non-vehicle traffic.

Goal: C. Access to Destinations People and businesses prosper by using a reliable, affordable, and efficient multimodal transportation system that connects them to destinations throughout the region and beyond.

Objectives: B. Increase travel time reliability and predictability for travel on highway and transit systems.

Objectives: E. Improve multimodal travel options for people of all ages and abilities to connect to jobs and other opportunities, particularly for historically under-represented populations. Strategies: C2. Local government should provide a system of interconnected arterial roads, streets, bicycle facilities, and pedestrian facilities to meet local needs using Complete Streets principles. (p. 2.25)

Limit 2,800 characters, approximately 400 words

3.The project or the transportation problem/need that the project addresses must be in a local planning or programming document. Reference the name of the appropriate comprehensive plan, regional/statewide plan, capital improvement program, corridor study document [studies on trunk highway must be approved by the Minnesota Department of Transportation and the Metropolitan Council], or other official plan or program of the applicant agency [includes Safe Routes to School Plans] that the project is included in and/or a transportation problem/need that the project addresses.

List the applicable documents and pages:

The proposed reconstruction project has been included in Dakota Countys Capital Improvement Program (CIP) for the 2020-2024 planning period. Details of the project are shown on page Trans 97 (attached). The programmed project includes preliminary design starting in 2022, final design occurring in 2022/2023 and right of way acquisition in 2023. Construction is planned for 2024. The construction cost in the CIP shows $5.25M and has been revised with recent unit prices to be $6M for expected cost.

Limit 2,800 characters, approximately 400 words

4.The project must exclude costs for studies, preliminary engineering, design, or construction engineering. Right-of-way costs are only eligible as part of transit stations/stops, transit terminals, park-and-ride facilities, or pool-and-ride lots. Noise barriers, drainage projects, fences, landscaping, etc., are not eligible for funding as a standalone project, but can be included as part of the larger submitted project, which is otherwise eligible.

Check the box to indicate that the project meets this requirement. Yes

5.Applicants that are not State Aid cities or counties in the seven-county metro area with populations over 5,000 must contact the MnDOT Metro State Aid Office prior to submitting their application to determine if a public agency sponsor is required.

Check the box to indicate that the project meets this requirement. Yes

6.Applicants must not submit an application for the same project elements in more than one funding application category.

Check the box to indicate that the project meets this requirement. Yes

7.The requested funding amount must be more than or equal to the minimum award and less than or equal to the maximum award. The cost of preparing a project for funding authorization can be substantial. For that reason, minimum federal amounts apply. Other federal funds may be combined with the requested funds for projects exceeding the maximum award, but the source(s) must be identified in the application. Funding amounts by application category are listed below.
Strategic Capacity (Roadway Expansion): *$1,000,000 to $10,000,000*
Roadway Reconstruction/Modernization: *$1,000,000 to $7,000,000*
Traffic Management Technologies (Roadway System Management): *$250,000 to $3,500,000*
Spot Mobility and Safety: *$1,000,000 to $3,500,000*
Bridges Rehabilitation/Replacement: *$1,000,000 to $7,000,000*

Check the box to indicate that the project meets this requirement. Yes

8.The project must comply with the Americans with Disabilities Act (ADA).

Check the box to indicate that the project meets this requirement. Yes

9.In order for a selected project to be included in the Transportation Improvement Program (TIP) and approved by USDOT, the public agency sponsor must either have a current Americans with Disabilities Act (ADA) self-evaluation or transition plan that covers the public right of way/transportation, as required under Title II of the ADA. The plan must be completed by the local agency before the Regional Solicitation application deadline. For the 2022 Regional Solicitation funding cycle, this requirement may include that the plan is updated within the past five years.

The applicant is a public agency that employs 50 or more people and has a completed ADA transition plan that covers the public right of way/transportation. Yes

Date plan completed: 06/01/2018

Link to plan: https://www.co.dakota.mn.us/Transportation/TransportationStudies/Past/Documents/ADATransitionPlan.pdf

The applicant is a public agency that employs fewer than 50 people and has a completed ADA self-evaluation that covers the public right of way/transportation.

Date self-evaluation completed:

Link to plan:

Upload plan or self-evaluation if there is no link

Upload as PDF

10.The project must be accessible and open to the general public.

Check the box to indicate that the project meets this requirement. Yes

11.The owner/operator of the facility must operate and maintain the project year-round for the useful life of the improvement, per FHWA direction established 8/27/2008 and updated 6/27/2017.

Check the box to indicate that the project meets this requirement. Yes

12.The project must represent a permanent improvement with independent utility. The term independent utility means the project provides benefits described in the application by itself and does not depend on any construction elements of the project being funded from other sources outside the regional solicitation, excluding the required non-federal match. Projects that include traffic management or transit operating funds as part of a construction project are exempt from this policy.

Check the box to indicate that the project meets this requirement. Yes

13.The project must not be a temporary construction project. A temporary construction project is defined as work that must be replaced within five years and is ineligible for funding. The project must also not be staged construction where the project will be replaced as part of future stages. Staged construction is eligible for funding as long as future stages build on, rather than replace, previous work.

Check the box to indicate that the project meets this requirement. Yes

14.The project applicant must send written notification regarding the proposed project to all affected state and local units of government prior to submitting the application.

Check the box to indicate that the project meets this requirement. Yes

Roadways Including Multimodal Elements

1.All roadway and bridge projects must be identified as a principal arterial (non-freeway facilities only) or A-minor arterial as shown on the latest TAB approved roadway functional classification map.

Check the box to indicate that the project meets this requirement. Yes

Roadway Expansion and Reconstruction/Modernization and Spot Mobility projects only:

2.The project must be designed to meet 10-ton load limit standards.

Check the box to indicate that the project meets this requirement. Yes

Bridge Rehabilitation/Replacement and Strategic Capacity projects only:

3.Projects requiring a grade-separated crossing of a principal arterial freeway must be limited to the federal share of those project costs identified as local (non-MnDOT) cost responsibility using MnDOTs Cost Participation for Cooperative Construction Projects and Maintenance Responsibilities manual. In the case of a federally funded trunk highway project, the policy guidelines should be read as if the funded trunk highway route is under local jurisdiction.

Check the box to indicate that the project meets this requirement.

4.The bridge must carry vehicular traffic. Bridges can carry traffic from multiple modes. However, bridges that are exclusively for bicycle or pedestrian traffic must apply under one of the Bicycle and Pedestrian Facilities application categories. Rail-only bridges are ineligible for funding.

Check the box to indicate that the project meets this requirement.

Bridge Rehabilitation/Replacement projects only:

5.The length of the bridge must equal or exceed 20 feet.

Check the box to indicate that the project meets this requirement.

6. The bridge must have a National Bridge Inventory Rating of 6 or less for rehabilitation projects and 4 or less for replacement projects.

Check the box to indicate that the project meets this requirement.

Roadway Expansion, Reconstruction/Modernization, and Bridge Rehabilitation/Replacement projects only:

7. All roadway projects that involve the construction of a new/expanded interchange or new interchange ramps must have approval by the Metropolitan Council/MnDOT Interchange Planning Review Committee prior to application submittal. Please contact Michael Corbett at MnDOT (Michael.J.Corbett@state.mn.us or 651-234-7793) to determine whether your project needs to go through this process as described in Appendix F of the 2040 Transportation Policy Plan.

Check the box to indicate that the project meets this requirement. Yes

Requirements - Roadways Including Multimodal Elements

Specific Roadway Elements

CONSTRUCTION PROJECT ELEMENTS/COST ESTIMATES	Cost
Mobilization (approx. 5% of total cost)	$275,000.00
Removals (approx. 5% of total cost)	$275,000.00
Roadway (grading, borrow, etc.)	$1,700,000.00
Roadway (aggregates and paving)	$2,800,000.00
Subgrade Correction (muck)	$50,000.00
Storm Sewer	$430,000.00
Ponds	$0.00
Concrete Items (curb & gutter, sidewalks, median barriers)	$0.00
Traffic Control	$40,000.00
Striping	$40,000.00
Signing	$40,000.00
Lighting	$10,000.00

Turf - Erosion & Landscaping	$220,000.00
Bridge	$0.00
Retaining Walls	$0.00
Noise Wall (not calculated in cost effectiveness measure)	$0.00
Traffic Signals	$0.00
Wetland Mitigation	$0.00
Other Natural and Cultural Resource Protection	$0.00
RR Crossing	$0.00
Roadway Contingencies	$0.00
Other Roadway Elements	$0.00
Totals	**$5,880,000.00**

Specific Bicycle and Pedestrian Elements

CONSTRUCTION PROJECT ELEMENTS/COST ESTIMATES	**Cost**
Path/Trail Construction	$120,000.00
Sidewalk Construction	$0.00
On-Street Bicycle Facility Construction	$0.00
Right-of-Way	$0.00
Pedestrian Curb Ramps (ADA)	$0.00
Crossing Aids (e.g., Audible Pedestrian Signals, HAWK)	$0.00
Pedestrian-scale Lighting	$0.00
Streetscaping	$0.00
Wayfinding	$0.00
Bicycle and Pedestrian Contingencies	$0.00
Other Bicycle and Pedestrian Elements	$0.00
Totals	**$120,000.00**

Specific Transit and TDM Elements

CONSTRUCTION PROJECT ELEMENTS/COST ESTIMATES	**Cost**
Fixed Guideway Elements	$0.00
Stations, Stops, and Terminals	$0.00
Support Facilities	$0.00

Transit Systems (e.g. communications, signals, controls, fare collection, etc.)	$0.00
Vehicles	$0.00
Contingencies	$0.00
Right-of-Way	$0.00
Other Transit and TDM Elements	$0.00
Totals	**$0.00**

Transit Operating Costs

Number of Platform hours	0
Cost Per Platform hour (full loaded Cost)	$0.00
Subtotal	$0.00
Other Costs - Administration, Overhead,etc.	$0.00

Totals

Total Cost	$6,000,000.00
Construction Cost Total	$6,000,000.00
Transit Operating Cost Total	$0.00

Measure B: Project Location Relative to Jobs, Manufacturing, and Education

Existing Employment within 1 Mile:	22
Existing Manufacturing/Distribution-Related Employment within 1 Mile:	5
Existing Post-Secondary Students within 1 Mile:	0
Upload Map	1589123215171_CP 86-41_MAP_Regional Economy.pdf

Please upload attachment in PDF form.

Measure C: Current Heavy Commercial Traffic

RESPONSE: Select one for your project, based on the Regional Truck Corridor Study:

Along Tier 1:	
Miles:	0

(to the nearest 0.1 miles)

Along Tier 2:	Yes
Miles:	3.6

(to the nearest 0.1 miles)

Along Tier 3:

Miles: 0

(to the nearest 0.1 miles)

The project provides a direct and immediate connection (i.e., intersects) with either a Tier 1, Tier 2, or Tier 3 corridor: Yes

None of the tiers:

Measure A: Current Daily Person Throughput

Location CSAH 86 from west Dakota County Line to CSAH 23 (Galaxie Ave)

Current AADT Volume 2950

Existing Transit Routes on the Project N/A

For New Roadways only, list transit routes that will likely be diverted to the new proposed roadway (if applicable).

Upload Transit Connections Map 1589123517085_CP 86-41_MAP_Transit Connections.pdf

Please upload attachment in PDF form.

Response: Current Daily Person Throughput

Average Annual Daily Transit Ridership 0

Current Daily Person Throughput 3835.0

Measure B: 2040 Forecast ADT

Use Metropolitan Council model to determine forecast (2040) ADT volume No

If checked, METC Staff will provide Forecast (2040) ADT volume

OR

Identify the approved county or city travel demand model to determine forecast (2040) ADT volume Dakota County's approved 2030 Transportation Comprehensive Plan

Forecast (2040) ADT volume 5300

Measure A: Connection to disadvantaged populations and projects benefits, impacts, and mitigation

*1.**Sub-measure**: Equity Population Engagement: A successful project is one that is the result of active engagement of low-income populations, people of color, persons with disabilities, youth and the elderly. Engagement should occur prior to and during a projects development, with the intent to provide direct benefits to, or solve, an expressed transportation issue, while also limiting and mitigating any negative impacts. Describe and map the location of any low-income populations, people of color, disabled populations, youth or the elderly within a ½ mile of the proposed project. Describe how these specific populations were engaged and provided outreach to, whether through community planning efforts, project needs identification, or during the project development process. Describe what engagement methods and tools were used and how the input is reflected in the projects purpose and need and design. Elements of quality engagement include: outreach and engagement to specific communities and populations that are likely to be directly impacted by the project; techniques to reach out to populations traditionally not involved in community engagement related to transportation projects; feedback from these populations identifying potential positive and negative elements of the proposed project through engagement, study recommendations, or plans that provide feedback from populations that may be impacted by the proposed project. If relevant, describe how NEPA or Title VI regulations will guide engagement activities.*

Response:

The CSAH 86 reconstruction project is located in southern Dakota County within Eureka and Greenvale townships. Dakota County will utilize an engaging public involvement process that will include at a minimum two public open houses and engagement will township boards. The project is in an area that includes children, people with disabilities and elderly generation. The County will engage the corridor residents and commuters during the preliminary and final design of the reconstruction corridor. Outreach will include postcards/letters, targeted Facebook advertisements, Nextdoor advertisements and Township board postings. Utilizing feedback from the community and corridor users allows the County to take a holistic approach that incorporates local knowledge.

The community along CSAH 86 has a 29 minute mean travel time to work, which is 25% higher than the Minnesota average. Establishing a safe and reliable roadway section is critical for the community to maintain everyday life. The roadway improvements including 8 foot paved shoulders, turn lanes, bypass lanes and vertical alignment correction will improve the commute for all vehicle and non-vehicle traffic.

(Limit 2,800 characters; approximately 400 words)

*2.**Sub-measure**: Equity Population Benefits and Impacts: A successful project is one that has been designed to provide direct benefits to low-income populations, people of color, persons with disabilities, youth and the elderly. All projects must mitigate potential negative benefits as required under federal law. Projects that are designed to provide benefits go beyond the mitigation requirement to proactively provide transportation benefits and solve transportation issues experienced by Equity populations.*
a.Describe the projects benefits to low-income populations, people of color, children, people with disabilities, and the elderly. Benefits could relate to pedestrian and bicycle safety improvements; public health benefits; direct access improvements for residents or improved access to destinations such as jobs, school, health care or other; travel time improvements; gap closures; new transportation services or modal options, leveraging of other beneficial projects and investments; and/or community connection and cohesion improvements. Note that this is not an exhaustive list.

Response:

The CSAH 86 reconstruction represents that last remaining segment of CSAH 86 within Dakota County to be without a typical section that includes 8 foot paved shoulders and updated County standards. CSAH 86 connects to major north/south roadways (CH 23, CH 47, TH 3, TH 56, TH52) providing a vital link for the rural township communities to gain access to the urban/suburban areas that provide resource and work opportunity. The widened paved shoulder provides multiple benefits for the corridor that have a direct relationship with safety. Non-vehicle multi-modal traffic can utilize the improved shoulders so that all community members, including youth/disabled/elderly, have opportunity for recreational and commuting benefits. The inclusion of turn lanes, bypass lanes, access improvements/consolidation, and general geometric improvements reduces conflict points and improves overall safety for all modes of traffic.

As mentioned in Socio-Economic Sub-Measure 1, the mean commute time for this community is 29 minutes. Providing an improved corridor that incorporates turns lanes, bypass lanes, and widened shoulders creates a reliable and safe route to not impede the movement of community members. The widened shoulders allow for the agriculture equipment within the community to reduce direct impact to traffic flow. The access consolidation and improved typical section will improve bus route safety along eh corridor.

(Limit 2,800 characters; approximately 400 words)

b. Describe any negative impacts to low-income populations, people of color, children, people with disabilities, and the elderly created by the project, along with measures that will be taken to mitigate them. Negative impacts that are not adequately mitigated can result in a reduction in points.
Below is a list of negative impacts. Note that this is not an exhaustive list.
Increased difficulty in street crossing caused by increased roadway width, increased traffic speed, wider turning radii, or other elements that negatively impact pedestrian access.
Increased noise.
Decreased pedestrian access through sidewalk removal / narrowing, placement of barriers along the walking path, increase in auto-oriented curb cuts, etc.
Project elements that are detrimental to location-based air quality by increasing stop/start activity at intersections, creating vehicle idling areas, directing an increased number of vehicles to a particular point, etc.
Increased speed and/or cut-through traffic.
Removed or diminished safe bicycle access.
Inclusion of some other barrier to access to jobs and other destinations.
Displacement of residents and businesses.
Mitigation of temporary construction/implementation impacts such as dust; noise; reduced access for travelers and to businesses; disruption of utilities; and eliminated street crossings.
Other

Response:

The proposed CSAH 86 reconstruction improvements include turn lanes, bypass lanes, widened paved shoulders and correction in geometric deficiencies. These improvements will create a more reliable and efficient corridor for vehicle traffic. This will increase the average vehicle speed to be more consistent throughout the 3.6 miles of the reconstruction due to vehicles not needing to slow while turning movements from the thru lane occur. The signing along the reconstruction corridor will be completely replaced to ensure the corridor meets current design standards. Lighting at major intersections and rumble strips will be evaluated for inclusion.

