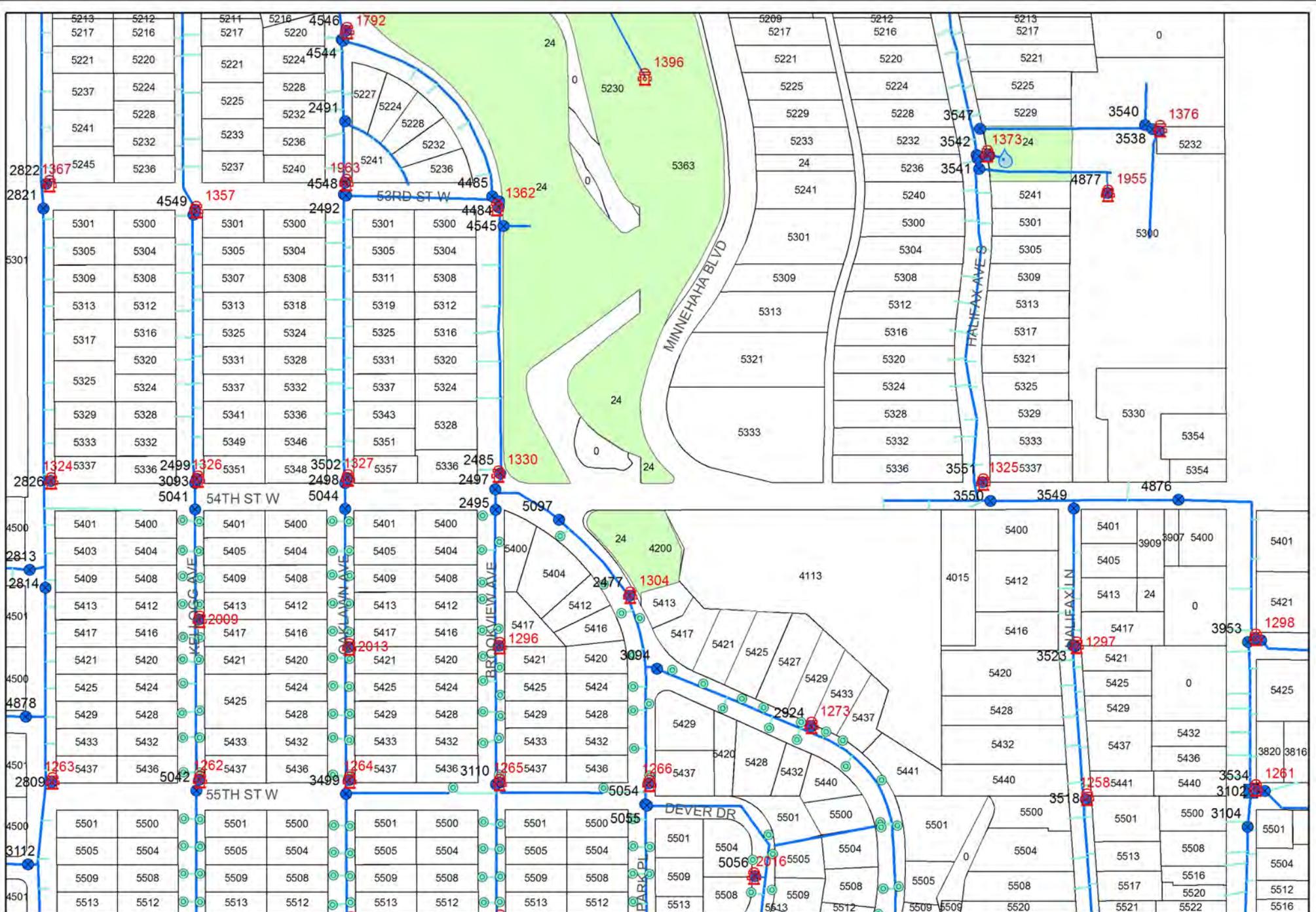


# **APPENDIX D**

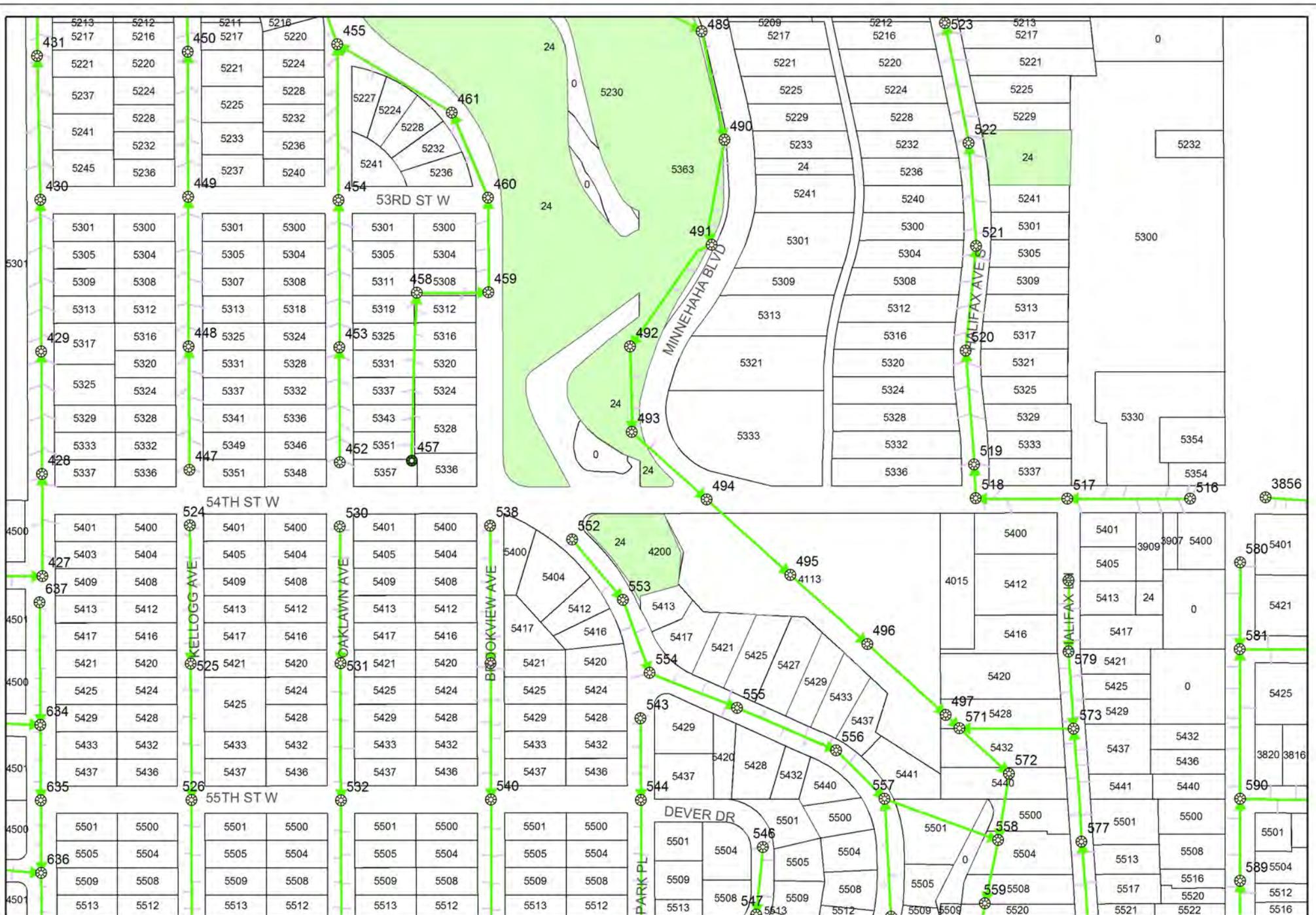
## **Existing Water, Sanitary Sewer and Storm Features**

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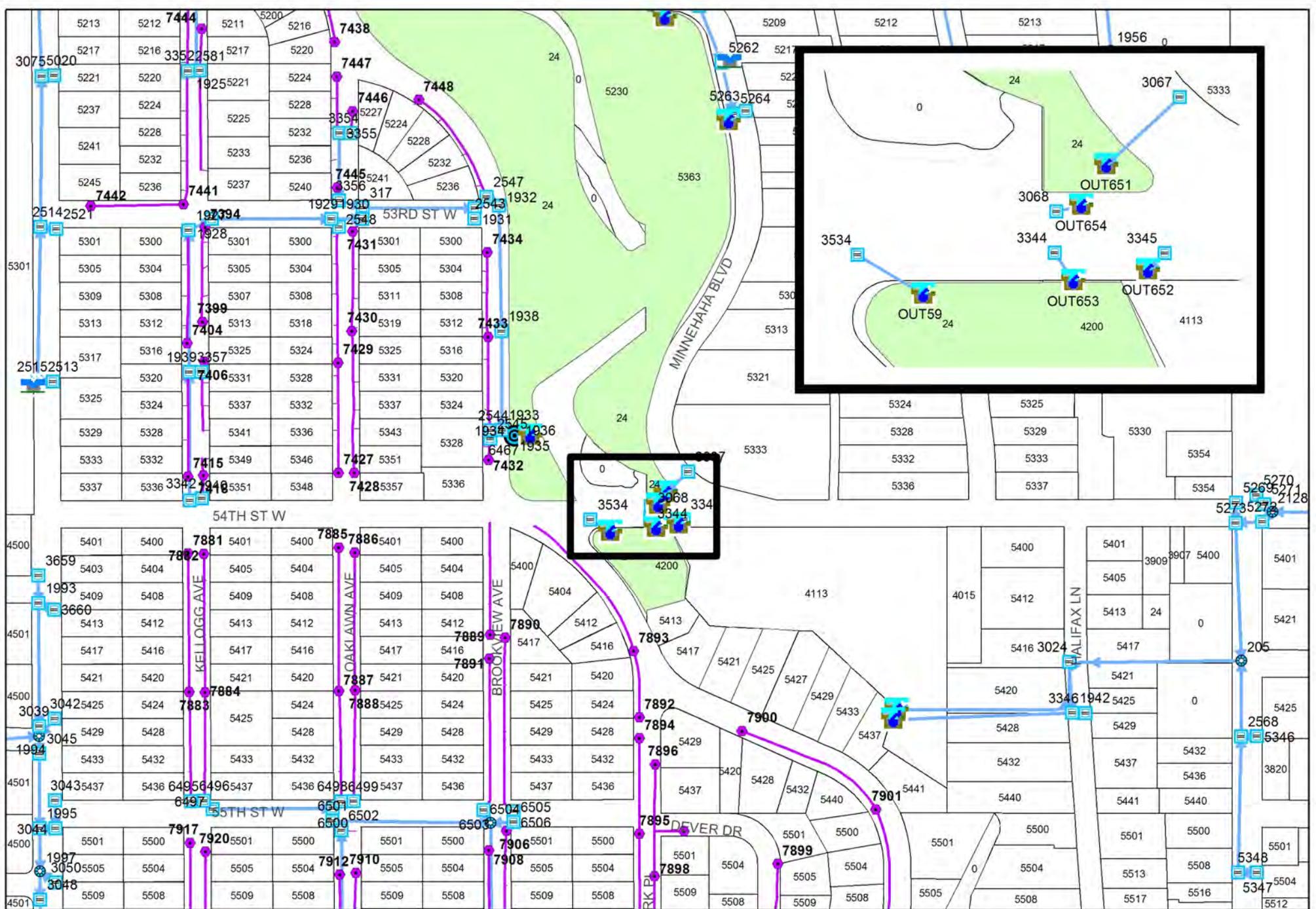
Water Features  
54th Street West  
BA-416





Sanitary Sewer Features  
 54th Street West  
 BA-416





Storm Features  
54th Street West  
BA-416



# **APPENDIX E**

## **Preliminary Assessment Roll**

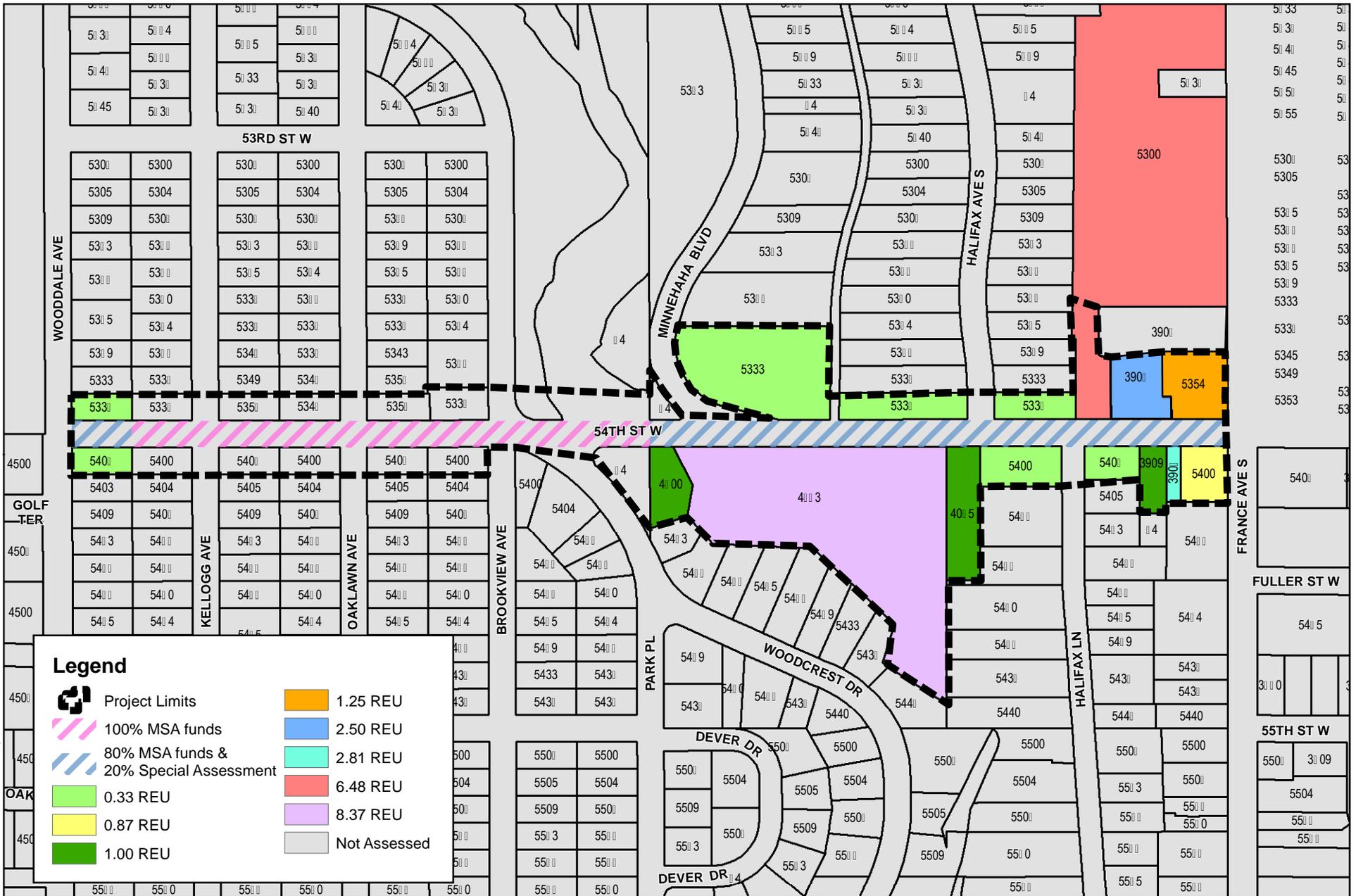


**City of Edina**  
**54th Street Roadway Reconstruction**  
**Improvement No. BA-416**  
**Preliminary Assessment Roll**  
**11/25/2013**  
**Revisions:**

