

ROBERT STREET PEDESTRIAN CROSSING STUDY

Dakota County Greenway Guidelines

The 2010 Dakota County Greenway Guidebook provides a framework for design and development for county-wide greenways. One of the main design objectives is to create an interconnected system of greenways with a natural design signature that improves water quality, enhances wildlife habitat, provides first-class linear recreation, and increases mobility. Grade separated crossings are a critical component of the greenway system. They ensure safety, security, and to establish the greenway system as a truly special and high-quality destination.

Greenway Design Features

- ▶ Greenway has a consistent design with natural signature and high quality support facilities
- ▶ Trail is away from roads 80% of the time and is maintained as a year-round facility
- ▶ **Grade separated crossings at major roads**
- ▶ Greenway links recreation destinations and commercial centers
- ▶ Universally accessibility
- ▶ Wayfinding

Source: 2010 Dakota County Greenway Guidebook

The River to River Greenway Road Crossings

The River to River Greenway travels 8 miles from the Minnesota River to the Mississippi River through the communities of Mendota Heights, West St. Paul, and South St. Paul. In keeping with the Greenway Guidebook, the River to River Greenway Master Plan recommends grade-separated at all major intersections along the greenway. Grade separation promotes safety by reducing conflicts with motorized traffic and allows for more efficient and enjoyable trail experience for users of all abilities. Currently, there 19 road crossings; 5 are grade separated and 14 are at-grade. The Master Plan recommends two additional grade separated crossings at Robert Street and Dodd Blvd. If Robert Street becomes grade separated there will be no at-grade crossings of 4-lane or greater roadways. For comparison, the Gateway State Trail from St. Paul to Stillwater has 35 road crossings; 20 are grade separated and 15 are at-grade. There are no at-grade crossings of 4-lane or greater roadways along the Gateway Trail.

River to River Greenway Master Plan Grade Separated Crossing Recommendations

CROSSING RANK	LOCATION	AVERAGE DAILY TRAFFIC (VEHICLES)	STATUS
1	U.S. Hwy 52 - Lafayette Freeway	53,000	Existing
2	State Highway 3 - Robert Street	25,000	Future
3	State Highway 149 - Dodd Boulevard	9,600	In design, pending funding
5	State Highway 56 - Concord Boulevard	8,600	Existing
4	Charlton Avenue	4,300	Existing
6	Marie Avenue	3,300	Existing
7	19th Avenue	2,300	Existing

The table on this page details the existing and future grade separated crossings a recommended in the River to River Greenway Master Plan.

Robert Street Pedestrian Underpass

A grade separated crossing at Robert Street is important for the continuity of the regional greenway, providing a safe and enjoyable greenway experience. Robert Street is a State Highway with a traffic volume of 25,000 vehicles per day and posted vehicle speeds of 35 MPH. The existing at-grade crossing of Wentworth (CSAH 8) and Robert St. (TH 3) has a combined traffic volume of 35,000 trips entering the intersection. Currently Robert Street is seen as a barrier to some potential users of the River to River Greenway. According to the National Highway Traffic Safety Administration, more than half of all bicycle crashes nationwide occur at at-grade street crossings. Problems relate to motorists' expectations that crosswalk users will be traveling at pedestrian speeds rather than bicycle speeds. The Mn/DOT Bikeway Facility Design Manual (2007) recommends grade separated crossings as a better choice than at grade, signalized crossings for roadways with ADT volumes over 9,000 and a posted speed of 30 MPH, particularly if the trail will be used for trips to school and if a large number of trail users will include children, seniors, or disabled people. This is important at Robert Street due to the River to River Greenway's proximity to the Wentworth Library, the YMCA, the West St. Paul Sports Dome, commercial destinations, and nearby parks. The overall goal of grade separated crossing is to provide safe user experience for all user levels and ages.

By 2030 it is anticipated the River to River Greenway will see more than 140,000 regional visitors annually.

Pedestrian crossings of Robert Street will increase significantly as the River to River Greenway develops introducing more conflict between pedestrians and automobiles.