The construction phase of the project will incorporate appropriate traffic control measures to ensure safe and reliable access for all residents along the corridor. Dust control for not only the project site but township roads that are significantly impacted by construction traffic. Dedicated detour routes will be adequately signed and advanced notice of construction will be coordinated with the community, commuters and industry that utilizes the corridor.

(Limit 2,800 characters; approximately 400 words)

Select one:

*3.**Sub-measure: Bonus Points** Those projects that score at least 80% of the maximum total points available through sub-measures 1 and 2 will be awarded bonus points based on the geographic location of the project. These points will be assigned as follows, based on the highest-scoring geography the project contacts:*
a.25 points to projects within an Area of Concentrated Poverty with 50% or more people of color
b.20 points to projects within an Area of Concentrated Poverty
c.15 points to projects within census tracts with the percent of population in poverty or population of color above the regional average percent
d.10 points for all other areas

Project is located in an Area of Concentrated Poverty where 50% or more of residents are people of color (ACP50):	
Project located in Area of Concentrated Poverty:	
Projects census tracts are above the regional average for population in poverty or population of color:	
Project located in a census tract that is below the regional average for population in poverty or populations of color or includes children, people with disabilities, or the elderly:	Yes

(up to 40% of maximum score)

Upload the "Socio-Economic Conditions" map used for this measure. The second map created for sub measure A1 can be uploaded on the Other Attachments Form, or can be combined with the "Socio-Economic Conditions" map into a single PDF and uploaded here.

Upload Map	1589203409587_CP 86-41_MAP_Socio-Economic Conditions.pdf

Measure B: Part 1: Housing Performance Score

City	Segment Length (For stand-alone projects, enter population from Regional Economy map) within each City/Township	Segment Length/Total Project Length	Score	Housing Score Multiplied by Segment percent
Eureka Township	3.6	0.5	10.0	5.0
Greenvale Township	3.6	0.5	10.0	5.0

Total Project Length

Total Project Length	3.6

Project length entered on the Project Information - General form.

Housing Performance Score

Total Project Length (Miles) or Population	7.2
Total Housing Score	10.0

Affordable Housing Scoring

Part 2: Affordable Housing Access

Reference Access to Affordable Housing Guidance located under Regional Solicitation Resources for information on how to respond to this measure and create the map.
If text box is not showing, click Edit or "Add" in top right of page.

Response:

The CSAH 86 reconstruction project is located in southern townships of Dakota County. The 2040 TPP references that rural areas will invest in highways and street that are flexible for a variety of uses and connect rural communities to urban and suburban areas. Establishing safe connections for all modes of traffic for areas not served by urban resources is critical for daily life of the communities. CSAH 86 connects to major north/south roadway (CH 23, CH 47, TH 3, TH 56, TH 52) that connect to Urban Service Areas. The reconstruction project will provide an 8 foot paved shoulder for ped/bike/wheelchair use along the 10-ton roadway. Safety will be improved with the addition of turn lanes, bypass lanes, pavement markings, rumble strips, intersection lighting and removal of hazards in roadway clear zone.

Townships along the County highway establish their long-term visioning for land use and zoning. Reconstructing CSAH 86 to include opportunity for vehicle and non-vehicle traffic allows for local townships to holistically review the corridor for opportunities of varied land use, including affordable housing.

(Limit 2,100 characters; approximately 300 words)

Upload map:

1589199384285_CP 86-42_HousingLink Affordale Housing Access.pdf

Measure A: Year of Roadway Construction

Year of Original Roadway Construction or Most Recent Reconstruction	Segment Length	Calculation	Calculation 2
1964	3.6	7070.4	1964.0
	4	**7070**	**1964**

Total Project Length

Total Project Length (as entered in "Project Information" form) 3.6

Average Construction Year

Weighted Year 1964

Total Segment Length (Miles)

Total Segment Length 3.6

Measure B: Geometric, Structural, or Infrastructure Improvements

Improved roadway to better accommodate freight movements: Yes

Response:

Reconstruction of CSAH 86 will correct poor pavement condition that was last reconstructed in 1964. The new pavement section will be a 10-ton roadway to adequately support the rural agriculture and cross county freight movements. Inclusion of 8 foot paved shoulders will improve safety and the installation of turn lanes and bypass lanes at all public intersections will allow for a more efficient traffic flow and reliable freight route.

(Limit 700 characters; approximately 100 words)

Improved clear zones or sight lines: Yes

Response:

Reconstruction and upgrade of typical section to include 8 foot shoulders, turn lanes and bypass lanes. The County will go through the standard utility relocation process to ensure the 30 foot rural clear zone is maintained. 5 of the 8 observed crashes involved runoff the road vehicles that ended up in the ditch. These listed improvements will allow more safe recovery space. The vertical alignment will be improved as necessary to increase sight distance for motorized/non-motorized roadway users.

(Limit 700 characters; approximately 100 words)

Improved roadway geometrics:

Yes

Response:

The project will add 8 foot bituminous shoulders that will improve safety for all modes of traffic. 5 of the 8 observed crashes involved run-off the road vehicles that ended up in the ditch. The addition of widened shoulders will provide more recovery space. The shoulders will also improve safety for pedestrian/bicyclist/disabled by providing safe separation from roadway and dedicated multi-modal space. Inclusion of shoulders will also be utilized by local agriculture to travel corridor while impeding traffic to a minimum and create safer sight lines for passing. Turn lanes and bypass lanes will be added at public intersections.

(Limit 700 characters; approximately 100 words)

Access management enhancements:

Yes

Response:

Accesses will be removed, consolidated, or realigned along the CSAH 86 corridor.

(Limit 700 characters; approximately 100 words)

Vertical/horizontal alignment improvements:

Yes

Response:

Vertical alignment will be improved as necessary to increase sight distance for motorized/non-motorized roadway users.

(Limit 700 characters; approximately 100 words)

Improved stormwater mitigation:

Yes

Response:

The project involves the addition of impervious surface area. Stormwater mitigation measures will be implemented to provide treatment and improve water quality along the corridor. Best Management Practices such as bioretention cells, permeable ditch blocks & bioswale ditch bottoms will also be implemented.

(Limit 700 characters; approximately 100 words)

Signals/lighting upgrades: Yes

Response:

Lighting will be provided at major intersections. Highway signage and pavement markings will be upgraded.

(Limit 700 characters; approximately 100 words)

Other Improvements Yes

Response:

Existing drainage culverts and signage will be replaced.

(Limit 700 characters; approximately 100 words)

Measure A: Congestion Reduction/Air Quality

Total Peak Hour Delay Per Vehicle Without The Project (Seconds/ Vehicle)	Total Peak Hour Delay Per Vehicle With The Project (Seconds/ Vehicle)	Total Peak Hour Delay Per Vehicle Reduced by Project (Seconds/ Vehicle)	Volume without the Project (Vehicles per hour)	Volume with the Project (Vehicles Per Hour):	Total Peak Hour Delay Reduced by the Project:	Total Peak Hour Delay Reduced by the Project:	EXPLANATION of methodology used to calculate railroad crossing delay, if applicable.	Synchro or HCM Reports
18.0	16.0	2.0	3522	4588	7044.0	9176.0	No railroad crossing within project limits.	1589129949733_86 from DC line to 23 (Galaxie) - Combined Synchro Report.pdf
						9176		

Vehicle Delay Reduced

Total Peak Hour Delay Reduced	7044.0
Total Peak Hour Delay Reduced	0

Measure B:Roadway projects that do not include new roadway segments or railroad grade-separation elements

Total (CO, NOX, and VOC) Peak Hour Emissions without the Project (Kilograms):	Total (CO, NOX, and VOC) Peak Hour Emissions with the Project (Kilograms):	Total (CO, NOX, and VOC) Peak Hour Emissions Reduced by the Project (Kilograms):
6.48	5.32	1.16
6	**5**	**1**

Total

Total Emissions Reduced:	1.16
Upload Synchro Report	1589136657045_86 from DC line to 23 (Galaxie) - Combined Synchro Report.pdf

Please upload attachment in PDF form. (Save Form, then click 'Edit' in top right to upload file.)

Measure B: Roadway projects that are constructing new roadway segments, but do not include railroad grade-separation elements (for Roadway Expansion applications only):

Total (CO, NOX, and VOC) Peak Hour Emissions without the Project (Kilograms):	Total (CO, NOX, and VOC) Peak Hour Emissions with the Project (Kilograms):	Total (CO, NOX, and VOC) Peak Hour Emissions Reduced by the Project (Kilograms):
0	**0**	**0**

Total Parallel Roadway

Emissions Reduced on Parallel Roadways	0
Upload Synchro Report	

Please upload attachment in PDF form. (Save Form, then click 'Edit' in top right to upload file.)

New Roadway Portion:

Cruise speed in miles per hour with the project:	0
Vehicle miles traveled with the project:	0
Total delay in hours with the project:	0

Total stops in vehicles per hour with the project:	0
Fuel consumption in gallons:	0
Total (CO, NOX, and VOC) Peak Hour Emissions Reduced or Produced on New Roadway (Kilograms):	0
EXPLANATION of methodology and assumptions used:(Limit 1,400 characters; approximately 200 words)	
Total (CO, NOX, and VOC) Peak Hour Emissions Reduced by the Project (Kilograms):	0.0

Measure B:Roadway projects that include railroad grade-separation elements

Cruise speed in miles per hour without the project:	0
Vehicle miles traveled without the project:	0
Total delay in hours without the project:	0
Total stops in vehicles per hour without the project:	0
Cruise speed in miles per hour with the project:	0
Vehicle miles traveled with the project:	0
Total delay in hours with the project:	0
Total stops in vehicles per hour with the project:	0
Fuel consumption in gallons (F1)	0
Fuel consumption in gallons (F2)	0
Fuel consumption in gallons (F3)	0
Total (CO, NOX, and VOC) Peak Hour Emissions Reduced by the Project (Kilograms):	0
EXPLANATION of methodology and assumptions used:(Limit 1,400 characters; approximately 200 words)	

Measure A: Roadway Projects that do not Include Railroad Grade-Separation Elements

Crash Modification Factor Used: *(Limit 700 Characters; approximately 100 words)*	290 - Provide a right-turn lane on both major-road approaches. 297 - Addition of left or right turn by-pass lanes
Rationale for Crash Modification Selected:	Crash modification factors selected for this project include 290 and 297. As seen in the geometric layout, the project includes right turn lane additions with bypass lanes at all public roadway intersections. Project will also add 8-foot paved shoulders for entire 3.6 mile corridor.

(Limit 1400 Characters; approximately 200 words)

Project Benefit ($) from B/C Ratio	$0.53
Total Fatal (K) Crashes:	0
Total Serious Injury (A) Crashes:	0
Total Non-Motorized Fatal and Serious Injury Crashes:	0
Total Crashes:	9
Total Fatal (K) Crashes Reduced by Project:	0
Total Serious Injury (A) Crashes Reduced by Project:	0
Total Non-Motorized Fatal and Serious Injury Crashes Reduced by Project:	0
Total Crashes Reduced by Project:	8
Worksheet Attachment	1589137797086_CP 86-41_MnDOT Crash Data.pdf

Please upload attachment in PDF form.

Roadway projects that include railroad grade-separation elements:

Current AADT volume:	0
Average daily trains:	0
Crash Risk Exposure eliminated:	0

Measure A: Multimodal Elements and Existing Connections

Response:

The 2040 TPP Chapter 5 discusses the highway system investment principles for how the funding to preserve roadway systems needs to be the catalyst to address pedestrian/bicycle safety needs. Chapter 7 references that the backbone of pedestrian infrastructure in rural areas is the paved shoulders due to the low resident density not justifying dedicated facilities. The emphasis on strengthening safe connections is a necessity for all communities. CSAH 86 connects to major north/south roadways (CH 23, CH 47, TH 3, TH 56, TH 52) that connect to urban service areas. This project is in an area of that includes children, people with disabilities and the elderly; although not in concentrations recognized by Met Council. The CSAH 86 project will provide an 8 foot paved shoulder for ped/bike/wheelchair use along with 10-ton roadway designed for motorized traffic. Safety will be improved with the addition of turn lanes, bypass lanes, pavement markings, rumble stripes, and removal of hazards in roadway clear zone.

(Limit 2,800 characters; approximately 400 words)

Measure A: Multimodal Elements and Existing Connections

Response:

This section of CSAH 86 is the last remaining segment within Dakota County that requires reconstruction and upgrade of typical section to include turns lanes, by-pass lanes and adequate shoulders. This planned reconstruction will implement these measures across the 3.6 mile segment. As discussed under measure 6B. Ped Crash Reduction above, rural communities utilize the County highway system shoulders as their non-vehicle corridor for commuting and recreation. Introducing adequate width shoulders and rumble strips for separation and warning to adjacent vehicle traffic will create a location for rural residents/commuters to safely utilize.

As part of the 2030 Dakota County Parks planning for future Regional Greenway systems, the Chub Creek corridor that crosses CSAH 86 within the planned reconstruction corridor was identified. The reconstruction project including 8 foot paved shoulders for the use of multi-modal non-vehicle traffic and general roadway safety allows this corridor to seamlessly fit with any future planning along Chub Creek. Residents within this community could utilize the roadway corridor as means to reach any future trailheads and destinations.

This section of CSAH 86 does not include any railroad, river or expressway crossings as identified in the Regional Bicycle Barrier Study. The section of CSAH adjoining to the eastern reconstruction limits does contain two railroad crossings that are being addressed as part of a 2021-2022 reconstruction of CSAH 86 from CSAH 23 to Trunk Highway 3. This reconstruction of CSAH 86 will create a continuation of 8 foot paved shoulders adequate for multi-modal non-vehicle traffic to utilize those corrected crossings that address existing bicycle barriers.

(Limit 2,800 characters; approximately 400 words)

Transit Projects Not Requiring Construction

If the applicant is completing a transit application that is operations only, check the box and do not complete the remainder of the form. These projects will receive full points for the Risk Assessment.
Park-and-Ride and other transit construction projects require completion of the Risk Assessment below.

Check Here if Your Transit Project Does Not Require Construction

Measure A: Risk Assessment - Construction Projects

1)Layout (25 Percent of Points)

Layout should include proposed geometrics and existing and proposed right-of-way boundaries.

Layout approved by the applicant and all impacted jurisdictions (i.e., cities/counties that the project goes through or agencies that maintain the roadway(s)). A PDF of the layout must be attached along with letters from each jurisdiction to receive points.

Yes

100%

Attach Layout

1589145189706_86-41 LAYOUT-LAYOUT_Reduced.pdf

Please upload attachment in PDF form.

Layout completed but not approved by all jurisdictions. A PDF of the layout must be attached to receive points.

50%

Attach Layout

Please upload attachment in PDF form.

Layout has not been started

0%

Anticipated date or date of completion

2)Review of Section 106 Historic Resources (15 Percent of Points)

No known historic properties eligible for or listed in the National Register of Historic Places are located in the project area, and project is not located on an identified historic bridge

100%

There are historical/archeological properties present but determination of no historic properties affected is anticipated.

100%

Historic/archeological property impacted; determination of no adverse effect anticipated

80%

Historic/archeological property impacted; determination of adverse effect anticipated

40%

Unsure if there are any historic/archaeological properties in the project area.

Yes

0%

Project is located on an identified historic bridge

3)Right-of-Way (25 Percent of Points)

Right-of-way, permanent or temporary easements either not required or all have been acquired

100%

Right-of-way, permanent or temporary easements required, plat, legal descriptions, or official map complete

50%

Right-of-way, permanent or temporary easements required, parcels identified

Yes

25%

Right-of-way, permanent or temporary easements required, parcels not all identified

0%

Anticipated date or date of acquisition

10/05/2023

4)Railroad Involvement (15 Percent of Points)

No railroad involvement on project or railroad Right-of-Way agreement is executed (include signature page, if applicable)

Yes

100%

Signature Page

Please upload attachment in PDF form.

Railroad Right-of-Way Agreement required; negotiations have begun

50%

Railroad Right-of-Way Agreement required; negotiations have not begun.

0%

Anticipated date or date of executed Agreement

5) Public Involvement (20 percent of points)

Projects that have been through a public process with residents and other interested public entities are more likely than others to be successful. The project applicant must indicate that events and/or targeted outreach (e.g., surveys and other web-based input) were held to help identify the transportation problem, how the potential solution was selected instead of other options, and the public involvement completed to date on the project. List Dates of most recent meetings and outreach specific to this project:

Meeting with general public:

Meeting with partner agencies:

Targeted online/mail outreach:

Number of respondents:

Meetings specific to this project with the general public and partner agencies have been used to help identify the project need.

100%

Targeted outreach to this project with the general public and partner agencies have been used to help identify the project need.

75%

At least one meeting specific to this project with the general public has been used to help identify the project need.

50%

At least one meeting specific to this project with key partner agencies has been used to help identify the project need.

50%

No meeting or outreach specific to this project was conducted, but the project was identified through meetings and/or outreach related to a larger planning effort.

Yes

25%

No outreach has led to the selection of this project.

