

Highway 61 – Corridor Study Update

MnDOT Metro District & City of Hastings



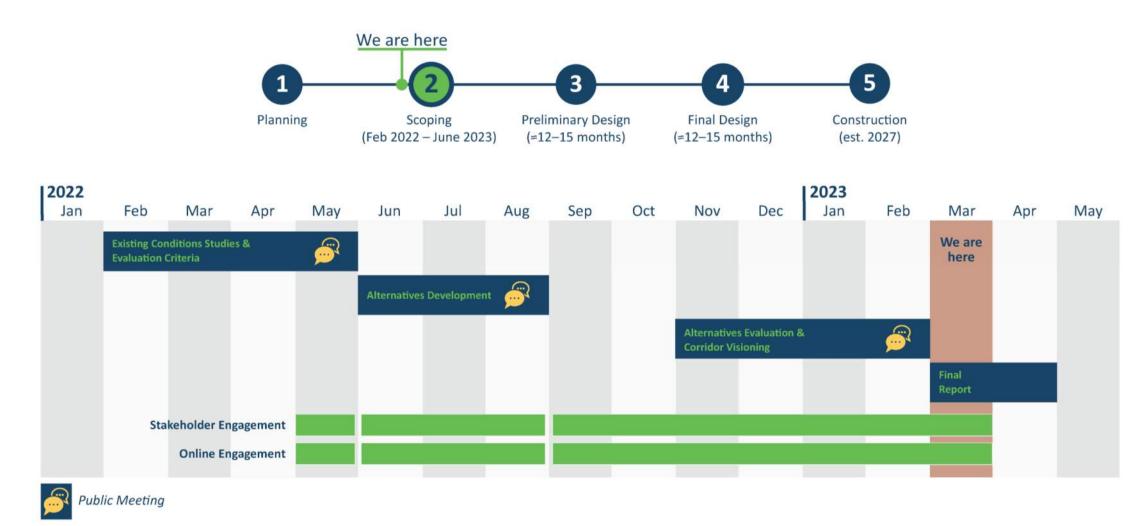


Project Overview

- Highway 61 Study Goal
 - Comprehensive Evaluation to Determine Vision and Alternatives



Project schedule

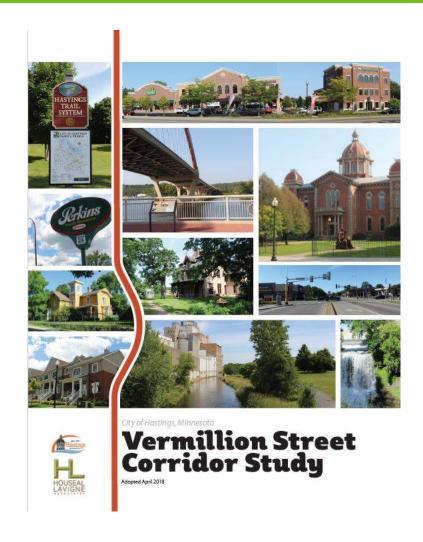


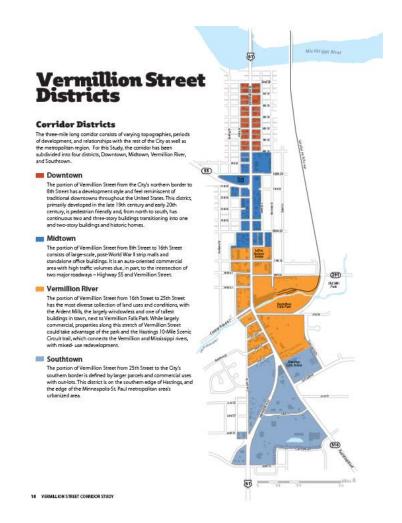


Path/sidewalk
needed on Tuttle
Dr. between
Shannon Dr. and
316.



Vermillion Corridor Study 2018



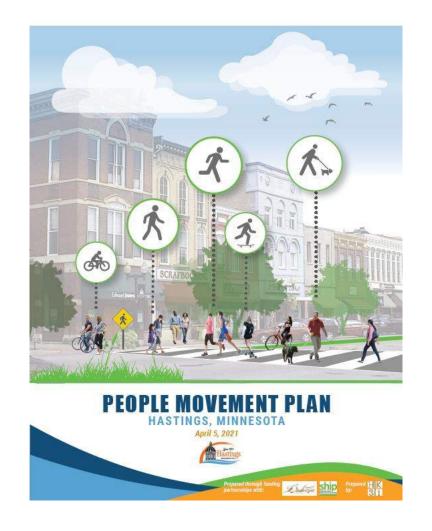


Vermillion Corridor Study 2018

- Implementation Plan for Roadway Improvements
 - Landmark, landscaping
 - Signal at 17th or 18th
 - Roundabout at TH 316 ("Red Wing Blvd")

37	Discourage right-turn lanes into private property.	Long	3	DIA
	Roadway, Intersections, & Signalization			
40	Pursue the study's "public improvements" recommendations to achieve the vision for Vermillion Street.	Long	s	Busi of Ci
41	Monitor and coordinate with roadway construction schedules to incorporate recommended improvements (Jane striping, pedestrian refuges, high-visibility crosswalks, automated signals, etc.).	Long	s	Mni
42	Design and use street-wide and district specific (Downtown, Midtown, Vermillion River, Southtown) branding in the form of banners or medallions.	Medium - On-Going	ss	
43	Develop a roundabout to replace the intersection of Vermillion Street and Red Wing Boulevard.	Long	s	MnC
44	Develop a welcoming landmark and landscaping at the intersection of Vermillion Street and Red Wing Boulevard (in conjunction with the construction of a roundabout). This would be one of two prominent landmarks along Vermillion Street welcoming people to the city.	Long	sss	MnC
45	Address the intersection of Cannon and Vermillion streets. Consider blocking access between the two, blocking access to the south leg of Cannon Street, or replacing the intersection with a roundabout.	Medium to Long	ss	Mni
46	Consider signalization of the intersection at 17th or 18th Street.	Medium	s	Mnt