Street	PID	House No.	Owner	Owner's Address (if different)	Assessable REU	Assessment Amount
<b>Wooddale Ave</b>						
	1802824430047	5337	Thomas & Teresa Whaley		0.33	\$2,112.00
	1902824120074	5401	Ann & Andrew Kasid		0.33	\$2,112.00
<b>Kellogg Ave</b>						
	1802824430046	5336	Mark & Karen Epple		Not Assessed	
	1802824430066	5351	Richard & Nancy Fergesen		Not Assessed	
	1902824120055	5400	Kevin & Kathryn Green		Not Assessed	
	1902824120054	5401	Kathryn Koessel		Not Assessed	
<b>Oaklawn Ave</b>						
	1802824430065	5348	Steven & Lynn Timmer		Not Assessed	
	1802824430085	5357	Dennis & Shari Lafrance		Not Assessed	
	1902824120036	5400	Thomas & Petra Brower		Not Assessed	
	1902824120035	5401	Jean & Bryan Colwell		Not Assessed	
<b>Brookview Ave</b>						
	1802824430084	5336	Trudy & Gary Hanus		Not Assessed	
	1902824120016	5400	Steven & Mary Rider		Not Assessed	
<b>Park Pl</b>						
	1902824120001	5400	David Alkire & Joanne Gorski-Alkire		Not Assessed	
<b>Minnehaha Blvd</b>						
	1802824440099	5333	Lisa O'Brien		0.33	\$2,112.00
<b>54th St W</b>						
	1902824110002	3907	Michael Mahoney	4501 Moorland Ave S, Edina, MN 55424	2.81	\$17,984.00
	1802824440113	3908	Hornig Companies	1000 West 22nd St Minneapolis, MN 55405	2.50	\$16,000.00
	1902824110003	3909	Maryann Pederson		1	\$6,400.00
	1902824110004	3909	Maryann Pederson			
	1902824110006	4015	Kristin & Edward Ross		1	\$6,400.00
	1902824110010	4113	Edina Community Lutheran Church		8.37	\$53,568.00
	1902824110063	4200	City of Edina		1	\$6,400.00

Street	PID	House No.	Owner	Owner's Address (if different)	Assessable REU	Assessment Amount
<b>Halifax Ave S</b>						
	1802824440074	5336	John & Cecile Adams		0.33	\$2,112.00
	1802824440093	5337	Del Johnson		0.33	\$2,112.00
	1902824110095	5400	Doris & Burton Grimes		0.33	\$2,112.00
	1902824110101	5401	Steve & Anne Jennen		0.33	\$2,112.00
<b>France Ave S</b>						
	1802824440115	5300	Calvary Christian Attn Ken Hedwell		6.48	\$41,472.00
	1802824440028	5354	Timcin Properties LLP	9110 - 225th St W Lakeville, MN 55044	1.25	\$8,000.00
	1902824110001	5400	Noonan Properties LLC III		0.87	\$5,568.00

Path: P:\AE\Edina\124747\GIS\Maps\Street\_Assessment.mxd



**Legend**

- Project Limits
- 100% MSA funds
- 80% MSA funds & 20% Special Assessment
- 0.33 REU
- 0.87 REU
- 1.00 REU
- 1.25 REU
- 2.50 REU
- 2.81 REU
- 6.48 REU
- 8.37 REU
- Not Assessed



Project:  
EDINA 124747

Print Date:  
11/20/2013

**ASSESSMENT SUMMARY**  
**54th Street Reconstruction**  
 No. BA-416  
 Edina, Minnesota

**Figure**  
**1**

This map is neither a legally recorded map nor a survey map and is not intended to be used as one. This map is a compilation of records, information, and data gathered from various sources listed on this map and is to be used for reference purposes only. SEH does not warrant that the Geographic Information System (GIS) Data used to prepare this map are error free, and SEH does not represent that the GIS data can be used for navigational, tracking, or any other purpose requiring exacting measurement of distance or direction or precision in the depiction of geographic features. The user of this map acknowledges that SEH shall not be liable for any damages which arise out of the user's access or use of data provided.

(OFFICIAL PUBLICATION)  
CITY OF EDINA  
4801 W. 50<sup>TH</sup> STREET  
EDINA, MINNESOTA 55424  
HENNEPIN COUNTY, MINNESOTA

NOTICE OF PUBLIC HEARING

54<sup>TH</sup> STREET WEST RECONSTRUCTION  
(WOODDALE AVE TO FRANCE AVE)

IMPROVEMENT NO. BA-416

The Edina City Council will meet at the Edina City Hall on Tuesday, December 10, 2013, at 6:00 p.m. to consider the following proposed improvements to be constructed under the authority granted by Minnesota Statutes, Chapter 429.

<u>54<sup>th</sup> Street West Reconstruction</u>	<u>Estimated Total Assessment Cost</u>
Improvement No. BA-416	\$176,576

The area proposed to be assessed by the proposed improvements includes all properties between and including:

5337 & 5401 Wooddale Ave, 5333 Minnehaha Blvd, 3907 to 4200 54<sup>th</sup> St. W.,  
5336 to 5401 Halifax Ave, and 5300 to 5400 France Ave.

These properties are proposed to be assessed at approximately \$6,400 per residential equivalent unit;

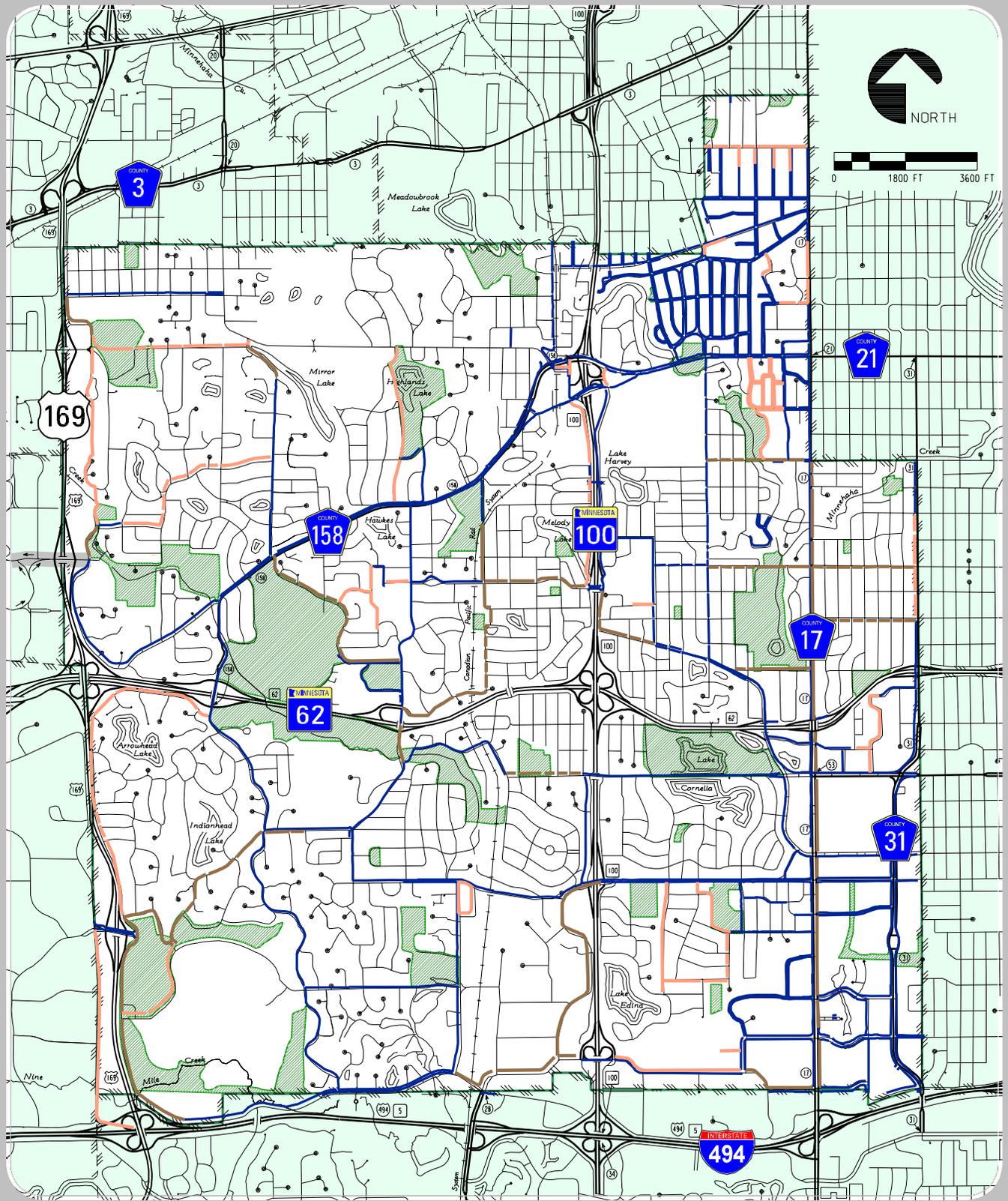
Debra Mangen  
City Clerk

PLEASE PUBLISH IN THE EDINA SUN ON November 28 and December 5, 2013

PLEASE SEND TWO (2) AFFIDAVITS OF PUBLICATION. BILL TO CITY OF EDINA.

# **APPENDIX F**

## **City Comprehensive Plan Update – Sidewalk and Bicycle Facilities**



**LEGEND:**

- Existing Sidewalk
- Proposed School / Business Sidewalk
- Proposed State-Aid Sidewalk

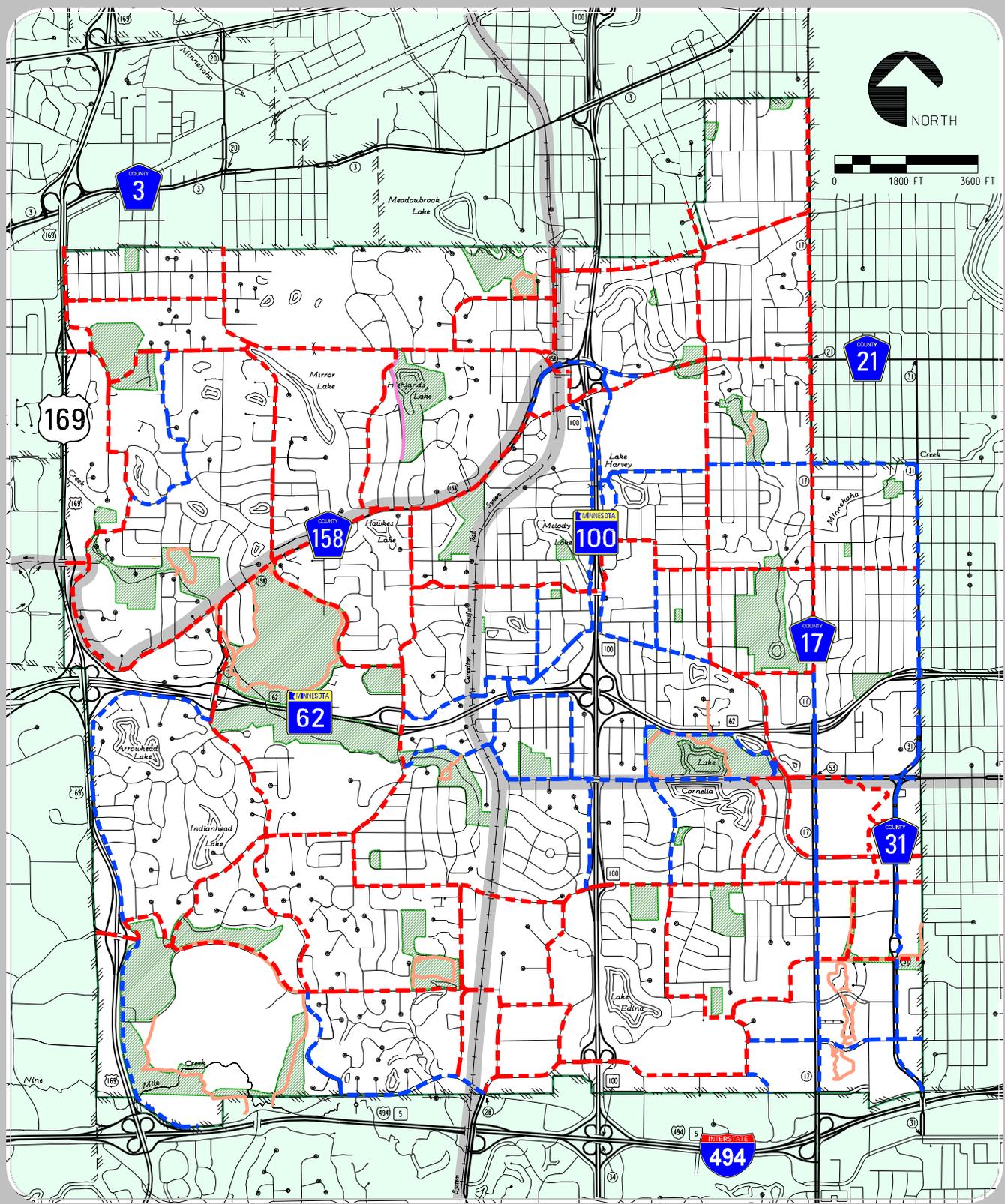
*Note: Park Pathways are included on Figure 7.11*



**City of Edina  
2008 Comprehensive Plan Update**

**Sidewalk Facilities**

Figure 7.10



**LEGEND:**

- Existing Park Pathway
- Existing Hennepin County Corridors
- Proposed Park Pathway

