#### **Scott County Delivers**

Highway Safety, Mobility and Economic Impacts May 18, 2021



#### **Panel Representatives:**

Tony Winiecki, County Engineer, Highway Department
Craig Jenson, Planning Manager, Transportation Services
Jon Rudolph, Graduate Traffic Engineer, Highway Department
Chad Bohnsack, Commercial Appraiser, Property & Taxation Services, Community Services
Nathan Abney, Transportation Planner, Transportation Services
Ben Picone, Planner, Minnesota Valley Transit Authority

#### **Results Map:**

- Safe: Citizens can travel and move about safely
- Safe: Neighbors feel safe, know their neighbors, children play outside, and all feel part of the larger community
- Healthy: Access to quality local health care services, facilities, and providers
- Healthy: Active lifestyles for all ages through opportunities and education
- Livable: Range of quality jobs and thriving local economy
- Livable: Good system of trails, parks, and open spaces
- Livable: Reliable roads, trails, sidewalks, and transit options are available to all citizens

#### **Community Indicator(s):**

Healthy: Access to Exercise Opportunities: Percentage of population with access to physical activity

KPI - Citizens' Rating of Trail and Bikeway Connectivity

Livable: Access to Destinations: Average # of Jobs within 30 minutes by Public Transit or Walking

• KPI – CH 42/CH 17 Speed Performance

Safe: Number of crashes on the system per 100,000 vehicle miles traveled

- KPI Crash Rate/Before After Infrastructure
- KPI Number of Crashes in Work Zone
- KPI Pavement Quality Index

#### **Scott County Board Objective/Strategy:**

- Community Safety & Well-being: Through strategic partnerships, residents will have convenient and reliable access to necessary and important services and activities
  - Strategy: Promote & expand services that help residents lead healthy, active lives
- Infrastructure: Private and public partners collaborate to develop a foundation promoting economic and employment opportunities
  - Strategy: Create a more sustainable, resilient system of regional infrastructure

#### Introduction:

Successful planning, project delivery, and operations support a resilient system of highway infrastructure contributing to a safe, healthy, and livable communities. Scott County invests significant funding into highway infrastructure each year to build and maintain highway facilities. The following information will look at some of these highway investments and what are some outcomes from these investments.

After analyzing a series of roadway projects for this presentation, 4 projects stood out that enhanced safety, mobility, and economic development:

CH 17 Corridor TH 13 and CH 21 TH 13 and CH 21 US 169/ TH 41 and CH 78

#### **Background:**

Infrastructure projects are programmed in the County's Transportation Improvement Program. Needs are identified in the County's Transportation Plan and the Transportation Tax Sales Implementation Plan. These plans include policies to guide the development of the County's Transportation System and set parameters for local system development. Criteria for selecting projects include safety, structural or geometric deficiencies, multi-modal elements, funding partners, and ability to deliver projects. Projects are prioritized based on safety capacity needs, system connections and project readiness.

Projects first go through a planning and design phase of project development and then a construction phase of project delivery. The construction and the product are the most visible part of the process. During the construction process, the County invests a considerable amount of funding and staff efforts towards work zone safety for employees, contractors, and the public. Decisions to detour traffic around work sites or maintain traffic through a construction zone are based on project duration, reasonable detour routes, and local access needs for residents and businesses.

Once constructed, corridors and intersections are managed and operated for safety and efficiency. Pavements are managed for life-cycle effectiveness. Each segment of roadway is tested every two years and given a qualitative score called a Pavement Quality Index (PQI). Roadways can then be managed with preventative and preservation measures to improve roadway quality and safety. This index is also used to make life-cycle investment decisions for timing of major repairs or reconstruction. Effective snow and ice control methods have an impact on roadway safety and mobility.

Scott County residents are surveyed every three years to determine satisfaction with pavement quality and snow plowing efforts.

While Scott County has been tracking performance measures of project effectiveness related to safety and mobility. Data related to impact of transportation investments on economic development can be more difficult to access and analyze. The County continues to examine potential data sets which could measure and illustrate more clearly how investments impact economic development.

#### **Infrastructure Investments**

Making strategic investments in the County's transportation system can improve mobility, safety and enhance economic development opportunities. The projects not only benefit vehicle traffic but have benefits to transit and bike and pedestrian movements. Thoughtful planning and implementation of these projects promote the development of safe, healthy, and livable communities. The County is gathering data on completed projects from the last several years, including:

- CH 17 expansion from CH 42 to CH 16
- CH 42 at TH 13 intersection

- CH 21 at TH 13 intersection
- TH 169/41/CH 78 intersection and CH 14 overpass/frontage roads

Safety of our transportation system is a top priority for all public agencies. Providing the right intersection traffic control and lane geometry is important to balance the functions of the roadways it serves. Stop signs, traffic signals, roundabouts, message signing, access controls, and pedestrian amenities provide a safe roadway environment for vehicles and pedestrians.

Mobility along roadways ensures the efficient and safe movement of people and goods. Mobility is measured by indicators such as travel time over a length of corridor. Elimination of access points, spacing of access points, intersection control types and efficient operations, inclusion of turn lanes, and roadway geometry all play a role in improving mobility, especially during peak traffic. A high-volume mobility corridor like CH 42 serves a different function than a local neighborhood street that is built to service low-volume and low speeds.

Mobility is often used as an economic development indicator; growth of a community impacts access to transportation options which in turn impacts mobility. In Scott County, we continue to strive to improve mobility for our residents by tracking indicators such as removal of access or travel time delay. Tracking these indicators allows us to monitor our investments and study the impacts not only on the one segment or intersection but the entire roadway network.

Economic Impacts: Transportation investments with model options help support community development, employment growth and stability. A mobility investment on a corridor can improve is accessibility to the regional system providing time savings for the movement of freight or improved access to the labor market for business. Transportation system improvements facilitate adjacent land development and investment that often leads to increased property values; additional residential, commercial, and industrial development; and/or improved occupancy rates in commercial/industrial areas. Such private investment provides a stable or increasing property tax base for communities. Examining travel time improvements and level of land development adjacent to transportation infrastructure projects provide a good gauge of the contribution that project has on the local economy.

#### **COVID 19 Impacts**

The 2020 COVID-19 outbreak has impacted the transportation networks throughout the State and in Scott County. The County did not take traffic counts in 2020 per guidance by the State as volumes were down statewide due to the pandemic. The State will be updating vehicle miles travelled (VMT) in 2021 and we will update our KPI's related to traffic volumes and crashes. There were 372 fewer crashes county-wide in 2020 compared to 2019 including 98 fewer on the County system.

The County's river crossings also saw a decline in vehicle use. The river crossing of I-35 and TH 169 had the most significant drop in 2020.

All modes of transportation have been impacted by changing transportation patterns due to COVID-19, with express and high commuter corridors like TH 169 and I-35W seeing the most significant decline in usage. The MVTA Express service into downtown Minneapolis from the Eagle Creek, Southbridge, and Marshall Road Transit Station park and rides have also seen a historic decline in usage. MVTA reduced express service from Savage, Shakopee, and Prior Lake during the pandemic. Ridership can be shown in the MVTA Ridership measure (Transit-1). With the rise in teleworking during the pandemic and the unknown long-term effects on work habits, analyzing the transit service and travel patterns will be critical to understand new travel trends and better adapt service post-COVID-19.

The County's dial-a-ride and non-emergency medical transportation service also had reduced ridership, as shown in the Transit Number of Rides per Month (Transit-3). While there was a steep reduction in the ridership numbers, those numbers stabilized and residents who depended on the service continued to use it for their mobility needs.

Although the data represents just a snapshot in time, local, regional, and statewide travel patterns by mode should be continually evaluated after the pandemic impacts subsides to determine if travel patterns return to normal operating levels. Due to the unknown nature of the pandemic's long-term effects, service changes due to COVID-19 will continue to be monitored.

#### What's working well and why?

- Elected official and staff engagement in regional and state planning, programming, and project activities to position the County for funding.
- Annual 10-year Transportation Improvement Program review helps guide investment.
- Completed projects show positive results for safety, mobility, and economic impacts
- Approved corridor plans had helped provide guidance and vision for communities.
- Investment alignment with the Board's highest priorities based on data helps reduce congestion and improve safety.
- Effective Public Involvement to listen and get feedback from residents and business owners.
- Proactive safety measures such as signage, safety checklists for construction projects, striping and lighting, etc. help reduce the likelihood of crashes.
- Increased collaboration with other departments in Scott County.
- Development, implementation, and updating of the County Highway Safety Plan.
- Projects that support local transit such as MVTA 495 route and CH 21 reconstruction in downtown Prior Lake.

#### What's not working well and why?

- Accuracy of crash data records is uncertain. Crash location and specifics may not be reliable
- Unknown nature of the pandemic's long-term impacts on County highway safety and mobility investment priorities.
- Long term pandemic impact on transit use is unknown.
- Premature land development can result in system gaps, timing issues and financing responsibility challenges

#### Next Steps / Future Program Development and why?

The following data and best practices will support program goals.

- Data to Support Program:
  - Up to date traffic safety, congestion, and operations performance data.
  - Accurate project cost estimates.
  - Continue to monitor post-COVID travel and work trends.
  - Continue to monitor and develop Economic Development measures.
  - County and local agency alignment of programs and projects.
  - Asset management data and maintenance operations.
  - Coordinated land use and transportation planning for the 2040 Comprehensive Plan Update.