0%

Response (Limit 2,800 characters; approximately 400 words):

The reconstruction of CSAH 86 from the west Dakota County Line to CSAH 23(Galaxie Ave) to upgrade the typical section and replace aged pavement was identified by Dakota County as a project as part of the CIP planning efforts. This is the last remaining segment of CSAH 86 within Dakota County that requires reconstruction to include a typical section adequate with County standards. A segment of CSAH 86 is currently in final design with planned construction for 2021/2022 that goes from CSAH 23 (Galaxie Ave) to Trunk Highway 3. That segment of reconstruction has included 2 public open houses to date to collect public feedback and share of the planned road design. The feedback collected from the public and the townships from this neighboring project aligns with the County's approach for the remaining segment of CSAH 86. A summary example from the neighboring project's open house 2 is included in the additional attachments section.

When the County approaches preliminary design of the planned roadway reconstruct, a targeted public engagement process will be conducted that will include two public open houses, project notices, updates at township board meeting, and general outreach.

Measure A: Cost Effectiveness

Total Project Cost (entered in Project Cost Form):	$0.00
Enter Amount of the Noise Walls:	$0.00
Total Project Cost subtract the amount of the noise walls:	$0.00
Enter amount of any outside, competitive funding:	$0.00
Attach documentation of award:	
Points Awarded in Previous Criteria	
Cost Effectiveness	$0.00

Other Attachments

File Name	Description	File Size
CP 86-41_2020-2024CapitalImprovementProgram.pdf	2020-2024 Dakota County Transportation Capital Improvement Program exert for CP 86-41	2.9 MB
CP 86-41_2030TransportationPlan.pdf	Approved Dakota County 2030 Transportation Comprehensive Plan traffic volume attachments. 2040 Transportation Comprehensive Plan complete but not yet approved.	408 KB
CP 86-41_Easement Needs Geometric Layout.pdf	Easement needs and geometric layout for CP 86-41	8.5 MB
CP 86-41_One Page Summary.pdf	One Page Summary of CP 86-41	632 KB
Sample CSAH 86 Public Involvement.pdf	Sample public open house summary from CP 86-34 (adjacent CSAH 86 project) that was held on May 22, 2019.	20.8 MB

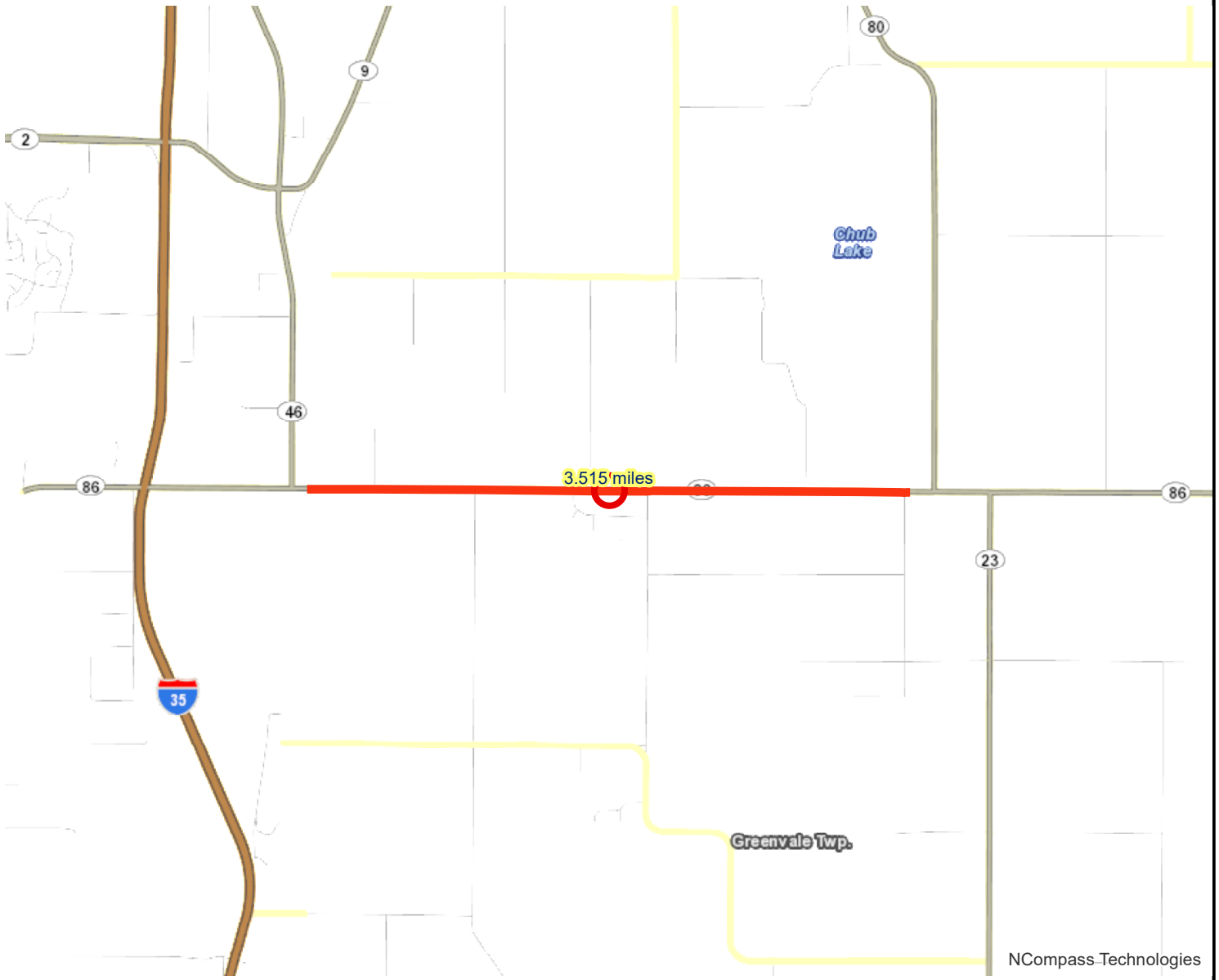
Regional Economy

Roadway Reconstruction/Modernization Project: CP 86-41 | Map ID: 1584126772093

Results

WITHIN ONE MI of project:
Postsecondary Students: 0

Totals by City:
Eureka Twp.
Population: 435
Employment: 18
Mfg and Dist Employment: 4
Greenvale Twp.
Population: 269
Employment: 4
Mfg and Dist Employment: 1



Project Points
Project
Manfacturing/Distribution Centers
Job Concentration Centers

0 0.5 1 2 3 4 Miles

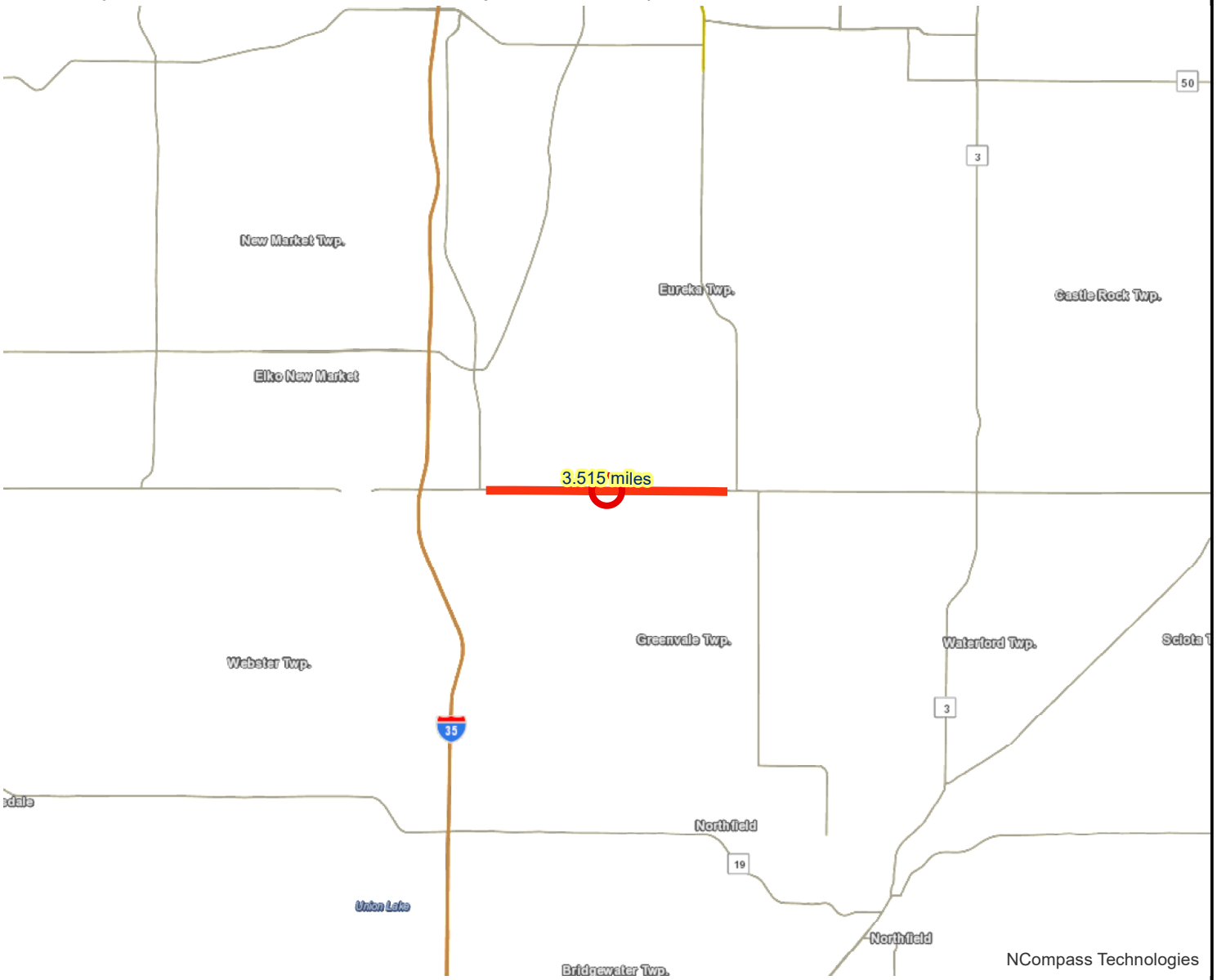
Created: 3/13/2020
LandscapeRSA5

For complete disclaimer of accuracy, please visit
http://giswebsite.metc.state.mn.us/gissitenew/notice.aspx

METROPOLITAN COUNCIL

Transit Connections

Roadway Reconstruction/Modernization Project: CP 86-41 | Map ID: 1584126772093



Results

Transit with a Direct Connection to project:
-- NONE --

**indicates Planned Alignments*

Transit Market areas: 5

Project Points
Project
Project Area

0 1.25 2.5 5 7.5 10 Miles

Created: 3/13/2020
LandscapeRSA3

METROPOLITAN COUNCIL

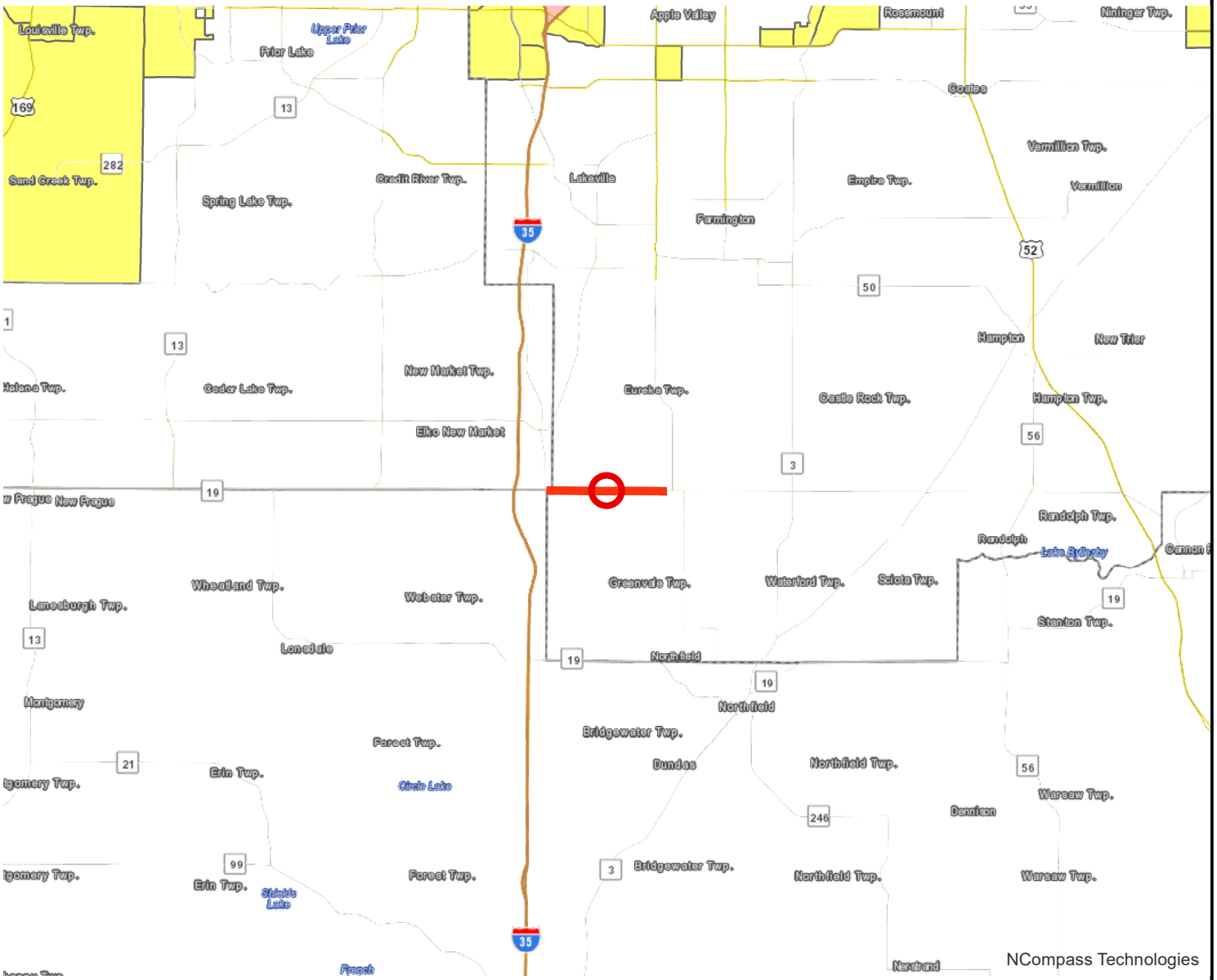
Socio-Economic Conditions

Roadway Reconstruction/Modernization Project: CP 86-41 | Map ID: 1584126772093

Results

Project located in
a census tract that is below
the regional average for
population in poverty
or populations of color,
or includes children,
people with disabilities,
or the elderly:
(0 to 12 Points)

Tracts within half-mile:
61501 61502 81100



NCompass Technologies

Created: 3/13/2020
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METROPOLITAN COUNCIL

HousingLink

Streams

Return to main site

Property Detail

About Streams

Lakeville Court Apartments
Multiple addresses listed at bottom of page

Funding Categories
Subsidized-Other
Tax Credit (LIHTC 9%)

Property Information
Year Built: 1995
Building Type:
Groups Served:
Total Units: 52
Affordable Units: 52

Affordable Units by Bedroom
2 BR: 20
3 BR: 32

Units by Area Median Income
60%: 52

Housing+Transit Cost Walk Score®: 26 Send us feedback

Listing Summary

BR Size	1st Listing	Last Listing	Low Rent	High Rent	Last Rent
			None	None	None
2	01/12/2007	06/12/2018	$848	$945	$958
3	01/12/2007	04/01/2017	$963	$1,212	$1,066

Known Property Addresses

1	20390 Dodd Blvd	Lakeville
2	20330 Dodd Blvd	Lakeville
3	20310 Dodd Blvd	Lakeville
4	20430 Dodd Blvd	Lakeville
5	20410 Dodd Blvd	Lakeville
6	30390 Dodd Blvd	Lakeville

Funding Dates & Programs
First known closing: 7/1/1994
Most recent closing: 7/13/2011
Earliest estimated expiration: 7/1/2024
Last Activity: Preservation

MHFA: Housing Tax Credits 9%
Close Date: 7/1/1994
Estimated Expiration: 7/1/2024

MHFA: LMIR
Close Date: 7/13/2011
Estimated Expiration: 7/13/2041

Known Property Identifiers

HousingLink: 5974
MHFA: D0691

6: Isle Ave.

Direction	All
Future Volume (vph)	160
Total Delay / Veh (s/v)	1
CO Emissions (kg)	0.25
NOx Emissions (kg)	0.05
VOC Emissions (kg)	0.06

8: Jamaica Ave.

Direction	All
Future Volume (vph)	138
Total Delay / Veh (s/v)	0
CO Emissions (kg)	0.29
NOx Emissions (kg)	0.06
VOC Emissions (kg)	0.07

9: Iberia Ave.

Direction	All
Future Volume (vph)	148
Total Delay / Veh (s/v)	0
CO Emissions (kg)	0.07
NOx Emissions (kg)	0.01
VOC Emissions (kg)	0.02

11: Hopewood Dr.

Direction	All
Future Volume (vph)	151
Total Delay / Veh (s/v)	0
CO Emissions (kg)	0.14
NOx Emissions (kg)	0.03
VOC Emissions (kg)	0.03

12: Holyoke Ave. & CSAH 86

Direction	All
Future Volume (vph)	169
Total Delay / Veh (s/v)	2
CO Emissions (kg)	0.29
NOx Emissions (kg)	0.06
VOC Emissions (kg)	0.07

14: Galaxie Ave.