Mn/DOT Bikeway Facility Design Manual Guidelines for Grade Separated Crossings

Table 5-10: Recommended Bikeway Intersection Treatments

Motor Vehicle Speed	ADT	Bikeway Intersection Treatment
>80 km/h (>50 mph)	Any	Grade Separated (Good)
		Traffic Signal and 60 km/h (40 mph) Speed Zone (Satisfactory)
70 km/h (45 mph)	Any	Grade Separated (Good)
		Traffic Signals (Satisfactory)
60 km/h (40 mph)	>7,000	Grade Separated (Good)
		Traffic Signals (Satisfactory)
	<7,000	Traffic Signals (Good)
		Crosswalk + Median Refuge Island (Satisfactory)
50 km/h (30 mph)	>9,000	Grade Separated (Good)
		Traffic Signals (Satisfactory)
	5,000 to 9,000	Traffic Signals (Good)
		Crosswalk + Median Refuge Island (Satisfactory)
	<5,000	Crosswalk + Median Refuge Island (Good)
		Crosswalk (Satisfactory)

Robert Street

- ▶ 35 MPH
- ▶ 25,000 ADT
- ▶ 4 Lanes

Source: 2007 Mn/DOT Bikeway Facility Design Manual, Section 5.4-2

River to River Greenway Annual Use Forecast

Use of the River to River Greenway is expected to increase by the year 2030 based on population growth, the popularity of trail based recreation, and increased connectivity of the regional trail network. By 2030 the population in the communities adjacent to the River to River Greenway is expected to increase by 13%, resulting in a projected annual visitation of 140,000. This number is conservative as it does not account for the increasing popularity of trail based recreation and the anticipated 2018 completion of the connection between Harriet Island Regional Park/Sam Morgan Regional Trail and the Mississippi River Trail. This link will connect the River to River greenway to Saint Paul's network and create a 14 mile biking loop featuring the Mississippi and Minnesota Rivers which is expected to draw regional visitors (see attached map).

For comparison, in 2015, Dakota County's 5-mile Big Rivers Regional Trail drew 116,000 annual visits and the 4-mile Mississippi River Regional Trail attracted 110,000. The 3.5-mile Sam Morgan Regional Trail in Saint Paul, which will connect to Dakota County's trail network in 2018, drew 519,000 visits. Within the greater Metropolitan Area, use of trails in suburban areas is also high. In 2015, the 5-mile Rush Creek Regional Trail in Brooklyn Park had 284,000 annual visits and the 8-mile Dakota Rail Regional Trail in Hennepin County attracted 504,000 visits.

Participation, fitness walking, running/jogging, and biking are among the most popular and fastest growing recreational activities.

- Sports & Fitness Industry Association's 2015 Study of Sports, Fitness, and Leisure Participation

75% of trail visitors live within three miles of a trail

- Metropolitan Council



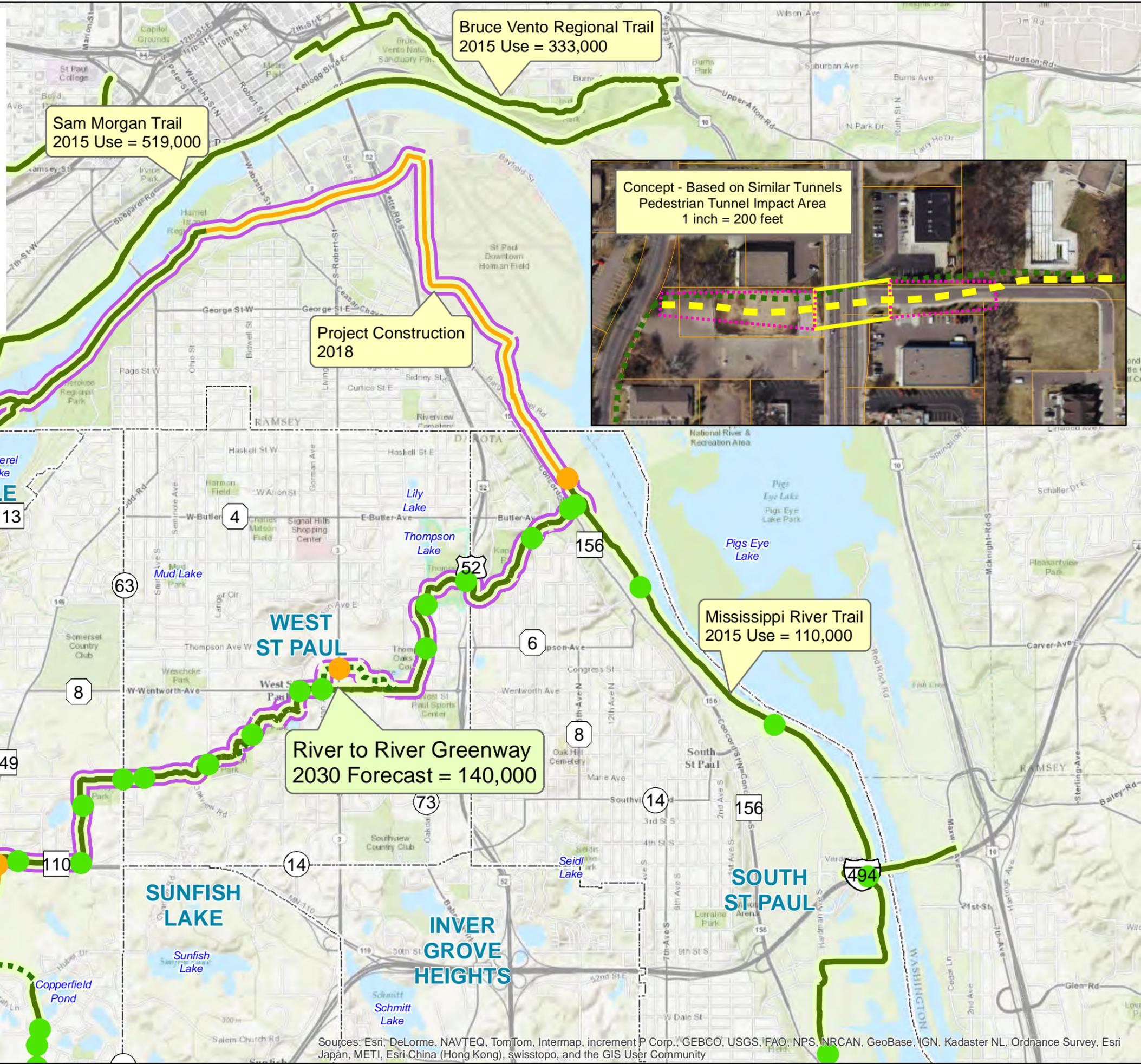
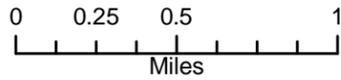
Recently completed River to River Greenway underpass at Charlton Avenue