From the 2007 Edina Comprehensive Bicycle Transportation Plan

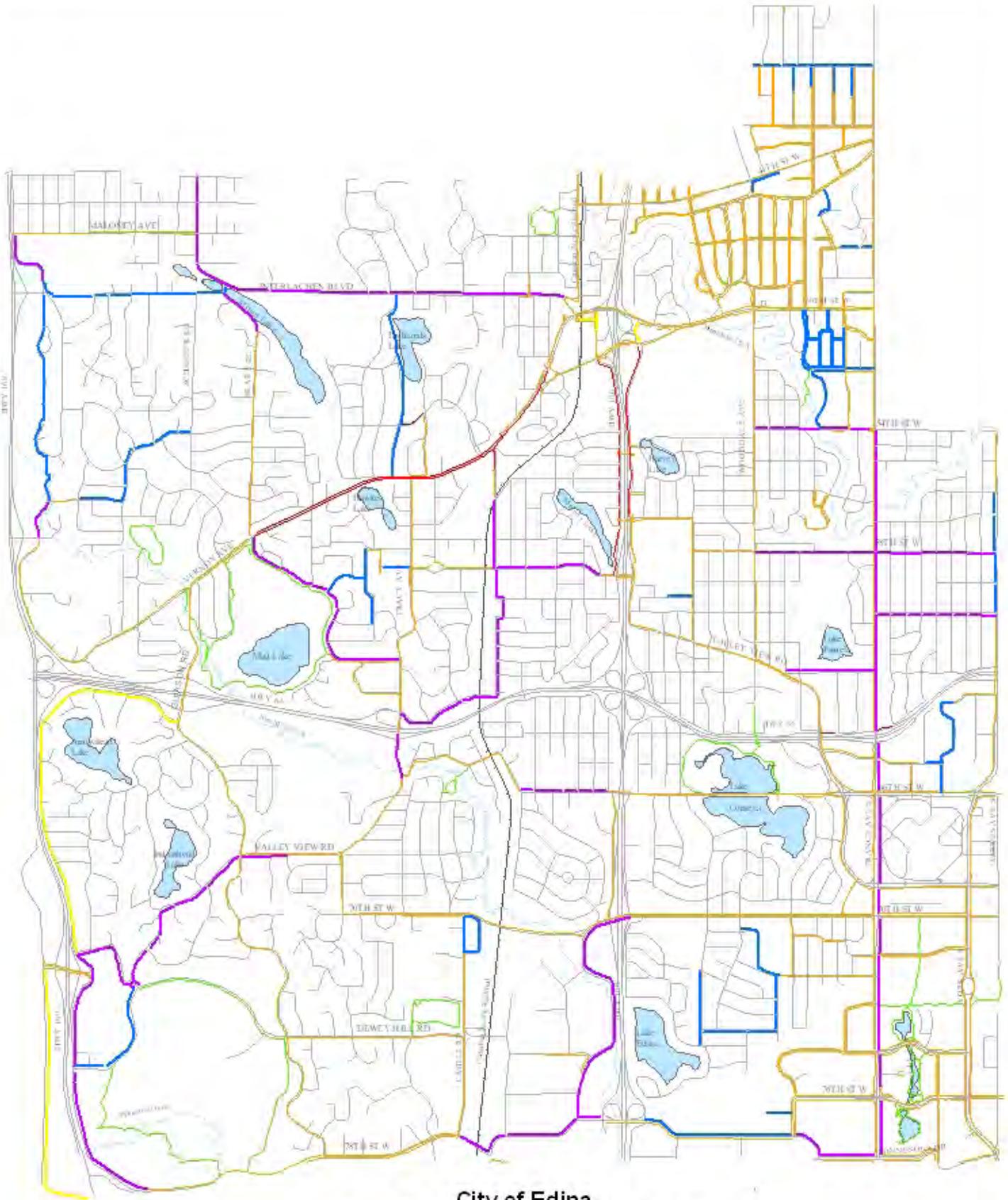
- Primary Route
- Secondary Route



**City of Edina  
2008 Comprehensive Plan Update**

**Bicycle Facilities**

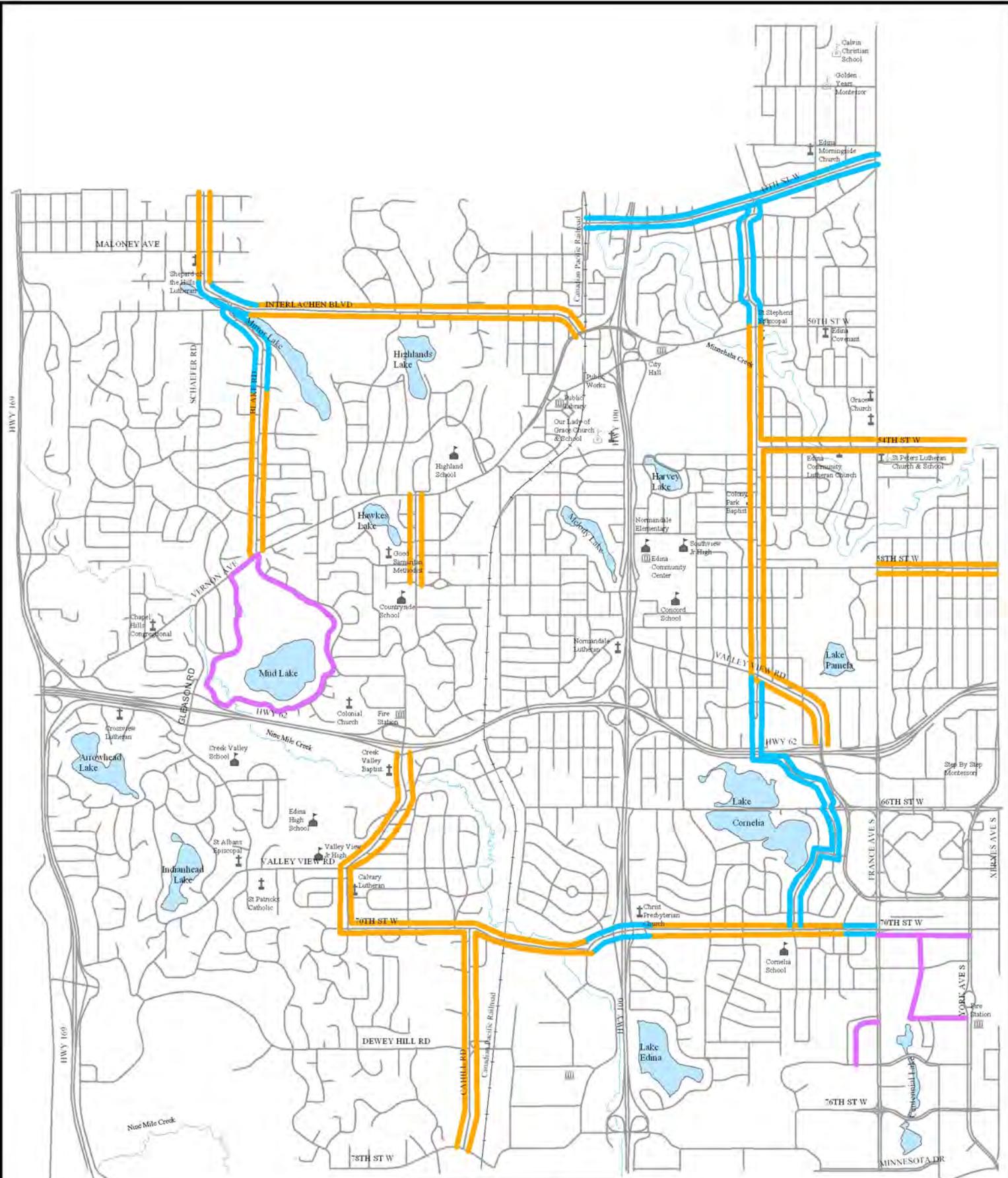
Figure 7.11



**City of Edina  
Draft Pedestrian Facilities - Fig 8.8**

 Existing Bituminous Sidewalk	 Proposed Business/Park/School Sidewalk
 Existing Concrete Sidewalk	 Proposed Sidewalk on Roads Classified Collector & Above
 Existing Park Pathway	 Proposed State-Aid Sidewalk





**Bicycle Facilities**

- Bike Lanes
- Bike Paths
- Share the Road



N  
W — E  
S

Engineering Dept  
October, 2012

# **APPENDIX G**

## **Traffic and Crash Data**

Minnehaha Blvd :  
 North of 54th St W :  
 @ 5233 :

Site: NA

Weekly Volume

Interval Start	Mon 5/14/2012		Tue 5/15/2012		Wed 5/16/2012		Thu 5/17/2012		Fri 5/18/2012		Sat 5/19/2012		Sun 5/20/2012		Mon - Fri Average		Weekly Average		
	ABNB	BASB	ABNB	BASB	ABNB	BASB													
12:00 AM	-	-	-	-	-	-	-	-	-	-	1	1	2	3	-	-	1.5	2.0	
1:00 AM	-	-	-	-	-	-	-	-	-	-	2	1	2	0	-	-	2.0	0.5	
2:00 AM	-	-	-	-	-	-	-	-	-	-	0	0	0	0	-	-	0.0	0.0	
3:00 AM	-	-	-	-	-	-	-	-	-	-	0	0	1	0	-	-	0.5	0.0	
4:00 AM	-	-	-	-	-	-	-	-	-	-	0	1	1	1	-	-	0.5	1.0	
5:00 AM	-	-	-	-	-	-	-	-	-	-	1	1	0	0	-	-	0.5	0.5	
6:00 AM	-	-	-	-	-	-	-	-	-	-	2	1	4	0	-	-	3.0	0.5	
7:00 AM	-	-	-	-	-	-	-	-	-	-	2	6	4	5	-	-	3.0	5.5	
8:00 AM	-	-	-	-	-	-	-	-	-	-	3	8	3	11	-	-	3.0	9.5	
9:00 AM	-	-	-	-	-	-	-	-	-	-	10	14	4	7	-	-	7.0	10.5	
10:00 AM	-	-	-	-	-	-	-	-	-	15	15	11	10	10	16	15.0	15.0	12.0	13.7
11:00 AM	-	-	-	-	-	-	-	-	-	7	18	12	28	12	16	7.0	18.0	10.3	20.7
12:00 PM	-	-	-	-	-	-	-	-	-	18	17	12	12	18	12	18.0	17.0	16.0	13.7
1:00 PM	-	-	-	-	-	-	-	-	-	14	15	17	23	8	13	14.0	15.0	13.0	17.0
2:00 PM	-	-	-	-	-	-	-	-	-	21	20	14	15	16	14	21.0	20.0	17.0	16.3
3:00 PM	-	-	-	-	-	-	-	-	-	17	21	9	11	10	18	17.0	21.0	12.0	16.7
4:00 PM	-	-	-	-	-	-	-	-	-	16	25	15	18	10	17	16.0	25.0	13.7	20.0
5:00 PM	-	-	-	-	-	-	-	-	-	31	29	14	6	14	9	31.0	29.0	19.7	14.7
6:00 PM	-	-	-	-	-	-	-	-	-	24	23	12	24	13	11	24.0	23.0	16.3	19.3
7:00 PM	-	-	-	-	-	-	-	-	-	9	13	13	21	7	14	9.0	13.0	9.7	16.0
8:00 PM	-	-	-	-	-	-	-	-	-	7	18	9	11	12	13	7.0	18.0	9.3	14.0
9:00 PM	-	-	-	-	-	-	-	-	-	13	17	5	5	6	6	13.0	17.0	8.0	9.3
10:00 PM	-	-	-	-	-	-	-	-	-	8	14	5	5	1	3	8.0	14.0	4.7	7.3
11:00 PM	-	-	-	-	-	-	-	-	-	4	3	4	5	1	2	4.0	3.0	3.0	3.3
Totals	0	0	0	0	0	0	0	0	0	204	248	173	227	159	191	204.0	248.0	185.7	232.0
Combined	0		0		0		0			452		400		350		452.0		417.7	
Split (%)	-	-	-	-	-	-	-	-	-	45.1	54.9	43.3	56.8	45.4	54.6	45.1	54.9	44.5	55.5

**Peak Hours**

12:00 AM - 12:00 PM	-	-	-	-	-	-	-	-	-	10:00 AM	10:45 AM	10:30 AM	11:00 AM	10:45 AM	10:45 AM	10:00 AM	10:45 AM	10:00 AM	10:45 AM
Volume	-	-	-	-	-	-	-	-	-	15	19	14	28	14	20	15.0	19.0	12.0	21.3
Factor	-	-	-	-	-	-	-	-	-	0.94	0.59	0.70	0.78	0.70	0.71	0.94	0.59	0.69	0.84
12:00 PM - 12:00 AM	-	-	-	-	-	-	-	-	-	5:15 PM	5:45 PM	1:00 PM	6:00 PM	12:00 PM	3:00 PM	5:15 PM	5:45 PM	4:45 PM	5:45 PM
Volume	-	-	-	-	-	-	-	-	-	35	31	17	24	18	18	35.0	31.0	19.7	21.0
Factor	-	-	-	-	-	-	-	-	-	0.73	0.78	0.71	0.75	0.75	0.75	0.73	0.78	0.82	0.79

Minnehaha Blvd :  
 North of 54th St W :  
 @ 5233 :

Site: NA

Weekly Volume

Interval Start	Mon 5/21/2012		Tue 5/22/2012		Wed 5/23/2012		Thu 5/24/2012		Fri 5/25/2012		Sat 5/26/2012		Sun 5/27/2012		Mon - Fri Average		Weekly Average	
	ABNB	BASB	ABNB	BASB	ABNB	BASB												
12:00 AM	0	1	0	0	0	3	0	1	2	3	-	-	-	-	0.4	1.6	0.4	1.6
1:00 AM	1	0	0	0	1	0	0	0	1	0	-	-	-	-	0.6	0.0	0.6	0.0
2:00 AM	1	0	0	0	0	0	0	0	0	0	-	-	-	-	0.2	0.0	0.2	0.0
3:00 AM	1	0	0	0	0	1	0	0	0	0	-	-	-	-	0.2	0.2	0.2	0.2
4:00 AM	0	0	0	0	0	0	0	0	0	0	-	-	-	-	0.0	0.0	0.0	0.0
5:00 AM	1	3	1	1	2	1	0	1	1	3	-	-	-	-	1.0	1.8	1.0	1.8
6:00 AM	2	8	3	5	1	3	0	2	0	6	-	-	-	-	1.2	4.8	1.2	4.8
7:00 AM	9	15	9	17	15	20	9	15	6	11	-	-	-	-	10.7	17.3	10.7	17.3
8:00 AM	14	25	4	23	8	10	14	16	-	-	-	-	-	-	10.0	18.5	10.0	18.5
9:00 AM	6	18	15	15	10	20	12	21	-	-	-	-	-	-	10.8	18.5	10.8	18.5
10:00 AM	10	16	9	12	12	11	10	15	-	-	-	-	-	-	10.3	13.5	10.3	13.5
11:00 AM	11	14	15	25	15	16	12	17	-	-	-	-	-	-	13.3	18.0	13.3	18.0
12:00 PM	17	16	15	12	22	13	12	10	-	-	-	-	-	-	16.5	12.8	16.5	12.8
1:00 PM	11	7	15	20	13	11	13	15	-	-	-	-	-	-	13.0	13.3	13.0	13.3
2:00 PM	9	21	17	14	9	24	10	15	-	-	-	-	-	-	11.3	18.5	11.3	18.5
3:00 PM	27	19	17	17	21	19	23	21	-	-	-	-	-	-	22.0	19.0	22.0	19.0
4:00 PM	16	19	20	22	24	31	22	25	-	-	-	-	-	-	20.5	24.3	20.5	24.3
5:00 PM	32	32	35	37	31	27	18	33	-	-	-	-	-	-	29.0	32.3	29.0	32.3
6:00 PM	17	23	28	33	32	19	22	20	-	-	-	-	-	-	24.8	23.8	24.8	23.8
7:00 PM	15	16	11	10	10	19	12	23	-	-	-	-	-	-	12.0	17.0	12.0	17.0
8:00 PM	12	17	15	17	13	8	9	13	-	-	-	-	-	-	12.3	13.8	12.3	13.8
9:00 PM	6	7	7	7	5	11	6	8	-	-	-	-	-	-	6.0	8.3	6.0	8.3
10:00 PM	5	2	4	3	5	1	3	5	-	-	-	-	-	-	4.3	2.8	4.3	2.8
11:00 PM	0	2	2	2	3	0	1	2	-	-	-	-	-	-	1.5	1.5	1.5	1.5
Totals	223	281	242	292	252	268	208	278	10	23	0	0	0	0	231.5	281.2	231.5	281.2
Combined	504		534		520		486		33		0		0		512.8		512.8	
Split (%)	44.2	55.8	45.3	54.7	48.5	51.5	42.8	57.2	30.3	69.7	-	-	-	-	45.2	54.8	45.2	54.8

Peak Hours

12:00 AM - 12:00 PM	7:45 AM	7:30 AM	9:00 AM	7:30 AM	7:30 AM	7:30 AM	8:30 AM	9:00 AM	6:30 AM	6:30 AM	-	-	-	-	11:00 AM	7:30 AM	11:00 AM	7:30 AM
Volume	15	29	15	26	17	24	16	21	6	14	-	-	-	-	13.3	23.5	13.3	23.5
Factor	0.75	0.81	0.54	0.72	0.61	0.67	0.67	0.66	0.38	0.58	-	-	-	-	0.70	0.94	0.70	0.94
12:00 PM - 12:00 AM	3:15 PM	5:30 PM	4:45 PM	5:00 PM	5:45 PM	4:30 PM	3:15 PM	5:15 PM	-	-	-	-	-	-	5:15 PM	4:45 PM	5:15 PM	4:45 PM
Volume	33	37	38	37	42	38	29	35	-	-	-	-	-	-	30.5	32.3	30.5	32.3
Factor	0.83	0.66	0.68	0.71	0.81	0.68	0.73	0.80	-	-	-	-	-	-	0.74	0.83	0.74	0.83

Daily Classification

Combined Channels

Interval Start	Total	Bike	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axle Double	5 Axle Double	>6 Axle Double	<6 Axle Multi	6 Axle Multi	>6 Axle Multi
12:00 AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1:00 AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2:00 AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3:00 AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5:00 AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6:00 AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7:00 AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8:00 AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9:00 AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10:00 AM	133	0	91	31	4	5	1	0	1	0	0	0	0	0
11:00 AM	163	0	96	54	3	10	0	0	0	0	0	0	0	0
12:00 PM	200	1	131	53	2	12	0	0	1	0	0	0	0	0
1:00 PM	158	0	116	34	3	4	0	0	1	0	0	0	0	0
2:00 PM	206	0	144	49	7	6	0	0	0	0	0	0	0	0
3:00 PM	273	0	219	42	8	4	0	0	0	0	0	0	0	0
4:00 PM	350	0	303	39	3	4	0	0	1	0	0	0	0	0
5:00 PM	181	0	148	28	3	2	0	0	0	0	0	0	0	0
6:00 PM	110	0	86	18	3	3	0	0	0	0	0	0	0	0
7:00 PM	99	0	74	21	2	2	0	0	0	0	0	0	0	0
8:00 PM	74	0	54	16	2	2	0	0	0	0	0	0	0	0
9:00 PM	62	0	40	21	0	1	0	0	0	0	0	0	0	0
10:00 PM	43	0	34	9	0	0	0	0	0	0	0	0	0	0
11:00 PM	15	0	13	2	0	0	0	0	0	0	0	0	0	0
Total	2067	1	1549	417	40	55	1	0	4	0	0	0	0	0
%		0.0	74.9	20.2	1.9	2.7	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0