#### **Funding Description**

#### Explanation of Funding Information

The Priority Based Budgeting (PBB) sheets for programs that relate to the topics covered in this presentation are included in the packet. These profile sheets include both program revenue from outside sources, levy contributions to the program, and program costs. It is important to note that the PBB model includes administrative and management expenses not included in the operating statements as these expenses are allocated across the PBB programs through a standard allocation process. In addition, the program description on the form includes the following:

- Direct: is the total of Personnel costs + Non-Personnel costs
- Total: is Direct + Admin
- Personnel: direct program staff allocated to the program and support staff allocated by FTE
- Non-Personnel: Any expenses that are not direct staff costs
- · Admin: management costs allocated by FTE that may not be reflected in the program operating statement
- Revenue: is program revenue from state, federal, or other grant sources
- Levy: is county levy costs associated with the cost of running this program

#### **Resources:**

Infrastructure Investments									
Resource Type	Title	Location							
CI	Number of Crashes on System Per Million Vehicle Miles Traveled	2021 Board Measures, KPI 94 & 95 (Past 96, 97, 100)							
KPI	Average County Pavement Quality Index (PQI)	2021 Board Measures, KPI 46							
KPI	CH 42 Travel Speeds (MPH)	2021 Board Measures, KPI 96 (no projection)							
Snapshot	CH 17 Corridor Improvements from CH 78 to CH 42: New Construction by Year	2021 Board Measures, CH 17- 2 MAP Economic							
Мар	2013-2020 New Construction CH 17 from CH 42 to CH 78	2021 Board Measures, CH 17- 2 MAP Economic							
Snapshot	CH 17 Traffic Volumes and Number of Crashes	2021 Board Measures, SS#41C-17							
Snapshot	CH 17 Traffic Volumes & Number of Crashes Segments with Improvements Completed	2021 Board Measures, SS#41C-16							
Snapshot	Severity Rates on CH 17	2021 Board Measures, SS#41B							
Snapshot	CH 17 Crash Rate	2021 Board Measures, SS#41A-17							
Snapshot	CH 17 Access Management	2021 Board Measures, 98A							
Snapshot	CH 42 Traffic Volumes and Number of Crashes	2021 Board Measures, SS#51B							
Snapshot	CH 42 Crash Rates	2021 Board Measures; SS#51A							
Snapshot	Severity Rates on CH 42	2021 Board Measures, SS#42B							
Snapshot	CH 42 Access Management	2021 Board Measures, 98B							
Snapshot	TH 13 & CH 42 Intersection Crash Rate	2021 Board Measures, 13 & 42 Crashes							
Snapshot	TH 13/CH 42 Annual User Cost Savings	2021 Board Measures, TH13 CH 42 Mobility							
Snapshot	CH 21 Crash Rates	2021 Board Measures, SS#49A							
Snapshot	CH 21 Traffic Volumes and Number of Crashes	2021 Board Measures, SS#49B							
Snapshot	Th 13 & CH 21 Intersection Crash Rate	2021 Board Measures, 13 & 21 Crashes							
Snapshot	TH 13/CH 21 Annual User Cost Savings	2021 Board Measures, TH 13_CH 21 Mobility							

Infrastructure Investments								
Resource Type	Title	Location						
Snapshot	US 169/ TH 41/ CH 78 Annual User Cost Savings	2021 Board Measures, US 169_TH 41 Mobility						
Snapshot	Before and After: TH 169 Average Speeds	2021 Board Measures, US 169_TH 41 Mobility (2)						
Snapshot	TH 13 & CH 101 Intersection Crash Rate	2021 Board Measures, 13 & 101 Crashes						
Snapshot	Work Zone Crashes in Scott County	2021 Board Measures, Work Zone 1						
Snapshot	Work Zone Crashes on the County System	2021 Board Measures, Work Zone 2						
Snapshot	Work Zone Map	2021 Board Measures, Work Zone Map						
	Covid-19 Measures							
Resource Type	Title	Location						
Snapshot	River Crossings Traffic Volumes: Pre COVID to Present	2021 Board Measures, Covid-3						
Snapshot	Council Ridership- Year End 2020	2021 Board Measures, Transit-1						
Snapshot	MVTA Ridership	2021 Board Measures, Transit-2						
Snapshot	SMARTLINK Transit Rides Per Month	2021 Board Measures, Transit-3						

Related Program Profile Sheet:
[Use the Reporting Services report to find your program numbers.]

<b>Program Number</b>	Program Name
43	Smartlink Dial a Ride Bus Service
44	Smartlink Medical Assistance Transportation
50	Traffic Control and Operations
92	Transportation Project Development and Design
95	Intersection Safety and Corridor Management

Transportation Services				Sm	artlink Dial a Rid	Report Date: 5/6/2021				
	Trans	it	,	Quartile R	ank	1 Progr	am Con	ntact: Troy Beam	Program Number	43
Des	scription	reservat in Scott perform	ion, and trans and Carver C Transit Link, I	portation service ounty. The service out SmartLink s	e available t ice is availal taff manage	o all citizens where regular rouble Monday-Friday from 6AM-7	e service is PM. Current	cil. The Metropolitan Council defines Tr s not available. The Metropolitan Counci tly Scott and Carver County contract wi e the service for all residents, knowing	I provides funding and buses for th a regional transportation prov	r the service ider to
	Co	ommunity	Results			Attributes		Community In	dicator	
HEALTHY o	community f	or all indivi	duals		3	Mandated	2			
HEALTHY o	community o	f options to	choose f	rom	4	Reliance	3		MENT	
	ommunity by sure and life-				1	Cost Recovery	4	IN DEVELO	AILABLE SO	
	ommunity by infrastructur		mobility o	ptions and	4	Change In Demand	2	CONTENT WIL		
SAFE comr	nunity by pr	oviding acc	ess to a sa	afety net	3	Portion of Community Served	1			
SAFE comr to safety	nunity by pr	oviding pro	tection fro	m threats	2	Program Performance				
						Program Outcome	Citizens	have access to safe and reliabl	e transportation options	
Program	Finances			FTE	2.95	Key Perfromance	Denial rate			
Cost	2018	2019		2018	2019	Indicators (KPI)				
Total	\$1,519,539	\$1,771,068	Revenue	\$1,519,53 9	\$1,771,0 68	KPI Results	Exceedir	ng		
Direct	\$1,519,539	\$1,771,068	Levy	(\$160,812)	(\$242,46 1)	KPI Results Direction	Stable			
Personnel	\$281,958	\$313,214	Fees	\$405,851	\$405,851					
Non Personnel	\$1,237,581	\$1,457,854	Grants	\$1,274,50 0	\$1,222,0 00	Factors Impacting KPI Performance	Resource availability Productivity/scheduling of current resources (hours Number of requests Metropolitan Council Policies Expanded Services			
Admin	\$0	\$0	Other Revnue	\$0	\$385,678	If not meeting or declining - why?				

Transportation Services Sm					nartlink	Medical Assista	Report Date: 5/6/2021			
Transit Quartile Ra				ank	1 Program Contact: Troy Beam			Program Number	44	
Description  Medical Assistance Transportation is a massistance program. SmartLink is contract effective way to get to or from nonemerge requirements to provide MA transportation through that network of Providers. Reimbur warehouses and distributes all these MA to						ugh Carver and Scott Counties dical service appointments. Sm nding on the needs of the client at for parking, meals and/or lod	to coordina artLink ensu SmartLink ging can sou	te nonemergency medical transportation ures that there is a qualified network of I provides individual reimbursement for tr metimes also be included depending on	n in the safest, most appropria Providers that meet all State an ansportation or arranges trans medical need. SmartLink coor	te and cost- nd County portation dinates,
	Co	ommunity	Results			Attributes		Community Inc	dicator	
HEALTHY c	ommunity fo	or all indivi	duals		3	Mandated	4			
HEALTHY c	ommunity o	f options to	choose fi	rom	3	Reliance	3		MENT	
LIVABLE co					0	Cost Recovery	4	IN DEVELOR CONTENT WILL BE AV	AILABLE SUC	
LIVABLE co			mobility o	ptions and	2	Change In Demand	0	CONTENT WILL		
SAFE comm	nunity by pro	oviding acc	ess to a sa	afety net	1	Portion of Community Served	1			
SAFE comm to safety	nunity by pro	oviding pro	tection fro	m threats	2			Program Performance		
						Program Outcome	Citizens	have access to safe and reliable	e transportation options	
Program I	Finances			FTE	2.08	Key Perfromance Indicators (KPI)  Appoinment On-time performance %				
Cost	2018	2019		2018	2019	indicators (KFI)	7,7			
Total	\$689,631	\$955,932	Revenue	\$689,631	\$955,931	KPI Results	Not Mee	ting		
Direct	\$689,631	\$955,932	Levy	\$32,631	(\$19,069)	KPI Results Direction	Declining	9		
Personnel	\$224,831	\$181,428	Fees	\$657,000	\$975,000					
Non Personnel	\$464,800	\$774,504	Grants	\$0	\$0	Factors Impacting KPI Performance  Provider's processes New software Clients				
Admin	\$0	\$0	Other Revnue	\$0	\$0	If not meeting or declining - why?	Accuracy of Provider's	understanding the new software of the data from provider's drivers staff who are inputting the data into soft s that the providers face in picking client		appointments(