People Movement Plan 2021





People movement requires a complete network

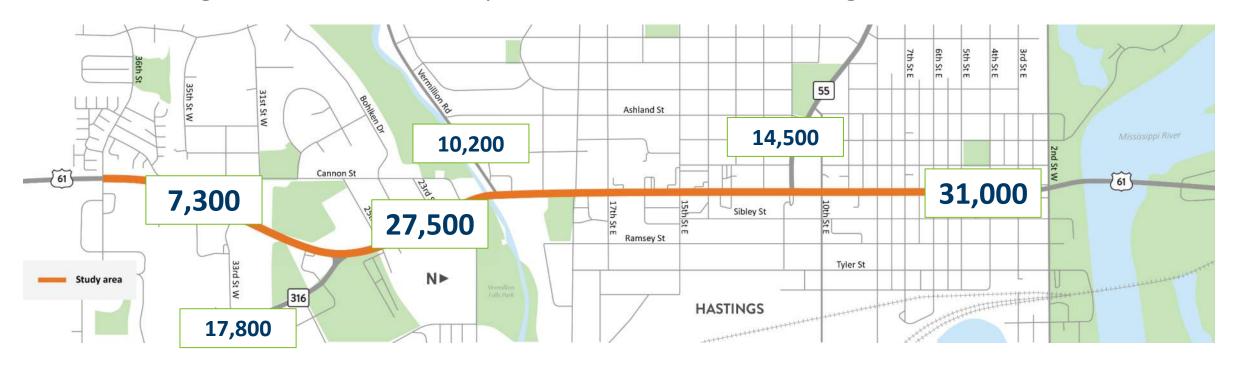
- Complete Streets vs. Complete Network
 - Hwy 61 is an east-west barrier and is constrained in what can fit moving northsouth
 - Locate crossings where they will be used
 - Consider parallel routes and key community "nodes"
 - For example, do Ramsey or Eddy Streets offer a valuable north-south route between downtown and the river bridge?



Traffic Volume

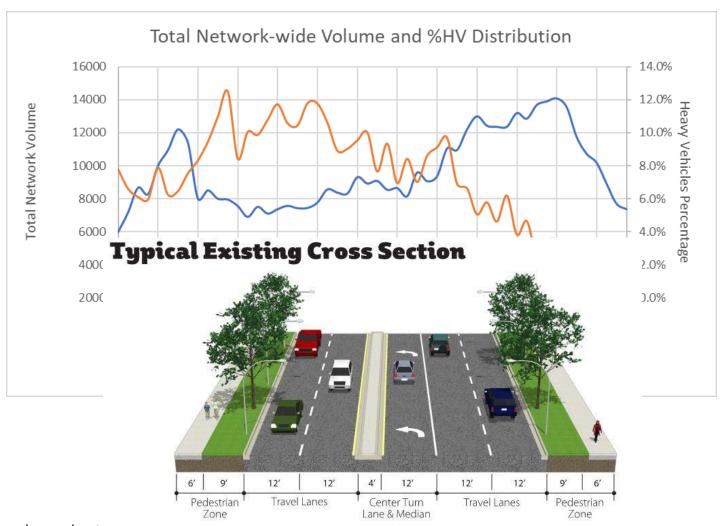
Average Annual Daily Traffic (AADT)

• 40% "regional" traffic, with emphasis to southeast of Hastings

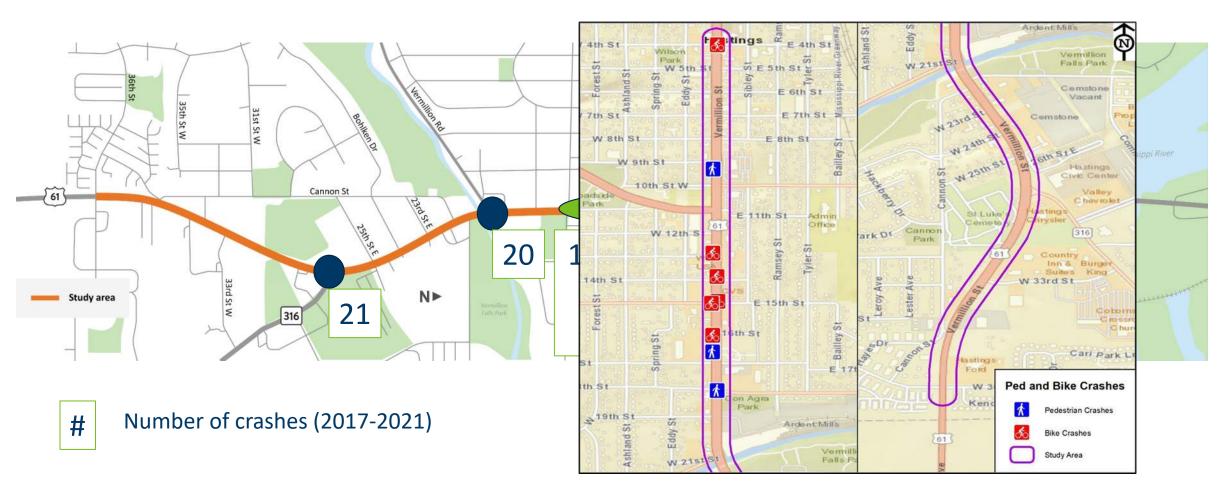


Heavy Vehicles

- Heavy trucks average 8% of vehicles 6 a.m. to 7 p.m.
 - Activity is especially apparent in the 17th to 21st Street segment
 - Truck activity peaks at 2:00 p.m.
- Presence of large/heavy trucks was a factor in developing alternative concepts



Safety – Crash Data



Traffic Operations – Today and 2040

Degradation of traffic operations is expected to become very apparent by 2040, most notably in the <u>afternoon</u> <u>peak southbound</u> direction

	Northbound 36 th St to 4 th St	Southbound 4 th St to 36 th St
Today	4.28 minutes	4.76 minutes
2040 no build	5.17 minutes	21.84 minutes