Daily Classification

Combined Channels

Interval Start	Total	Bike	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axle Double	5 Axle Double	>6 Axle Double	<6 Axle Multi	6 Axle Multi	>6 Axle Multi
12:00 AM	7	0	6	1	0	0	0	0	0	0	0	0	0	0
1:00 AM	5	0	5	0	0	0	0	0	0	0	0	0	0	0
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	1	0	1	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	10	0	7	1	0	0	2	0	0	0	0	0	0	0
5:00 AM	26	0	18	7	1	0	0	0	0	0	0	0	0	0
6:00 AM	64	0	49	11	2	1	0	0	1	0	0	0	0	0
7:00 AM	99	0	81	14	2	2	0	0	0	0	0	0	0	0
8:00 AM	126	0	101	21	2	2	0	0	0	0	0	0	0	0
9:00 AM	145	0	110	32	2	1	0	0	0	0	0	0	0	0
10:00 AM	149	0	108	32	2	4	0	0	1	2	0	0	0	0
11:00 AM	165	0	133	29	1	2	0	0	0	0	0	0	0	0
12:00 PM	179	0	135	41	2	1	0	0	0	0	0	0	0	0
1:00 PM	145	0	124	18	2	1	0	0	0	0	0	0	0	0
2:00 PM	125	0	102	17	3	3	0	0	0	0	0	0	0	0
3:00 PM	200	0	159	32	3	6	0	0	0	0	0	0	0	0
4:00 PM	171	0	135	30	2	3	0	0	1	0	0	0	0	0
5:00 PM	154	0	129	21	2	2	0	0	0	0	0	0	0	0
6:00 PM	106	0	89	14	2	1	0	0	0	0	0	0	0	0
7:00 PM	78	0	61	14	2	1	0	0	0	0	0	0	0	0
8:00 PM	54	0	49	3	2	0	0	0	0	0	0	0	0	0
9:00 PM	29	0	22	7	0	0	0	0	0	0	0	0	0	0
10:00 PM	26	0	25	1	0	0	0	0	0	0	0	0	0	0
11:00 PM	16	0	12	1	0	3	0	0	0	0	0	0	0	0
Total	2080	0	1661	347	32	33	2	0	3	2	0	0	0	0
%		0.0	79.9	16.7	1.5	1.6	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.0

Daily Classification

Combined Channels

Interval Start	Total	Bike	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axle Double	5 Axle Double	>6 Axle Double	<6 Axle Multi	6 Axle Multi	>6 Axle Multi
12:00 AM	5	0	3	2	0	0	0	0	0	0	0	0	0	0
1:00 AM	2	0	2	0	0	0	0	0	0	0	0	0	0	0
2:00 AM	2	0	1	1	0	0	0	0	0	0	0	0	0	0
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	1	0	1	0	0	0	0	0	0	0	0	0	0	0
5:00 AM	8	0	6	2	0	0	0	0	0	0	0	0	0	0
6:00 AM	17	0	10	7	0	0	0	0	0	0	0	0	0	0
7:00 AM	39	0	34	3	1	1	0	0	0	0	0	0	0	0
8:00 AM	67	0	54	12	1	0	0	0	0	0	0	0	0	0
9:00 AM	78	0	65	11	2	0	0	0	0	0	0	0	0	0
10:00 AM	61	0	48	11	1	1	0	0	0	0	0	0	0	0
11:00 AM	76	0	64	8	1	3	0	0	0	0	0	0	0	0
12:00 PM	75	1	57	16	1	0	0	0	0	0	0	0	0	0
1:00 PM	90	0	70	18	2	0	0	0	0	0	0	0	0	0
2:00 PM	111	0	92	17	2	0	0	0	0	0	0	0	0	0
3:00 PM	111	0	98	11	2	0	0	0	0	0	0	0	0	0
4:00 PM	146	0	120	23	2	1	0	0	0	0	0	0	0	0
5:00 PM	114	0	97	15	2	0	0	0	0	0	0	0	0	0
6:00 PM	71	0	54	15	2	0	0	0	0	0	0	0	0	0
7:00 PM	46	0	38	7	1	0	0	0	0	0	0	0	0	0
8:00 PM	27	0	19	7	1	0	0	0	0	0	0	0	0	0
9:00 PM	11	0	10	1	0	0	0	0	0	0	0	0	0	0
10:00 PM	6	0	6	0	0	0	0	0	0	0	0	0	0	0
11:00 PM	2	0	2	0	0	0	0	0	0	0	0	0	0	0
Total	1166	1	951	187	21	6	0	0	0	0	0	0	0	0
%		0.1	81.6	16.0	1.8	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Daily Classification

Combined Channels

Interval Start	Total	Bike	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axle Double	5 Axle Double	>6 Axle Double	<6 Axle Multi	6 Axle Multi	>6 Axle Multi
12:00 AM	2	0	2	0	0	0	0	0	0	0	0	0	0	0
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	10	0	7	2	1	0	0	0	0	0	0	0	0	0
5:00 AM	25	0	22	2	1	0	0	0	0	0	0	0	0	0
6:00 AM	82	0	60	15	3	2	2	0	0	0	0	0	0	0
7:00 AM	166	0	110	44	6	3	2	0	0	1	0	0	0	0
8:00 AM	152	0	92	51	5	2	1	0	1	0	0	0	0	0
9:00 AM	121	1	65	36	3	10	6	0	0	0	0	0	0	0
10:00 AM	146	0	98	38	2	8	0	0	0	0	0	0	0	0
11:00 AM	166	0	102	51	2	10	1	0	0	0	0	0	0	0
12:00 PM	118	0	88	23	2	4	0	0	1	0	0	0	0	0
1:00 PM	136	0	104	21	4	7	0	0	0	0	0	0	0	0
2:00 PM	183	0	140	31	7	5	0	0	0	0	0	0	0	0
3:00 PM	236	0	194	35	4	2	0	0	1	0	0	0	0	0
4:00 PM	407	0	309	87	2	8	0	0	1	0	0	0	0	0
5:00 PM	236	0	192	37	4	2	0	0	1	0	0	0	0	0
6:00 PM	159	0	117	37	2	3	0	0	0	0	0	0	0	0
7:00 PM	89	0	70	17	2	0	0	0	0	0	0	0	0	0
8:00 PM	43	0	37	4	2	0	0	0	0	0	0	0	0	0
9:00 PM	18	0	13	4	1	0	0	0	0	0	0	0	0	0
10:00 PM	8	0	7	1	0	0	0	0	0	0	0	0	0	0
11:00 PM	2	0	1	1	0	0	0	0	0	0	0	0	0	0
Total	2505	1	1830	537	53	66	12	0	5	1	0	0	0	0
%		0.0	73.1	21.4	2.1	2.6	0.5	0.0	0.2	0.0	0.0	0.0	0.0	0.0

Daily Classification

Combined Channels

Interval Start	Total	Bike	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axle Double	5 Axle Double	>6 Axle Double	<6 Axle Multi	6 Axle Multi	>6 Axle Multi
12:00 AM	3	0	3	0	0	0	0	0	0	0	0	0	0	0
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	1	0	1	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	6	0	5	0	1	0	0	0	0	0	0	0	0	0
5:00 AM	24	0	19	2	2	0	0	0	1	0	0	0	0	0
6:00 AM	124	0	91	24	5	4	0	0	0	0	0	0	0	0
7:00 AM	181	0	135	36	7	3	0	0	0	0	0	0	0	0
8:00 AM	150	0	91	44	2	11	0	0	1	1	0	0	0	0
9:00 AM	108	0	65	27	3	9	0	0	4	0	0	0	0	0
10:00 AM	160	0	100	48	2	10	0	0	0	0	0	0	0	0
11:00 AM	151	0	97	41	3	10	0	0	0	0	0	0	0	0
12:00 PM	140	0	96	34	2	6	0	0	2	0	0	0	0	0
1:00 PM	148	0	117	25	3	3	0	0	0	0	0	0	0	0
2:00 PM	197	0	142	40	7	8	0	0	0	0	0	0	0	0
3:00 PM	263	1	212	44	4	2	0	0	0	0	0	0	0	0
4:00 PM	380	0	306	64	4	6	0	0	0	0	0	0	0	0
5:00 PM	205	0	172	28	3	1	0	0	1	0	0	0	0	0
6:00 PM	133	0	114	15	3	1	0	0	0	0	0	0	0	0
7:00 PM	108	0	90	15	3	0	0	0	0	0	0	0	0	0
8:00 PM	68	0	50	16	2	0	0	0	0	0	0	0	0	0
9:00 PM	30	0	25	5	0	0	0	0	0	0	0	0	0	0
10:00 PM	18	0	16	1	0	1	0	0	0	0	0	0	0	0
11:00 PM	4	0	4	0	0	0	0	0	0	0	0	0	0	0
Total	2602	1	1951	509	56	75	0	0	9	1	0	0	0	0
%		0.0	75.0	19.6	2.2	2.9	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0

Daily Classification

Combined Channels

Interval Start	Total	Bike	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axle Double	5 Axle Double	>6 Axle Double	<6 Axle Multi	6 Axle Multi	>6 Axle Multi
12:00 AM	3	0	2	1	0	0	0	0	0	0	0	0	0	0
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 AM	2	0	2	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	13	0	9	3	1	0	0	0	0	0	0	0	0	0
5:00 AM	46	0	34	9	2	1	0	0	0	0	0	0	0	0
6:00 AM	133	0	101	23	5	3	0	0	1	0	0	0	0	0
7:00 AM	165	0	118	34	7	6	0	0	0	0	0	0	0	0
8:00 AM	132	0	80	36	4	11	0	0	1	0	0	0	0	0
9:00 AM	94	0	63	20	4	7	0	0	0	0	0	0	0	0
10:00 AM	151	0	103	34	3	11	0	0	0	0	0	0	0	0
11:00 AM	133	0	78	39	2	13	0	0	1	0	0	0	0	0
12:00 PM	123	1	81	33	3	4	0	0	1	0	0	0	0	0
1:00 PM	153	0	100	42	3	7	0	0	1	0	0	0	0	0
2:00 PM	211	0	158	45	6	2	0	0	0	0	0	0	0	0
3:00 PM	252	0	200	43	3	6	0	0	0	0	0	0	0	0
4:00 PM	434	0	355	68	2	7	0	0	2	0	0	0	0	0
5:00 PM	249	0	195	49	2	2	0	0	1	0	0	0	0	0
6:00 PM	129	0	108	18	3	0	0	0	0	0	0	0	0	0
7:00 PM	93	0	70	21	2	0	0	0	0	0	0	0	0	0
8:00 PM	44	0	41	1	2	0	0	0	0	0	0	0	0	0
9:00 PM	25	0	21	4	0	0	0	0	0	0	0	0	0	0
10:00 PM	8	0	8	0	0	0	0	0	0	0	0	0	0	0
11:00 PM	4	0	2	2	0	0	0	0	0	0	0	0	0	0
Total	2597	1	1929	525	54	80	0	0	8	0	0	0	0	0
%		0.0	74.3	20.2	2.1	3.1	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0

Daily Classification

Combined Channels

Interval Start	Total	Bike	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axle Double	5 Axle Double	>6 Axle Double	<6 Axle Multi	6 Axle Multi	>6 Axle Multi
12:00 AM	1	0	1	0	0	0	0	0	0	0	0	0	0	0
1:00 AM	2	0	2	0	0	0	0	0	0	0	0	0	0	0
2:00 AM	1	0	0	1	0	0	0	0	0	0	0	0	0	0
3:00 AM	2	0	2	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	5	0	4	0	1	0	0	0	0	0	0	0	0	0
5:00 AM	29	0	24	4	1	0	0	0	0	0	0	0	0	0
6:00 AM	104	0	77	18	4	5	0	0	0	0	0	0	0	0
7:00 AM	153	0	114	30	7	2	0	0	0	0	0	0	0	0
8:00 AM	107	0	67	37	1	2	0	0	0	0	0	0	0	0
9:00 AM	84	0	62	17	2	3	0	0	0	0	0	0	0	0
10:00 AM	120	0	90	24	2	4	0	0	0	0	0	0	0	0
11:00 AM	119	0	82	27	2	6	0	0	2	0	0	0	0	0
12:00 PM	114	0	74	34	2	4	0	0	0	0	0	0	0	0
1:00 PM	81	0	50	20	2	9	0	0	0	0	0	0	0	0
2:00 PM	123	0	89	27	6	1	0	0	0	0	0	0	0	0
3:00 PM	160	0	134	19	3	4	0	0	0	0	0	0	0	0
4:00 PM	292	0	244	42	1	5	0	0	0	0	0	0	0	0
5:00 PM	190	1	152	32	3	2	0	0	0	0	0	0	0	0
6:00 PM	82	0	73	8	1	0	0	0	0	0	0	0	0	0
7:00 PM	52	0	38	12	1	1	0	0	0	0	0	0	0	0
8:00 PM	29	0	22	6	1	0	0	0	0	0	0	0	0	0
9:00 PM	6	0	6	0	0	0	0	0	0	0	0	0	0	0
10:00 PM	3	0	3	0	0	0	0	0	0	0	0	0	0	0
11:00 PM	3	0	1	1	0	1	0	0	0	0	0	0	0	0
Total	1862	1	1411	359	40	49	0	0	2	0	0	0	0	0
%		0.1	75.8	19.3	2.1	2.6	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0

Daily Classification

Combined Channels

Interval Start	Total	Bike	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axle Double	5 Axle Double	>6 Axle Double	<6 Axle Multi	6 Axle Multi	>6 Axle Multi
12:00 AM	3	0	3	0	0	0	0	0	0	0	0	0	0	0
1:00 AM	2	0	2	0	0	0	0	0	0	0	0	0	0	0
2:00 AM	1	0	1	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	10	0	6	3	1	0	0	0	0	0	0	0	0	0
5:00 AM	22	0	19	2	1	0	0	0	0	0	0	0	0	0
Total	38	0	31	5	2	0	0	0	0	0	0	0	0	0
%		0.0	81.6	13.2	5.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Daily Speed

mph	Combined Channels														Avg.
	Total	0 - < 15	15 - < 20	20 - < 25	25 - < 30	30 - < 35	35 - < 40	40 - < 45	45 - < 50	50 - < 55	55 - < 60	60 - < 65	65 - < 70	70 - < 200	
12:00 AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1:00 AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2:00 AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3:00 AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5:00 AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6:00 AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7:00 AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8:00 AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9:00 AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10:00 AM	133	0	4	35	71	17	6	0	0	0	0	0	0	0	27.1
11:00 AM	163	0	4	52	82	23	2	0	0	0	0	0	0	0	26.4
12:00 PM	200	0	8	54	103	34	1	0	0	0	0	0	0	0	26.7
1:00 PM	158	0	4	36	81	35	1	1	0	0	0	0	0	0	27.5
2:00 PM	206	0	5	57	116	27	1	0	0	0	0	0	0	0	26.8
3:00 PM	273	1	7	59	150	52	3	0	0	0	0	1	0	0	27.2
4:00 PM	350	1	3	60	227	53	5	0	0	0	0	0	1	0	27.5
5:00 PM	181	0	3	48	106	20	4	0	0	0	0	0	0	0	26.9
6:00 PM	110	0	4	41	52	10	2	1	0	0	0	0	0	0	26.2
7:00 PM	99	0	4	40	45	10	0	0	0	0	0	0	0	0	25.8
8:00 PM	74	0	0	21	41	10	2	0	0	0	0	0	0	0	26.9
9:00 PM	62	0	0	25	34	3	0	0	0	0	0	0	0	0	25.8
10:00 PM	43	0	0	11	24	6	2	0	0	0	0	0	0	0	27.6
11:00 PM	15	0	1	3	8	3	0	0	0	0	0	0	0	0	27.3

Total	2067	2	47	542	1140	303	29	2	0	0	0	1	1	0	26.9
%		0.1	2.3	26.2	55.2	14.7	1.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	

**Average (Mean)** 26.9 mph      **Minimum** 11.4 mph      **Maximum** 65.5 mph      **Pace Range** 21.7 - 31.7 mph      1868 vehicles (86.8 %)

**Percentile Speeds**  
(mph)      10% 22.5      15% 23.3      50% 26.9      85% 30.2      90% 31.0

**Speeds Exceeded**  
25 mph 70.7 % (1523)      35 mph 1.5 % (33)      45 mph 0.1 % (2)      55 mph 0.1 % (2)      65 mph 0.0 % (1)      75 mph 0.0 % (0)