Transportation Services					Traffic Control and	Report Date: 5/6/2021				
Highway Operations Quartile Ra					Rank	2 Prog	ram Cor	ontact: Joe Wiita Program Number 50		
Description and safe passing pavement and repairing/replacing old or dama Ensure optimal traffic signal op						rian crossing markings for is and posts; and ensuring by maintaining functiona	or road safing signs male	striping for centerline, lane, and edge striping; turn lanes, medians afety. Maintain driver roadside information by installing new signs, meet mandated Federal requirements for sign retro-reflectivity. hicle, pedestrian, and emergency vehicle system components. intersection and road corridor operations.		
	Co	ommunity	Results			Attributes		Community Indicator		
HEALTHY c	ommunity fo	or all indivi	duals		0	Mandated	3	Number of Crashes on System per Million Vehicle Miles Travelled (VMT)		
HEALTHY c	ommunity o	of options to	choose fr	rom	0	Reliance	1	1.8 1.6 1.4 1.2		
LIVABLE co culture, leis					0	Cost Recovery	3	1 0.8 0.6 0.4		
LIVABLE community by providing mobility options and recreation infrastructure				2	Change In Demand	2	0.2 0 2013 2014 2015 2016 2017			
SAFE comn	nunity by pr	oviding acc	ess to a sa	afety net	1	Portion of Community Served	4	State 1.4 1.4 1.3 1.3 1.3 →-Metro 1.7 1.8 1.7 1.7 1.7		
SAFE comn to safety	nunity by pr	oviding pro	tection fro	m threats	4	Program Performance				
						Program Outcome	Citizens can travel and move about safely			
Program I	Finances			FTE	3.16	Key Perfromance	Percent of Signs Meeting Federal Retroreflectivity Requirements			
Cost	2018	2019		2018	2019	Indicators (KPI)				
Total	\$654,631	\$701,660	Revenue	\$654,631	\$701,661	KPI Results	Meeting	J		
Direct	\$654,631	\$701,660	Levy	\$207,439	\$214,136	KPI Results Direction	Stable			
Personnel	\$282,804	\$318,083	Fees	\$20,096	\$2,996			ation of factors including good maintenance practices in the area of signs, signals &		
Non Personnel	\$371,827	\$383,577	Grants	\$427,096	\$467,429	Factors Impacting KPI Performance	striping. Also a number of projects aimed at proactive safety such as wider shoulders, tu lanes, intersection lighting, etc. The drop in 2020 was due a 2005 sign project reaching the end of it's lifecycle. A more efficient system has been implemented to reduce the sharp product the data. Although the circumstance of the 2005 region to the data with the circumstance of the control of the circumstance of the control of the circumstance of the c			
Admin	\$0	\$0	Other Revnue	\$0	\$17,100	If not meeting or declining - why?				

Transportation Services Ti				ranspo	rtation Project Deve	ent and Design Report Date: 5/6/2021			
Program Delivery Quartile Ra					lank	2 Progra	m Conta	tact: Tony Winiecki Program Number 92	
Des	cription	property enginee environr commur jurisdicti	owner, busine r's estimates. I mental studies, nications and p ons to ensure	ess community Ensure all design impact studies oublic involvementizens and bu	, utility and e gned improve s for noise ar ent for during usinesses are	xternal public agency coordina ements comply with engineerin nd wetland impacts, permitting, g highway project development e aware of projects, have oppo	tion, preparing standards and mitigat through martunity to pro	ts surveying and basemapping right of way and base line topographic conditions; ring layouts, construction plans and specifications, bidding documents, and is. Support protection of the environment for projects through preparing stion and storm water management. Coordinate internal and external ailings, meetings, and notifications. Coordinate county projects with local rovide regarding activities that impact them in an effort to minimize the negative graph anually. MN Statutes Chapters 14, 1035, 160, 161, 162, 163, 165.	
	Co	ommunity	Results			Attributes		Community Indicator	
HEALTHY c	ommunity fo	or all indivi	duals		0	Mandated	3	Number of Crashes on System per Million Vehicle Miles Travelled (VMT)	
HEALTHY c	HEALTHY community of options to choose from					Reliance	3	1.8 1.6 1.4	
LIVABLE co					0	Cost Recovery	0	1 0.8 0.6	
LIVABLE co			mobility op	otions and	4	Change In Demand	1	0.2 - 0 2013 2014 2015 2016 2017 - Scott County 1.1 0.95 0.92 0.83 0.82	
SAFE comm	nunity by pro	oviding acc	ess to a sa	fety net	0	Portion of Community Served	3	State 1.4 1.4 1.3 1.3 1.3	
SAFE comm to safety	nunity by pro	oviding pro	tection fro	m threats	4			Program Performance	
						Program Outcome Citizens can travel and move about safely			
Program I	Finances			FTE	6.43	Key Perfromance	Percentage of Change Orders Under 5% of Total Bid		
Cost	2018	2019		2018	2019	Indicators (KPI)			
Total	\$913,427	\$769,358	Revenue	\$913,427	\$759,358	KPI Results	Exceedir	ing	
Direct	\$913,427	\$769,358	Levy	\$913,427	\$759,358	KPI Results Direction	Improvin	ng	
Personnel	\$902,117	\$758,733	Fees	\$0	\$0		The purpos	ose of calculating this percentage is to improve on how well the design and planning	
Non Personnel	\$11,310	\$10,625	Grants	\$0	\$0	Factors Impacting KPI Performance	of projects accounts for variables, so that change orders exceeding 5% of the total cost of project are less common. Typically change orders are a result of plan errors, omissions, of discovery of conditions not discovered during design such as poor soil conditions,		

If not meeting or declining - why?

**Admin** 

\$0

Other

Revnue

\$0

\$0

\$0

Transportation Services				Interse	ction Safety and Co	Management Report Date: 5/6/2021					
Program Delivery Quartile Ra					lank	2 <b>Progra</b>	act: Tony Winiecki Program Number 95				
Des	scription	average public in evaluation information	outine data collection and evaluation of intersections and corridors for safety and operational performance. Data collection includes vehicle are rage daily traffic, peak hour traffic counts, intersection turning movement counts, pedestrian movements, and vehicle speed studies used for blic information. Evaluation tools include include assessment of intersection traffic control, intersection and corridor crash and operational an aluation, and signal timing/coordination. Managing this data through the use of an assessment management system and providing snapshots ormation. Utilizing this data and assessment tools to identify future needs and project scoping for future transportation improvement program insideration to maximize investment lifecycle of infrastructure.								
	Co	mmunity	Results			Attributes		Community Indicator			
HEALTHY o	ommunity fo	or all indivi	duals		0	Mandated	3	Number of Crashes on System per Million Vehicle Miles Travelled (VMT)			
HEALTHY community of options to choose from					1	Reliance	3	1.8 1.6 1.4 1.2			
	ommunity by sure and life-				0	Cost Recovery	1	1 0.8 0.6 0.4			
	ommunity by nfrastructure		mobility op	otions and	4	Change In Demand	3	0.2 - 0 - 2013 2014 2015 2016 2017			
SAFE comm	nunity by pro	oviding acc	ess to a sa	fety net	0	Portion of Community Served	3	State     1.4     1.4     1.3     1.3     1.3      Metro     1.7     1.8     1.7     1.7     1.7			
SAFE common to safety	nunity by pro	oviding pro	tection fro	m threats	4			Program Performance			
						Program Outcome	n Outcome Citizens can travel and move about safely				
Program	Finances			FTE	2.02	Key Perfromance	number of crashes on system per million vehicle miles traveled (VMT)				
Cost	2018	2019		2018	2019	Indicators (KPI)					
Total	\$359,636	\$283,890	Revenue	\$359,636	\$283,890	KPI Results	Meeting				
Direct	\$359,636	\$283,890	Levy	\$269,636	\$193,890	KPI Results Direction	Improving	ng			
Personnel	\$319,480	\$246,709	Fees	\$90,000	\$90,000	Eastere Impacting		ty regularly invests in safety and operational improvements to the County system			
Non Personnel	\$40,156	\$37,181	Grants	\$0	\$0	Factors Impacting KPI Performance	part of the annual Transportation Improvement Program (TIP). Recent forms of safety pro include the installation of roundabouts, turn lanes at intersections, lane capacity, and accemodifications. The County also proactively addresses safety concerns through common				

If not meeting or declining - why?

Other

Revnue

\$0

\$0

\$0

**Admin** 

\$0



### **Community Indicator**

### Citizens Can Travel and Move About Safely

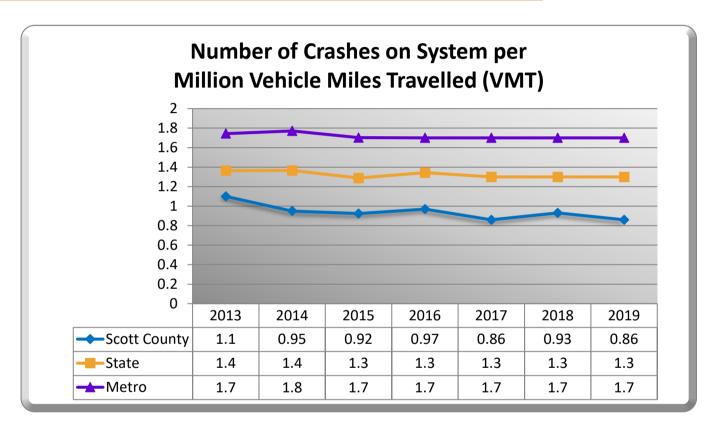


### Why is this important?

This measure is an industry standard measure that provides an indication of the safety of a highway system.