Existing Operations

		2022 Existing Conditions									
Intersection (with TH 61)) Traffic	AM Peak				PM Peak					
	Control	NB	SB	EB	WB	Int	NB	SB	EB	WB	Int
TH 61 & 4th Street	Signal	Α	В	D	С	A	В	С	D	E	С
TH 61 & 5th Street	TWSC	Α	Α	Α	В	В	Α	Α	В	В	В
TH 61 & 6th Street	TWSC	Α	Α	Α	А	Α	Α	Α	Α	Α	Α
TH 61 & 7th Street	TWSC	Α	Α	В	Α	В	Α	Α	С	В	С
TH 61 & 8th Street	TWSC	Α	Α	Α	С	С	Α	Α	В	В	В
TH 61 & 9th Street	TWSC	Α	Α	Α	9	Α	Α	Α	Α	-	В
TH 61 & 10th Street	Signal	A	В	С	С	В	A	В	D	С	В
TH 61 & TH 55	Signal	В	С	С	D	С	В	С	C	D	С
TH 61 & 12th Street	TWSC	В	Α	Α	102	В	Α	Α	В	9	В
TH 61 & 14th Street	TWSC	Α	Α	С	Α	С	Α	Α	В	Α	В
TH 61 & 15th Street	Signal	В	A	С	С	В	В	Α	С	D	В
TH 61 & 16th Street	TWSC	Α	Α		Α	Α	Α	Α	- 2	В	В
TH 61 & 17th Street	TWSC	Α	Α	Α	Α	Α	Α	Α	В	Α	В
TH 61 & 18th Street	TWSC	Α	Α	Α	Α	Α	Α	Α	Α	А	Α
TH 61 & 19th Street	TWSC	Α	Α	Α		Α	Α	Α	Α	-	A
TH 61 & CSAH 47	Signal	В	В	D		В	В	В	С		В
TH 61 & 21st Street	TWSC	Α	Α		Α	Α	Α	Α	*	Α	A
TH 61 & 22nd Street	TWSC	Α	Α	В	-	В	Α	Α	С	-	С
TH 61 & 23rd Street	TWSC	Α	Α	Α	*	Α	Α	Α	С	8	С
TH 61 & 24th Street	TWSC	Α	Α	Α	32	Α	Α	Α	В	-	В
TH 61 & 25th Street	TWSC	Α	Α	Α	Α	A	Α	Α	Α	Α	Α
TH 61 & 26th Street	TWSC	Α	Α	(4)	Α	Α	Α	Α	*	Α	Α
TH 61 & TH 316	TWSC	Α	В	20	Α	В	Α	В	-	Α	В
TH 61 & 33rd Street	TWSC	Α	Α		В	В	Α	Α	*	С	С
TH 61 & Cannon Street	TWSC	Α	Α	С	\$	С	Α	Α	С	+	С
TH 61 & 36th Street	TWSC	Α	Α	D	Α	D	Α	Α	Ε	В	E

Future No Build Operations (2040)

		2040 No Build Conditions									
Intersection (with TH 61)	Traffic Control	AM Peak					PM Peak				
		NB	SB	EB	WB	Int	NB	SB	EB	WB	Int
TH 61 & 4th Street	Signal	A	D	D	D	С	Α	F	F	F	F
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TH 61 & 6th Street	TWSC	Α	С	С	В	С	Α	Е	Ε	В	Е
TH 61 & 7th Street	TWSC	Α	С	С	В	С	Α	E	E	E	E
TH 61 & 8th Street	TWSC	Α	D	C	В	D	Α	E	D	E	E
TH 61 & 9th Street	TWSC	Α	E	Α	8.	E	Α			- 2	F
TH 61 & 10th Street	Signal	В	D	С	С	С	В	D	D		D
TH 61 & TH 55	Signal	С	D	С	D	С	С	D		E	E
TH 61 & 12th Street	TWSC		Α	С	+:	F	В	Ε	Ε	-	E
TH 61 & 14th Street	TWSC	С	Α	D	С	D	Α	F	D	D	F
TH 61 & 15th Street	Signal	С	В		D	С	С	D	С	D	D
TH 61 & 16th Street	TWSC	В	Α	3	Α	В	Α	E			
TH 61 & 17th Street	TWSC	Α	Α	В	С	С	Α			D	F
TH 61 & 18th Street	TWSC	Α	Α	В	С	С	Α			С	F
TH 61 & 19th Street	TWSC	Α	Α	В	8	В	Α			*	F
TH 61 & CSAH 47	Signal	В	В		-	D	В			-	F
TH 61 & 21st Street	TWSC	Α	Α		Α	Α	Α	D		E	E
TH 61 & 22nd Street	TWSC	Α	Α	С	*:	C	Α	В	D	25	D
TH 61 & 23rd Street	TWSC	Α	Α	В	2	В	Α	F	С	, Ç	F
TH 61 & 24th Street	TWSC	Α	Α	В	- 8	В	Α		С		F
TH 61 & 25th Street	TWSC	Α	Α	Α	В	В	Α		Α	С	E
TH 61 & 26th Street	TWSC	Α	Α	4	Α	Α	Α	D	-	Α	D
TH 61 & TH 316	TWSC	Α	С		Α	С	Α	С		Α	С
TH 61 & 33rd Street	TWSC	Α	Α		С	С	Α	Α	(0)	D	D
TH 61 & Cannon Street	TWSC	Α	Α	D	- 2	D	Α	Α	D	-	D
TH 61 & 36th Street	TWSC	Α	Α	Е	Α	E	Α	Α	F	С	F

Phase 1 Engagement

- Door-knocking businesses
- Public meeting May 18, 2022
- Pop-up at Rivertown Days
- Online comment map and survey



Phase 1 Themes

- Safe pedestrian/bicycle crossings
- Reduce speed; speed enforcement; traffic calming
- Reduce access (driveways)
- Traffic operations; signal timing/backups; turn lanes; reduce lefts
- Sidewalk/trail on the southern end
- Traffic operations at 46/47 and mill
- Improve aesthetics; cultural identity pieces; public art

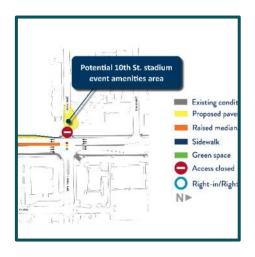


Phase 2: Concepts



Downtown District

- Right-in right-out
- Parking areas
- Pedestrian environment



Midtown District

- Center median
- 10th St. modifications
- One-way pairs



Vermillion District

- Center median
- Roundabouts/Signals
- Backage road



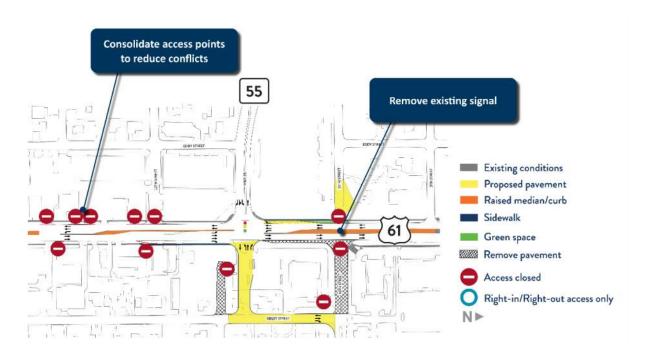
Southtown District (TH 316 intersection)

- Roundabout
- Direct connect route
- Continuous green "T"

Phase 2 Engagement

- Door-knocking businesses
- Business association meetings
- Public meeting August 24, 2022
- Online survey





Phase 2 Themes

- Support for safety improvements for all users
- Business access is important
- Consider historic aesthetic and community activities/events
- Support for full-size roundabouts

Evaluation Criteria

Theme	Safety	Community Identity and Economic Development	Traffic Operations	Feasibility Factors
Criteria	Ped/BikeIntersectionCorridorAccess Density	 Business/Neighborhood Aesthetics Stormwater Historic Resources Plans Equity 	Highway 61Local NetworkTruck/Freight	CostRight-of-wayMaintenanceConstructability
Downtown				
Midtown				
Vermillion				
Southtown				

Downtown

The portion of Vermillion Street from the City's northern border to 8th Street has a development style and feel reminiscent of traditional downtowns throughout the United States. This district, primarily developed in the late 19th century and early 20th century, is pedestrian friendly and, from north to south, has continuous two and three-story buildings transitioning into one and two-story buildings and historic homes.