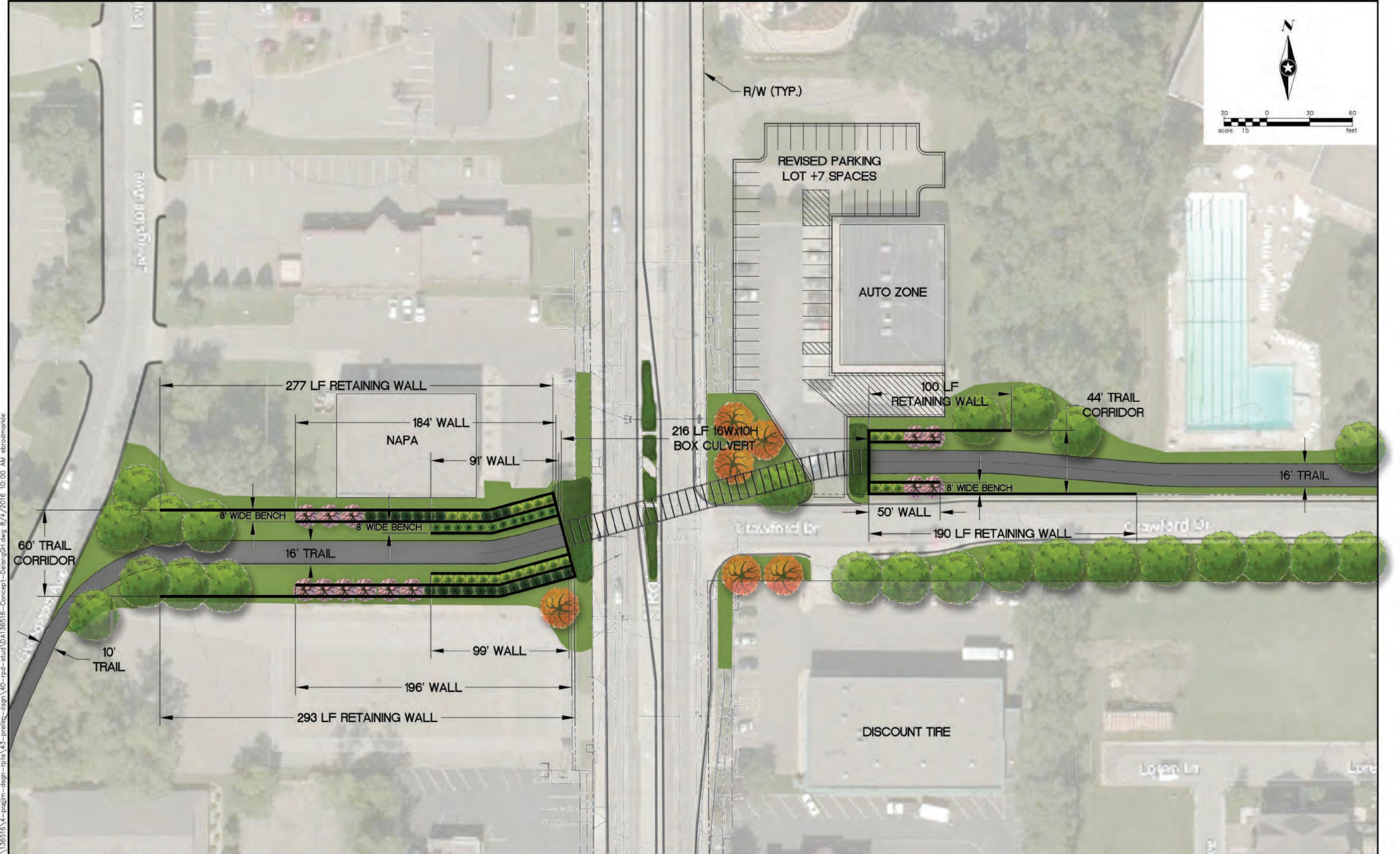
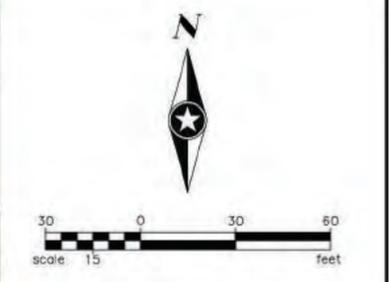
The River to River Greenway link important community destinations such as the library and YMCA