#### The raw data used are:

<u>Year</u>	Total Crashes	Total VMT
2013	481	449,416,470
2014	433	455,231,417
2015	423	457,963,200
2016	452	463,788,698
2017	419	487,080,571
2018	464	498,283,678
2019	427	497,195,415



**Source:** Mn/DOT Transportation Information System (TIS); Minnesota Crash Mapping Analysis Tool (MnCMAT)

#### What is the County Role?

Vehicle crash rates are influenced by a number of factors where the County has some role. The County is involved in designing and maintaing county roads. Speed, driving under the influence of drugs or alcohol, and distraced driving are monitored and addressed by law enforcement. Treatment programs for alcohol and drug dependence are available through Health and Human Servivces. Outreach programs to parents and young drivers stressing safe driving practices can impact both number and severity of accidents.

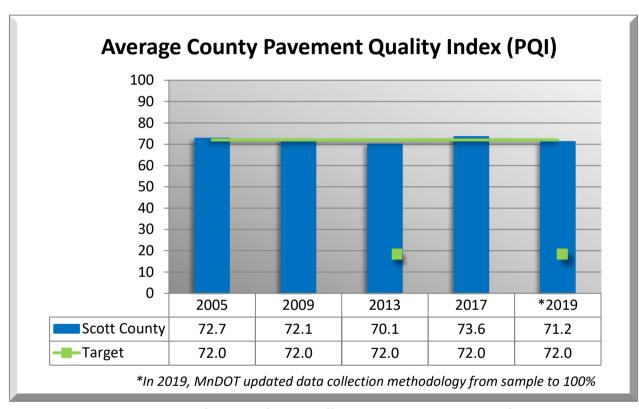
CI - CriticalCrashRate





#### **About this measure:**

Pavement Quality Index, PQI, was developed by MnDOT and is a pavement condition rating composed of both a review of the road's roughness or ride and general distresses like cracks and color fading which indicates asphalt oxidation. The result of the analysis is a numerical value between 0 and 100, with 100 representing the best possible condition and 0 representing the worst possible condition.



Source:

MnDOT Visual Survey, historically every 4 years; Reviewed every 2 years starting with 2017; County Target PQI, 2040 Comprehensive Plan, Transportation Chapter

### Why does this matter?

Highway pavement is one of the largest county investments. Maintaining highway pavement in good condition is important both from a driver's standpoint and the County's desire to ensure this investment lasts for its life expectancy. The County monitors the condition of every segment of the paved County highway system. The County Board established a systemwide average PQI of 72 in 2006. This provides a curve that allowed for the right percentages of very good, good, fair and poor pavements.

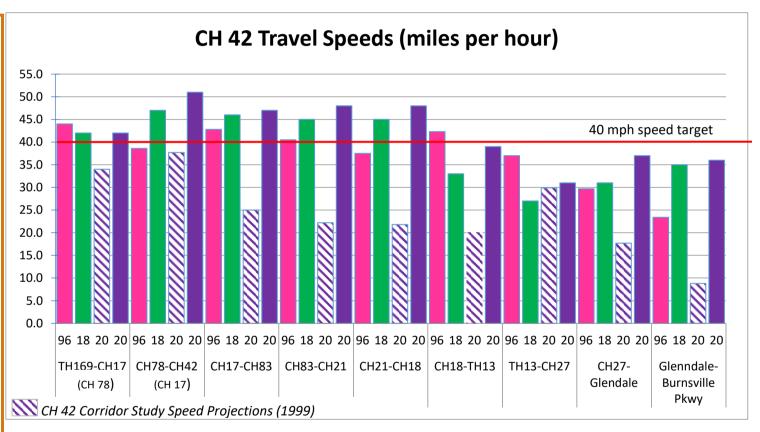
**KPI 46** 





### About this measure:

In 1996 travel speeds were measured during the peak periods. The study also predicted 2020 travel speeds with planned corridor improvements. Using the National Performance Management Research Data Set (NPMRDS) data, we are able to measure peak period travel speeds experienced by corridor users in 2015, 2018 and 2020. As a principal arterial maintaining a consistent high speed of travel is important for mobility. The 1999 study policy committee established a target speed of 40 mph.



Source: CH 42 Corridor Study 1999, Scott County traffic model database, NPMRDS Data (Updated April, 2020)

#### Why does this matter?

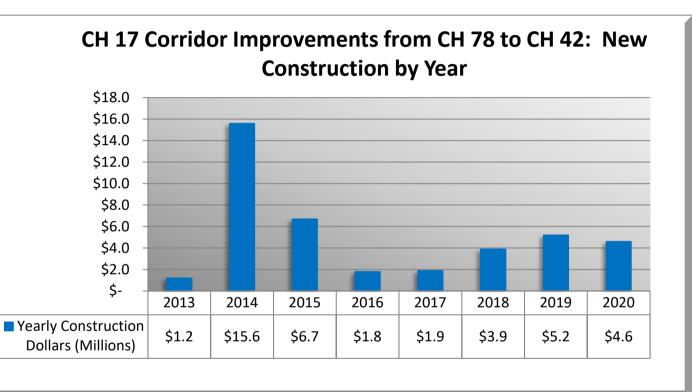
It's important for principal arterial corridors to maintain acceptable travel speeds during peak periods as they carry the most traffic for the longest distance. This can be achieved through a combination of efforts to manage operations, access, and signal placement/timing along the corridor. As traffic volumes increase, the overall reliability degrades unless the roadway is managed for optimal performance. Mobility is an important function for the economic viability of Scott County. Residents expect a reliable trip so they can budget time and spend less time in congestion.





#### **About this measure:**

This measure analyzed commercial and residential properties within a half mile area around the CH 17 corridor project. The purpose of this measure is to examine the effect transportation projects have on local economies. This measure analyzed new construction during and after the project. New construction is defined as anything that adds value to the property such as a new house or adding a deck to an existing home.



Source: Scott County Taxation

#### Why does this matter?

Transportation projects have various impacts on a community's economic development objectives such as property values, spurring new developments and investments resulting in increased property tax revenues. Transportation projects improve overall accessibility and increase economic productivity and the rate of development. Studying project areas pre and post construction provide a good indicator of the impacts of the project on the local economy.



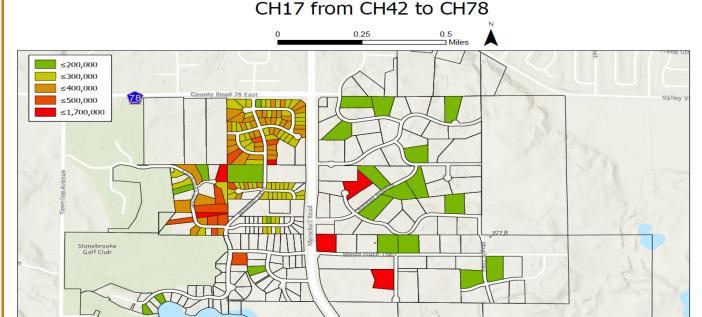


#### **About this measure:**

This measure analyzed commercial and residential properties within a half mile area around the 2014 CH 17 construction project. The purpose of this measure is to examine the effect transportation projects have on land development. This measure analyzed new construction during project development and after project construction.

Filtering the parcels by value allows the data to exclude home improvements and focus the data to new construction only, based on property values starting at \$200,000.

Source: Scott County Taxation



2013-2020 New Construction

#### Why does this matter?

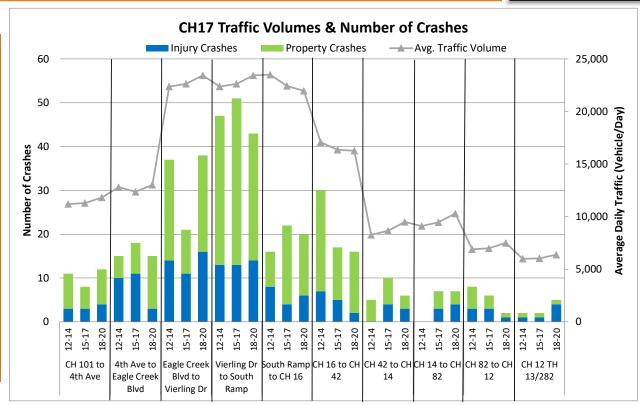
Transportation projects have various impacts on a community's economic development objectives such as property values, spurring new developments and investments resulting in increased property tax revenues. Transportation projects improve overall accessibility and increase economic productivity and the rate of development. Studying project areas pre and post construction provide a good indicator of the impacts of the project on the local economy.





#### **About this measure:**

This measure looks at the traffic volume and number of crashes (total and injury) on the CH 17 Corridor. Since the corridor study traffic volumes have declined due to the recession, however, in 2013 traffic volumes have started an increasing trend as the economic has improved. The number of crash corridor wide (total and injury) have shown decline since the construction of several major projects on the corridor.