Midtown

Phase Sensor - Funding The portion of Ver consists of large-s standalone office s - Highway 55 and Ver Aio Ternative area with high tra two major roadwa

55

10th St

11th St

291

Old Mill

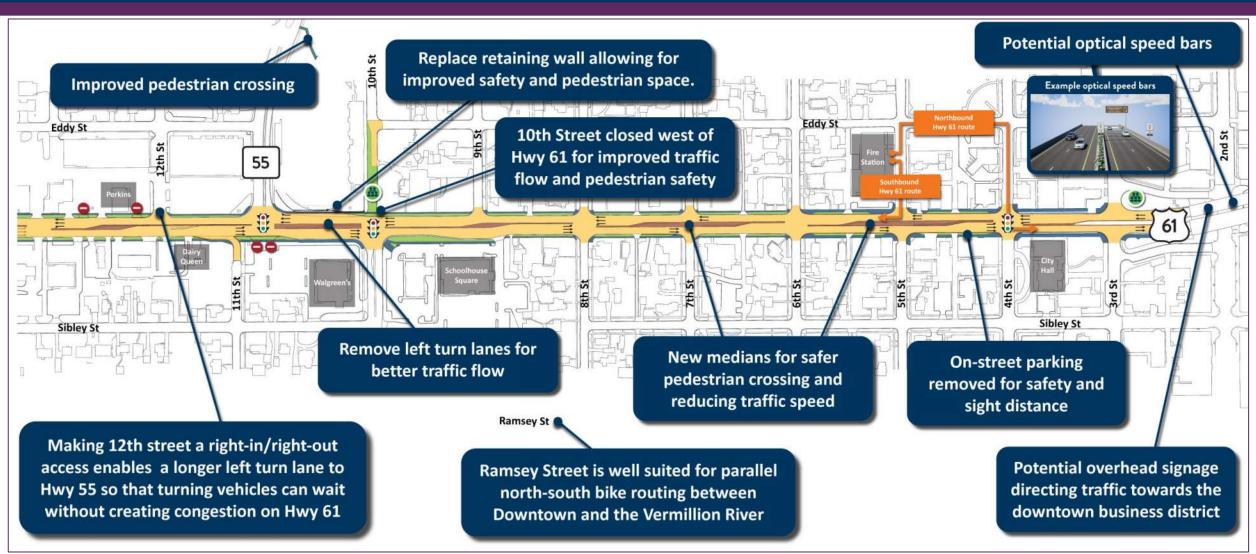
Vermillion River

The portion of Vermillion Street from 16th Street to 25th Street has the most diverse collection of land uses and conditions, with the Ardent Mills, t buildings in town, next to Vermillion Falls Park. While largely commercial, properties along this stretch of Vermillion Street could take advantage of the park and the Hastings 10-Mile Scenic Circuit trail, which connects the Vermillion and Mississippi rivers, with mixed-use redevelopment.

Southtown



Downtown



Coming off the bridge



Downtown aesthetics and wayfinding



Downtown Aesthetics – "Herringbone" and wayfinding themes



Opportunities for "banner" type displays



Downtown visibility and safety

- Fire station access to Hwy 61 could benefit from new warning signs
- Current travel patterns align with our recommendations





- All Hwy 61 on-street parking is recommended to be removed
- Ongoing work with the city is needed to create off-street parking options for the business community



Downtown – Pedestrian Crossings



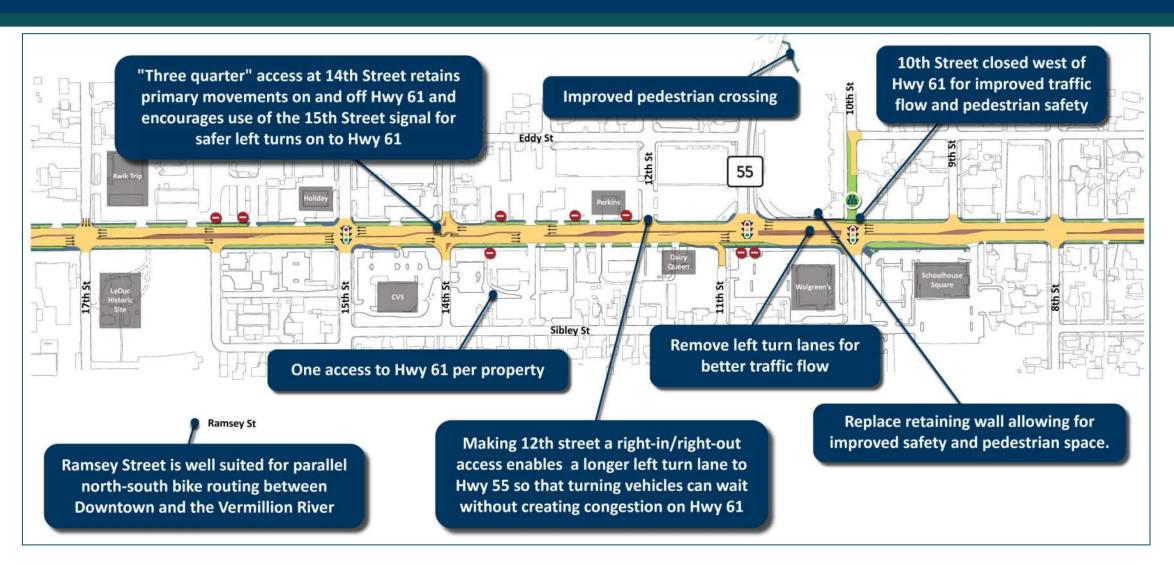
Downtown – Pedestrian Safety at 7th and 5th Streets