Direction	All
Future Volume (vph)	495
Total Delay / Veh (s/v)	4
CO Emissions (kg)	0.46
NOx Emissions (kg)	0.09
VOC Emissions (kg)	0.11

17: Garrett Ave. & CSAH 86

Direction	All
Future Volume (vph)	140
Total Delay / Veh (s/v)	0
CO Emissions (kg)	0.16
NOx Emissions (kg)	0.03
VOC Emissions (kg)	0.04

18: CSAH 86 & Grenada Ave.

Direction	All
Future Volume (vph)	159
Total Delay / Veh (s/v)	2
CO Emissions (kg)	0.30
NOx Emissions (kg)	0.06
VOC Emissions (kg)	0.07

6: Isle Ave.

Direction	All
Future Volume (vph)	211
Total Delay / Veh (s/v)	1
CO Emissions (kg)	0.35
NOx Emissions (kg)	0.07
VOC Emissions (kg)	0.08

8: Jamaica Ave.

Direction	All
Future Volume (vph)	203
Total Delay / Veh (s/v)	1
CO Emissions (kg)	0.44
NOx Emissions (kg)	0.09
VOC Emissions (kg)	0.10

9: Iberia Ave.

Direction	All
Future Volume (vph)	187
Total Delay / Veh (s/v)	0
CO Emissions (kg)	0.10
NOx Emissions (kg)	0.02
VOC Emissions (kg)	0.02

11: Hopewood Dr.

Direction	All
Future Volume (vph)	205
Total Delay / Veh (s/v)	0
CO Emissions (kg)	0.17
NOx Emissions (kg)	0.03
VOC Emissions (kg)	0.04

12: Holyoke Ave. & CSAH 86

Direction	All
Future Volume (vph)	201
Total Delay / Veh (s/v)	1
CO Emissions (kg)	0.33
NOx Emissions (kg)	0.07
VOC Emissions (kg)	0.08

14: Galaxie Ave.

Direction	All
Future Volume (vph)	565
Total Delay / Veh (s/v)	5
CO Emissions (kg)	0.60
NOx Emissions (kg)	0.12
VOC Emissions (kg)	0.14

17: Garrett Ave. & CSAH 86

Direction	All
Future Volume (vph)	188
Total Delay / Veh (s/v)	0
CO Emissions (kg)	0.19
NOx Emissions (kg)	0.04
VOC Emissions (kg)	0.05

18: CSAH 86 & Grenada Ave.

Direction	All
Future Volume (vph)	202
Total Delay / Veh (s/v)	1
CO Emissions (kg)	0.37
NOx Emissions (kg)	0.07
VOC Emissions (kg)	0.09

1:

Direction	All
Future Volume (vph)	0
Total Delay / Veh (s/v)	
CO Emissions (kg)	0.00
NOx Emissions (kg)	0.00
VOC Emissions (kg)	0.00

6: Isle Ave.

Direction	All
Future Volume (vph)	160
Total Delay / Veh (s/v)	1
CO Emissions (kg)	0.10
NOx Emissions (kg)	0.02
VOC Emissions (kg)	0.02

8: CSAH 86 & Jamaica Ave.

Direction	All
Future Volume (vph)	138
Total Delay / Veh (s/v)	0
CO Emissions (kg)	0.12
NOx Emissions (kg)	0.02
VOC Emissions (kg)	0.03

9: Iberia Ave.

Direction	All
Future Volume (vph)	149
Total Delay / Veh (s/v)	0
CO Emissions (kg)	0.03
NOx Emissions (kg)	0.00
VOC Emissions (kg)	0.01

11: Hopewood Dr.

Direction	All
Future Volume (vph)	150
Total Delay / Veh (s/v)	0
CO Emissions (kg)	0.02
NOx Emissions (kg)	0.00
VOC Emissions (kg)	0.00

12: Holyoke Ave & CSAH 86

Direction	All
Future Volume (vph)	0
Total Delay / Veh (s/v)	
CO Emissions (kg)	0.00
NOx Emissions (kg)	0.00
VOC Emissions (kg)	0.00

13:

Direction	All
Future Volume (vph)	0
Total Delay / Veh (s/v)	
CO Emissions (kg)	0.00
NOx Emissions (kg)	0.00
VOC Emissions (kg)	0.00

14: Galaxie Ave.

Direction	All
Future Volume (vph)	495
Total Delay / Veh (s/v)	4
CO Emissions (kg)	0.70
NOx Emissions (kg)	0.14
VOC Emissions (kg)	0.16

17: Garrett Ave. & CSAH 86

Direction	All
Future Volume (vph)	140
Total Delay / Veh (s/v)	0
CO Emissions (kg)	0.03
NOx Emissions (kg)	0.01
VOC Emissions (kg)	0.01

18: CSAH 86 & Grenada Ave.

Direction	All
Future Volume (vph)	159
Total Delay / Veh (s/v)	2
CO Emissions (kg)	0.23
NOx Emissions (kg)	0.04
VOC Emissions (kg)	0.05

22:

Direction	All
Future Volume (vph)	0
Total Delay / Veh (s/v)	
CO Emissions (kg)	0.00
NOx Emissions (kg)	0.00
VOC Emissions (kg)	0.00

25:

Direction	All
Future Volume (vph)	0
Total Delay / Veh (s/v)	
CO Emissions (kg)	0.00
NOx Emissions (kg)	0.00
VOC Emissions (kg)	0.00

29:

Direction	All
Future Volume (vph)	0
Total Delay / Veh (s/v)	
CO Emissions (kg)	0.00
NOx Emissions (kg)	0.00
VOC Emissions (kg)	0.00

32: CSAH 86

Direction	All
Future Volume (vph)	0
Total Delay / Veh (s/v)	
CO Emissions (kg)	0.00
NOx Emissions (kg)	0.00
VOC Emissions (kg)	0.00

43:

Direction	All
Future Volume (vph)	0
Total Delay / Veh (s/v)	
CO Emissions (kg)	0.00
NOx Emissions (kg)	0.00
VOC Emissions (kg)	0.00

1:

Direction	All
Future Volume (vph)	178
Total Delay / Veh (s/v)	0
CO Emissions (kg)	0.13
NOx Emissions (kg)	0.03
VOC Emissions (kg)	0.03

6: Isle Ave.

Direction	All
Future Volume (vph)	210
Total Delay / Veh (s/v)	1
CO Emissions (kg)	0.18
NOx Emissions (kg)	0.04
VOC Emissions (kg)	0.04

8: CSAH 86 & Jamaica Ave.

Direction	All
Future Volume (vph)	203
Total Delay / Veh (s/v)	1
CO Emissions (kg)	0.17
NOx Emissions (kg)	0.03
VOC Emissions (kg)	0.04

9: Iberia Ave.

Direction	All
Future Volume (vph)	187
Total Delay / Veh (s/v)	0
CO Emissions (kg)	0.03
NOx Emissions (kg)	0.01
VOC Emissions (kg)	0.01

11: Hopewood Dr.

Direction	All
Future Volume (vph)	205
Total Delay / Veh (s/v)	0
CO Emissions (kg)	0.04
NOx Emissions (kg)	0.01
VOC Emissions (kg)	0.01

12: Holyoke Ave & CSAH 86

Direction	All
Future Volume (vph)	201
Total Delay / Veh (s/v)	1
CO Emissions (kg)	0.24
NOx Emissions (kg)	0.05
VOC Emissions (kg)	0.06

13:

Direction	All
Future Volume (vph)	152
Total Delay / Veh (s/v)	0
CO Emissions (kg)	0.11
NOx Emissions (kg)	0.02
VOC Emissions (kg)	0.03

14: Galaxie Ave.

Direction	All
Future Volume (vph)	565
Total Delay / Veh (s/v)	5
CO Emissions (kg)	0.88
NOx Emissions (kg)	0.17
VOC Emissions (kg)	0.20

17: Garrett Ave. & CSAH 86

Direction	All
Future Volume (vph)	188
Total Delay / Veh (s/v)	0
CO Emissions (kg)	0.06
NOx Emissions (kg)	0.01
VOC Emissions (kg)	0.01

18: CSAH 86 & Grenada Ave.

Direction	All
Future Volume (vph)	201
Total Delay / Veh (s/v)	1
CO Emissions (kg)	0.23
NOx Emissions (kg)	0.04
VOC Emissions (kg)	0.05

22:

Direction	All
Future Volume (vph)	184
Total Delay / Veh (s/v)	0
CO Emissions (kg)	0.07
NOx Emissions (kg)	0.01
VOC Emissions (kg)	0.02

25:

Direction	All
Future Volume (vph)	186
Total Delay / Veh (s/v)	0
CO Emissions (kg)	0.13
NOx Emissions (kg)	0.03
VOC Emissions (kg)	0.03

29:

Direction	All
Future Volume (vph)	197
Total Delay / Veh (s/v)	0
CO Emissions (kg)	0.14
NOx Emissions (kg)	0.03
VOC Emissions (kg)	0.03

32: CSAH 86

Direction	All
Future Volume (vph)	169
Total Delay / Veh (s/v)	0
CO Emissions (kg)	0.07
NOx Emissions (kg)	0.01
VOC Emissions (kg)	0.02

43:

Direction	All
Future Volume (vph)	171
Total Delay / Veh (s/v)	0
CO Emissions (kg)	0.13
NOx Emissions (kg)	0.03
VOC Emissions (kg)	0.03

6: Isle Ave.

Direction	All
Future Volume (vph)	160
Total Delay / Veh (s/v)	1
CO Emissions (kg)	0.25
NOx Emissions (kg)	0.05
VOC Emissions (kg)	0.06

8: Jamaica Ave.

Direction	All
Future Volume (vph)	138
Total Delay / Veh (s/v)	0
CO Emissions (kg)	0.29
NOx Emissions (kg)	0.06
VOC Emissions (kg)	0.07

9: Iberia Ave.

Direction	All
Future Volume (vph)	148
Total Delay / Veh (s/v)	0
CO Emissions (kg)	0.07
NOx Emissions (kg)	0.01
VOC Emissions (kg)	0.02

11: Hopewood Dr.

Direction	All
Future Volume (vph)	151
Total Delay / Veh (s/v)	0
CO Emissions (kg)	0.14
NOx Emissions (kg)	0.03
VOC Emissions (kg)	0.03

12: Holyoke Ave. & CSAH 86

Direction	All
Future Volume (vph)	169
Total Delay / Veh (s/v)	2
CO Emissions (kg)	0.29
NOx Emissions (kg)	0.06
VOC Emissions (kg)	0.07

14: Galaxie Ave.

Direction	All
Future Volume (vph)	495
Total Delay / Veh (s/v)	4
CO Emissions (kg)	0.46
NOx Emissions (kg)	0.09
VOC Emissions (kg)	0.11

17: Garrett Ave. & CSAH 86

Direction	All
Future Volume (vph)	140
Total Delay / Veh (s/v)	0
CO Emissions (kg)	0.16
NOx Emissions (kg)	0.03
VOC Emissions (kg)	0.04

18: CSAH 86 & Grenada Ave.

Direction	All
Future Volume (vph)	159
Total Delay / Veh (s/v)	2
CO Emissions (kg)	0.30
NOx Emissions (kg)	0.06
VOC Emissions (kg)	0.07

6: Isle Ave.

Direction	All
Future Volume (vph)	211
Total Delay / Veh (s/v)	1
CO Emissions (kg)	0.35
NOx Emissions (kg)	0.07
VOC Emissions (kg)	0.08

8: Jamaica Ave.

Direction	All
Future Volume (vph)	203
Total Delay / Veh (s/v)	1
CO Emissions (kg)	0.44
NOx Emissions (kg)	0.09
VOC Emissions (kg)	0.10

9: Iberia Ave.

Direction	All
Future Volume (vph)	187
Total Delay / Veh (s/v)	0
CO Emissions (kg)	0.10
NOx Emissions (kg)	0.02
VOC Emissions (kg)	0.02

11: Hopewood Dr.

Direction	All
Future Volume (vph)	205
Total Delay / Veh (s/v)	0
CO Emissions (kg)	0.17
NOx Emissions (kg)	0.03
VOC Emissions (kg)	0.04

12: Holyoke Ave. & CSAH 86

Direction	All
Future Volume (vph)	201
Total Delay / Veh (s/v)	1
CO Emissions (kg)	0.33
NOx Emissions (kg)	0.07
VOC Emissions (kg)	0.08

14: Galaxie Ave.

Direction	All
Future Volume (vph)	565
Total Delay / Veh (s/v)	5
CO Emissions (kg)	0.60
NOx Emissions (kg)	0.12
VOC Emissions (kg)	0.14

17: Garrett Ave. & CSAH 86

Direction	All
Future Volume (vph)	188
Total Delay / Veh (s/v)	0
CO Emissions (kg)	0.19
NOx Emissions (kg)	0.04
VOC Emissions (kg)	0.05

18: CSAH 86 & Grenada Ave.

Direction	All
Future Volume (vph)	202
Total Delay / Veh (s/v)	1
CO Emissions (kg)	0.37
NOx Emissions (kg)	0.07
VOC Emissions (kg)	0.09

1:

Direction	All
Future Volume (vph)	0
Total Delay / Veh (s/v)	
CO Emissions (kg)	0.00
NOx Emissions (kg)	0.00
VOC Emissions (kg)	0.00

6: Isle Ave.

Direction	All
Future Volume (vph)	160
Total Delay / Veh (s/v)	1
CO Emissions (kg)	0.10
NOx Emissions (kg)	0.02
VOC Emissions (kg)	0.02

8: CSAH 86 & Jamaica Ave.

Direction	All
Future Volume (vph)	138
Total Delay / Veh (s/v)	0
CO Emissions (kg)	0.12
NOx Emissions (kg)	0.02
VOC Emissions (kg)	0.03

9: Iberia Ave.

Direction	All
Future Volume (vph)	149
Total Delay / Veh (s/v)	0
CO Emissions (kg)	0.03
NOx Emissions (kg)	0.00
VOC Emissions (kg)	0.01

11: Hopewood Dr.

Direction	All
Future Volume (vph)	150
Total Delay / Veh (s/v)	0
CO Emissions (kg)	0.02
NOx Emissions (kg)	0.00
VOC Emissions (kg)	0.00

12: Holyoke Ave & CSAH 86

Direction	All
Future Volume (vph)	0
Total Delay / Veh (s/v)	
CO Emissions (kg)	0.00
NOx Emissions (kg)	0.00
VOC Emissions (kg)	0.00

13:

Direction	All
Future Volume (vph)	0
Total Delay / Veh (s/v)	
CO Emissions (kg)	0.00
NOx Emissions (kg)	0.00
VOC Emissions (kg)	0.00

14: Galaxie Ave.

Direction	All
Future Volume (vph)	495
Total Delay / Veh (s/v)	4
CO Emissions (kg)	0.70
NOx Emissions (kg)	0.14
VOC Emissions (kg)	0.16

17: Garrett Ave. & CSAH 86

Direction	All
Future Volume (vph)	140
Total Delay / Veh (s/v)	0
CO Emissions (kg)	0.03
NOx Emissions (kg)	0.01
VOC Emissions (kg)	0.01

18: CSAH 86 & Grenada Ave.

Direction	All
Future Volume (vph)	159
Total Delay / Veh (s/v)	2
CO Emissions (kg)	0.23
NOx Emissions (kg)	0.04
VOC Emissions (kg)	0.05

22:

Direction	All
Future Volume (vph)	0
Total Delay / Veh (s/v)	
CO Emissions (kg)	0.00
NOx Emissions (kg)	0.00
VOC Emissions (kg)	0.00

25:

Direction	All
Future Volume (vph)	0
Total Delay / Veh (s/v)	
CO Emissions (kg)	0.00
NOx Emissions (kg)	0.00
VOC Emissions (kg)	0.00

29:

Direction	All
Future Volume (vph)	0
Total Delay / Veh (s/v)	
CO Emissions (kg)	0.00
NOx Emissions (kg)	0.00
VOC Emissions (kg)	0.00

32: CSAH 86

Direction	All
Future Volume (vph)	0
Total Delay / Veh (s/v)	
CO Emissions (kg)	0.00
NOx Emissions (kg)	0.00
VOC Emissions (kg)	0.00

43:

Direction	All
Future Volume (vph)	0
Total Delay / Veh (s/v)	
CO Emissions (kg)	0.00
NOx Emissions (kg)	0.00
VOC Emissions (kg)	0.00

1:

Direction	All
Future Volume (vph)	178
Total Delay / Veh (s/v)	0
CO Emissions (kg)	0.13
NOx Emissions (kg)	0.03
VOC Emissions (kg)	0.03

6: Isle Ave.

Direction	All
Future Volume (vph)	210
Total Delay / Veh (s/v)	1
CO Emissions (kg)	0.18
NOx Emissions (kg)	0.04
VOC Emissions (kg)	0.04

8: CSAH 86 & Jamaica Ave.

Direction	All
Future Volume (vph)	203
Total Delay / Veh (s/v)	1
CO Emissions (kg)	0.17
NOx Emissions (kg)	0.03
VOC Emissions (kg)	0.04

9: Iberia Ave.

Direction	All
Future Volume (vph)	187
Total Delay / Veh (s/v)	0
CO Emissions (kg)	0.03
NOx Emissions (kg)	0.01
VOC Emissions (kg)	0.01

11: Hopewood Dr.