Source: MnDOT Crash Database, Scott County Traffic Counts

#### Why does this matter?

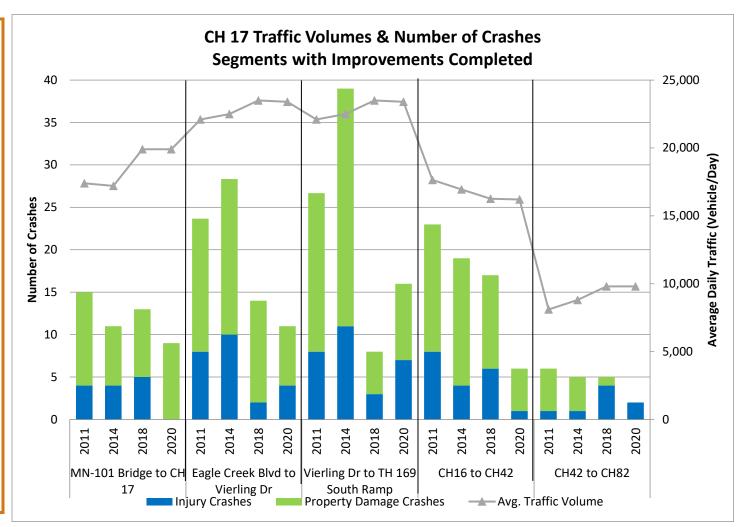
It's important to track the success of major improvement projects on the corridor in impacting safety. As the projects are completed the goal is to experience a downward trend with regards to the crashes, even as traffic continues to increase alone these corridors.





#### **About this measure:**

This measure looks at the traffic volume and number of crashes (total and injury) on the CH 17 Corridor, After the completion of the 2009 corridor study traffic volumes have declined due to the recession. In 2013 traffic volumes have began an increasing trend as the economy improved. The number of crash corridor wide (total and injury) have shown decline since the construction of several major projects on the corridor.



Source: 2009 Corridor Study, Scott County Traffic Counts, MnDOT Crash Data

### Why does this matter?

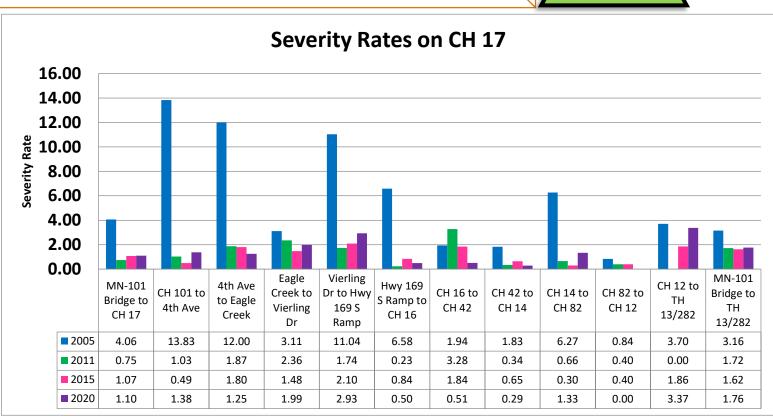
It's important to track the success of major improvements on the corridor in improving safety. As the projects are completed hopefully the overall corridor trend will be downward with regards to the crashes, even as traffic continues to increase along these corridors. The CH 17/CH 42 interchange was completed in 2011. Improvements at CH 17 and Vierling Drive were completed in 2014. Improvements on CH 17 from CH 16 to CH 78 were completed in 2014 and improvements on CH 17 from CH 78 to CH 42 were completed in 2015.





#### **About this measure:**

Crash severity rates show the rate of injury crashes on a road segment. The severity of the injury is also calculated into the rate. Data points from 2005, 2011, 2015 and 2020 are presented to show historic trends on segments of the corridor.



Source: 2008 Corridor Study, MnDOT Crash Database

#### Why does this matter?

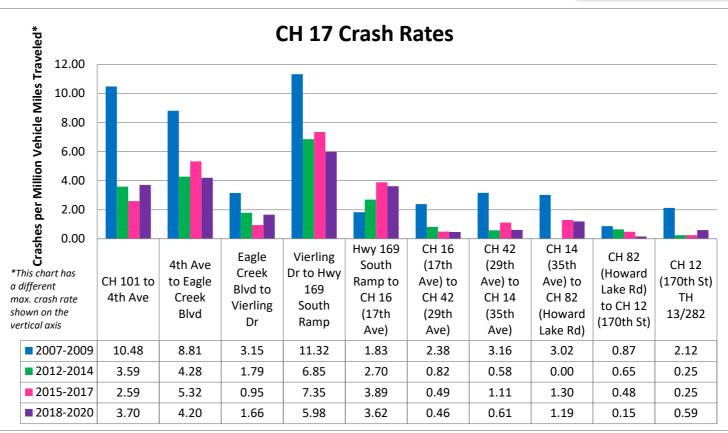
Crash severity rates by road segment provide information on the rate of injury crashes and the severity of the injury. This measure assists in identifying the safety conditions of a road segment. The conditions can change due to a number of factors including a roadway safety improvement, access closures or openings, and increased traffic. Officials and staff can track progress and emerging issues on the County's highway system related to the goal of safety.





#### **About this measure:**

Crash rates are calculated based on the vehicle miles traveled, roadway segment length, and total number of crashes. Aggregated data in three year increments are presented to show historic trends on segments of the corridor. The crash rate is a more useful statistic than total crashes because it accounts for traffic volumes on that roadway segment.



Source: MnDOT Crash Database

### Why does this matter?

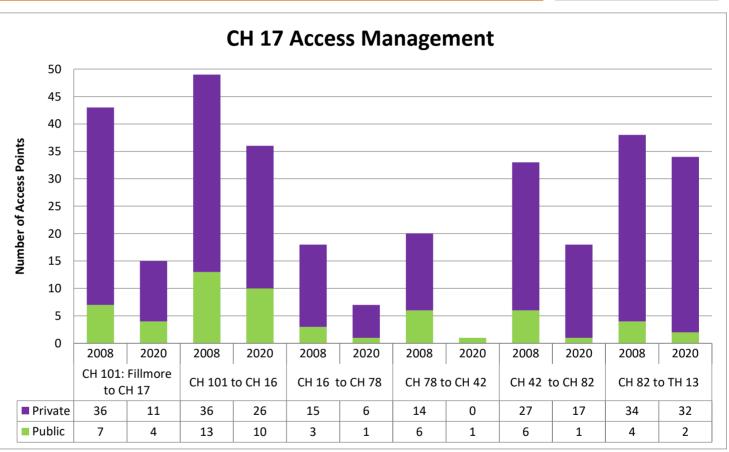
Crash rates by road segment for a specific corridor provide information on safety conditions over time. This measure assists in identifying the safety conditions of a roadway and assists with comparisons between segments for project prioritization. The conditions can change due to a number of factors including roadway safety improvements (i.e. turnlanes), access closures or openings, and increased traffic. The County can track progress and emerging issues on the highway system related to the goal of safety.





### **About this measure:**

The County has developed access spacing guidelines based on the future functional class of a roadway. CH 17 is planned to be a future principal arterial corridor. The guidelines for Principal Arterial strive for right-in/right-out public street access every quarter mile, with full access every 1/2 mile and no private access.



**Source:** 2009 County Road 17 Corridor Study, Aerial Photos, Construction Plans

### Why does this matter?

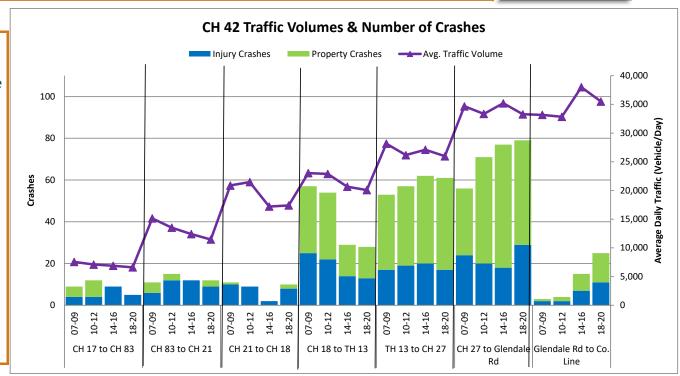
Access management on high speed, high volume corridors is important for safety and efficient operations of the corridor. Numerous state and national studies have shown a high correlation between the number of access points on a corridor with the number of crashes, particularly as volumes increase. Limited accesses improves operations along the corridor, facilitates room to add turnlanes, and helps with driver predictability. Less access points also improves the pedestrian and bike user experience on the corridor.





#### **About this measure:**

This measure looks at the traffic volume and number of crashes (property damage and injury) on the CH 42 Corridor.



Source: MnDOT Crash Database, Scott County Traffic Counts

#### Why does this matter?

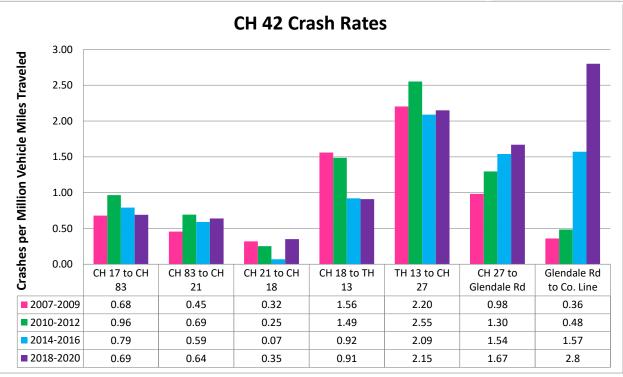
This measure assists in identifying the safety conditions of a road segment. The conditions can change due to a number of factors including a roadway safety improvement, access closures or openings, and increased traffic. Officials and staff can track progress and emerging issues on the County's highway system related to the goal of safety.