Daily Speed

mph	Combined Channels														Avg.
	Total	0 - < 15	15 - < 20	20 - < 25	25 - < 30	30 - < 35	35 - < 40	40 - < 45	45 - < 50	50 - < 55	55 - < 60	60 - < 65	65 - < 70	70 - < 200	
12:00 AM	7	0	0	1	4	2	0	0	0	0	0	0	0	0	27.8
1:00 AM	5	0	1	3	1	0	0	0	0	0	0	0	0	0	22.0
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-
3:00 AM	1	0	0	0	0	1	0	0	0	0	0	0	0	0	32.0
4:00 AM	10	0	1	2	6	1	0	0	0	0	0	0	0	0	25.0
5:00 AM	26	0	2	10	13	1	0	0	0	0	0	0	0	0	25.1
6:00 AM	64	0	0	16	32	16	0	0	0	0	0	0	0	0	27.5
7:00 AM	99	0	6	30	48	15	0	0	0	0	0	0	0	0	26.2
8:00 AM	126	0	2	38	71	14	1	0	0	0	0	0	0	0	26.4
9:00 AM	145	0	1	26	94	23	1	0	0	0	0	0	0	0	27.2
10:00 AM	149	1	5	52	77	13	1	0	0	0	0	0	0	0	25.9
11:00 AM	165	1	5	47	92	20	0	0	0	0	0	0	0	0	26.5
12:00 PM	179	4	4	51	96	22	2	0	0	0	0	0	0	0	26.3
1:00 PM	145	0	3	37	84	21	0	0	0	0	0	0	0	0	26.8
2:00 PM	125	1	3	29	67	24	1	0	0	0	0	0	0	0	27.0
3:00 PM	200	1	0	44	120	30	3	2	0	0	0	0	0	0	27.3
4:00 PM	171	0	2	40	98	31	0	0	0	0	0	0	0	0	27.2
5:00 PM	154	0	3	44	82	25	0	0	0	0	0	0	0	0	26.6
6:00 PM	106	0	1	36	53	15	0	1	0	0	0	0	0	0	26.7
7:00 PM	78	1	1	31	38	7	0	0	0	0	0	0	0	0	25.7
8:00 PM	54	0	1	20	29	4	0	0	0	0	0	0	0	0	26.2
9:00 PM	29	0	2	6	15	5	1	0	0	0	0	0	0	0	26.2
10:00 PM	26	0	0	8	17	1	0	0	0	0	0	0	0	0	26.4
11:00 PM	16	0	0	5	8	2	1	0	0	0	0	0	0	0	27.6
<b>Total</b>	<b>2080</b>	<b>9</b>	<b>43</b>	<b>576</b>	<b>1145</b>	<b>293</b>	<b>11</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>26.6</b>
<b>%</b>		<b>0.4</b>	<b>2.1</b>	<b>27.7</b>	<b>55.0</b>	<b>14.1</b>	<b>0.5</b>	<b>0.1</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	

**Average (Mean)** 26.6 mph      **Minimum** 11.3 mph      **Maximum** 43.9 mph      **Pace Range** 21.7 - 31.7 mph      1832 vehicles (88.1 %)

**Percentile Speeds**  
(mph)      10% 22.5      15% 23.4      50% 26.6      85% 30.0      90% 30.8

**Speeds Exceeded**  
25 mph 69.8 % (1452)      35 mph 0.7 % (14)      45 mph 0.0 % (0)      55 mph 0.0 % (0)      65 mph 0.0 % (0)      75 mph 0.0 % (0)

Daily Speed

mph	Combined Channels														Avg.
	Total	0 - < 15	15 - < 20	20 - < 25	25 - < 30	30 - < 35	35 - < 40	40 - < 45	45 - < 50	50 - < 55	55 - < 60	60 - < 65	65 - < 70	70 - < 200	
12:00 AM	5	0	0	3	2	0	0	0	0	0	0	0	0	0	25.3
1:00 AM	2	0	0	1	1	0	0	0	0	0	0	0	0	0	24.8
2:00 AM	2	0	0	0	1	1	0	0	0	0	0	0	0	0	29.1
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-
4:00 AM	1	0	0	1	0	0	0	0	0	0	0	0	0	0	23.7
5:00 AM	8	0	2	3	2	1	0	0	0	0	0	0	0	0	23.9
6:00 AM	17	0	2	6	7	2	0	0	0	0	0	0	0	0	25.4
7:00 AM	39	1	1	21	12	4	0	0	0	0	0	0	0	0	25.0
8:00 AM	67	1	14	28	23	1	0	0	0	0	0	0	0	0	23.2
9:00 AM	78	0	8	42	24	4	0	0	0	0	0	0	0	0	24.3
10:00 AM	61	0	6	26	28	1	0	0	0	0	0	0	0	0	24.4
11:00 AM	76	0	5	26	37	7	1	0	0	0	0	0	0	0	25.9
12:00 PM	75	2	0	18	37	17	1	0	0	0	0	0	0	0	27.1
1:00 PM	90	0	0	21	53	16	0	0	0	0	0	0	0	0	27.1
2:00 PM	111	0	4	29	56	22	0	0	0	0	0	0	0	0	26.9
3:00 PM	111	0	1	23	71	16	0	0	0	0	0	0	0	0	26.9
4:00 PM	146	0	1	30	88	26	1	0	0	0	0	0	0	0	27.4
5:00 PM	114	0	2	27	64	21	0	0	0	0	0	0	0	0	26.9
6:00 PM	71	0	1	18	43	9	0	0	0	0	0	0	0	0	26.5
7:00 PM	46	0	2	15	26	2	1	0	0	0	0	0	0	0	26.3
8:00 PM	27	0	0	5	19	3	0	0	0	0	0	0	0	0	26.8
9:00 PM	11	0	1	4	5	1	0	0	0	0	0	0	0	0	25.9
10:00 PM	6	0	0	1	3	2	0	0	0	0	0	0	0	0	28.4
11:00 PM	2	0	0	0	2	0	0	0	0	0	0	0	0	0	28.2
<b>Total</b>	<b>1166</b>	<b>4</b>	<b>50</b>	<b>348</b>	<b>604</b>	<b>156</b>	<b>4</b>	<b>0</b>	<b>26.2</b>						
<b>%</b>		<b>0.3</b>	<b>4.3</b>	<b>29.8</b>	<b>51.8</b>	<b>13.4</b>	<b>0.3</b>	<b>0.0</b>							

**Average (Mean)** 26.2 mph      **Minimum** 11.5 mph      **Maximum** 38.8 mph      **Pace Range** 21.3 - 31.3 mph      1002 vehicles (85.9 %)

**Percentile Speeds**  
(mph)      10% 22.0      15% 22.8      50% 26.2      85% 29.8      90% 30.7

**Speeds Exceeded**  
25 mph 65.5 % (764)      35 mph 0.3 % (4)      45 mph 0.0 % (0)      55 mph 0.0 % (0)      65 mph 0.0 % (0)      75 mph 0.0 % (0)

Daily Speed

mph	Combined Channels														Avg.
	Total	0 - < 15	15 - < 20	20 - < 25	25 - < 30	30 - < 35	35 - < 40	40 - < 45	45 - < 50	50 - < 55	55 - < 60	60 - < 65	65 - < 70	70 - < 200	
12:00 AM	2	0	0	0	0	2	0	0	0	0	0	0	0	0	30.6
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-
4:00 AM	10	0	0	6	4	0	0	0	0	0	0	0	0	0	25.4
5:00 AM	25	0	2	7	15	1	0	0	0	0	0	0	0	0	26.0
6:00 AM	82	0	3	17	42	17	3	0	0	0	0	0	0	0	27.6
7:00 AM	166	0	1	34	100	30	1	0	0	0	0	0	0	0	27.3
8:00 AM	152	2	4	43	79	21	2	0	0	0	0	0	0	1	26.8
9:00 AM	121	0	4	38	58	18	3	0	0	0	0	0	0	0	26.6
10:00 AM	146	0	3	29	86	25	3	0	0	0	0	0	0	0	27.3
11:00 AM	166	0	2	45	96	20	2	0	0	0	1	0	0	0	26.9
12:00 PM	118	0	4	19	76	19	0	0	0	0	0	0	0	0	27.1
1:00 PM	136	0	5	31	82	18	0	0	0	0	0	0	0	0	26.7
2:00 PM	183	0	6	51	97	27	1	1	0	0	0	0	0	0	26.7
3:00 PM	236	1	4	47	131	46	7	0	0	0	0	0	0	0	27.6
4:00 PM	407	0	8	59	247	89	3	1	0	0	0	0	0	0	27.7
5:00 PM	236	5	8	77	99	41	4	1	0	1	0	0	0	0	26.3
6:00 PM	159	0	12	74	62	11	0	0	0	0	0	0	0	0	24.8
7:00 PM	89	0	1	40	41	7	0	0	0	0	0	0	0	0	25.5
8:00 PM	43	0	0	16	21	5	1	0	0	0	0	0	0	0	26.3
9:00 PM	18	0	0	2	10	5	0	0	0	0	0	0	0	1	30.3
10:00 PM	8	0	1	0	5	2	0	0	0	0	0	0	0	0	27.3
11:00 PM	2	0	0	1	1	0	0	0	0	0	0	0	0	0	26.0
<b>Total</b>	<b>2505</b>	<b>8</b>	<b>68</b>	<b>636</b>	<b>1352</b>	<b>404</b>	<b>30</b>	<b>3</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>26.9</b>
<b>%</b>		<b>0.3</b>	<b>2.7</b>	<b>25.4</b>	<b>54.0</b>	<b>16.1</b>	<b>1.2</b>	<b>0.1</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.1</b>	

**Average (Mean)** 26.9 mph      **Minimum** 10.9 mph      **Maximum** 72.8 mph      **Pace Range** 22.1 - 32.1 mph      2147 vehicles (85.7 %)

**Percentile Speeds**  
(mph)      10% 22.4      15% 23.3      50% 26.9      85% 30.3      90% 31.2

**Speeds Exceeded**  
25 mph 71.6 % (1793)      35 mph 1.5 % (37)      45 mph 0.2 % (4)      55 mph 0.1 % (3)      65 mph 0.1 % (2)      75 mph 0.0 % (0)

Daily Speed

mph	Combined Channels														Avg.
	Total	0 - < 15	15 - < 20	20 - < 25	25 - < 30	30 - < 35	35 - < 40	40 - < 45	45 - < 50	50 - < 55	55 - < 60	60 - < 65	65 - < 70	70 - < 200	
12:00 AM	3	0	0	0	2	0	1	0	0	0	0	0	0	0	29.8
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-
3:00 AM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	26.0
4:00 AM	6	0	1	3	2	0	0	0	0	0	0	0	0	0	22.9
5:00 AM	24	0	0	7	14	2	1	0	0	0	0	0	0	0	26.8
6:00 AM	124	0	2	26	71	23	2	0	0	0	0	0	0	0	27.6
7:00 AM	181	1	3	55	91	30	1	0	0	0	0	0	0	0	26.6
8:00 AM	150	0	9	24	91	25	1	0	0	0	0	0	0	0	27.1
9:00 AM	108	1	9	39	55	4	0	0	0	0	0	0	0	0	25.0
10:00 AM	160	0	2	44	92	22	0	0	0	0	0	0	0	0	26.6
11:00 AM	151	1	6	37	81	25	1	0	0	0	0	0	0	0	26.6
12:00 PM	140	1	7	32	76	23	1	0	0	0	0	0	0	0	26.6
1:00 PM	148	0	4	44	67	31	2	0	0	0	0	0	0	0	26.8
2:00 PM	197	0	5	44	114	31	2	0	0	0	0	0	0	1	27.2
3:00 PM	263	1	2	46	157	55	1	0	0	0	0	0	0	1	27.5
4:00 PM	380	2	3	91	217	62	4	0	0	1	0	0	0	0	27.1
5:00 PM	205	0	5	47	119	32	2	0	0	0	0	0	0	0	26.8
6:00 PM	133	0	6	34	71	20	2	0	0	0	0	0	0	0	26.6
7:00 PM	108	0	3	33	54	17	0	0	0	0	0	0	0	1	26.9
8:00 PM	68	1	2	28	29	7	1	0	0	0	0	0	0	0	25.7
9:00 PM	30	0	1	7	15	6	1	0	0	0	0	0	0	0	27.1
10:00 PM	18	0	1	5	12	0	0	0	0	0	0	0	0	0	25.9
11:00 PM	4	0	0	0	2	2	0	0	0	0	0	0	0	0	28.4
<b>Total</b>	<b>2602</b>	<b>8</b>	<b>71</b>	<b>646</b>	<b>1433</b>	<b>417</b>	<b>23</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>26.8</b>
<b>%</b>		<b>0.3</b>	<b>2.7</b>	<b>24.8</b>	<b>55.1</b>	<b>16.0</b>	<b>0.9</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.1</b>	

**Average (Mean)** 26.8 mph      **Minimum** 11.4 mph      **Maximum** 80.4 mph      **Pace Range** 21.6 - 31.6 mph      2238 vehicles (86.0 %)

**Percentile Speeds**  
(mph)      10% 22.4      15% 23.3      50% 26.9      85% 30.3      90% 31.0

**Speeds Exceeded**  
25 mph 72.1 % (1877)      35 mph 1.0 % (27)      45 mph 0.2 % (4)      55 mph 0.1 % (3)      65 mph 0.1 % (3)      75 mph 0.1 % (3)

Daily Speed

mph	Combined Channels														Avg.
	Total	0 - < 15	15 - < 20	20 - < 25	25 - < 30	30 - < 35	35 - < 40	40 - < 45	45 - < 50	50 - < 55	55 - < 60	60 - < 65	65 - < 70	70 - < 200	
12:00 AM	3	0	0	1	1	1	0	0	0	0	0	0	0	0	26.7
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-
2:00 AM	2	0	0	0	1	1	0	0	0	0	0	0	0	0	30.8
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-
4:00 AM	13	0	1	6	4	2	0	0	0	0	0	0	0	0	26.0
5:00 AM	46	0	1	11	25	8	1	0	0	0	0	0	0	0	27.1
6:00 AM	133	0	4	32	71	25	1	0	0	0	0	0	0	0	27.0
7:00 AM	165	0	1	54	79	30	1	0	0	0	0	0	0	0	26.8
8:00 AM	132	0	4	47	68	13	0	0	0	0	0	0	0	0	25.9
9:00 AM	94	0	6	18	59	11	0	0	0	0	0	0	0	0	26.4
10:00 AM	151	0	3	44	76	25	3	0	0	0	0	0	0	0	26.8
11:00 AM	133	0	3	36	72	19	3	0	0	0	0	0	0	0	26.8
12:00 PM	123	1	3	44	60	13	2	0	0	0	0	0	0	0	26.1
1:00 PM	153	0	8	46	78	20	1	0	0	0	0	0	0	0	26.0
2:00 PM	211	1	4	48	121	35	2	0	0	0	0	0	0	0	27.2
3:00 PM	252	0	2	62	151	34	2	1	0	0	0	0	0	0	27.1
4:00 PM	434	0	7	90	273	64	0	0	0	0	0	0	0	0	27.1
5:00 PM	249	1	8	72	136	30	2	0	0	0	0	0	0	0	26.3
6:00 PM	129	0	1	53	57	16	2	0	0	0	0	0	0	0	26.3
7:00 PM	93	0	1	27	58	7	0	0	0	0	0	0	0	0	26.4
8:00 PM	44	0	1	16	20	7	0	0	0	0	0	0	0	0	26.2
9:00 PM	25	0	0	8	10	7	0	0	0	0	0	0	0	0	27.2
10:00 PM	8	0	0	0	4	4	0	0	0	0	0	0	0	0	29.3
11:00 PM	4	0	0	1	2	0	1	0	0	0	0	0	0	0	28.3

Total	2597	3	58	716	1426	372	21	1	0	0	0	0	0	0	26.7
%		0.1	2.2	27.6	54.9	14.3	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	

**Average (Mean)** 26.7 mph      **Minimum** 12.8 mph      **Maximum** 40.2 mph      **Pace Range** 21.8 - 31.8 mph      2268 vehicles (87.3 %)

**Percentile Speeds**  
(mph)      10%      15%      50%      85%      90%  
22.6      23.4      26.7      30.0      30.9

**Speeds Exceeded**  
25 mph      35 mph      45 mph      55 mph      65 mph      75 mph  
70.1 % (1820)      0.8 % (22)      0.0 % (0)      0.0 % (0)      0.0 % (0)      0.0 % (0)