Midtown

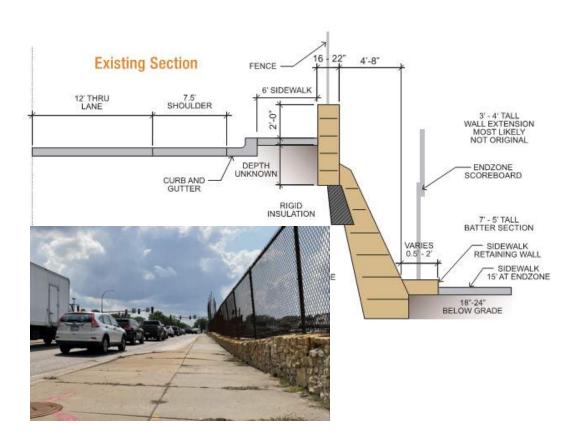


Midtown – key location Hwy 55 and 10th street





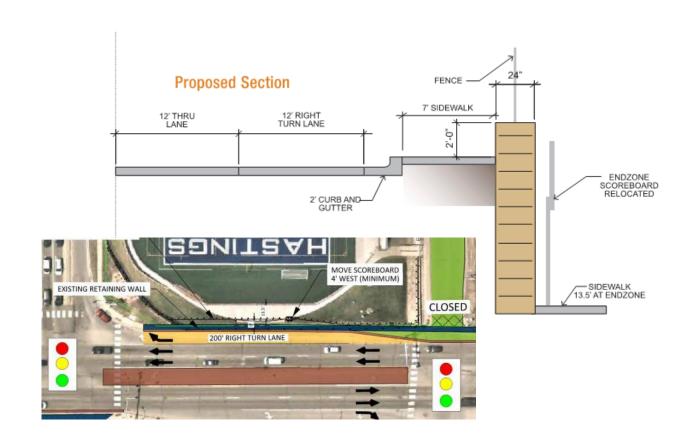
Todd Field Wall



- Coordination with School District:
 - Safety
 - Functional space
 - Recognize history of the area
- Wall evaluation
 - Substantial concerns with integrity of the structure

Todd Field Wall

- Proposed Improvements:
 - Wall repairs
 - Improved right turn lane
 - Safer pedestrian setting
 - Opportunity for community space
- Met with Heritage Preservation Commission in December



Midtown – traffic signals

- Multiple alternatives considered in this challenging location
- Continued analysis for signal timing and lane geometry optimization likely in future design stages
- SEE VIDEO



Midtown

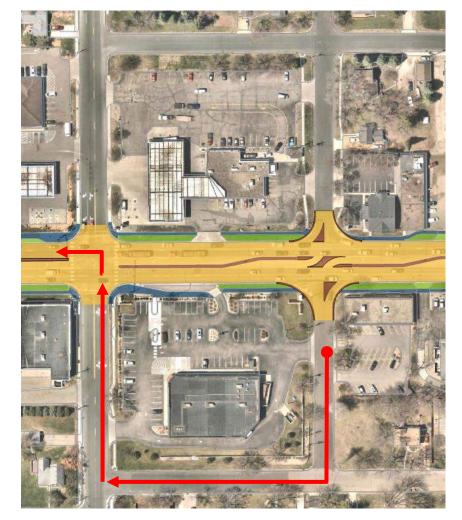
 Pedestrian Safety – high risk section of corridor warrants mid-block traffic improvement (south of 12th) Benefit of access management: longer left turn lane to Hwy 55





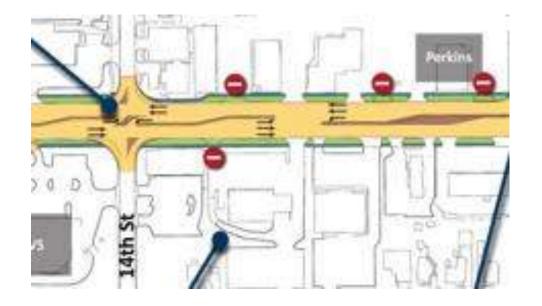
Highway 61 Access Management

- 14th Street "three quarter" example:
 - Allows left turn to 14th Street from Hwy 61
 - Prevents left turn on to Hwy 61
 - 15th Street option for full access to Hwy 61



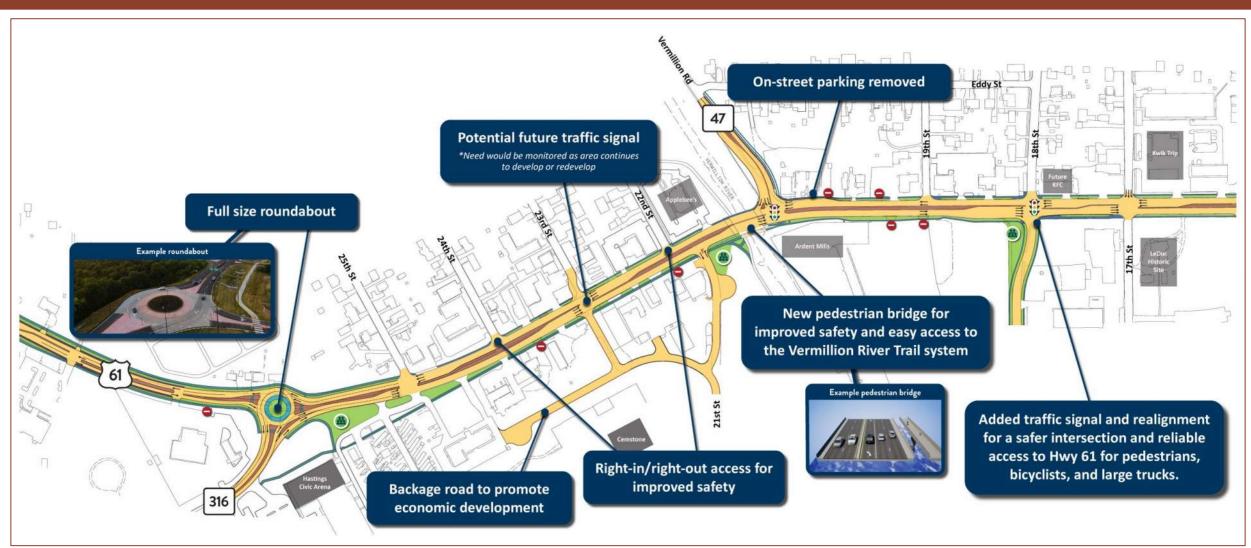
Highway 61 Access Management

- Corridor-wide theme:
 - no more than one access per site will be allowed for future development
 - encouragement toward combined driveways on adjacent properties where possible.