Regional Greenways Northern Dakota County 2016

-  Existing Trail
-  Funded Trail (2017/18)
-  Planned Trail
-  Existing Grade Separation
-  Funded Grade Separation
-  St. Paul River Loop (14 miles)



Sources: Esri, DeLorme, NAVTEQ, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, and the GIS User Community



DRAWN BY:	EB			
DESIGNER:	EB			
CHECKED BY:	KW			
DESIGN TEAM				
NO.	BY	DATE	REVISIONS	

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

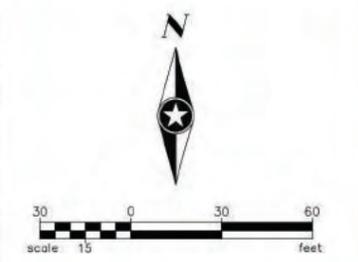
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 PRINTED NAME: Lic. No. _____

SOUTH ROBERT STREET TRAIL CROSSING

UNDERPASS TRAIL ALIGNMENT OPTION H

FILE NO. DA136516
 DATE: 8/4/16

H



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CHECKED BY:	KW				
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**SOUTH ROBERT STREET
TRAIL CROSSING**

**AT GRADE CROSSING
OPTION I**

FILE NO.
DA136516

DATE:
8/4/16

GENERAL NOTES:
SEE SHEET 646 FOR GENERAL NOTES.

Name	Year Built	PID	TIF	2016 Total EMV	2016 Local Net Tax Capacity	2016 Fiscal Disparity Net Tax Capacity	2016 TIF Net Tax Capacity	2016 Total Property Tax	West St. Paul Portion	Lot size Sq/Ft	EMV / Lot Size	Gross Building Area (GBA)	EMV/GBA
DQ	1957	42-58700-00-141M	Y	\$367,100	(230)	2,283	4,249	\$12,219.40	-\$160.56	12,210	\$ 30	1,842	\$ 199
Starbucks	2005	42-02000-27-042	N	\$626,500	7,511	4,269		\$22,784.34	\$5,242.30	13,306	\$ 47	1,751	\$ 358
Burger King	1978	42-41000-01-022	N	\$770,000	9,291	5,281		\$28,460.60	\$6,484.66	34,437	\$ 22	3,131	\$ 246
KFC	1978	42-02000-43-016	Y	\$782,500	545	5,390	10,029	\$29,123.56	\$380.40	36,010	\$ 22	2,947	\$ 266
Pollo Campero	2010	42-71000-01-020	Y	\$793,900	558	5,522	10,274	\$29,453.02	\$389.46	27,392	\$ 29	2,518	\$ 315
LeAnnChin Rack Shack	1970	42-18604-01-020	N	\$817,600	10,064	5,720		\$30,506.22	\$7,024.18	34,653	\$ 24	5,360	\$ 153
Vacated Sonic	2008	42-64775-01-010	N	\$830,200	10,270	5,836		\$31,298.32	\$7,167.96	31,869	\$ 26	1,754	\$ 473
Taco Bell	1999	42-02000-51-040	N	\$833,000	10,224	5,810		\$31,331.40	\$7,135.84	31,999	\$ 26	2,903	\$ 287
Arbys	1978	42-15000-01-014	N	\$889,800	11,348	6,450		\$34,644.30	\$7,920.34	44,020	\$ 20	3,742	\$ 238
Culvers	2003	42-02000-62-020	N	\$1,019,000	12,695	7,215		\$38,463.26	\$8,860.48	40,292	\$ 25	4,630	\$ 220
Jimmy Johns Verizon	2004	42-02000-51-032	Y	\$1,073,600	(756)	7,480	13,918	\$39,874.70	-\$527.66	24,622	\$ 44	4,009	\$ 268
McDonalds	1989	42-21900-01-252M	N	\$1,346,800	16,204	9,210		\$49,144.26	\$11,309.60	79,940	\$ 17	5,786	\$ 233