Direction	All
Future Volume (vph)	205
Total Delay / Veh (s/v)	0
CO Emissions (kg)	0.04
NOx Emissions (kg)	0.01
VOC Emissions (kg)	0.01

12: Holyoke Ave & CSAH 86

Direction	All
Future Volume (vph)	201
Total Delay / Veh (s/v)	1
CO Emissions (kg)	0.24
NOx Emissions (kg)	0.05
VOC Emissions (kg)	0.06

13:

Direction	All
Future Volume (vph)	152
Total Delay / Veh (s/v)	0
CO Emissions (kg)	0.11
NOx Emissions (kg)	0.02
VOC Emissions (kg)	0.03

14: Galaxie Ave.

Direction	All
Future Volume (vph)	565
Total Delay / Veh (s/v)	5
CO Emissions (kg)	0.88
NOx Emissions (kg)	0.17
VOC Emissions (kg)	0.20

17: Garrett Ave. & CSAH 86

Direction	All
Future Volume (vph)	188
Total Delay / Veh (s/v)	0
CO Emissions (kg)	0.06
NOx Emissions (kg)	0.01
VOC Emissions (kg)	0.01

18: CSAH 86 & Grenada Ave.

Direction	All
Future Volume (vph)	201
Total Delay / Veh (s/v)	1
CO Emissions (kg)	0.23
NOx Emissions (kg)	0.04
VOC Emissions (kg)	0.05

22:

Direction	All
Future Volume (vph)	184
Total Delay / Veh (s/v)	0
CO Emissions (kg)	0.07
NOx Emissions (kg)	0.01
VOC Emissions (kg)	0.02

25:

Direction	All
Future Volume (vph)	186
Total Delay / Veh (s/v)	0
CO Emissions (kg)	0.13
NOx Emissions (kg)	0.03
VOC Emissions (kg)	0.03

29:

Direction	All
Future Volume (vph)	197
Total Delay / Veh (s/v)	0
CO Emissions (kg)	0.14
NOx Emissions (kg)	0.03
VOC Emissions (kg)	0.03

32: CSAH 86

Direction	All
Future Volume (vph)	169
Total Delay / Veh (s/v)	0
CO Emissions (kg)	0.07
NOx Emissions (kg)	0.01
VOC Emissions (kg)	0.02

43:

Direction	All
Future Volume (vph)	171
Total Delay / Veh (s/v)	0
CO Emissions (kg)	0.13
NOx Emissions (kg)	0.03
VOC Emissions (kg)	0.03

Traffic Safety Benefit-Cost Calculation

Highway Safety Improvement Program (HSIP) Reactive Project

DEPARTMENT OF TRANSPORTATION

A. Roadway Description

Route	CSAH 86	**District**		**County**	Dakota
Begin RP	0.000	**End RP**	3.654	**Miles**	3.6
Location	From Dakota County Line to CSAH 23 (Galaxie Ave.)				

B. Project Description

Proposed Work	Addition of left-or right-turn by-pass lanes		
Project Cost*	$5,500,000	**Installation Year**	2024
Project Service Life	20 years	**Traffic Growth Factor**	3.0%

** exclude Right of Way from Project Cost*

C. Crash Modification Factor

	Fatal (K) Crashes	**Reference**	CMF ID 297
	Serious Injury (A) Crashes		
	Moderate Injury (B) Crashes	**Crash Type**	Property Damage Only
	Possible Injury (C) Crashes		
0.19	**Property Damage Only Crashes**		www.CMFclearinghouse.org

D. Crash Modification Factor (optional second CMF)

0.08	**Fatal (K) Crashes**	**Reference**	CMF ID 290
0.08	**Serious Injury (A) Crashes**		
0.08	**Moderate Injury (B) Crashes**	**Crash Type**	All
0.08	**Possible Injury (C) Crashes**		
0.08	**Property Damage Only Crashes**		www.CMFclearinghouse.org

E. Crash Data

Begin Date 1/1/2016 **End Date** 12/31/2018 3 years

Data Source

Crash Severity	Property Damage Only	All
K crashes		
A crashes		
B crashes		1
C crashes		1
PDO crashes	7	

F. Benefit-Cost Calculation

$2,871,611	**Benefit (present value)**	**B/C Ratio = 0.53**
$5,500,000	**Cost**	

Proposed project expected to reduce 3 crashes annually, 0 of which involving fatality or serious injury.

F. Analysis Assumptions

Crash Severity	Crash Cost
K crashes	$1,360,000
A crashes	$680,000
B crashes	$210,000
C crashes	$110,000
PDO crashes	$12,000

Link: mndot.gov/planning/program/appendix_a.html

Real Discount Rate	1.2%
Traffic Growth Rate	3.0%
Project Service Life	20 years

G. Annual Benefit

Crash Severity	Crash Reduction	Annual Reduction	Annual Benefit
K crashes	0.00	0.00	$0
A crashes	0.00	0.00	$0
B crashes	0.92	0.31	$64,400
C crashes	0.92	0.31	$33,733
PDO crashes	5.67	1.89	$22,680
			$120,813

H. Amortized Benefit

Year	Crash Benefits	Present Value
2024	$120,813	$120,813
2025	$124,438	$122,962
2026	$128,171	$125,149
2027	$132,016	$127,375
2028	$135,976	$129,641
2029	$140,056	$131,947
2030	$144,257	$134,294
2031	$148,585	$136,682
2032	$153,043	$139,113
2033	$157,634	$141,588
2034	$162,363	$144,106
2035	$167,234	$146,669
2036	$172,251	$149,278
2037	$177,418	$151,933
2038	$182,741	$154,635
2039	$188,223	$157,386
2040	$193,870	$160,185
2041	$199,686	$163,034
2042	$205,677	$165,934
2043	$211,847	$168,886
0	$0	$0
0	$0	$0
0	$0	$0
0	$0	$0
0	$0	$0
0	$0	$0
0	$0	$0
0	$0	$0
0	$0	$0
0	$0	$0
0	$0	$0

Total = $2,871,611

CRASH MODIFICATION FACTORS CLEARINGHOUSE

CMF / CRF DETAILS

CMF ID: 297

ADDITION OF LEFT- OR RIGHT-TURN BY-PASS LANES

DESCRIPTION:

PRIOR CONDITION: *NO PRIOR CONDITION(S)*

CATEGORY: INTERSECTION GEOMETRY

STUDY: *BYPASS LANE SAFETY, OPERATIONS, AND DESIGN STUDY*, PRESTON AND SCHOENECKER, 1999

Star Quality Rating:	★★★☆☆

Crash Modification Factor (CMF)

Value:	0.81
Adjusted Standard Error:	0.23
Unadjusted Standard Error:	0.1

Crash Reduction Factor (CRF)

Value:	19 *(This value indicates a **decrease** in crashes)*
Adjusted Standard Error:	23
Unadjusted Standard Error:	10

Applicability

Crash Type:	All
Crash Severity:	O (property damage only)
Roadway Types:	Not specified
Number of Lanes:	
Road Division Type:	
Speed Limit:	
Area Type:	Rural
Traffic Volume:	
Average Traffic Volume:	
Time of Day:	

If countermeasure is intersection-based

Intersection Type:	Roadway/roadway (not interchange related)
Intersection Geometry:	3-leg,4-leg
Traffic Control:	Stop-controlled
Major Road Traffic Volume:	

Minor Road Traffic Volume:	
Average Major Road Volume :	
Average Minor Road Volume :	

Development Details

Date Range of Data Used:	
Municipality:	
State:	
Country:	
Type of Methodology Used:	Simple before/after

Other Details

Included in Highway Safety Manual?	No
Date Added to Clearinghouse:	Dec-01-2009
Comments:	

VIEW THE FULL STUDY DETAILS

EXPORT DETAIL PAGE AS A PDF

This site is funded by the **U.S. Department of Transportation Federal Highway Administration** and maintained by the **University of North Carolina Highway Safety Research Center**

For more information, contact Karen Scurry at **karen.scurry@dot.gov**

CRASH MODIFICATION FACTORS CLEARINGHOUSE

CMF / CRF DETAILS

CMF ID: 290

PROVIDE A RIGHT-TURN LANE ON BOTH MAJOR-ROAD APPROACHES

DESCRIPTION:

PRIOR CONDITION: *NO PRIOR CONDITION(S)*

CATEGORY: INTERSECTION GEOMETRY

STUDY: *SAFETY EFFECTIVENESS OF INTERSECTION LEFT- AND RIGHT-TURN LANES*, HARWOOD ET AL., 2002

Star Quality Rating:	★★★★★

Crash Modification Factor (CMF)

Value:	0.92
Adjusted Standard Error:	0.03
Unadjusted Standard Error:	0.03

Crash Reduction Factor (CRF)

Value:	8 *(This value indicates a **decrease** in crashes)*
Adjusted Standard Error:	3
Unadjusted Standard Error:	3

Applicability

Crash Type:	All
Crash Severity:	All
Roadway Types:	Not Specified
Number of Lanes:	
Road Division Type:	
Speed Limit:	
Area Type:	All
Traffic Volume:	
Average Traffic Volume:	
Time of Day:	

If countermeasure is intersection-based

Intersection Type:	Roadway/roadway (not interchange related)
Intersection Geometry:	Not Specified
Traffic Control:	Signalized
Major Road Traffic Volume:	Minimum of 7200 to Maximum of 55100 Average Daily Traffic (ADT)

Minor Road Traffic Volume:	Minimum of 550 to Maximum of 8400 Average Daily Traffic (ADT)
Average Major Road Volume :	
Average Minor Road Volume :	

Development Details

Date Range of Data Used:	
Municipality:	
State:	
Country:	
Type of Methodology Used:	Before/after using empirical Bayes or full Bayes

Other Details

Included in Highway Safety Manual?	Yes. HSM lists this CMF in **bold** font to indicate that it has the highest reliability since it has an adjusted standard error of 0.1 or less.
Date Added to Clearinghouse:	Dec-01-2009
Comments:	Countermeasure name changed to match HSM

VIEW THE FULL STUDY DETAILS

EXPORT DETAIL PAGE AS A PDF

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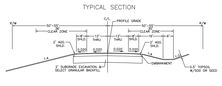
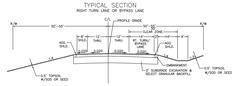
For more information, contact Karen Scurry at **karen.scurry@dot.gov**

C.S.A.H. 86 (280TH ST. W.)
CONCEPT LAYOUT

TYPICAL SECTION



TYPICAL SECTION
RIGHT TURN LANE OR BYPASS LANE



LEGEND:

PROPOSED ROADWAY
PROPOSED ROADWAY SHOULDER
DENOTES EXISTING R/W LINE
DENOTES NEW RIGHT OF WAY

C.S.A.H. 86 (280TH ST. W.)

PRESENT ADT 2,950 2020
PROJ. ADT 4,100 2040
10 TON DESIGN
FUNCTIONAL CLASSIFICATION A MINOR ARTERIAL
RECOMMENDED CLASSIFICATION PRINCIPAL ARTERIAL

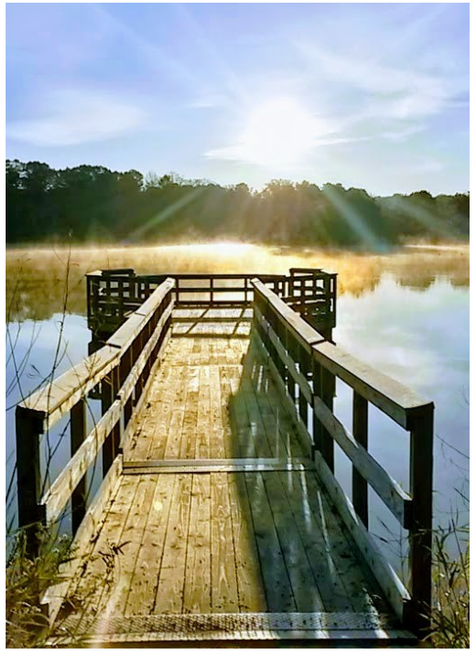
EUREKA, & GREENVALE TOWNSHIPS

Dakota County transportation
we get you there

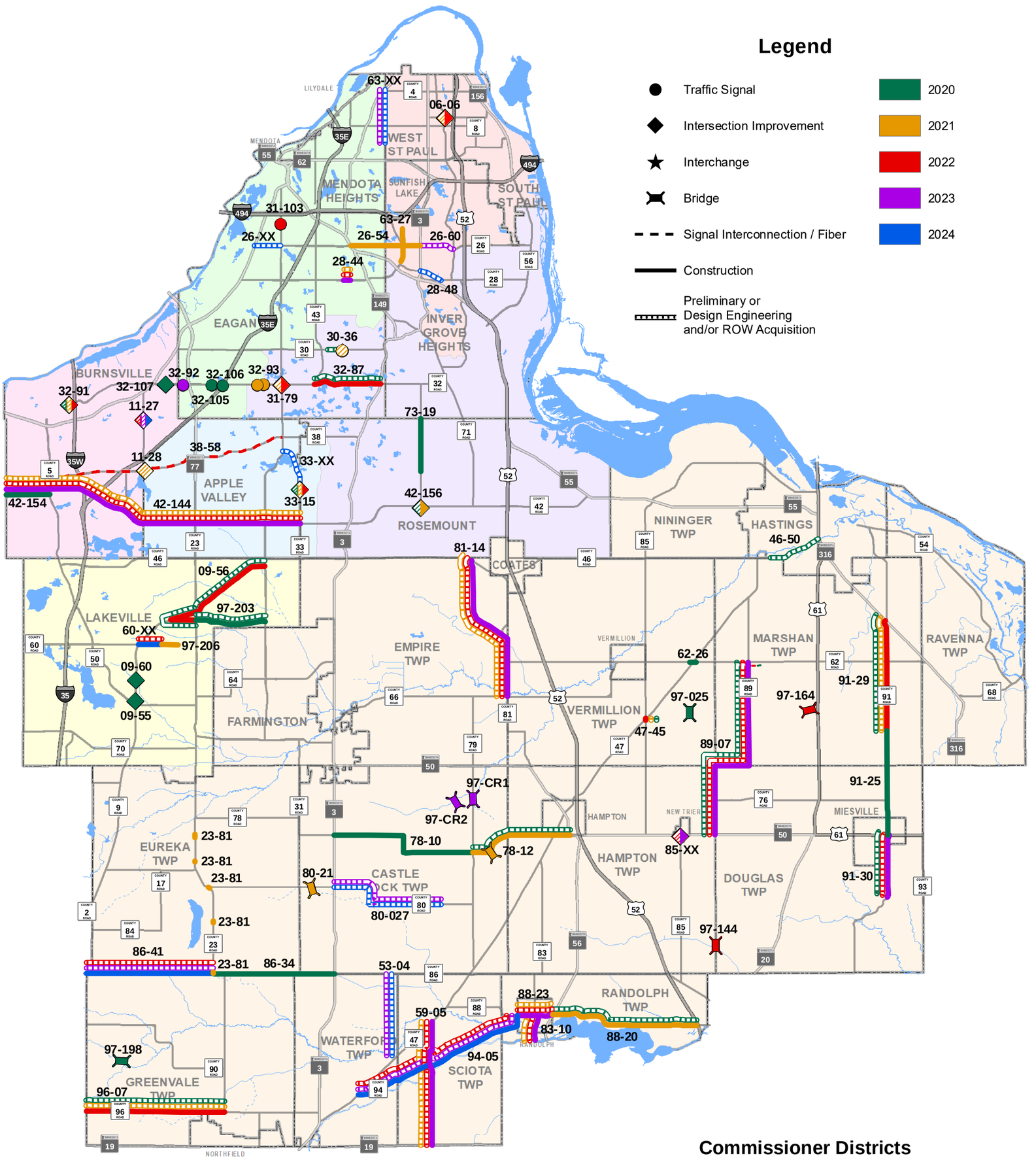
CAPITAL IMPROVEMENT PROGRAM

Dakota COUNTY

2020-2024



2020 - 2024 Transportation Capital Improvement Program



Commissioner Districts

- District 1
- District 2
- District 3
- District 4
- District 5
- District 6
- District 7

Map Date: December 3, 2019

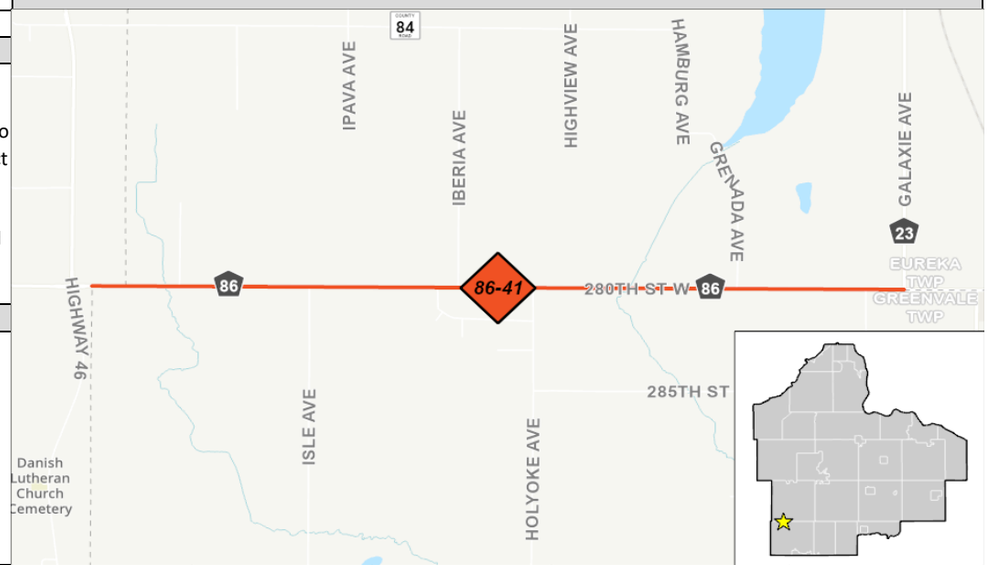
2020 CAPITAL BUDGET

and 2020 - 2024 TRANSPORTATION CAPITAL IMPROVEMENT PROGRAM

Project Title:	CSAH 86 (280th Street) from the westerly Dakota County line to CSAH 23 (Galaxie Avenue) in Eureka and Greenvale Townships.	
Project Number(s):	86-41	
Year of Board Authorization:	2022	**Project Description:**
Target Completion:	2024	RESOURCES: Design
Project Type:	Replacement	REPLACEMENT: Roadway Reconstruction
JL Key:	T86041	Reconstruction of CSAH 86 (280th Street West) from the westerly Dakota County line to CSAH 23 (Galaxie Avenue) in Eureka and Greenvale Townships. A portion of this project (800' along the north half of CSAH 86 roadway) is located in Scott County. Federal funds will be applied for in the next Met Council Solicitation. This project will improve CSAH 86 roadway operations, make safety improvements and provide for the increased traffic levels.
Project Location:		
Eureka and Greenvale Townships. (Approx. 800' along the north half of CSAH 86 roadway is located within Scott County.)		