Vermillion



Vermillion – County Road 47 intersection





Realignment of CR 47
Right turn lane
Pedestrian improvements with bridge and access closure

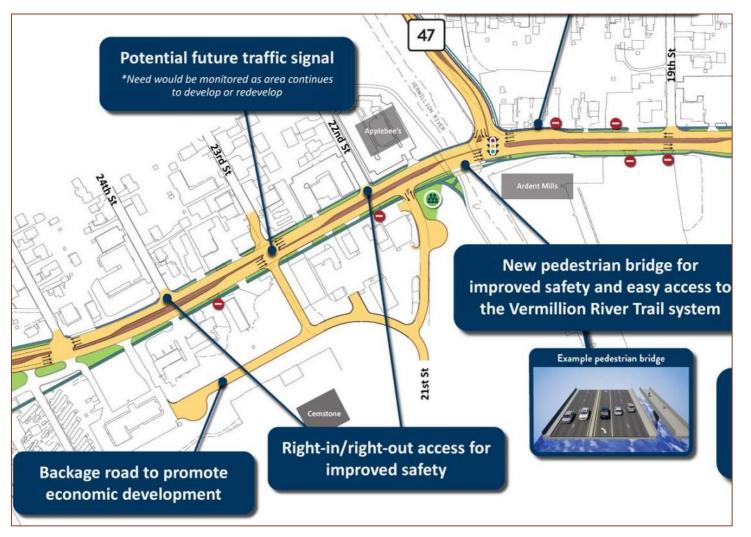
Vermillion – Pedestrian Bridge





Pedestrian trail "interchange" and placemaking opportunity

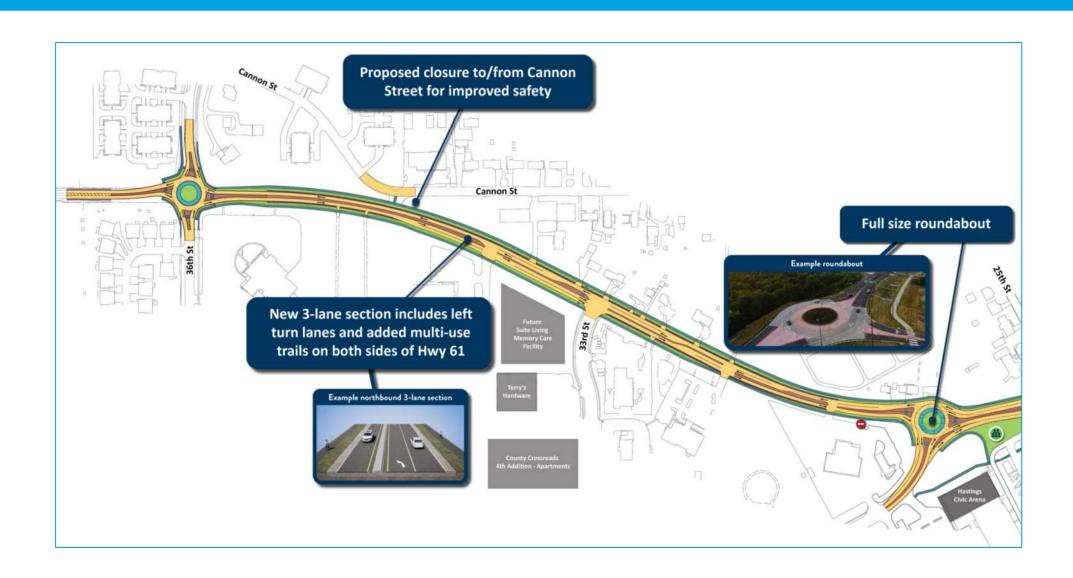
Vermillion - 21st/23rd



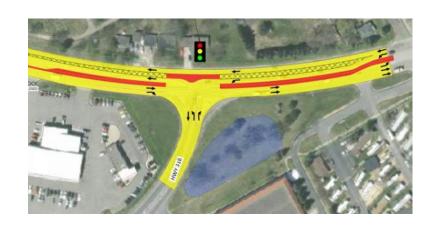
- Consistent with Comprehensive Plan
- Opportunity for improved business access
- Enables removal of access on Hwy 61
- 21st Street treatment warrants further review



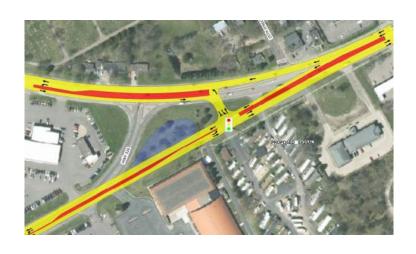
Southtown



Example Phase 2 Concept Development & Comparison







Continuous Green "T"

Roundabout

Direct to Hwy 316

Southtown – Roundabout at Highway 316





- Full Size Roundabout
- Pedestrian mobility on both sides of Hwy 61
- Access limitations at roundabout (or any type of intersection control) create challenges with adjacent properties

Evaluation example

Application of the criteria to the Hwy 316 intersection

	Safety				Community Identity and Economic Development						Traffic Operations			Feasibility Factors			
	Ped/Bike Facilities	Intersection Safety	Corridor Safety	Access Density	Access to Businesses/ Neighborhoods	Aesthetics/ Placemaking	Stormwater	Historic Resources	Community Cohesion/ Plans	Equity	Highway 61	Local Network	Truck/ Freight	Cost	Right-of-Wy	Maintenance	Constructability
Sauthania Diatria																	
Southtown District																	
Retain Existing	_	_	_	_	0	0	_	0	_	_	_	_	-	0	+	_	0
316 Intersection: Continuous Green T	0	+	+	+	0	0	0	0	0	0	+	+	+	-	-	-	0
316 Intersection: Roundabout	+	+	+	+	0	+	0	0	+	0	+	+	+	-	-	0	0
316 Intersection: Direct connect to 316 option	+	+	+	+	0	0	-	0	0	0	+	+	+	-	0	-	-
Add pedestrian trails on both sides of Hwy 61	+	U	+	U	+	+	U	U	+	+	U	U	U	U	U	-	U
Convert Hwy 61 to a 3-lane segment (continuous center left turn lane)	0	0	+	0	0	0	0	0	0	0	+	0	0	-	+	0	0
Close Cannon Street access	+	+	0	+	-	0	0	0	0	0	+	0	0	0	0	0	0
Modify Cannon Street access	0	+	0	0	0	0	0	0	0	0	0	+	0	-	-	0	0
Traffic signal at 36 th Street	+	0	0	0	0	0	0	0	+	+	0	+	0	0	0	-	0
Roundabout at 36th Street	+	+	+	0	0	+	0	0	0	+	+	+	0	_	_	0	0