Daily Speed

mph	Combined Channels														Avg.
	Total	0 - < 15	15 - < 20	20 - < 25	25 - < 30	30 - < 35	35 - < 40	40 - < 45	45 - < 50	50 - < 55	55 - < 60	60 - < 65	65 - < 70	70 - < 200	
12:00 AM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	25.9
1:00 AM	2	0	0	0	2	0	0	0	0	0	0	0	0	0	28.2
2:00 AM	1	0	0	1	0	0	0	0	0	0	0	0	0	0	23.2
3:00 AM	2	0	0	0	1	1	0	0	0	0	0	0	0	0	30.4
4:00 AM	5	0	1	3	0	1	0	0	0	0	0	0	0	0	23.6
5:00 AM	29	0	0	7	18	3	1	0	0	0	0	0	0	0	27.3
6:00 AM	104	0	5	36	49	14	0	0	0	0	0	0	0	0	26.2
7:00 AM	153	0	0	39	77	35	1	0	0	1	0	0	0	0	27.4
8:00 AM	107	0	3	23	61	19	1	0	0	0	0	0	0	0	26.9
9:00 AM	84	0	4	30	42	8	0	0	0	0	0	0	0	0	25.8
10:00 AM	120	0	4	24	71	19	1	0	0	0	0	0	0	1	27.3
11:00 AM	119	0	4	37	58	20	0	0	0	0	0	0	0	0	26.4
12:00 PM	114	0	4	35	59	15	0	1	0	0	0	0	0	0	26.4
1:00 PM	81	0	0	32	29	19	1	0	0	0	0	0	0	0	26.6
2:00 PM	123	0	3	36	59	24	0	0	0	0	0	1	0	0	27.0
3:00 PM	160	0	5	38	88	28	1	0	0	0	0	0	0	0	27.1
4:00 PM	292	0	4	53	177	54	4	0	0	0	0	0	0	0	27.5
5:00 PM	190	3	2	42	113	29	1	0	0	0	0	0	0	0	26.9
6:00 PM	82	0	1	26	38	16	1	0	0	0	0	0	0	0	27.0
7:00 PM	52	0	1	12	29	9	1	0	0	0	0	0	0	0	27.3
8:00 PM	29	0	1	11	14	3	0	0	0	0	0	0	0	0	25.9
9:00 PM	6	0	0	0	5	1	0	0	0	0	0	0	0	0	28.2
10:00 PM	3	0	0	1	0	1	1	0	0	0	0	0	0	0	30.3
11:00 PM	3	0	0	0	3	0	0	0	0	0	0	0	0	0	26.4
<b>Total</b>	<b>1862</b>	<b>3</b>	<b>42</b>	<b>486</b>	<b>994</b>	<b>319</b>	<b>14</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>26.9</b>
<b>%</b>		<b>0.2</b>	<b>2.3</b>	<b>26.1</b>	<b>53.4</b>	<b>17.1</b>	<b>0.8</b>	<b>0.1</b>	<b>0.0</b>	<b>0.1</b>	<b>0.0</b>	<b>0.1</b>	<b>0.0</b>	<b>0.1</b>	

**Average (Mean)** 26.9 mph      **Minimum** 11.6 mph      **Maximum** 72.5 mph      **Pace Range** 22.1 - 32.1 mph      1609 vehicles (86.4 %)

**Percentile Speeds**  
(mph)      10%      15%      50%      85%      90%  
22.6      23.4      26.9      30.5      31.3

**Speeds Exceeded**  
25 mph      35 mph      45 mph      55 mph      65 mph      75 mph  
71.5 % (1331)      1.0 % (18)      0.2 % (3)      0.1 % (2)      0.1 % (1)      0.0 % (0)

Daily Speed

mph	Combined Channels														Avg.
	Total	0 - < 15	15 - < 20	20 - < 25	25 - < 30	30 - < 35	35 - < 40	40 - < 45	45 - < 50	50 - < 55	55 - < 60	60 - < 65	65 - < 70	70 - < 200	
12:00 AM	3	0	0	1	1	1	0	0	0	0	0	0	0	0	28.2
1:00 AM	2	0	0	0	1	0	0	1	0	0	0	0	0	0	35.5
2:00 AM	1	0	0	0	0	1	0	0	0	0	0	0	0	0	30.6
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-
4:00 AM	10	0	1	7	2	0	0	0	0	0	0	0	0	0	23.8
5:00 AM	22	0	1	9	9	3	0	0	0	0	0	0	0	0	25.2
Total	38	0	2	17	13	5	0	1	0	0	0	0	0	0	26.4
%		0.0	5.3	44.7	34.2	13.2	0.0	2.6	0.0	0.0	0.0	0.0	0.0	0.0	

**Average (Mean)** 26.4 mph      **Minimum** 16.4 mph      **Maximum** 43.4 mph      **Pace Range** 21.2 - 31.2 mph      77 vehicles (88.5 %)

**Percentile Speeds**  
(mph)      10%      15%      50%      85%      90%  
21.5      21.9      26.2      30.0      30.6

**Speeds Exceeded**  
25 mph      35 mph      45 mph      55 mph      65 mph      75 mph  
64.4 % (56)      1.1 % (1)      0.0 % (0)      0.0 % (0)      0.0 % (0)      0.0 % (0)

Minnehaha Blvd :  
 North of 54th St W :  
 @ 5233 :

Site: NA  
 5/18/2012  
 Friday

Daily Speed

mph	Combined Channels														Avg.
	Total	0 - < 15	15 - < 20	20 - < 25	25 - < 30	30 - < 35	35 - < 40	40 - < 45	45 - < 50	50 - < 55	55 - < 60	60 - < 65	65 - < 70	70 - < 200	
12:00 AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1:00 AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2:00 AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3:00 AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5:00 AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6:00 AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7:00 AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8:00 AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9:00 AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10:00 AM	30	4	8	9	9	0	0	0	0	0	0	0	0	0	21.6
11:00 AM	25	2	7	12	4	0	0	0	0	0	0	0	0	0	21.1
12:00 PM	35	4	10	13	8	0	0	0	0	0	0	0	0	0	20.8
1:00 PM	29	3	8	16	1	1	0	0	0	0	0	0	0	0	20.6
2:00 PM	41	2	8	21	10	0	0	0	0	0	0	0	0	0	22.7
3:00 PM	38	0	8	23	3	3	1	0	0	0	0	0	0	0	22.9
4:00 PM	41	0	8	19	13	1	0	0	0	0	0	0	0	0	23.4
5:00 PM	60	1	6	29	19	5	0	0	0	0	0	0	0	0	24.3
6:00 PM	47	3	4	23	14	3	0	0	0	0	0	0	0	0	23.7
7:00 PM	22	2	4	7	8	1	0	0	0	0	0	0	0	0	23.0
8:00 PM	25	0	4	10	7	4	0	0	0	0	0	0	0	0	24.5
9:00 PM	30	0	5	19	5	1	0	0	0	0	0	0	0	0	23.1
10:00 PM	22	1	9	7	4	0	1	0	0	0	0	0	0	0	22.1
11:00 PM	7	0	2	4	1	0	0	0	0	0	0	0	0	0	22.8
Total	452	22	91	212	106	19	2	0	0	0	0	0	0	0	22.8
%		4.9	20.1	46.9	23.5	4.2	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	

**Average (Mean)** 22.8 mph      **Minimum** 10.5 mph      **Maximum** 39.2 mph      **Pace Range** 17.3 - 27.3 mph      349 vehicles (77.2 %)

**Percentile Speeds**  
 (mph)      10%      15%      50%      85%      90%  
 17.0      18.6      22.9      27.1      28.1

**Speeds Exceeded**  
25 mph      35 mph      45 mph      55 mph      65 mph      75 mph  
 28.1 % (127)      0.4 % (2)      0.0 % (0)      0.0 % (0)      0.0 % (0)      0.0 % (0)

Minnehaha Blvd :  
 North of 54th St W :  
 @ 5233 :

Site: NA  
 5/19/2012  
 Saturday

Daily Speed

mph	Combined Channels														Avg.
	Total	0 - < 15	15 - < 20	20 - < 25	25 - < 30	30 - < 35	35 - < 40	40 - < 45	45 - < 50	50 - < 55	55 - < 60	60 - < 65	65 - < 70	70 - < 200	
12:00 AM	2	0	0	0	2	0	0	0	0	0	0	0	0	0	26.2
1:00 AM	3	0	1	2	0	0	0	0	0	0	0	0	0	0	19.9
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-
4:00 AM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	26.8
5:00 AM	2	0	0	2	0	0	0	0	0	0	0	0	0	0	20.3
6:00 AM	3	1	0	2	0	0	0	0	0	0	0	0	0	0	20.0
7:00 AM	8	0	2	3	3	0	0	0	0	0	0	0	0	0	23.6
8:00 AM	11	0	3	4	3	1	0	0	0	0	0	0	0	0	23.3
9:00 AM	24	0	9	10	4	1	0	0	0	0	0	0	0	0	21.4
10:00 AM	21	0	3	13	5	0	0	0	0	0	0	0	0	0	22.7
11:00 AM	40	0	10	16	13	1	0	0	0	0	0	0	0	0	23.3
12:00 PM	24	1	4	14	5	0	0	0	0	0	0	0	0	0	22.2
1:00 PM	40	3	6	23	8	0	0	0	0	0	0	0	0	0	22.3
2:00 PM	29	1	8	9	10	1	0	0	0	0	0	0	0	0	22.8
3:00 PM	20	0	5	10	4	1	0	0	0	0	0	0	0	0	23.1
4:00 PM	33	1	14	11	7	0	0	0	0	0	0	0	0	0	21.2
5:00 PM	20	3	2	11	3	1	0	0	0	0	0	0	0	0	21.9
6:00 PM	36	4	14	15	3	0	0	0	0	0	0	0	0	0	19.6
7:00 PM	34	2	11	18	3	0	0	0	0	0	0	0	0	0	20.7
8:00 PM	20	0	2	9	9	0	0	0	0	0	0	0	0	0	23.7
9:00 PM	10	0	1	8	1	0	0	0	0	0	0	0	0	0	21.6
10:00 PM	10	0	0	7	3	0	0	0	0	0	0	0	0	0	23.8
11:00 PM	9	0	0	6	3	0	0	0	0	0	0	0	0	0	23.5
Total	400	16	95	193	90	6	0	0	0	0	0	0	0	0	22.1
%		4.0	23.8	48.3	22.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	

**Average (Mean)** 22.1 mph      **Minimum** 10.3 mph      **Maximum** 31.3 mph      **Pace Range** 17.5 - 27.5 mph      331 vehicles (82.8 %)

**Percentile Speeds**  
 (mph)      10%      15%      50%      85%      90%  
 17.0      18.3      22.2      26.0      26.6

**Speeds Exceeded**  
25 mph      35 mph      45 mph      55 mph      65 mph      75 mph  
 24.0 % (96)      0.0 % (0)      0.0 % (0)      0.0 % (0)      0.0 % (0)      0.0 % (0)

Minnehaha Blvd :  
 North of 54th St W :  
 @ 5233 :

Site: NA  
 5/20/2012  
 Sunday

Daily Speed

mph	Combined Channels														Avg.
	Total	0 - < 15	15 - < 20	20 - < 25	25 - < 30	30 - < 35	35 - < 40	40 - < 45	45 - < 50	50 - < 55	55 - < 60	60 - < 65	65 - < 70	70 - < 200	
12:00 AM	5	0	3	1	0	0	0	1	0	0	0	0	0	0	24.8
1:00 AM	2	0	0	2	0	0	0	0	0	0	0	0	0	0	23.1
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-
3:00 AM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	27.6
4:00 AM	2	0	1	1	0	0	0	0	0	0	0	0	0	0	18.7
5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-
6:00 AM	4	1	2	0	1	0	0	0	0	0	0	0	0	0	19.2
7:00 AM	9	1	2	5	1	0	0	0	0	0	0	0	0	0	20.6
8:00 AM	14	0	1	9	4	0	0	0	0	0	0	0	0	0	23.9
9:00 AM	11	0	3	5	3	0	0	0	0	0	0	0	0	0	21.7
10:00 AM	26	0	5	12	6	3	0	0	0	0	0	0	0	0	24.1
11:00 AM	28	1	3	17	7	0	0	0	0	0	0	0	0	0	22.8
12:00 PM	30	0	5	18	6	1	0	0	0	0	0	0	0	0	22.7
1:00 PM	21	1	5	6	8	1	0	0	0	0	0	0	0	0	23.1
2:00 PM	30	1	4	16	8	1	0	0	0	0	0	0	0	0	23.3
3:00 PM	28	0	3	16	9	0	0	0	0	0	0	0	0	0	24.0
4:00 PM	27	1	4	18	4	0	0	0	0	0	0	0	0	0	21.7
5:00 PM	23	0	5	11	6	1	0	0	0	0	0	0	0	0	23.4
6:00 PM	24	0	7	12	5	0	0	0	0	0	0	0	0	0	22.4
7:00 PM	21	0	8	11	2	0	0	0	0	0	0	0	0	0	21.6
8:00 PM	25	4	7	11	3	0	0	0	0	0	0	0	0	0	20.3
9:00 PM	12	0	4	6	2	0	0	0	0	0	0	0	0	0	21.5
10:00 PM	4	0	1	3	0	0	0	0	0	0	0	0	0	0	20.8
11:00 PM	3	0	0	1	2	0	0	0	0	0	0	0	0	0	25.6
Total	350	10	73	181	78	7	0	1	0	0	0	0	0	0	22.6
%		2.9	20.9	51.7	22.3	2.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	

**Average (Mean)** 22.6 mph      **Minimum** 11.2 mph      **Maximum** 42.2 mph      **Pace Range** 17.9 - 27.9 mph      298 vehicles (85.1 %)

**Percentile Speeds**  
 (mph)      10%      15%      50%      85%      90%  
 18.0      18.7      22.5      26.2      27.4

**Speeds Exceeded**  
25 mph      35 mph      45 mph      55 mph      65 mph      75 mph  
 24.6 % (86)      0.3 % (1)      0.0 % (0)      0.0 % (0)      0.0 % (0)      0.0 % (0)

Minnehaha Blvd :  
 North of 54th St W :  
 @ 5233 :

Site: NA  
 5/21/2012  
 Monday

Daily Speed

mph	Combined Channels														Avg.
	Total	0 - < 15	15 - < 20	20 - < 25	25 - < 30	30 - < 35	35 - < 40	40 - < 45	45 - < 50	50 - < 55	55 - < 60	60 - < 65	65 - < 70	70 - < 200	
12:00 AM	1	0	0	1	0	0	0	0	0	0	0	0	0	0	24.6
1:00 AM	1	0	0	1	0	0	0	0	0	0	0	0	0	0	21.0
2:00 AM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	26.5
3:00 AM	1	0	0	1	0	0	0	0	0	0	0	0	0	0	20.3
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-
5:00 AM	4	2	1	0	0	1	0	0	0	0	0	0	0	0	18.9
6:00 AM	10	2	2	5	1	0	0	0	0	0	0	0	0	0	20.1
7:00 AM	24	1	4	14	5	0	0	0	0	0	0	0	0	0	22.2
8:00 AM	39	1	11	22	4	1	0	0	0	0	0	0	0	0	21.5
9:00 AM	24	0	3	17	4	0	0	0	0	0	0	0	0	0	23.2
10:00 AM	26	3	4	12	7	0	0	0	0	0	0	0	0	0	21.8
11:00 AM	25	1	8	13	3	0	0	0	0	0	0	0	0	0	21.1
12:00 PM	33	1	7	17	8	0	0	0	0	0	0	0	0	0	22.3
1:00 PM	18	0	2	13	3	0	0	0	0	0	0	0	0	0	22.2
2:00 PM	30	1	13	11	5	0	0	0	0	0	0	0	0	0	21.1
3:00 PM	46	3	10	20	11	2	0	0	0	0	0	0	0	0	22.3
4:00 PM	35	2	5	17	10	1	0	0	0	0	0	0	0	0	23.2
5:00 PM	64	1	13	31	16	3	0	0	0	0	0	0	0	0	22.9
6:00 PM	40	2	4	26	8	0	0	0	0	0	0	0	0	0	22.7
7:00 PM	31	1	7	12	11	0	0	0	0	0	0	0	0	0	22.5
8:00 PM	29	0	7	15	7	0	0	0	0	0	0	0	0	0	22.7
9:00 PM	13	0	1	9	3	0	0	0	0	0	0	0	0	0	23.0
10:00 PM	7	0	2	4	1	0	0	0	0	0	0	0	0	0	21.9
11:00 PM	2	0	1	0	1	0	0	0	0	0	0	0	0	0	22.4
Total	504	21	105	261	109	8	0	0	0	0	0	0	0	0	22.3
%		4.2	20.8	51.8	21.6	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	

**Average (Mean)** 22.3 mph      **Minimum** 10.9 mph      **Maximum** 33.5 mph      **Pace Range** 17.4 - 27.4 mph      427 vehicles (84.7 %)

**Percentile Speeds**  
 (mph)      10%      15%      50%      85%      90%  
 17.6      18.7      22.5      26.0      26.9

**Speeds Exceeded**  
25 mph      35 mph      45 mph      55 mph      65 mph      75 mph  
 23.2 % (117)      0.0 % (0)      0.0 % (0)      0.0 % (0)      0.0 % (0)      0.0 % (0)

Minnehaha Blvd :  
 North of 54th St W :  
 @ 5233 :