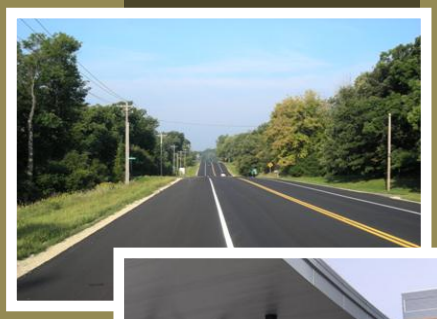
Project and Fiscal History:

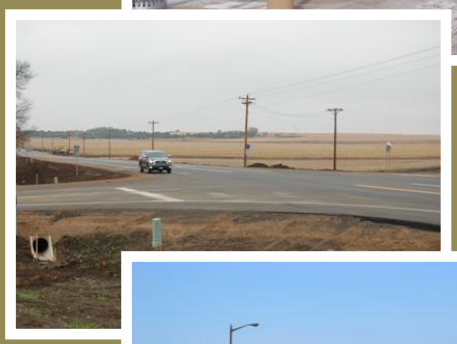
Project Graphic



Project Revenues	Original Project Estimate	Approved Budget	2020 Budget	2021 Estimate	2022 Estimate	2023 Estimate	2024 Estimate	Beyond 2024	Total Revised Project Revenues Estimate	2020 Project Revenues Estimate Change
Local	-	-	-	-	-	-	-	-	-	-
Federal	-	-	-	-	-	-	4,200,000	-	4,200,000	4,200,000
CSAH	-	-	-	-	120,000	1,500,000	997,500	-	2,617,500	2,617,500
County Funds	-	-	-	-	-	-	52,500	-	52,500	52,500
Total	**-**	**-**	**-**	**-**	**120,000**	**1,500,000**	**5,250,000**	**-**	**6,870,000**	**6,870,000**

Project Expenditures	Original Project Estimate	Approved Budget	2020 Budget	2021 Estimate	2022 Estimate	2023 Estimate	2024 Estimate	Beyond 2024	Total Revised Project Expenditures Estimate	2020 Project Expenditures Estimate Change
Land Acquisition	-	-	-	-	-	1,500,000	-	-	1,500,000	1,500,000
Consulting Services	-	-	-	-	120,000	-	-	-	120,000	120,000
New Construction	-	-	-	-	-	-	5,250,000	-	5,250,000	5,250,000
Total	**-**	**-**	**-**	**-**	**120,000**	**1,500,000**	**5,250,000**	**-**	**6,870,000**	**6,870,000**





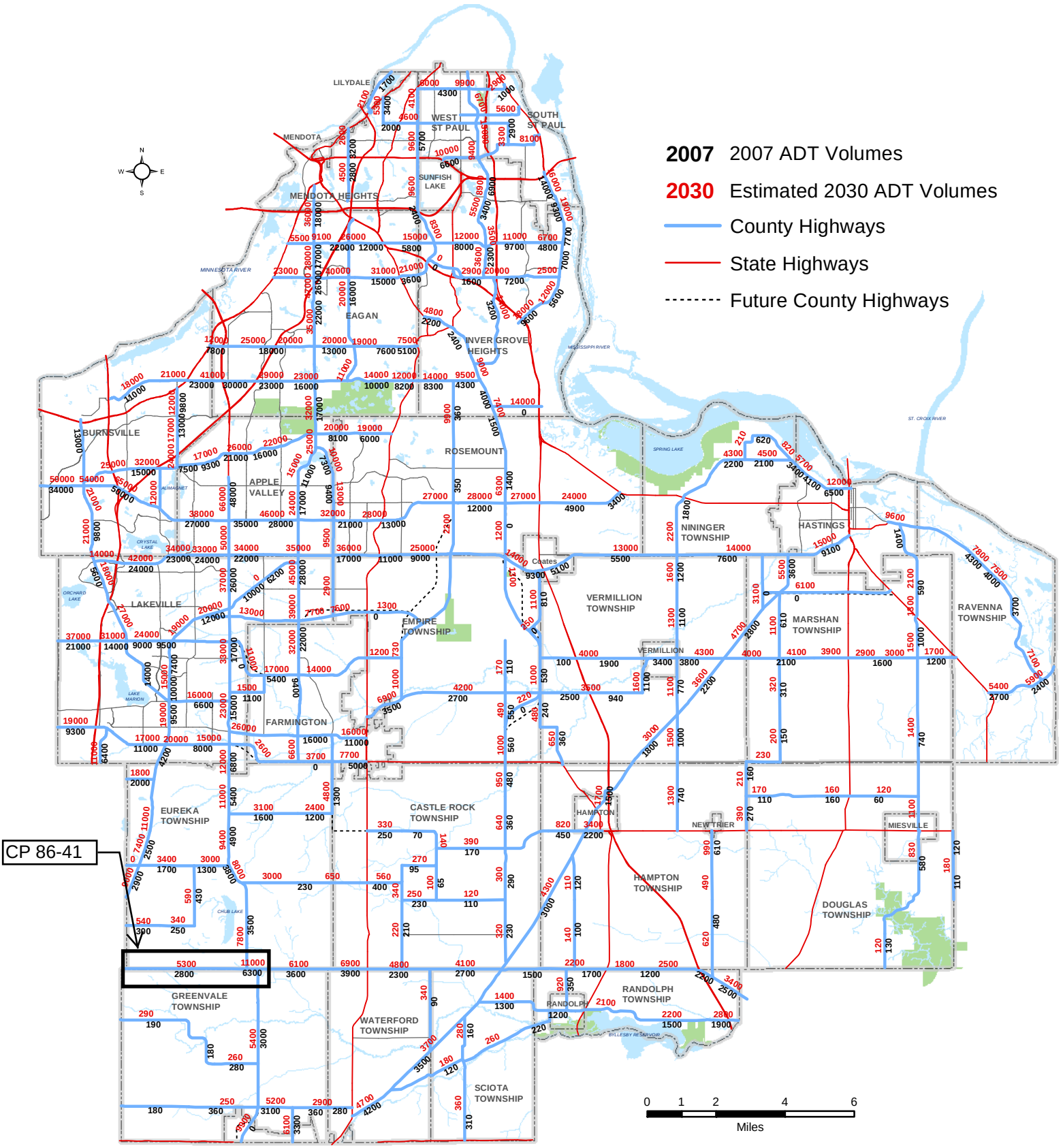
Dakota
COUNTY

2030 Transportation Plan

June 2012

Dakota COUNTY
transportation
we get you there

Average Daily Traffic - County Highways, 2007/2030

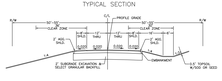


Prepared by:
Dakota County Office of GIS, 9/2011.

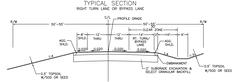
Dakota County 2030 Transportation Plan - Figure 6

C.S.A.H. 86 (280TH ST. W.)
PERMANENT HIGHWAY EASEMENT NEEDS LAYOUT

TYPICAL SECTION



TYPICAL SECTION
RIGHT TURN LANE OR PASSING LANE



LEGEND:

PROPOSED ROADWAY
PROPOSED ROADWAY SHOULDER
DENOTES EXISTING R/W LINE
DENOTES NEW RIGHT OF WAY

C.S.A.H. 86 (280TH ST. W.)

PRESENT ADT 2,950 2020
PROJ. ADT 4,100 2040
10 TON DESIGN
FUNCTIONAL CLASSIFICATION A MINOR ARTERIAL
RECOMMENDED CLASSIFICATION PRINCIPAL ARTERIAL

EUREKA, & GREENVALE TOWNSHIPS

Dakota transportation we get you there

Dakota
COUNTY

May 15, 2020

Summary – Regional Solicitation Funding Application for
Reconstruction of CSAH 86 from Scott/Dakota County line to CSAH 23 (Galaxie Ave) in Dakota County (CP 86-41)

Dakota County is planning to reconstruct County State Aid Highway (CSAH) 86 (280th Street A-Minor Arterial) from the Scott/Dakota County line east to CSAH 23 (Galaxie Avenue) in the townships of Eureka and Greenvale within southern Dakota County. The 3.6-mile reconstruction area has a 55-mph posted speed limit that navigates through primarily a rural agricultural region with private and public full access conflicts throughout. This east/west A-Minor Arterial route begins at the western edge of Scott County connecting the growing communities of New Prague, Elko/New Market to the rural township areas of eastern Dakota County. This route is approximately 46 miles in length from TH 169 to TH 52 in Dakota County.

Background and Primary Need for the Proposed Project.

Dakota County has made significant investments in CSAH 86 (280th Street) to implement safety improvements and replace aged infrastructure. Since 2016, three construction projects have been completed that replaced 10.55 miles of County highway system and replaced the CSAH 86 and TH 52 interchange. These construction projects included realigning skewed intersections, turn lanes, bypass lanes, widened 8-foot shoulders and other safety and capacity improvements. An additional 3.6 miles of reconstruction is currently under final design with construction scheduled to begin in 2021 that includes replacement of the Canadian Pacific Railway trestle bridge within Castle Rock. The replacement of the railroad bridge will improve the substandard vertical clearance to meet current State Aid standards.

The proposed reconstruction from the Scott/Dakota County line east to CSAH 23 (Galaxie Avenue) represents the final segment of CSAH 86 that requires safety and pavement improvements. By completing the reconstruction of CSAH 86 a complete 10-ton Tier 2 Regional Truck Highway Corridor will be upgraded to provide a safe and efficient cross County and regional route. The regional economy and commuters rely on the County highway systems to provide access to suburban and urban centers. Average commute times for this community are above average as compared to other areas of the County. This reconstruction will provide a route that includes 12-foot lane, 8-foot paved shoulders, turn/bypass lanes at public intersections and improved clear zones that will ensure safe and efficient travel. The rural community CSAH 86 serves will also have access to increased bicycle and pedestrian mobility with the implementation of the 8-foot paved shoulders.

- Total Construction Cost: $6,000,000
- Requested Award Amount/Match Amount: $4,800,000 / $1,200,00 (CSAH, Local)

County State Aid Highway 86 provides a regional east/west route for Scott County and Dakota County to serve residents and industry. The proposed reconstruction represents the planned replacement of the final segment utilizing the 1964 pavement section. The identified improvements will increase both vehicle and non-vehicle safety and mobility for the regional arterial.

County State Aid Highway 86 looking East

PUBLIC OPEN HOUSE MEETING SUMMARY

Event Overview

A public open house was held for the Dakota County Road 86 Reconstruction Project from 4:30-6 p.m. on Wednesday, May 22, 2019, at Prairie Creek Community School in Northfield, Minnesota.

Information included the project schedule, upcoming milestones, what to expect moving forward, and an update on the status of replacing the railroad bridge. Attendees had the opportunity to ask questions and talk one-on-one with the County's right-of-way agent to learn more about the process. General comments, both verbal and written, were also encouraged and recorded. Dakota County and HDR staff were available for the duration of the open house to interact with area residents, businesses, commuters, commercial and freight interests, local elected officials, and other stakeholders.

Event Outreach

The same mailing list from the first open house was used to distribute the second open house notification postcard to area property owners and renters. A total of 180 invitation postcards were mailed on May 8. An additional 20 postcards were sent to downtown Castle Rock residents requesting to connect in advance of the open house.

The project website was updated on May 14 to include the public meeting information, and an email notification was distributed on May 15 to people who signed up to receive project email updates.

A Facebook event was posted and boosted on May 17. The event was targeted to residents within 15 miles of Castle Rock. For copies of the notification postcard and Facebook event, see **Appendix A**. A similar notification was also posted on Dakota County's Nextdoor page.

Event Staffing

Name	Company
John Sass	Dakota County
Joe Connelly	Dakota County
Wendy Schmidt	Dakota County
Jake Chapek	Dakota County
Nick Stadem	HDR
Scott Burfeind	HDR
Stephanie Roth	HDR
Tess Nejedlo	HDR

Event Attendance

Not including project staff, approximately 63 people attended the public open house. Attendees were local residents, business representatives, commuters, Prairie Creek Community School parents, and elected officials. Those interested in receiving more information about the project provided their email address and/or telephone number when they signed in at the Welcome table. See **Appendix B** for a copy of the sign-in sheets.

Materials

The following materials were available and/or displayed at the public open house. For copies of these materials, see **Appendix C**.

Information Exhibits

- What We Heard (comments/themes from the first public open house)
- Project Overview
- Anticipated Construction Staging
- Right-of-Way: How It Works
- Potential Railroad Bridge Improvements/Replacement Railroad Bridge Concept (3 total exhibits)

Tabletop Layouts

The project area and urban section were shown in detail on tabletop layouts and a display board. Attendees were encouraged to record their comments and/or inquiries on Post-It Notes and attach them to the applicable location(s) on each map. Project team members were available at each station to talk with attendees, explain right-of-way boundaries, and answer questions.

Project Overview Handout

All attendees were given a project overview handout when they visited the Welcome table. The handout included a project overview, project benefits, schedule, a project area map, open house room layout, an image showing the typical section through downtown Castle Rock, railroad bridge replacement key decision milestones, and contact information.

Renderings

Renderings of County Road 86 at Danville Avenue looking west and County Road 86 at Delft Avenue looking west were shown on a television screen at the open house.

Recorded Comments

Attendees were encouraged to leave written comments during the public open house using a comment form that could be turned in at the event or sent via postal mail.

Seven written comments were collected at the Comment station and two Post-It notes were left on the "What We Heard" exhibit board. Copies of the completed comment forms are available in **Appendix D**. Project staff also recorded comments during their conversations. Five commenters requested a response, which HDR will coordinate with the project team. Table 1 identifies the key themes and inquiries.

Table 1: Key Themes and Inquiries

Opinions on sidewalks through town are split, with multiple attendees expressing concern and wanting to know why they are part of the proposed area improvements. Examples are the possible decrease in property value and shoveling and snow storage issues for renters, elderly residents and those with long driveways. These concerns were not heard during the November 2018 public open house.
Other attendees had positive comments about extending the sidewalks for bicyclist and pedestrian safety. For example, three Prairie Creek Community School staff like the sidewalk through town and the wider road shoulders.
Project staff received inquiries regarding the new driveway grades through town.
Construction schedule, detour routes, temporary gravel surface, and business and residential access during construction were common inquiries. For example, some attendees have children that load on the bus in the morning. They want reassurance that access will be maintained during construction.
One negative comment about losing part of existing driveway
Speed limits within the project area are a major concern; project staff were asked if radar speed indicator signs could be installed on both ends of town to help mitigate vehicle speed
One resident asked if better advance warning signs or flashing stop signs could be installed on southbound Galaxie Ave and northbound Foliage Ave. Many motorists think they have the right-of-way and don't stop when crossing County Road 86. This person has witnessed accidents due to careless or unaware motorists.
Attendees want permanent pavement on 275th Street from Highway 3 west to Denmark Ave and also Denmark Ave from 275th Street back to County Road 86
One attendee asked that 290th St. and Drexel Ave./Dunbar Ave. be chloride-treated before construction. He said the Highway 3 construction caused a high volume of detour traffic on their gravel road and created dust issues for the duration of that project. He also said road conditions were poor due to rutting and traffic volume. He asked that an advance warning sign for the T-Intersection be installed to prevent motorists from driving through intersection into his ditch.
Buried items within the existing right-of-way came up with at least one attendee.
Concerns about township road conditions during and after construction
Positive reactions to wide shoulders on County Road 86. Right now, bicyclists take gravel roads to get to the Cannon Trail. They would no longer avoid County Road 86 if the shoulders are widened.
Drainage throughout the project area and under the current railroad bridge also came up in conversation. A large group feels the County needs to fix the downstream issues first. They stated they've witnessed plugged downstream County ditches, which causes the water to back up into the road under the railroad bridge.
Additionally, one resident who could not attend the meeting is not in favor of a holding pond adjacent to the "mini mall".
One attendee asked the County to consider cleaning the County ditch system south of the corridor. He lives next to and has farmland adjacent to the ditch that runs south along Danbury Ave. He says it's the reason the current railroad bridge floods and believes it is sedimented in to the point that any improvements in town will not work because downstream the water cannot go anywhere.