Future Chik-Fil-A	2016	42-41601-01-020	N	\$780,500	9,953	5,657		\$30,104.46	\$6,946.70	75,967	\$ 10	4,009	\$ 195
Arbys Equivalent	2016	42-xxxxx-xx-xxx	N	\$1,275,000	14,505	8,245		\$44,116.93	\$10,123.76	75,000	\$ 17	4,009	\$ 318

The request was to show a fast food restaurant occupying the lot sites proposed for the walking path and how it would potentially affect the taxable base of West St. Paul. To try and keep it in scope, we found the very situation just north of the corner of Marie Ave and Robert St. on Parcel ID 42-41601-01-020. This is the site of a future Chik-Fil-A fast food restaurant that was purchased and split off of the parent parcel owned by Target Corp. for \$925,000. The payable 2016 Estimated Market Value is \$780,500 and the 2017 Valuation Notice has a Market Value of \$818,500. This example is ideal because when you measure out the proposed site of the walking path, the two parcels combined (old Blockbuster site & portion of Autozone Parking lot plus ROW) is about 75,000 Square feet. The total square footage of the lot for the future Chik-Fil-A restaurant is 75,967. Because they are so similar, I will base the example on the Chik-Fil-A site. I'll also create another example based upon a more relative GBA average, in this case Arbys, for the building value, and base it upon the relative sq footage example, McDonalds in this case, and come up with the "ideal" use of the space.

Various Statistics For Fast-Food Restaurants				
	MEAN	MEDIAN	MIN	MAX
Total Market Value	\$ 845,833	\$ 823,900	\$ 367,100	\$ 1,346,800
EMV Per Sq/Ft of Lot Size	\$ 28	\$ 26	\$ 17	\$ 47
Market Value Per GBA	\$ 271	\$ 256	\$ 153	\$ 473
Total Property Tax	\$ 31,442	\$ 30,902	\$ 12,219	\$ 49,144
WSP Property Tax	\$ 7,643	\$ 7,096	\$ 5,242	\$ 11,310
*Since proposed project area is not in a TIF district, only non-TIF totals used in WSP property tax averages.				

	Fiscal Disparity	Local TCAP	2016 Local Levy	2016 Tax Rate	% Change
S	2,273,945	14,171,562	\$9,890,916	69.794%	
*2016 WSP TCAPS If Exempt Path	2,271,597	14,167,430	\$9,890,916	69.814%	0.029%
2016 WSP TCAPS W/ Equivalent	2,282,190	14,186,067	\$9,890,916	69.723%	-0.132%

	Total NTC	Fiscal Disparity	Local TCAP	2016 Tax Rate	Current Net WSP Tax	Net WSP Tax W/ Path	Compared to Cur	Net WSP Tax W/ F-F Chain	Compared to Cur
\$300,000 Homestead	2798		2,798	Above	\$1,952.84	\$1,953.41	\$0.57	\$1,950.84	\$ (2.00)
\$300,000 Commercial Preferred	5250	-1,903	3,347	Above	\$2,336.01	\$2,336.69	\$0.68	\$2,333.62	\$ (2.39)
\$181,185 Homestead (Average)	1603		1,603	Above	\$1,118.80	\$1,119.13	\$0.33	\$1,117.66	\$ (1.14)
\$169,600 Homestead (Median)	1476		1,476	Above	\$1,030.16	\$1,030.46	\$0.30	\$1,029.11	\$ (1.05)

SUMMARY: Based on estimated loss of 40,000 square feet of developable fast food restaurant space the tax impact to City of West St. Paul is estimate at < \$4,000 annually

Chik-Fil-A impact is 75,000 square feet with and estimated \$7,000 tax impact to City of West St. Paul after factoring for fiscal disparities. Based on a \$818,000 market value.