Site: NA  
 5/22/2012  
 Tuesday

Daily Speed

mph	Combined Channels														Avg.
	Total	0 - < 15	15 - < 20	20 - < 25	25 - < 30	30 - < 35	35 - < 40	40 - < 45	45 - < 50	50 - < 55	55 - < 60	60 - < 65	65 - < 70	70 - < 200	
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-
5:00 AM	2	1	1	0	0	0	0	0	0	0	0	0	0	0	15.5
6:00 AM	8	3	0	3	2	0	0	0	0	0	0	0	0	0	19.4
7:00 AM	26	0	3	14	9	0	0	0	0	0	0	0	0	0	23.8
8:00 AM	27	1	5	9	11	1	0	0	0	0	0	0	0	0	23.3
9:00 AM	30	1	9	12	8	0	0	0	0	0	0	0	0	0	21.9
10:00 AM	21	1	4	14	2	0	0	0	0	0	0	0	0	0	21.9
11:00 AM	40	6	16	14	4	0	0	0	0	0	0	0	0	0	19.4
12:00 PM	27	2	10	13	2	0	0	0	0	0	0	0	0	0	19.8
1:00 PM	35	2	12	16	5	0	0	0	0	0	0	0	0	0	21.1
2:00 PM	31	5	11	10	5	0	0	0	0	0	0	0	0	0	20.0
3:00 PM	34	2	6	16	10	0	0	0	0	0	0	0	0	0	22.2
4:00 PM	42	0	6	21	13	2	0	0	0	0	0	0	0	0	23.8
5:00 PM	72	0	13	42	16	1	0	0	0	0	0	0	0	0	22.8
6:00 PM	61	0	14	35	10	1	1	0	0	0	0	0	0	0	22.4
7:00 PM	21	0	1	12	7	1	0	0	0	0	0	0	0	0	24.1
8:00 PM	32	1	6	16	9	0	0	0	0	0	0	0	0	0	22.7
9:00 PM	14	0	5	8	0	0	1	0	0	0	0	0	0	0	21.6
10:00 PM	7	0	1	4	2	0	0	0	0	0	0	0	0	0	23.1
11:00 PM	4	0	0	3	1	0	0	0	0	0	0	0	0	0	23.2
<b>Total</b>	<b>534</b>	<b>25</b>	<b>123</b>	<b>262</b>	<b>116</b>	<b>6</b>	<b>2</b>	<b>0</b>	<b>22.0</b>						
<b>%</b>		<b>4.7</b>	<b>23.0</b>	<b>49.1</b>	<b>21.7</b>	<b>1.1</b>	<b>0.4</b>	<b>0.0</b>							

**Average (Mean)** 22.0 mph      **Minimum** 11.1 mph      **Maximum** 36.7 mph      **Pace Range** 17.5 - 27.5 mph      437 vehicles (81.8 %)

**Percentile Speeds**  
 (mph)      10%      15%      50%      85%      90%  
 17.0      18.1      22.2      25.8      26.7

**Speeds Exceeded**  
25 mph      35 mph      45 mph      55 mph      65 mph      75 mph  
 23.2 % (124)      0.4 % (2)      0.0 % (0)      0.0 % (0)      0.0 % (0)      0.0 % (0)

Minnehaha Blvd :  
 North of 54th St W :  
 @ 5233 :

Site: NA  
 5/23/2012  
 Wednesday

Daily Speed

mph	Combined Channels														Avg.
	Total	0 - < 15	15 - < 20	20 - < 25	25 - < 30	30 - < 35	35 - < 40	40 - < 45	45 - < 50	50 - < 55	55 - < 60	60 - < 65	65 - < 70	70 - < 200	
12:00 AM	3	0	2	1	0	0	0	0	0	0	0	0	0	0	20.6
1:00 AM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	26.2
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-
3:00 AM	1	0	0	1	0	0	0	0	0	0	0	0	0	0	20.2
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-
5:00 AM	3	1	2	0	0	0	0	0	0	0	0	0	0	0	15.8
6:00 AM	4	1	0	3	0	0	0	0	0	0	0	0	0	0	20.0
7:00 AM	35	2	4	14	13	2	0	0	0	0	0	0	0	0	23.6
8:00 AM	18	0	5	10	2	1	0	0	0	0	0	0	0	0	22.7
9:00 AM	30	0	2	21	7	0	0	0	0	0	0	0	0	0	23.3
10:00 AM	23	1	7	12	3	0	0	0	0	0	0	0	0	0	21.5
11:00 AM	31	2	8	11	7	3	0	0	0	0	0	0	0	0	22.6
12:00 PM	35	1	8	17	9	0	0	0	0	0	0	0	0	0	22.6
1:00 PM	24	3	2	12	6	1	0	0	0	0	0	0	0	0	23.2
2:00 PM	33	0	8	18	6	1	0	0	0	0	0	0	0	0	22.4
3:00 PM	40	1	5	23	10	1	0	0	0	0	0	0	0	0	23.1
4:00 PM	55	1	14	21	15	4	0	0	0	0	0	0	0	0	23.0
5:00 PM	58	1	9	34	11	3	0	0	0	0	0	0	0	0	22.9
6:00 PM	51	0	10	30	10	0	0	0	0	0	0	0	1	0	23.7
7:00 PM	29	0	7	14	7	1	0	0	0	0	0	0	0	0	22.7
8:00 PM	21	0	6	11	4	0	0	0	0	0	0	0	0	0	22.1
9:00 PM	16	0	9	6	1	0	0	0	0	0	0	0	0	0	20.8
10:00 PM	6	0	2	2	2	0	0	0	0	0	0	0	0	0	21.8
11:00 PM	3	0	1	1	1	0	0	0	0	0	0	0	0	0	22.8
Total	520	14	111	262	115	17	0	0	0	0	0	0	1	0	22.8
%		2.7	21.3	50.4	22.1	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	

**Average (Mean)** 22.8 mph      **Minimum** 11.5 mph      **Maximum** 67.7 mph      **Pace Range** 17.4 - 27.4 mph      428 vehicles (82.3 %)

**Percentile Speeds**  
 (mph)      10%      15%      50%      85%      90%  
 18.0      19.0      22.6      26.6      27.4

**Speeds Exceeded**  
25 mph      35 mph      45 mph      55 mph      65 mph      75 mph  
 25.6 % (133)      0.2 % (1)      0.2 % (1)      0.2 % (1)      0.2 % (1)      0.0 % (0)

Minnehaha Blvd :  
 North of 54th St W :  
 @ 5233 :

Site: NA  
 5/24/2012  
 Thursday

Daily Speed

mph	Combined Channels														Avg.
	Total	0 - < 15	15 - < 20	20 - < 25	25 - < 30	30 - < 35	35 - < 40	40 - < 45	45 - < 50	50 - < 55	55 - < 60	60 - < 65	65 - < 70	70 - < 200	
12:00 AM	1	0	1	0	0	0	0	0	0	0	0	0	0	0	15.8
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-
5:00 AM	1	0	1	0	0	0	0	0	0	0	0	0	0	0	15.6
6:00 AM	2	1	1	0	0	0	0	0	0	0	0	0	0	0	15.0
7:00 AM	24	0	1	17	6	0	0	0	0	0	0	0	0	0	23.4
8:00 AM	30	0	9	14	7	0	0	0	0	0	0	0	0	0	22.1
9:00 AM	33	4	7	15	7	0	0	0	0	0	0	0	0	0	21.3
10:00 AM	25	0	9	11	5	0	0	0	0	0	0	0	0	0	21.5
11:00 AM	29	1	6	14	6	2	0	0	0	0	0	0	0	0	22.9
12:00 PM	22	2	5	11	4	0	0	0	0	0	0	0	0	0	21.7
1:00 PM	28	2	6	15	4	0	0	0	0	0	0	1	0	0	22.4
2:00 PM	25	4	6	12	3	0	0	0	0	0	0	0	0	0	20.2
3:00 PM	44	2	8	22	11	1	0	0	0	0	0	0	0	0	22.6
4:00 PM	47	5	7	24	9	2	0	0	0	0	0	0	0	0	22.1
5:00 PM	51	3	5	22	20	1	0	0	0	0	0	0	0	0	23.4
6:00 PM	42	2	9	20	8	3	0	0	0	0	0	0	0	0	22.5
7:00 PM	35	0	10	19	5	1	0	0	0	0	0	0	0	0	22.4
8:00 PM	22	0	9	10	3	0	0	0	0	0	0	0	0	0	21.4
9:00 PM	14	0	6	5	3	0	0	0	0	0	0	0	0	0	22.1
10:00 PM	8	0	3	5	0	0	0	0	0	0	0	0	0	0	20.5
11:00 PM	3	0	1	1	1	0	0	0	0	0	0	0	0	0	22.0
<b>Total</b>	<b>486</b>	<b>26</b>	<b>110</b>	<b>237</b>	<b>102</b>	<b>10</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>22.2</b>
<b>%</b>		<b>5.3</b>	<b>22.6</b>	<b>48.8</b>	<b>21.0</b>	<b>2.1</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.2</b>	<b>0.0</b>	<b>0.0</b>	

**Average (Mean)** 22.2 mph      **Minimum** 10.8 mph      **Maximum** 60.8 mph      **Pace Range** 17.4 - 27.4 mph      386 vehicles (79.4 %)

**Percentile Speeds**  
 (mph)      10%      15%      50%      85%      90%  
                  16.6      17.8      22.3      26.4      27.3

**Speeds Exceeded**  
25 mph      35 mph      45 mph      55 mph      65 mph      75 mph  
 23.3 % (113)      0.2 % (1)      0.2 % (1)      0.2 % (1)      0.0 % (0)      0.0 % (0)

Minnehaha Blvd :  
 North of 54th St W :  
 @ 5233 :

Site: NA  
 5/25/2012  
 Friday

Daily Speed

mph	Combined Channels														Avg.
	Total	0 - < 15	15 - < 20	20 - < 25	25 - < 30	30 - < 35	35 - < 40	40 - < 45	45 - < 50	50 - < 55	55 - < 60	60 - < 65	65 - < 70	70 - < 200	
12:00 AM	5	0	0	4	1	0	0	0	0	0	0	0	0	0	23.3
1:00 AM	1	0	0	1	0	0	0	0	0	0	0	0	0	0	23.6
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-
5:00 AM	4	1	1	1	1	0	0	0	0	0	0	0	0	0	19.6
6:00 AM	6	1	1	3	1	0	0	0	0	0	0	0	0	0	20.9
Total	16	2	2	9	3	0	0	0	0	0	0	0	0	0	22.5
%		12.5	12.5	56.3	18.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	

**Average (Mean)** 22.5 mph      **Minimum** 13.9 mph      **Maximum** 30.4 mph      **Pace Range** 17.4 - 27.4 mph      27 vehicles (81.8 %)

**Percentile Speeds**  
 (mph)      10%      15%      50%      85%      90%  
 15.6      17.4      22.4      25.9      26.6

**Speeds Exceeded**  
25 mph      35 mph      45 mph      55 mph      65 mph      75 mph  
 21.2 % (7)      0.0 % (0)      0.0 % (0)      0.0 % (0)      0.0 % (0)      0.0 % (0)

Daily Classification

Combined Channels

Interval Start	Total	Bike	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axle Double	5 Axle Double	>6 Axle Double	<6 Axle Multi	6 Axle Multi	>6 Axle Multi
12:00 AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1:00 AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2:00 AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3:00 AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5:00 AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6:00 AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7:00 AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8:00 AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9:00 AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10:00 AM	30	0	20	9	0	1	0	0	0	0	0	0	0	0
11:00 AM	25	0	18	5	0	2	0	0	0	0	0	0	0	0
12:00 PM	35	0	25	6	2	2	0	0	0	0	0	0	0	0
1:00 PM	29	0	22	3	0	2	0	0	2	0	0	0	0	0
2:00 PM	41	0	31	8	0	1	0	0	1	0	0	0	0	0
3:00 PM	38	0	31	3	2	2	0	0	0	0	0	0	0	0
4:00 PM	41	0	39	2	0	0	0	0	0	0	0	0	0	0
5:00 PM	60	0	53	6	0	0	0	0	1	0	0	0	0	0
6:00 PM	47	2	42	2	0	1	0	0	0	0	0	0	0	0
7:00 PM	22	0	19	3	0	0	0	0	0	0	0	0	0	0
8:00 PM	25	0	23	2	0	0	0	0	0	0	0	0	0	0
9:00 PM	30	0	30	0	0	0	0	0	0	0	0	0	0	0
10:00 PM	22	0	21	1	0	0	0	0	0	0	0	0	0	0
11:00 PM	7	0	7	0	0	0	0	0	0	0	0	0	0	0
Total	452	2	381	50	4	11	0	0	4	0	0	0	0	0
%		0.4	84.3	11.1	0.9	2.4	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.0

Daily Classification

Combined Channels

Interval Start	Total	Bike	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axle Double	5 Axle Double	>6 Axle Double	<6 Axle Multi	6 Axle Multi	>6 Axle Multi
12:00 AM	2	0	2	0	0	0	0	0	0	0	0	0	0	0
1:00 AM	3	0	3	0	0	0	0	0	0	0	0	0	0	0
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	1	0	1	0	0	0	0	0	0	0	0	0	0	0
5:00 AM	2	0	1	1	0	0	0	0	0	0	0	0	0	0
6:00 AM	3	0	3	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	8	0	8	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	11	0	10	1	0	0	0	0	0	0	0	0	0	0
9:00 AM	24	0	21	3	0	0	0	0	0	0	0	0	0	0
10:00 AM	21	0	20	0	0	1	0	0	0	0	0	0	0	0
11:00 AM	40	0	35	4	0	0	0	0	0	1	0	0	0	0
12:00 PM	24	0	22	2	0	0	0	0	0	0	0	0	0	0
1:00 PM	40	0	37	3	0	0	0	0	0	0	0	0	0	0
2:00 PM	29	0	28	1	0	0	0	0	0	0	0	0	0	0
3:00 PM	20	0	17	3	0	0	0	0	0	0	0	0	0	0
4:00 PM	33	0	31	2	0	0	0	0	0	0	0	0	0	0
5:00 PM	20	0	20	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	36	0	35	1	0	0	0	0	0	0	0	0	0	0
7:00 PM	34	0	30	4	0	0	0	0	0	0	0	0	0	0
8:00 PM	20	0	20	0	0	0	0	0	0	0	0	0	0	0
9:00 PM	10	0	10	0	0	0	0	0	0	0	0	0	0	0
10:00 PM	10	0	9	1	0	0	0	0	0	0	0	0	0	0
11:00 PM	9	0	9	0	0	0	0	0	0	0	0	0	0	0
Total	400	0	372	26	0	1	0	0	0	1	0	0	0	0
%		0.0	93.0	6.5	0.0	0.3	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0

Daily Classification

Combined Channels

Interval Start	Total	Bike	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axle Double	5 Axle Double	>6 Axle Double	<6 Axle Multi	6 Axle Multi	>6 Axle Multi
12:00 AM	5	0	5	0	0	0	0	0	0	0	0	0	0	0
1:00 AM	2	0	2	0	0	0	0	0	0	0	0	0	0	0
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	1	0	1	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	2	0	2	0	0	0	0	0	0	0	0	0	0	0
5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 AM	4	0	4	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	9	0	8	1	0	0	0	0	0	0	0	0	0	0
8:00 AM	14	0	12	2	0	0	0	0	0	0	0	0	0	0
9:00 AM	11	0	11	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	26	0	25	1	0	0	0	0	0	0	0	0	0	0
11:00 AM	28	0	24	4	0	0	0	0	0	0	0	0	0	0
12:00 PM	30	0	27	3	0	0	0	0	0	0	0	0	0	0
1:00 PM	21	0	16	5	0	0	0	0	0	0	0	0	0	0
2:00 PM	30	0	30	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	28	0	27	1	0	0	0	0	0	0	0	0	0	0
4:00 PM	27	0	23	4	0	0	0	0	0	0	0	0	0	0
5:00 PM	23	0	23	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	24	0	23	1	0	0	0	0	0	0	0	0	0	0
7:00 PM	21	0	21	0	0	0	0	0	0	0	0	0	0	0
8:00 PM	25	0	25	0	0	0	0	0	0	0	0	0	0	0
9:00 PM	12	0	12	0	0	0	0	0	0	0	0	0	0	0
10:00 PM	4	0	4	0	0	0	0	0	0	0	0	0	0	0
11:00 PM	3	0	3	0	0	0	0	0	0	0	0	0	0	0
Total	350	0	328	22	0	0	0	0	0	0	0	0	0	0
%		0.0	93.7	6.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Daily Classification