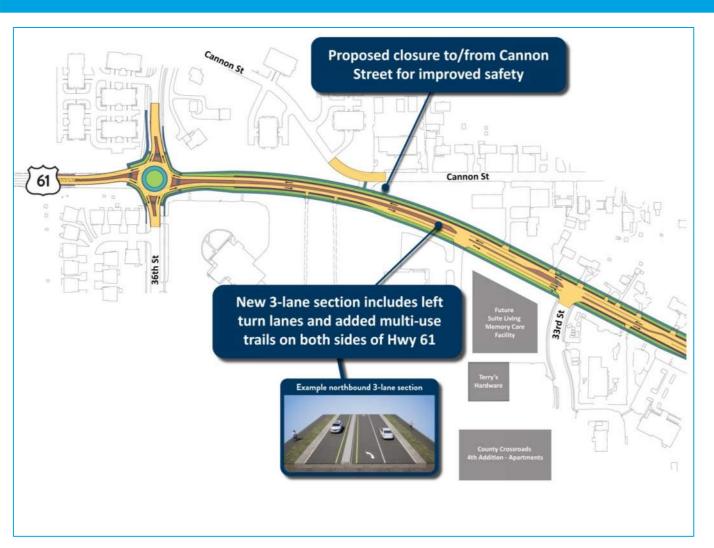
Hwy 61 Roundabouts

- These are NOT "compact roundabouts"
- Traditional roadway design with a raised inner circle
- Accommodations for trucks and large vehicles to navigate

See video of roundabout traffic flow



Stretch between 316 and 36th





Southtown – 36th Street



- Traditional single lane roundabout
- Provides a "gateway" into Hastings to signal changed environment (slower speeds)
- 36th Street traffic patterns
- Pedestrian safety

Traffic Operations – No Build versus Build in 2040

The recommendations for this corridor result in a more reliable and safer multimodal corridor

	Northbound 36 th St to 4 th St	Southbound 4 th St to 36 th St
Today	4.28 minutes	4.76 minutes
2040 no build	5.17 minutes	21.84 minutes
2040 build	6.93 minutes	5.25 minutes

Future No Build Operations (2040)

		2040 No Build Conditions										
Intersection (with TH 61)	Traffic Control			AM Pe	ak	PM Peak						
	Control	NB	SB	EB	WB	Int	NB	SB	EB	WB	Int	
TH 61 & 4th Street	Signal	Α	D	D	D	С	Α	F	F	F	F	
TH 61 & 5th Street	TWSC	Α	В	С	В	С	Α	D	D	С	D	
TH 61 & 6th Street	TWSC	Α	С	С	В	С	Α	E	Ε	В	Е	
TH 61 & 7th Street	TWSC	Α	С	С	В	С	Α	E	E	E	E	
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TH 61 & 9th Street	TWSC	Α	E	Α	*	E	Α	F		- 4	E	
TH 61 & 10th Street	Signal	В	D	С	С	С	В	D	D		D	
TH 61 & TH 55	Signal	С	D	С	D	С	С	D	F	E	E	
TH 61 & 12th Street	TWSC		Α	С	*	F	В	E	Ε	- 4	E	
TH 61 & 14th Street	TWSC	С	Α	D	С	D	Α	F	D	D	F	
TH 61 & 15th Street	Signal	С	В		D	С	С	D	С	D	D	
TH 61 & 16th Street	TWSC	В	Α		Α	В	Α	E			F	
TH 61 & 17th Street	TWSC	Α	Α	В	С	С	Α	F		D	F	
TH 61 & 18th Street	TWSC	Α	Α	В	С	С	Α	F	F	С	F	
TH 61 & 19th Street	TWSC	Α	Α	В	- 5	В	Α	F			F	
TH 61 & CSAH 47	Signal	В	В			D	В	F		-	F	
TH 61 & 21st Street	TWSC	Α	Α		Α	Α	Α	D		E	E	
TH 61 & 22nd Street	TWSC	Α	Α	С	85	C	Α	В	D	25	D	
TH 61 & 23rd Street	TWSC	Α	Α	В	- 2	В	Α	F	С	9	F	
TH 61 & 24th Street	TWSC	Α	Α	В	-	В	Α	F	С		F	
TH 61 & 25th Street	TWSC	Α	Α	Α	В	В	Α	F	Α	С	F	
TH 61 & 26th Street	TWSC	Α	Α	-	Α	Α	Α	D	-	Α	D	
TH 61 & TH 316	TWSC	Α	С		Α	С	Α	С		Α	С	
TH 61 & 33rd Street	TWSC	Α	Α	-	С	С	Α	Α	7.00	D	D	
TH 61 & Cannon Street	TWSC	Α	Α	D	- E	D	Α	Α	D	-	D	
TH 61 & 36th Street	TWSC	Α	Α	Е	Α	E	Α	Α	F	С	F	

2040 Build Alternative Operations

	T	2040 Alt 4 Option 2 Conditions										
Intersection (with TH 61)	Traffic Control		-	AM Pe	eak	PM Peak						
	Control	NB	SB	EB	WB	Int	NB	SB	EB	WB	Int	
TH 61 & 4th Street	Signal	Α	В	D	С	В	Α	В	F		С	
TH 61 & 5th Street RIRO	TWSC	Α	Α	Α	Α	Α	Α	Α	Α	В	В	
TH 61 & 6th Street	TWSC	Α	Α	В	В	В	Α	Α	С	В	С	
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TH 61 & 8th Street	TWSC	Α	А	С	В	С	Α	Α	D	D	D	
TH 61 & 9th Street	TWSC	Α	А	Α	-	Α	Α	В	D	-	D	
TH 61 & 10th Street		В	В		F	с	с	с	_	F	D	
Closed W Leg, WBT Allowed	Signal	В	В	-	r	·	·	·	-	Γ.	U	
TH 61 & TH 55		В	c	D	_	c	С	В	D	_	c	
Closed E Leg	Signal		_					_	_		_	
TH 61 & 12th Street RIRO	TWSC	С	Α	Α	-	С	Α	Α	В	-	В	
TH 61 & 14th Street ¾	TWSC	Α	Α	Α	Α	Α	Α	Α	В	Α	В	
TH 61 & 15th Street	Signal	В	В	С	D	В	В	В	с	Ε	В	
TH 61 & 16th Street ¾	TWSC	Α	Α	-	Α	Α	Α	Α	-	Α	Α	
TH 61 & 17th Street	TWSC	Α	Α	В	В	В	Α	Α	С	Α	С	
TH 61 & 18th Street Signal	Signal	Α	В	В	С	В	Α	Α	Α	В	Α	
TH 61 & 19th Street ¾	TWSC	Α	Α	Α	-	Α	Α	Α	Α	-	Α	
TH 61 & CSAH 47 EB L+L+R	Signal	Α	Α	С	-	В	С	Α	Ε	-	С	
TH 61 & 21st Street RIRO	TWSC	Α	А	-	Α	Α	Α	Α	-	С	С	
TH 61 & 22nd Street	TWSC	Α	Α	Α	-	Α	В	Α	Α	-	В	
TH 61 & 23rd Street Signal	Signal	В	Α	D	В	Α	В	Α	Ε	С	Α	
TH 61 & 24th Street RIRO	TWSC	Α	Α	Α	-	Α	Α	Α	А	-	Α	
TH 61 & 25th Street	TWSC	Α	А	Α	В	В	Α	Α	А	В	В	
TH 61 & 26th Street Closed	-	-	-	-	-	-	-	-	-	-	-	
TH 61 & TH 316 RAB	RAB	В	Α	-	Α	Α	D	Α	-	Α	Α	
TH 61 & 33rd Street	TWSC	Α	Α	-	В	В	Α	Α	-	F	F	
TH 61 & Cannon Street CLOSED	-	-	-	-	-	-	-	-	-	-	-	
TH 61 & 36th Street RAB	RAB	Α	А	Α	Α	Α	Α	Α	А	Α	Α	