#### **About this measure:**

Crash rates are calculated based on the vehicle miles traveled, roadway segment length, and total number of crashes. Aggregated data in three year increments are presented to show historic trends on segments of the corridor. The crash rate is a more useful statistic than total crashes because it accounts for traffic volumes on that roadway segment.



Source: MnDOT Crash Database

#### Why does this matter?

Crash rates by road segment for a specific corridor provide information on safety conditions over time. This measure assists in identifying the safety conditions of a roadway and assists with comparisons between segments for project prioritization. The conditions can change due to a number of factors including roadway safety improvements (i.e. turnlanes), access closures or openings, and increased traffic. The County can track progress and emerging issues on the highway system related to the goal of safety.

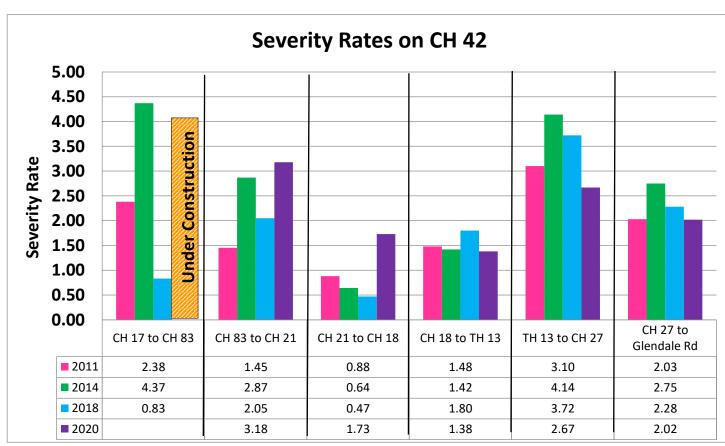




#### **About this measure:**

The crash severity rate is a weighted value of type of injury crashes and property damages crashes per million vehicle miles travelled.

Data points from 2011, 2018, and 2020 are presented to show historic trends on segments of the corridor.



Source: MnDOT Crash Database

### Why does this matter?

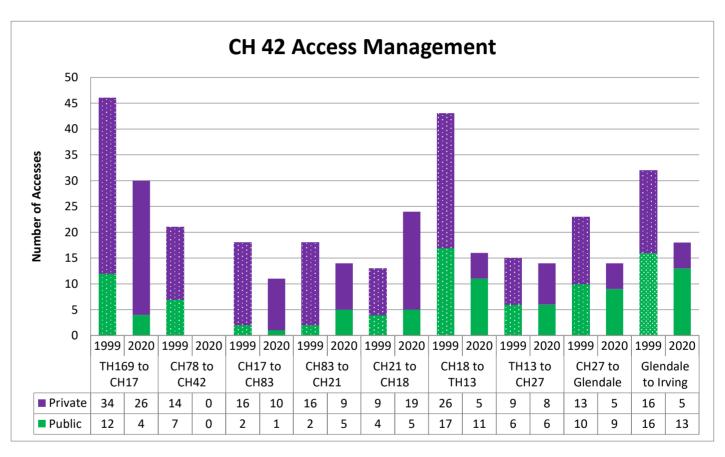
Crash severity rates by road segment provide information on the rate of injury crashes and the severity of the injury. This measure assists in identifying the safety conditions of a road segment. The conditions can change due to a number of factors including a roadway safety improvement, access closures or openings, and increased traffic. Officials and staff can track progress and emerging issues on the County's highway system related to the goal of safety.





### **About this measure:**

The County has developed access spacing guidelines based on the future functional class of a roadway. CH 42 is a principal arterial corridor. The guidelines for Principal Arterial include full access at 1-mile spacing and limited access at 1/2 mile spacing.



Source: 1999 CSAH 42 Corridor Study, 2020 field review

### Why does this matter?

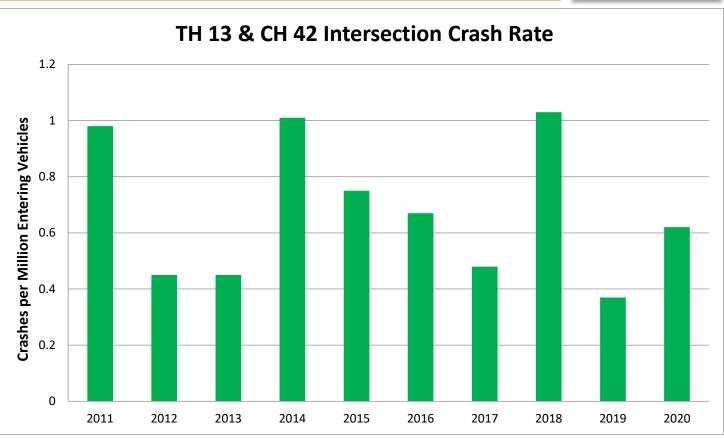
Access management on high speed high volume corridors is important for safety and efficient operations of the corridor. Numerous state and national studies have shown that there is a high correlation between the number of access points on a corridor with the number of crashes, particularly as volumes increase. Also limited accesses improve operations along the corridor, facilitate room to add turn lanes and help with driver predictability. Less access point also improve the pedestrian and bike user experience on the corridor.





#### **About this measure:**

Crash rates are calculated based on the number of vehicles entering the intersection and total number of crashes. Annual crash rates are presented to show historic trends at the intersection. The crash rate is a more useful statistic than total crashes because it accounts for the entering traffic volume at the intersection.



Source: MnDOT Crash Database

### Why does this matter?

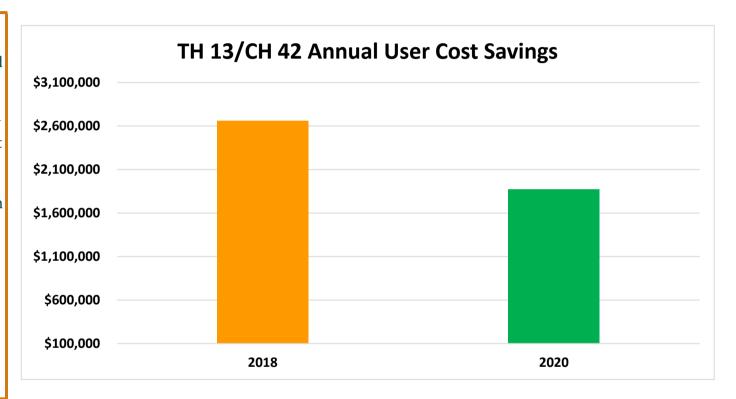
Crash rates for intersections provide information on safety conditions over time. This measure assists in identifying the safety conditions of an intersection and assists in tracking the impact of intersection improvements. The conditions can change due to a number of factors including roadway safety improvements (i.e. turn lanes) and increased traffic. The County can track progress and emerging issues on the highway system related to the goal of safety.





#### **About this measure:**

Travel delay costs are calculated by multiplying the estimated delays to personal travel and truck travel caused by the delay from congestion by the unit cost (\$/hr) of travel time. Total savings delay was found to be 35% lower after construction on CH 42 corridor during AM and PM peaks. The delay reduction from the project resulted in \$782,288 savings in annual **user costs**. Data compared between February 2018 (preconstruction) and February 2020 (post construction).



Source: Clear Guide Traffic Data/MnDOT and USDOT Benefit Cost Methodology Guidance

#### Why does this matter?

Mobility along roadways ensure the efficient and safe movement of goods and people on the roadway network with in Scott County. Mobility is tracked by indicators such as travel time or elimination of segments or points that cause timely delay. Mobility is often used as an economic development indicator; the greater the growth of a community impacts its access to transportation options which in turns impacts mobility. In Scott County, we continue to strive to improve mobility for our residents and businesses by strategic projects addressing capacity issues.

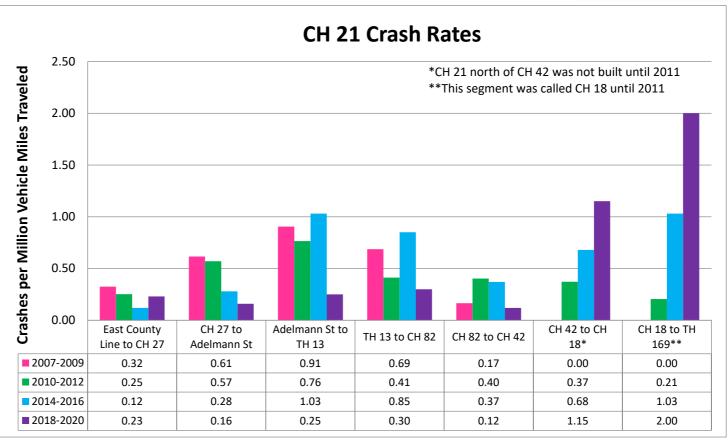
Tracking these indicators allow us to monitor the success of these investments.





#### **About this measure:**

Crash rates are calculated based on the vehicle miles traveled, roadway segment length, and total number of crashes. Aggregated data in three year increments are presented to show historic trends on segments of the corridor. The crash rate is a more useful statistic than total crashes because it accounts for traffic volumes on that roadway segment.