Facebook Boosted Event

- Nearly 3,400 people saw the event ad at least once in their News Feed
- Approximately 19 people responded to the event post (reactions, comments, shares, clicks, and likes)
- 207 event page views
- Budget: $150
- Duration: May 17 – May 22
- 30% men and 70% women reached with the ad

Dakota County transportation
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280th Street/County Road 86 Public Open House

You're invited to get an update on the County Road (CR) 86 Reconstruction Project. The project extends from Galaxie Avenue (CR 23) to Chippendale Avenue (Highway 3). There's still time to connect with the project team about the proposed improvements, construction limits and property impacts.

Wednesday, May 22, 2019
4:30 p.m. – 6:00 p.m.

Prairie Creek Community School
27695 Denmark Ave | Northfield

At the open house you will be able to...

- Discuss the schedule, upcoming milestones and what to expect moving forward
- See more details on our project approach
- Learn about the status of the railroad bridge replacement
- Review the construction limits and proposed right-of-way needs

This project requires additional right-of-way and temporary construction easements. Affected property owners will soon be contacted by the County.

Can't make it or have questions/comments?

Jacob Chapek | 952-891-7104 | Jacob.Chapek@co.dakota.mn.us
Visit www.co.dakota.mn.us and search for "CP 86-34"

MAY
22

County Road 86 Reconstruction Project Public Open House

Public · Hosted by Dakota County Government

★ Interested | ✓ Going | ...

Wednesday, May 22, 2019 at 4:30 PM – 6 PM
about 1 week ago

Prairie Creek Community School
27685 Denmark Ave, Northfield, Minnesota 55057
Show Map

About | Discussion

3 Went · 16 Interested
Share this event with your friends

Details

Dakota County is hosting a public open house for the County Road 86 Reconstruction Project. Come connect with the project team about the proposed improvements, construction limits and property impacts. We'll also discuss the project schedule, upcoming milestones, what to expect moving forward, and give an update on the status of replacing the railroad bridge. Bring your questions. Affected landowners will be able to talk one-on-one with our right-of-way agent to learn more about the process.

Questions or comments?
Jacob Chapek, Project Manager
952-891-7104
Jacob.Chapek@co.dakota.mn.us

See More

What We Heard...

Here's what we heard from you at the November 2018 Public Open House:

- Majority of attendees want the existing railroad bridge replaced
- Bridge replacement costs should be carefully considered
- Vehicle speed/safety on County Road 86 needs review
- Want signage and enforced detour speed limits during construction, especially on gravel roads
- Ditch maintenance and drainage is needed
- Approve of sidewalks in town
- Current and future driveway slopes should be studied
- Well and septic locations may create issues
- Significant number of trucks and employees go to/from local businesses every day
- Trucks get stuck under the railroad bridge on 275th Street
- Sightlines and visibility (from the hill near the cemetery; from Danville Avenue to County Road 86) should be maintained or improved

What else do you want us to know?

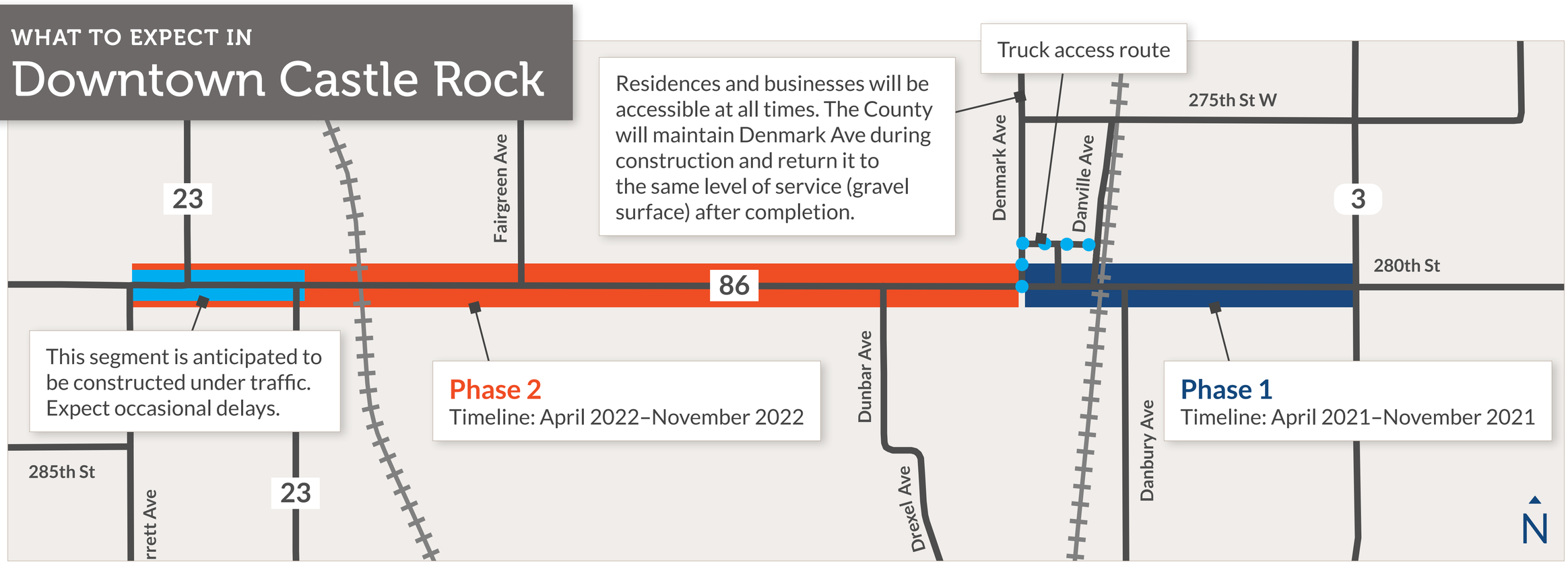
Write a note and add your topic or idea to the discussion below:

Anticipated Construction Staging

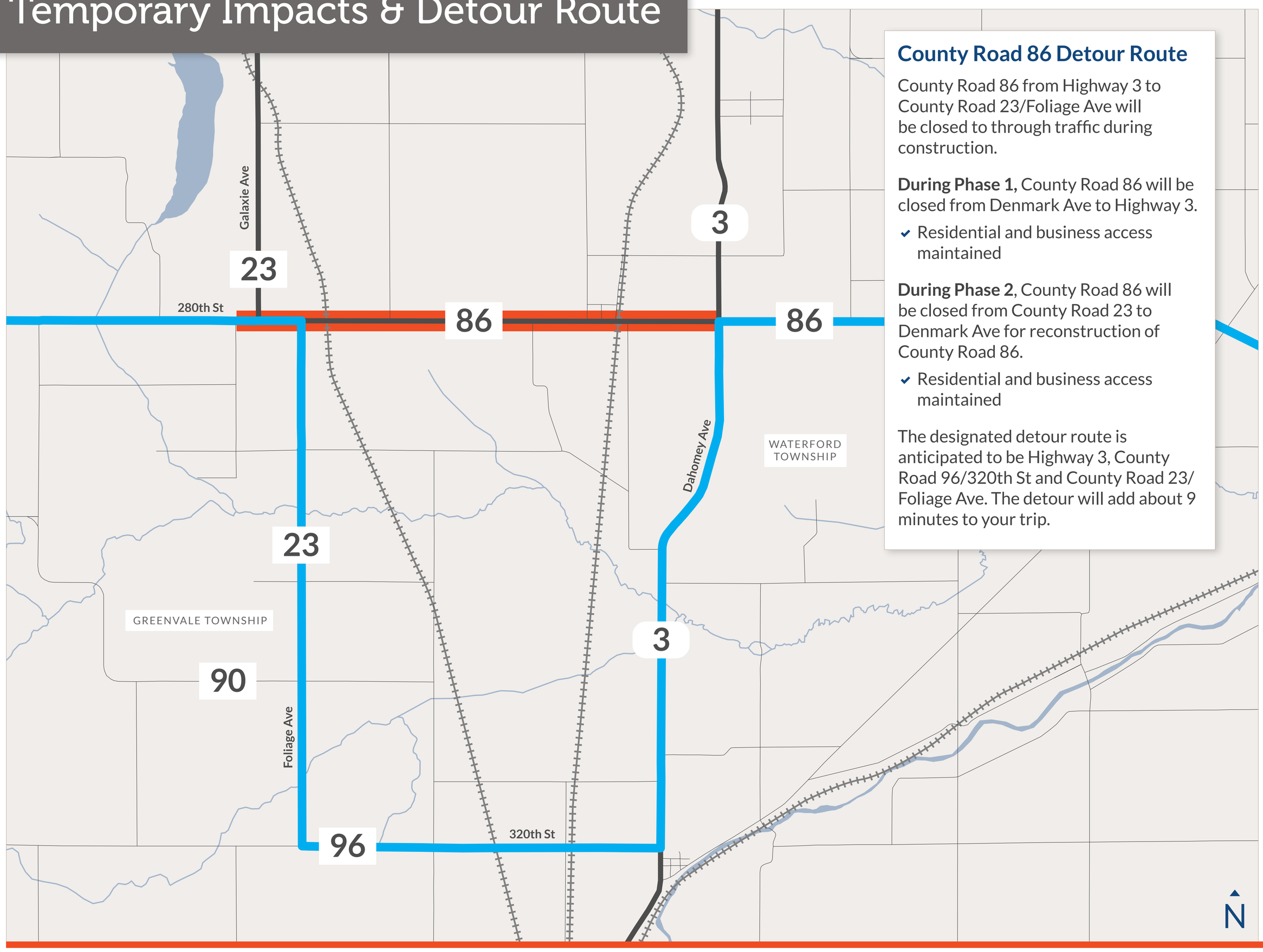
Assumes Railroad Bridge Replacement

WHAT TO EXPECT IN

Downtown Castle Rock



Temporary Impacts & Detour Route



County Road 86 Detour Route

County Road 86 from Highway 3 to County Road 23/Foliage Ave will be closed to through traffic during construction.

During Phase 1, County Road 86 will be closed from Denmark Ave to Highway 3.

- ✔ Residential and business access maintained

During Phase 2, County Road 86 will be closed from County Road 23 to Denmark Ave for reconstruction of County Road 86.

- ✔ Residential and business access maintained

The designated detour route is anticipated to be Highway 3, County Road 96/320th St and County Road 23/ Foliage Ave. The detour will add about 9 minutes to your trip.

280th Street/County Road 86 Reconstruction

Dakota County transportation
we get you there

Project Overview

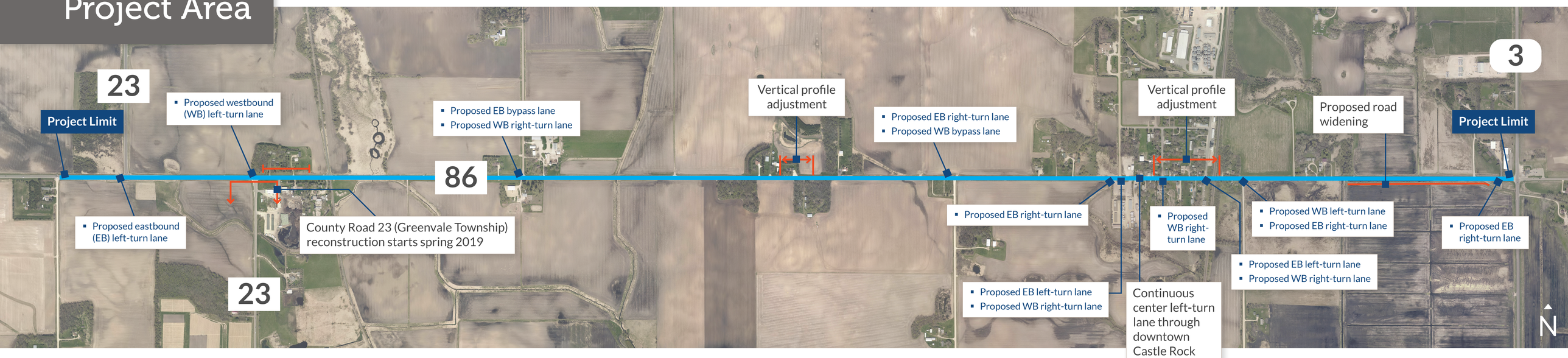
The pavement on County Road 86 from Galaxie Avenue (County Road 23) to Chippendale Avenue (Highway 3) is 60 years old, deteriorating and needs replacement. This work is anticipated to be completed in 2022.

At the same time, Dakota County wants to improve area safety and access for motorists, pedestrians and bicyclists.

Project Benefits:

- Smoother driving surface
- Safer bicycle accommodations and access (proposed 8-ft road shoulders)
- Improved pedestrian access in town (proposed 5-ft sidewalks from Denmark Ave to Danbury Ave)
- Better sight lines
- Better drainage along County Road 86
- Continuous traffic flow through town
- Intersection safety improvements (bypass and turn lanes)

Project Area



280th Street/County Road 86 Reconstruction

Dakota transportation
we get you there

Right-of-Way: How It Works

Dakota County sometimes needs to purchase land and property rights to construct, maintain or expand the County's highway or trail systems. If additional right-of-way is required, the County will contact affected property owners to connect them with a land agent to begin the property acquisition process.

Meet your agent and learn more!

Wendy Schmidt

952-891-7116

wendy.schmidt@co.dakota.mn.us

Right-of-Way Process

CONTACT

Dakota County contacts landowner by mail if interested in acquiring property.

ACCESS

Survey crew accesses property to stake needed right-of-way. Appraiser meets landowner on property to gather information.

APPRAISE

Property is appraised.

OFFER

County makes an offer and provides reasonable time for property owner to consider it.

PURCHASE

Required documents are signed and recorded before acquisition by direct purchase.

MANAGE

County constructs, operates and maintains the project within the right-of-way.

Property Ownership vs. Property Rights

In most cases, the County would not need to purchase the actual property, but would purchase certain property "rights" including highway, trail, drainage, utility and/or temporary construction easements.

280th Street/County Road 86 Reconstruction

Dakota County transportation we get you there

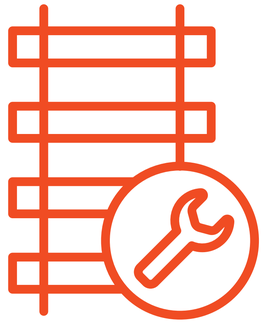
Potential Railroad Bridge Improvements

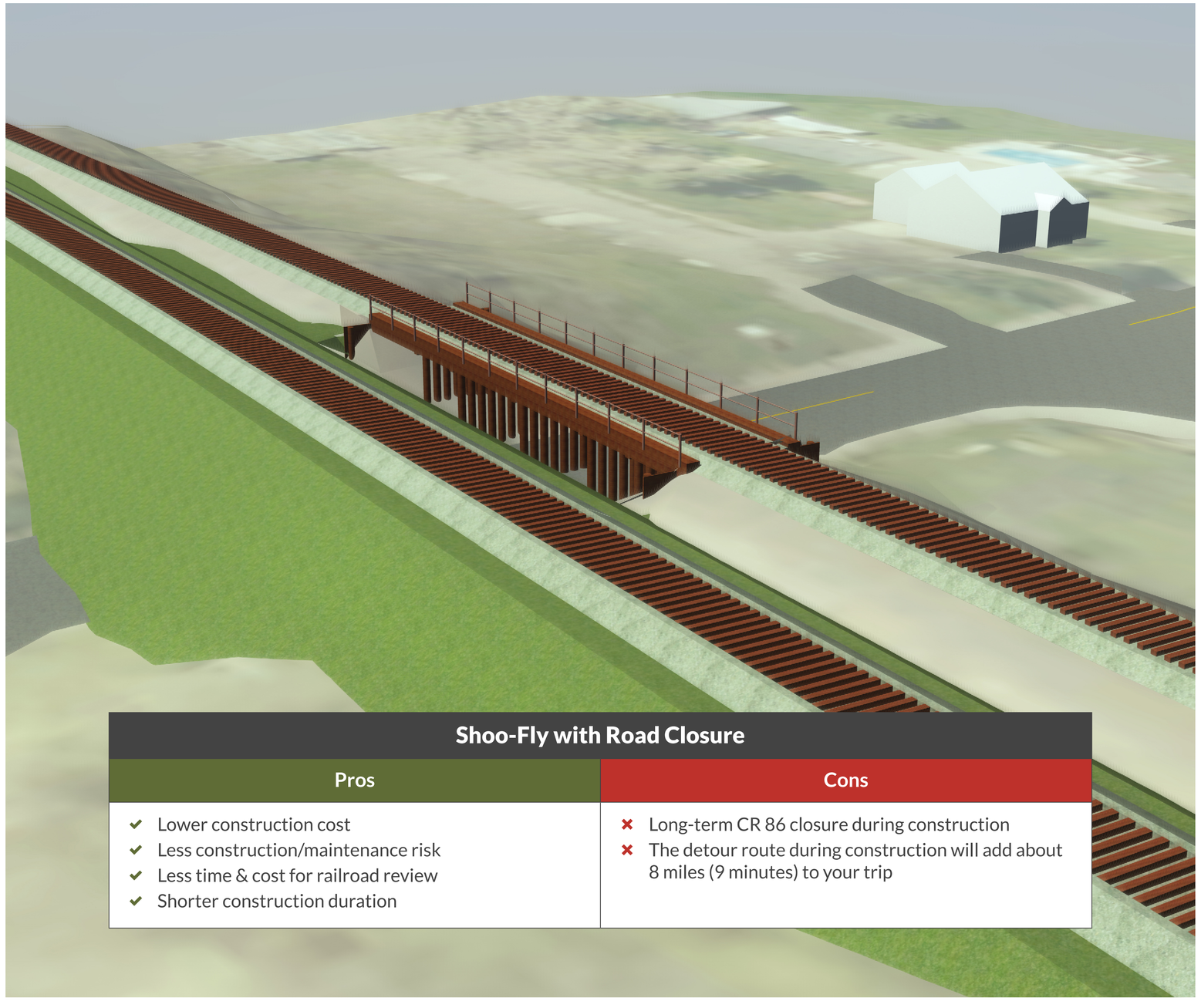
Maintaining Train Traffic During Construction

The railroad does not have the option to detour train traffic during construction. If replacing the railroad bridge in its entirety is the preferred option, Dakota County will use a shoo-fly track constructed next to the existing track to keep trains moving and to make the project schedule more predictable.