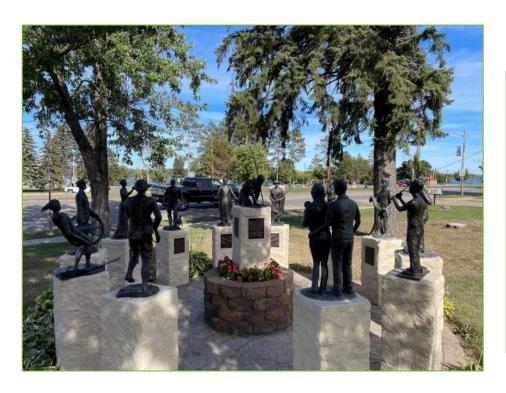
Community Space

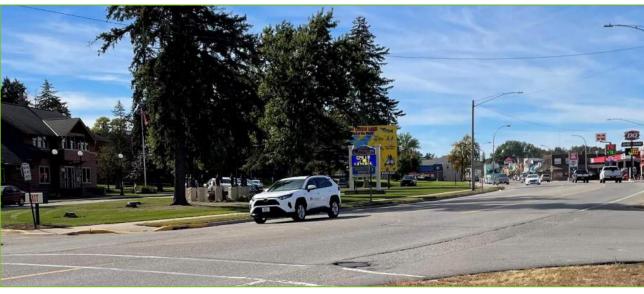




Grand Marais, MN

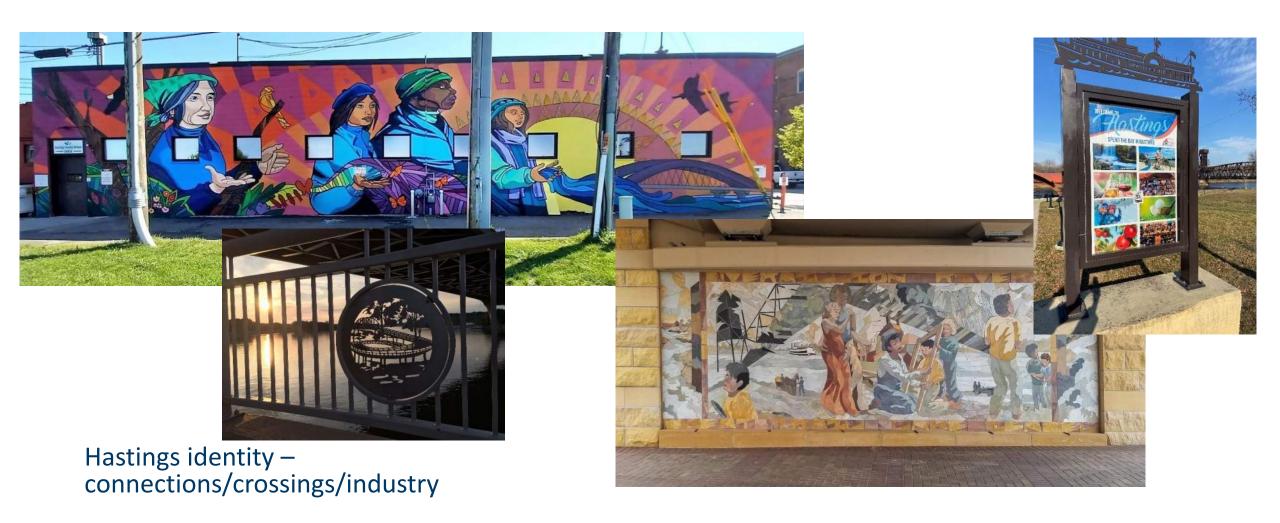
Community Space





Walker, MN

Community Identity – Art



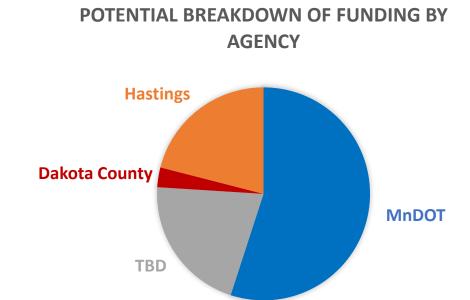
Technology

- Utilities replacement enables technology upgrades
- Fiber/broadband capability for "connectedness"
 - Autonomous Vehicles
 - Traffic/Pedestrian sensors
- Lighting



Cost and Funding

- Estimated Cost of Recommendations
 - Roadway and related structures: approx. \$15-17M
 - City utility replacement approx. \$3-5M
 - Enhancements could be included or done separately
- New funding opportunities available through federal sources
- MnDOT and City intent on pursuit of funds immediately following this study



Schedule/Timeline/Next Steps

- Open House March 7, 5:00 to 7:00
 - Presentation at 5:15
- Ongoing stakeholder outreach
 - Chamber of Commerce/ DBA
 - Individual stakeholders
 - Web site comment option available
- Final report following open house

- City resolution of support
- Funding applications
- Scoping and design leading towards planned 2027 construction

Thank You!

- Project website <u>mndot.gov/metro/projects/hwy61hastings</u>
- Project staff
 - Bryant Ficek, MnDOT Project Manager bryant.ficek@state.mn.us
 - Kirsten Klein, MnDOT Communications <u>kirsten.klein@state.mn.us</u>
- Social media
 - MnDOT Facebook: www.facebook.com/mndot/
 - MnDOT Twitter: <u>twitter.com/mndotmetro</u>
- 511
 - Real-time travel info. anywhere in Minnesota: www.511mn.org/