Source: MnDOT Crash Database

### Why does this matter?

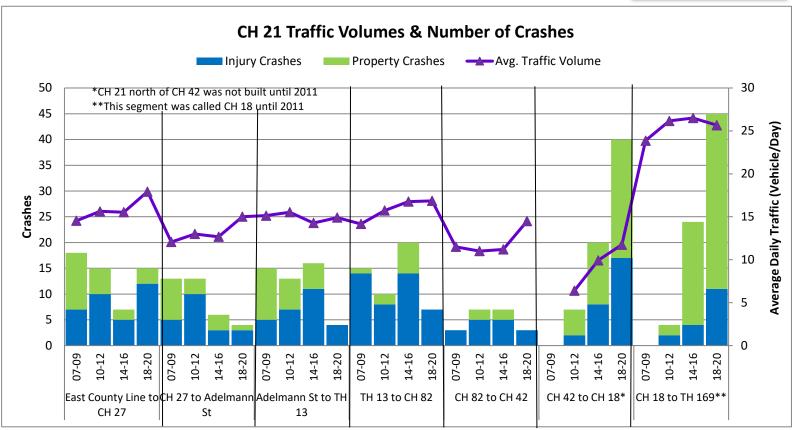
Crash rates by road segment for a specific corridor provide information on safety conditions over time. This measure assists in identifying the safety conditions of a roadway and assists with comparisons between segments for project prioritization. The conditions can change due to a number of factors including roadway safety improvements (i.e. turn lanes), access closures or openings, and increased traffic. The County can track progress and emerging issues on the highway system related to the goal of safety.





#### **About this measure:**

This measure looks at the traffic volume and number of crashes (property damage and injury) on the CH 21 Corridor.



Source: MnDOT Crash Database, Scott County Traffic Counts

### Why does this matter?

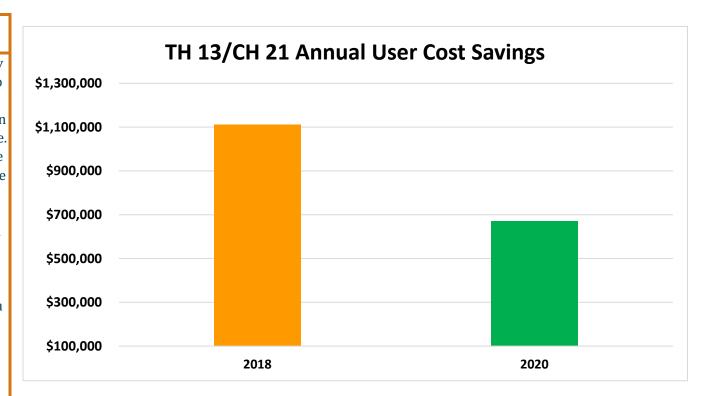
This measure assists in identifying the safety conditions of a road segment. The conditions can change due to a number of factors including a roadway safety improvement, access closures or openings, and increased traffic. Officials and staff can track progress and emerging issues on the County's highway system related to the goal of safety.





#### **About this measure:**

Travel delay costs are calculated by multiplying the estimated delays to personal travel and truck travel caused by the delay from congestion by the unit cost (\$/hr) of travel time. Total savings delay was found to be 20% lower after construction on the CH 21 corridor during AM and PM peaks resulting in \$442,472 savings in annual users costs. An average decrease of 55% delay in minutes across CR 21 and 33% delay reduction on TH 13 during peak hours after construction. Data compared between October 2018 (pre-construction) and October 2020 (post construction).



Source: Clear Guide Traffic Data/ MnDOT and USDOT Benefit Cost Methodology Guidance

#### Why does this matter?

Mobility along roadways ensure the efficient and safe movement of goods and people on the roadway network with in Scott County. Mobility is tracked by indicators such as travel time or elimination of segments or points that cause timely delay. Mobility is often used as an economic development indicator; the greater the growth of a community impacts its access to transportation options which in turns impacts mobility. In Scott County, we continue to strive to improve mobility for our residents and businesses by strategic projects addressing capacity issues.

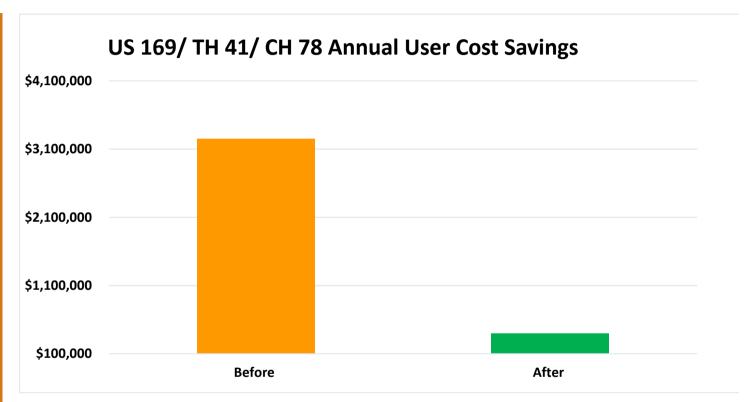
Tracking these indicators allow us to monitor the success of these investments.





#### **About this measure:**

Travel delay costs are calculated by multiplying the estimated delays to personal travel and truck travel caused by the delay from congestion by the unit cost (\$/hr) of travel time. The delay reduction from the project resulted in \$2,850,000 savings in annual user costs.



Source: Clear Guide Traffic Data/MnDOT and USDOT Benefit Cost Methodology Guidance

### Why does this matter?

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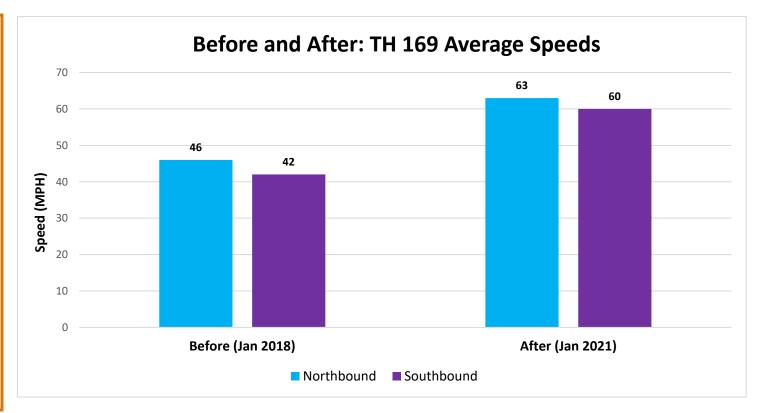




#### **About this measure:**

This measure reviews speeds in the before condition to understand typical congested conditions on northbound and southbound 169 resulting from the traffic signal.

No congestion was observed after construction was completed, so speeds are assumed to be at or near free-flow at the newly posted speed limit of 65 mph.



Source: Iteris Clear Guide Data Set

#### Why does this matter?

Mobility along roadways ensure the efficient and safe movement of goods and people on the roadway network with in Scott County.

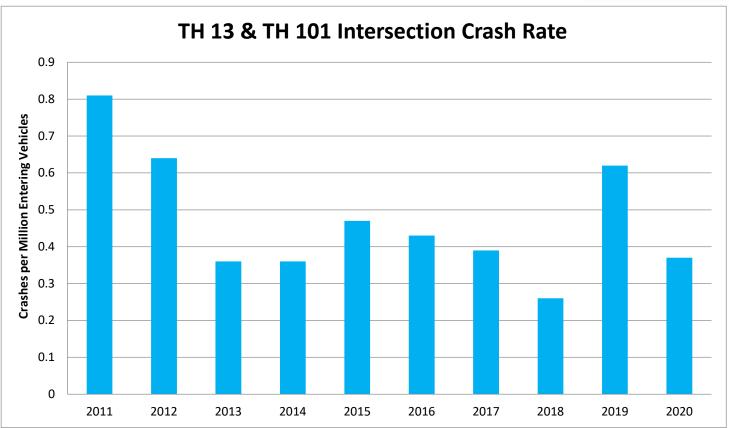
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### About this measure:

Crash rates are calculated based on the number of vehicles entering the intersection and total number of crashes. Annual crash rates are presented to show historic trends at the intersection. The crash rate is a more useful statistic than total crashes because it accounts for the entering traffic volume at the intersection.



Source: MnDOT Crash Database

### Why does this matter?

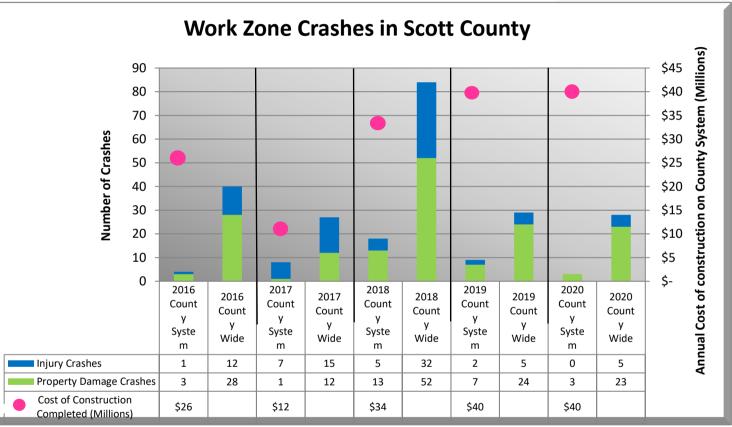
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#### **About this measure:**

This measure reflects the number of crashes in work zones on Scott County highways between 2016 and 2020. The locations of crashes are highlighted on a map to show the projects where the crashes occurred. Generally there are more crashes in areas where the traffic volume is higher.