What is a Shoo-Fly track?

A temporary track to allow continued railroad operations during construction.





Shoo-Fly with Road Closure	
Pros	**Cons**
✔ Lower construction cost ✔ Less construction/maintenance risk ✔ Less time & cost for railroad review ✔ Shorter construction duration	✖ Long-term CR 86 closure during construction ✖ The detour route during construction will add about 8 miles (9 minutes) to your trip

Potential Railroad Bridge Improvements

Keep Existing Bridge

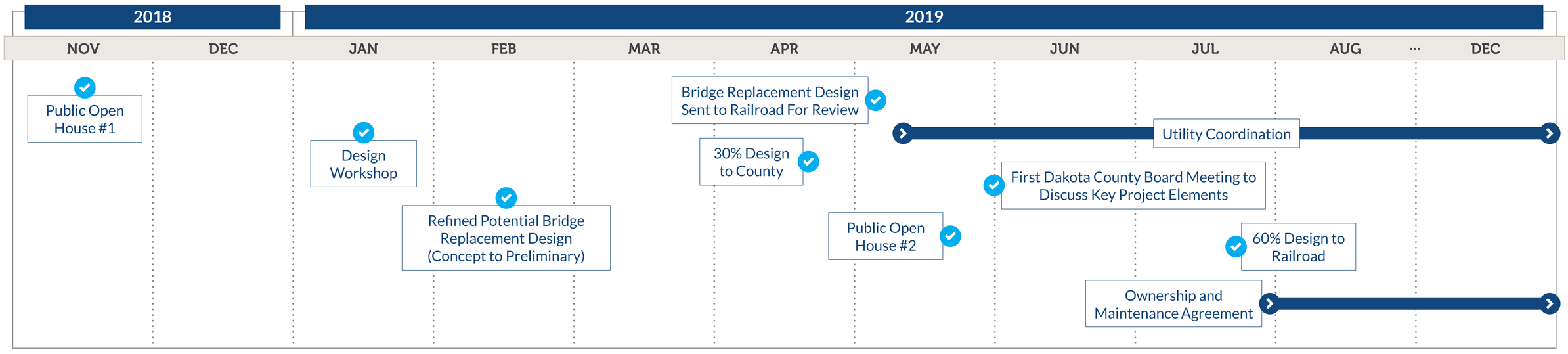
Pros	Cons
✔ Lower project cost	✖ Substandard design
✔ Railroad continues to own the bridge	✖ Poor horizontal & vertical traffic clearance under bridge (same as today)
✔ Fewer driveway impacts	✖ Road substantially narrows from highway improvements to existing railroad crossing
✔ Fewer traffic impacts during construction	✖ Existing clearances may stay the same when railroad does replace bridge
✔ Lowest County maintenance cost option	✖ Pedestrians/bicyclists continue to avoid bridge
	✖ May still be driveway and ROW impacts from proposed CR 86 improvements (road widening and sidewalks)

Bridge Replacement

Replace the existing railroad bridge to widen the horizontal clearance and lower the road to provide more vertical clearance.

Pros	Cons
✔ Consistent horizontal and vertical clearances along full CR 86 corridor in Dakota County	✖ Dakota County may be responsible for maintenance of new structure
✔ Meets local, state and federal design standards	✖ Canadian Pacific Railroad would like to require Dakota County to have responsibility for long-term maintenance/replacement costs
✔ Enhanced area safety	✖ Higher project cost
✔ More room for sidewalk, pedestrian/bicycle facilities	✖ Longer project duration
✔ Improved drainage	✖ Greater traffic impacts during construction
✔ Consistent with long-term function of CR 86 as a principal arterial highway	✖ Potential for greater impacts to adjacent properties (steeper driveways, retaining walls, etc.)
✔ Improved sightlines from side street and driveways	

Dakota County is diligently working through the formal decision-making process to replace the existing railroad bridge as part of this project. Our progress to date and our milestone goals through 2019 are shown below.



280th Street/County Road 86 Reconstruction

Dakota County transportation we get you there

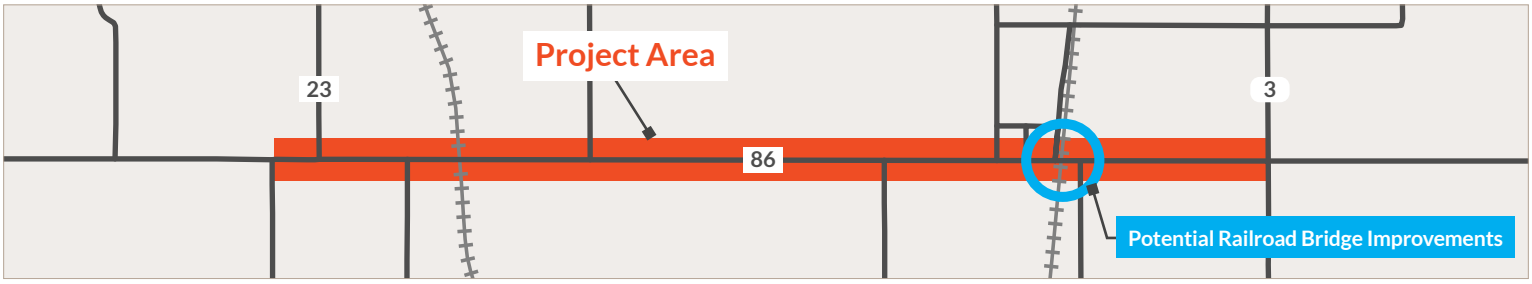
Project Overview

280th Street/County Road 86 Reconstruction

Dakota County is meeting with area travelers and property owners about County Road 86 reconstruction from Galaxie Avenue (County Road 23) to Chippendale Avenue (Highway 3).

About the Project

This stretch of County Road 86 is deteriorating and needs replacement. At the same time, Dakota County wants to improve area safety and access for motorists, pedestrians and bicyclists. Construction is anticipated to begin in 2021 and to be completed in 2022.



Project Schedule

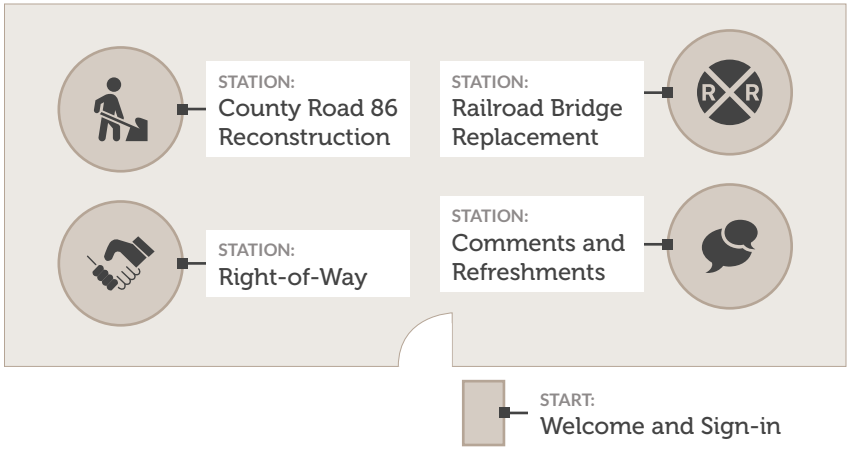
Spring **2019**	**Community Engagement** (Open House #2)
Spring/Summer **2019**	**Identify Right-of-Way Needs & Appraisals**
2019 and Early **2020**	**Final Design**
Early **2020**	**Community Engagement** (Open House #3)
2020	**Request for Federal Funding**
2021–2022	**Construction**
2022	**Project Complete**

Project Benefits:

- Smoother driving surface
- Safer bicycle accommodations and access (proposed 8-ft road shoulders)
- Improved pedestrian access in town (proposed 5-ft sidewalks from Denmark Ave to Danbury Ave)
- Better sight lines
- Better drainage along County Road 86
- Continuous traffic flow through town
- Intersection safety improvements (bypass and turn lanes)

We want to hear from you!

Stop by each station in the room to visit with project representatives.



Contact the Project Team
Visit www.co.dakota.mn.us and search for "CP 86-34"
Jacob Chapek • 952-891-7104 • Jacob.Chapek@co.dakota.mn.us

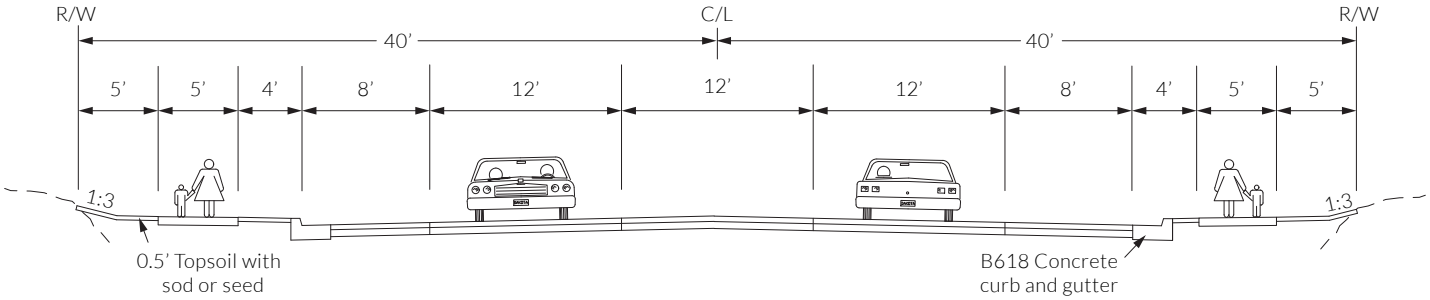
Dakota transportation we get you there

Project Overview

280th Street/County Road 86 Reconstruction

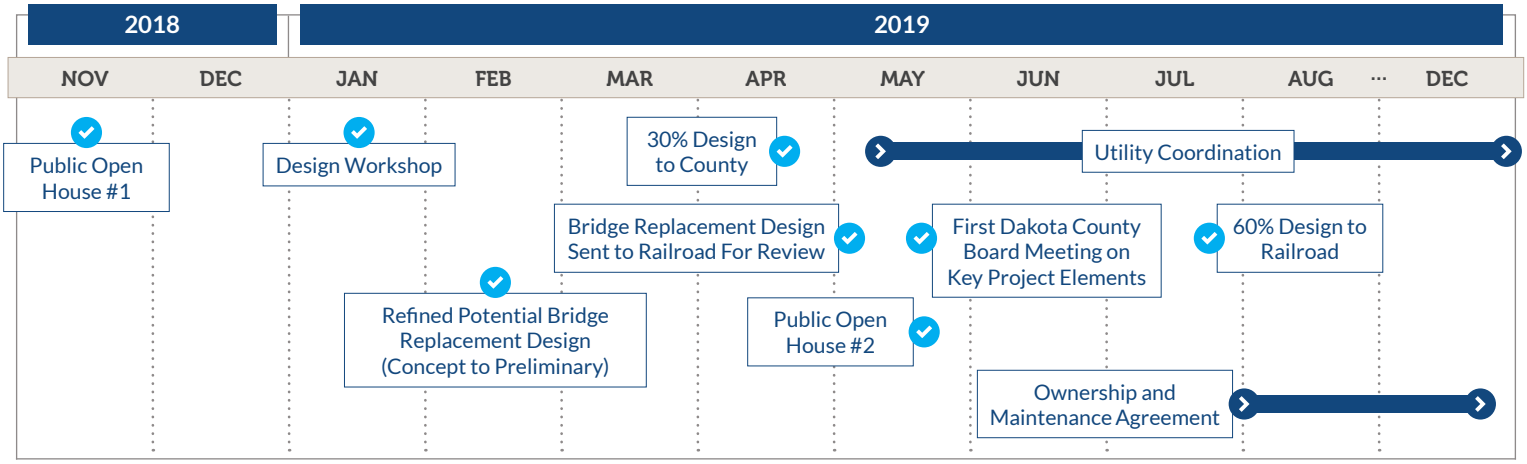
Typical Section Through Downtown Castle Rock

Proposed County Road 86 improvements from Denmark Avenue to Danbury Avenue.

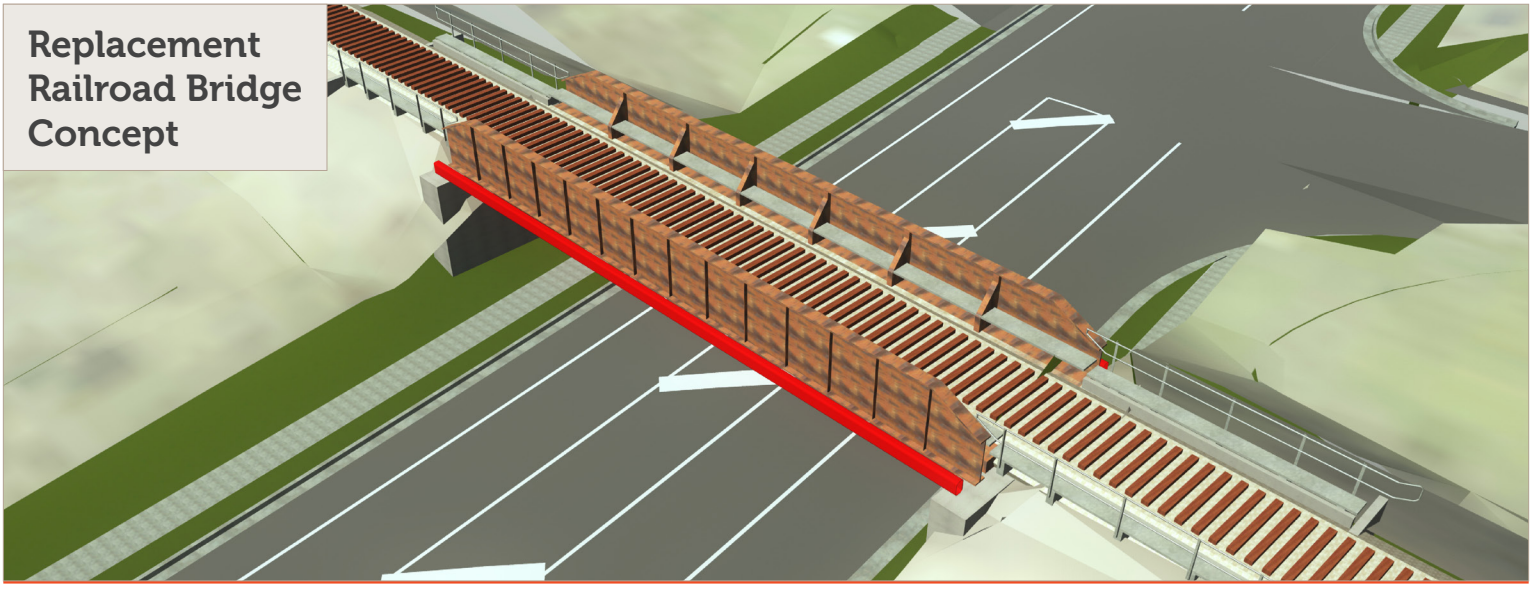


Railroad Bridge Replacement Key Decision Milestones

We've made progress over the past six months to reach a decision on whether to replace the existing railroad bridge in downtown Castle Rock as part of County Road 86 reconstruction. Here's what you can expect through 2019.



Replacement Railroad Bridge Concept



Contact the Project Team

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Jacob Chapek • 952-891-7104 • Jacob.Chapek@co.dakota.mn.us

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County Road 86 at Delft Avenue Looking West

Typical section showing sidewalk on the north and south sides of County Road 86 in downtown Castle Rock. *Photos are for information only. Design is subject to change.*

BEFORE

AFTER