Source: MnDOT Crash Data and Scott County Financial Records

### Why does this matter?

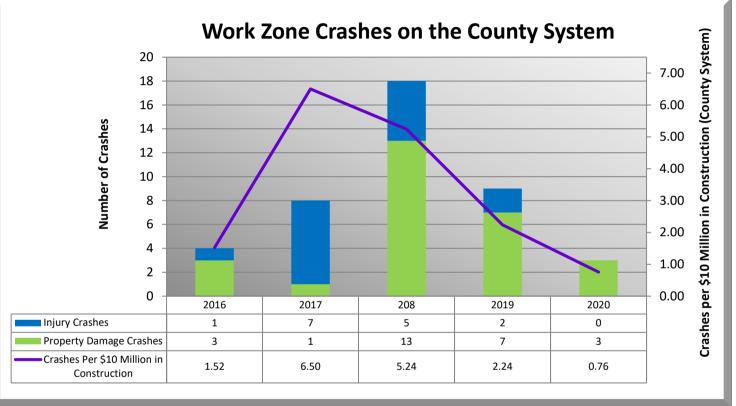
Accident rates and accident locations can provide an indication of work zone safety in Scott County. This data can be used to make adjustments to County work zone practices and improve the safety for both motorists and workers in work zones.





#### **About this measure:**

This measure reflects the number of crashes in work zones on Scott County highways between 2016 and 2020. The locations of crashes are highlighted on a map to show the projects where the crashes occurred. Generally there are more crashes in areas where the traffic volume is higher.



Source: MnDOT Crash Data

#### Why does this matter?

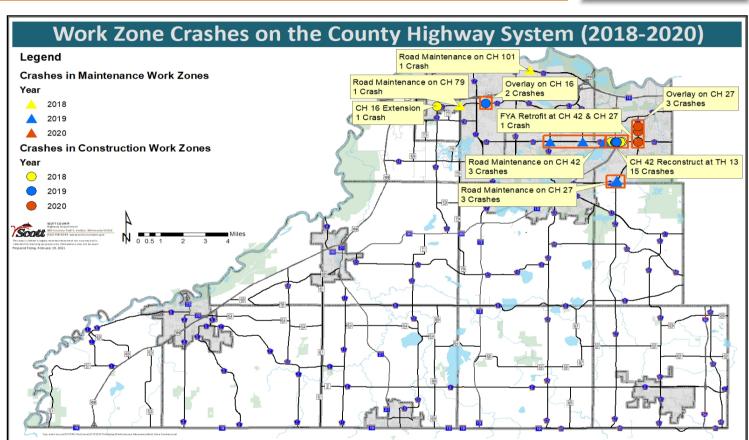
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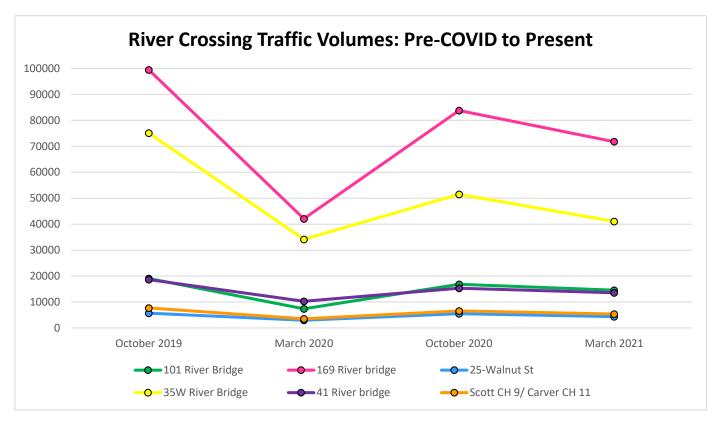




#### **About this measure:**

This measure completed a traffic volume analysis of the Minnesota River Crossings serving Scott County residents.

Data was analyzed over 4 time periods: 1.) Pre-COVID (October 2019) 2.) During the Stay At Home Order (last 2 weeks in March 2020) 3.) Fall (October 2020) and Current/ 1-year Mark (March 2021). This measure estimates traffic counts based on sampling rates and percentage from the pre-COVID baseline.



Source: Streetlight Volume Data

#### Why does this matter?

River crossings are a critical asset in Scott County and are essential to the safe and effective movement of people and goods. In the pre-COVID era river crossings in northern Scott County (I-35, TH 169, TH 101 and TH 41) often experienced high traffic volumes and levels of congestion. As COVID-19 cases increased in Minnesota and a Stay at Home order was issued travel declined. As we continue to recover from the pandemic and travel/work patterns continue to adapt, monitoring these trends will be essential to determine future investment and planning for Scott County's river crossings.

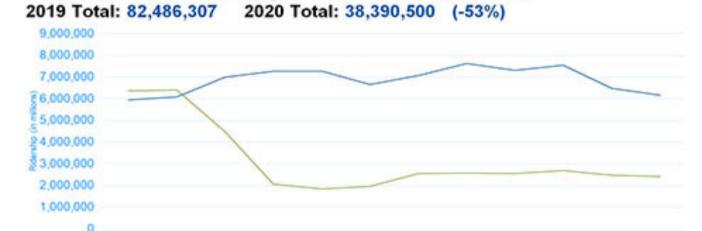




#### **About this measure:**

The region, like the rest of the world, is facing unprecedented times which is changing the face of our transportation system. COVID-19 has significantly impacted transit ridership and service delivery. Ridership has fallen by as much as 60% on local bus routes and 95% on express routes regionally. This measure includes both Metro Transit and suburban providers.

### Council Ridership – Year End 2020



Source: Metropolitan Council

### Why does this matter?

When the pandemic subsides, transit will need to continue to adapt to different service patterns because the fundamental needs of riders will change as many workers and employers may choose to continue their work from home schedules.



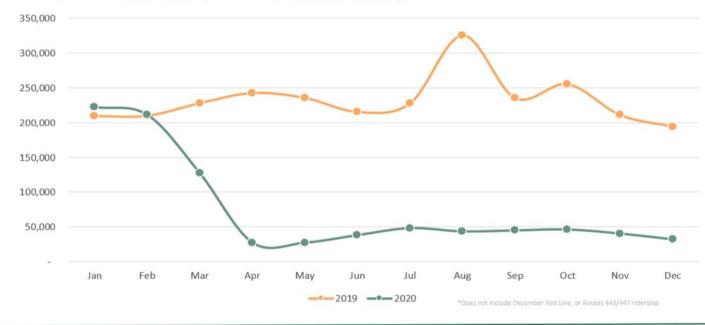


#### **About this measure:**

MVTA reduced or eliminated express service from Savage, Shakopee, and Prior Lake during the pandemic and is reflected in this measure. Monitoring ridership is useful to monitor current travel and work trends which have shifted due to the COVID-19 pandemic.

#### **MVTA RIDERSHIP**

YTD | 2019: 2,786,488 | 2020: 907,683 (-67.4%)



Source: Minnesota Valley Transit Authority

### Why does this matter?

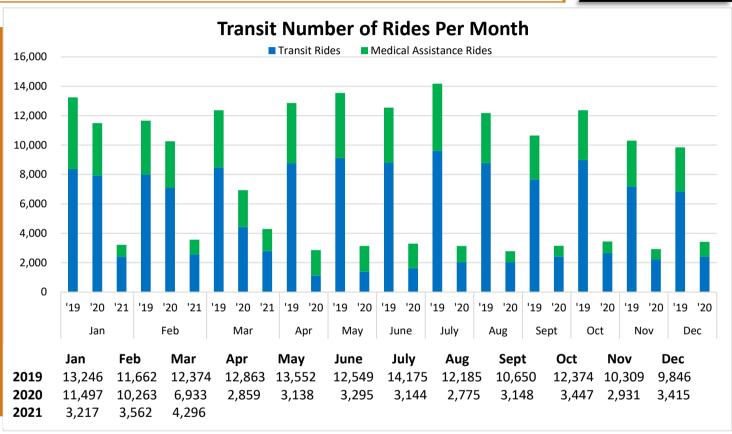
With the rise in teleworking during the pandemic and the unknown long-term effects on work habits, analyzing the park and rides and express service will be critical to understand new travel trends and better adapt service post-COVID-19. Although this data represents just a snapshot in time, both local and regional transit will need to be continually evaluated after the outbreak subsides to determine if travel patterns return to normal operating levels.





#### **About this measure:**

This measure shows total trips performed by TransitLink (Dial-a-ride) service and Medical Assistance Rides in 2019-2021. This measure illustrates the change in ridership over the course of the COVID-19 pandemic.



Source: SmartLink

#### Why does this matter?

Mobility Management is transportation strategies and mobility options that empower people to live independently and advance health, economic vitality, self sufficiency, and community. In addition, as a result of combining services together, it enhances the passengers per hour and allows SmartLink to provide more service to the citizens with the same amount of resources. The goal is that reliable roads, trails, sidewalks and transit options are available to all citizens.