Combined Channels

Interval Start	Total	Bike	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axle Double	5 Axle Double	>6 Axle Double	<6 Axle Multi	6 Axle Multi	>6 Axle Multi
12:00 AM	1	0	1	0	0	0	0	0	0	0	0	0	0	0
1:00 AM	1	0	1	0	0	0	0	0	0	0	0	0	0	0
2:00 AM	1	0	1	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	1	0	1	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 AM	4	0	2	2	0	0	0	0	0	0	0	0	0	0
6:00 AM	10	0	10	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	24	1	16	3	0	3	1	0	0	0	0	0	0	0
8:00 AM	39	0	25	9	2	1	2	0	0	0	0	0	0	0
9:00 AM	24	0	17	6	0	1	0	0	0	0	0	0	0	0
10:00 AM	26	0	15	5	0	1	5	0	0	0	0	0	0	0
11:00 AM	25	0	19	3	1	2	0	0	0	0	0	0	0	0
12:00 PM	33	0	21	6	1	5	0	0	0	0	0	0	0	0
1:00 PM	18	0	15	3	0	0	0	0	0	0	0	0	0	0
2:00 PM	30	0	22	5	0	3	0	0	0	0	0	0	0	0
3:00 PM	46	0	36	3	2	4	0	0	1	0	0	0	0	0
4:00 PM	35	0	28	4	0	3	0	0	0	0	0	0	0	0
5:00 PM	64	0	58	3	1	2	0	0	0	0	0	0	0	0
6:00 PM	40	0	36	4	0	0	0	0	0	0	0	0	0	0
7:00 PM	31	0	31	0	0	0	0	0	0	0	0	0	0	0
8:00 PM	29	0	26	3	0	0	0	0	0	0	0	0	0	0
9:00 PM	13	0	13	0	0	0	0	0	0	0	0	0	0	0
10:00 PM	7	0	7	0	0	0	0	0	0	0	0	0	0	0
11:00 PM	2	0	1	1	0	0	0	0	0	0	0	0	0	0
Total	504	1	402	60	7	25	8	0	1	0	0	0	0	0
%		0.2	79.8	11.9	1.4	5.0	1.6	0.0	0.2	0.0	0.0	0.0	0.0	0.0

Daily Classification

Combined Channels

Interval Start	Total	Bike	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axle Double	5 Axle Double	>6 Axle Double	<6 Axle Multi	6 Axle Multi	>6 Axle Multi
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 AM	2	0	2	0	0	0	0	0	0	0	0	0	0	0
6:00 AM	8	0	7	1	0	0	0	0	0	0	0	0	0	0
7:00 AM	26	0	21	2	0	3	0	0	0	0	0	0	0	0
8:00 AM	27	0	20	2	2	3	0	0	0	0	0	0	0	0
9:00 AM	30	0	21	3	0	5	0	0	1	0	0	0	0	0
10:00 AM	21	0	17	2	0	2	0	0	0	0	0	0	0	0
11:00 AM	40	0	28	5	1	5	0	0	1	0	0	0	0	0
12:00 PM	27	0	24	2	0	1	0	0	0	0	0	0	0	0
1:00 PM	35	0	25	7	0	2	0	0	1	0	0	0	0	0
2:00 PM	31	0	22	9	0	0	0	0	0	0	0	0	0	0
3:00 PM	34	0	25	4	2	3	0	0	0	0	0	0	0	0
4:00 PM	42	0	40	2	0	0	0	0	0	0	0	0	0	0
5:00 PM	72	0	65	4	1	2	0	0	0	0	0	0	0	0
6:00 PM	61	0	53	5	0	1	0	0	2	0	0	0	0	0
7:00 PM	21	0	18	3	0	0	0	0	0	0	0	0	0	0
8:00 PM	32	0	28	4	0	0	0	0	0	0	0	0	0	0
9:00 PM	14	0	13	1	0	0	0	0	0	0	0	0	0	0
10:00 PM	7	0	7	0	0	0	0	0	0	0	0	0	0	0
11:00 PM	4	0	4	0	0	0	0	0	0	0	0	0	0	0
Total	534	0	440	56	6	27	0	0	5	0	0	0	0	0
%		0.0	82.4	10.5	1.1	5.1	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.0

Daily Classification

Combined Channels

Interval Start	Total	Bike	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axle Double	5 Axle Double	>6 Axle Double	<6 Axle Multi	6 Axle Multi	>6 Axle Multi
12:00 AM	3	0	3	0	0	0	0	0	0	0	0	0	0	0
1:00 AM	1	0	1	0	0	0	0	0	0	0	0	0	0	0
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	1	0	1	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 AM	3	0	3	0	0	0	0	0	0	0	0	0	0	0
6:00 AM	4	0	3	1	0	0	0	0	0	0	0	0	0	0
7:00 AM	35	0	27	6	0	2	0	0	0	0	0	0	0	0
8:00 AM	18	0	13	0	2	3	0	0	0	0	0	0	0	0
9:00 AM	30	0	26	3	1	0	0	0	0	0	0	0	0	0
10:00 AM	23	0	17	3	0	3	0	0	0	0	0	0	0	0
11:00 AM	31	0	24	7	0	0	0	0	0	0	0	0	0	0
12:00 PM	35	0	26	4	1	4	0	0	0	0	0	0	0	0
1:00 PM	24	0	19	5	0	0	0	0	0	0	0	0	0	0
2:00 PM	33	0	28	3	0	1	0	0	1	0	0	0	0	0
3:00 PM	40	0	30	6	2	2	0	0	0	0	0	0	0	0
4:00 PM	55	0	52	3	0	0	0	0	0	0	0	0	0	0
5:00 PM	58	0	51	5	0	1	0	0	1	0	0	0	0	0
6:00 PM	51	0	49	1	1	0	0	0	0	0	0	0	0	0
7:00 PM	29	0	28	1	0	0	0	0	0	0	0	0	0	0
8:00 PM	21	0	20	1	0	0	0	0	0	0	0	0	0	0
9:00 PM	16	0	16	0	0	0	0	0	0	0	0	0	0	0
10:00 PM	6	0	6	0	0	0	0	0	0	0	0	0	0	0
11:00 PM	3	0	3	0	0	0	0	0	0	0	0	0	0	0
Total	520	0	446	49	7	16	0	0	2	0	0	0	0	0
%		0.0	85.8	9.4	1.3	3.1	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0

Daily Classification

Combined Channels

Interval Start	Total	Bike	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axle Double	5 Axle Double	>6 Axle Double	<6 Axle Multi	6 Axle Multi	>6 Axle Multi
12:00 AM	1	0	1	0	0	0	0	0	0	0	0	0	0	0
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 AM	1	0	1	0	0	0	0	0	0	0	0	0	0	0
6:00 AM	2	0	1	1	0	0	0	0	0	0	0	0	0	0
7:00 AM	24	0	21	3	0	0	0	0	0	0	0	0	0	0
8:00 AM	30	0	20	6	2	2	0	0	0	0	0	0	0	0
9:00 AM	33	0	26	6	0	1	0	0	0	0	0	0	0	0
10:00 AM	25	0	12	11	0	2	0	0	0	0	0	0	0	0
11:00 AM	29	0	24	2	0	3	0	0	0	0	0	0	0	0
12:00 PM	22	0	18	2	1	1	0	0	0	0	0	0	0	0
1:00 PM	28	0	20	5	1	2	0	0	0	0	0	0	0	0
2:00 PM	25	0	20	4	0	1	0	0	0	0	0	0	0	0
3:00 PM	44	0	34	7	2	1	0	0	0	0	0	0	0	0
4:00 PM	47	0	43	4	0	0	0	0	0	0	0	0	0	0
5:00 PM	51	0	45	6	0	0	0	0	0	0	0	0	0	0
6:00 PM	42	0	34	6	0	1	0	0	1	0	0	0	0	0
7:00 PM	35	0	32	3	0	0	0	0	0	0	0	0	0	0
8:00 PM	22	0	21	1	0	0	0	0	0	0	0	0	0	0
9:00 PM	14	0	14	0	0	0	0	0	0	0	0	0	0	0
10:00 PM	8	0	8	0	0	0	0	0	0	0	0	0	0	0
11:00 PM	3	0	3	0	0	0	0	0	0	0	0	0	0	0
Total	486	0	398	67	6	14	0	0	1	0	0	0	0	0
%		0.0	81.9	13.8	1.2	2.9	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0

Daily Classification

Combined Channels

Interval Start	Total	Bike	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axle Double	5 Axle Double	>6 Axle Double	<6 Axle Multi	6 Axle Multi	>6 Axle Multi
12:00 AM	5	0	5	0	0	0	0	0	0	0	0	0	0	0
1:00 AM	1	0	1	0	0	0	0	0	0	0	0	0	0	0
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 AM	4	0	4	0	0	0	0	0	0	0	0	0	0	0
6:00 AM	6	0	6	0	0	0	0	0	0	0	0	0	0	0
Total	16	0	16	0	0	0	0	0	0	0	0	0	0	0
%		0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Weekly Volume

Interval Start	Mon 5/14/2012		Tue 5/15/2012		Wed 5/16/2012		Thu 5/17/2012		Fri 5/18/2012		Sat 5/19/2012		Sun 5/20/2012		Mon - Fri Average		Weekly Average	
	ABEB	BAWB	ABEB	BAWB	ABEB	BAWB												
12:00 AM	-	-	-	-	-	-	-	-	-	-	4	3	4	1	-	-	4.0	2.0
1:00 AM	-	-	-	-	-	-	-	-	-	-	3	2	2	0	-	-	2.5	1.0
2:00 AM	-	-	-	-	-	-	-	-	-	-	0	0	1	1	-	-	0.5	0.5
3:00 AM	-	-	-	-	-	-	-	-	-	-	1	0	0	0	-	-	0.5	0.0
4:00 AM	-	-	-	-	-	-	-	-	-	-	8	2	1	0	-	-	4.5	1.0
5:00 AM	-	-	-	-	-	-	-	-	-	-	16	10	5	3	-	-	10.5	6.5
6:00 AM	-	-	-	-	-	-	-	-	-	-	31	33	15	2	-	-	23.0	17.5
7:00 AM	-	-	-	-	-	-	-	-	-	-	54	45	32	7	-	-	43.0	26.0
8:00 AM	-	-	-	-	-	-	-	-	-	-	63	63	65	2	-	-	64.0	32.5
9:00 AM	-	-	-	-	-	-	-	-	45	40	79	66	75	3	60.0	53.3	72.4	39.6
10:00 AM	-	-	-	-	-	-	-	-	80	53	82	67	59	2	80.0	53.0	73.7	40.7
11:00 AM	-	-	-	-	-	-	-	-	85	78	83	82	72	4	85.0	78.0	80.0	54.7
12:00 PM	-	-	-	-	-	-	-	-	97	103	92	87	67	8	97.0	103.0	85.3	66.0
1:00 PM	-	-	-	-	-	-	-	-	66	92	62	83	67	23	66.0	92.0	65.0	66.0
2:00 PM	-	-	-	-	-	-	-	-	112	94	61	64	64	47	112.0	94.0	79.0	68.3
3:00 PM	-	-	-	-	-	-	-	-	172	101	105	95	61	50	172.0	101.0	112.7	82.0
4:00 PM	-	-	-	-	-	-	-	-	237	113	84	87	76	70	237.0	113.0	132.3	90.0
5:00 PM	-	-	-	-	-	-	-	-	91	90	73	81	59	55	91.0	90.0	74.3	75.3
6:00 PM	-	-	-	-	-	-	-	-	58	52	58	48	44	27	58.0	52.0	53.3	42.3
7:00 PM	-	-	-	-	-	-	-	-	54	45	44	34	41	5	54.0	45.0	46.3	28.0
8:00 PM	-	-	-	-	-	-	-	-	33	41	31	23	25	2	33.0	41.0	29.7	22.0
9:00 PM	-	-	-	-	-	-	-	-	28	34	16	13	11	0	28.0	34.0	18.3	15.7
10:00 PM	-	-	-	-	-	-	-	-	22	21	17	9	6	0	22.0	21.0	15.0	10.0
11:00 PM	-	-	-	-	-	-	-	-	10	5	10	6	2	0	10.0	5.0	7.3	3.7
Totals	0	0	0	0	0	0	0	0	1190	962	1077	1003	854	312	1205.0	975.3	1097.2	791.3
Combined	0		0		0		0		2152		2080		1166		2180.3		1888.5	
Split (%)	-	-	-	-	-	-	-	-	55.3	44.7	51.8	48.2	73.2	26.8	55.3	44.7	58.1	41.9

**Peak Hours**

12:00 AM - 12:00 PM	-	-	-	-	-	-	-	-	11:00 AM	10:30 AM	10:45 AM	10:45 AM	9:00 AM	7:00 AM	11:00 AM	10:30 AM	11:00 AM	10:45 AM
Volume	-	-	-	-	-	-	-	-	85	82	94	87	75	7	85.0	82.0	80.0	56.3
Factor	-	-	-	-	-	-	-	-	0.73	0.76	0.87	0.87	0.82	0.35	0.73	0.76	0.88	0.81
12:00 PM - 12:00 AM	-	-	-	-	-	-	-	-	3:45 PM	3:45 PM	3:15 PM	3:45 PM	4:00 PM	3:45 PM	3:45 PM	3:45 PM	3:45 PM	3:45 PM
Volume	-	-	-	-	-	-	-	-	264	113	110	103	76	72	264.0	113.0	140.0	96.0
Factor	-	-	-	-	-	-	-	-	0.81	0.88	0.76	0.72	0.86	0.90	0.81	0.88	0.83	0.94

Weekly Volume

Interval Start	Mon 5/21/2012		Tue 5/22/2012		Wed 5/23/2012		Thu 5/24/2012		Fri 5/25/2012		Sat 5/26/2012		Sun 5/27/2012		Mon - Fri Average		Weekly Average	
	ABEB	BAWB	ABEB	BAWB	ABEB	BAWB												
12:00 AM	2	0	3	0	1	2	1	0	2	1	-	-	-	-	1.8	0.6	1.8	0.6
1:00 AM	0	0	0	0	0	0	1	1	2	0	-	-	-	-	0.6	0.2	0.6	0.2
2:00 AM	0	0	0	0	0	2	0	1	1	0	-	-	-	-	0.2	0.6	0.2	0.6
3:00 AM	0	0	1	0	0	0	2	0	0	0	-	-	-	-	0.6	0.0	0.6	0.0
4:00 AM	10	0	6	0	6	7	4	1	10	0	-	-	-	-	7.2	1.6	7.2	1.6
5:00 AM	25	0	22	2	31	15	23	6	22	0	-	-	-	-	24.6	4.6	24.6	4.6
6:00 AM	67	15	77	47	66	67	76	28	48	1	-	-	-	-	70.3	33.3	70.3	33.3
7:00 AM	98	68	100	81	102	63	107	46	-	-	-	-	-	-	101.8	64.5	101.8	64.5
8:00 AM	87	65	76	74	79	53	64	43	-	-	-	-	-	-	76.5	58.8	76.5	58.8
9:00 AM	65	56	53	55	53	41	62	22	-	-	-	-	-	-	58.3	43.5	58.3	43.5
10:00 AM	67	79	97	63	89	62	79	41	-	-	-	-	-	-	83.0	61.3	83.0	61.3
11:00 AM	65	101	57	94	42	91	61	58	-	-	-	-	-	-	56.3	86.0	56.3	86.0
12:00 PM	64	54	88	52	63	60	70	44	-	-	-	-	-	-	71.3	52.5	71.3	52.5
1:00 PM	69	67	66	82	70	83	56	25	-	-	-	-	-	-	65.3	64.3	65.3	64.3
2:00 PM	101	82	103	94	116	95	104	19	-	-	-	-	-	-	106.0	72.5	106.0	72.5
3:00 PM	152	84	164	99	144	108	138	22	-	-	-	-	-	-	149.5	78.3	149.5	78.3
4:00 PM	294	113	243	137	313	121	241	51	-	-	-	-	-	-	272.8	105.5	272.8	105.5
5:00 PM	124	112	130	75	153	96	149	41	-	-	-	-	-	-	139.0	81.0	139.0	81.0
6:00 PM	64	95	68	65	63	66	68	14	-	-	-	-	-	-	65.8	60.0	65.8	60.0
7:00 PM	43	46	60	48	37	56	48	4	-	-	-	-	-	-	47.0	38.5	47.0	38.5
8:00 PM	25	18	29	39	23	21	26	3	-	-	-	-	-	-	25.8	20.3	25.8	20.3
9:00 PM	5	13	16	14	16	9	6	0	-	-	-	-	-	-	10.8	9.0	10.8	9.0
10:00 PM	5	3	11	7	3	5	3	0	-	-	-	-	-	-	5.5	3.8	5.5	3.8
11:00 PM	2	0	3	1	3	1	3	0	-	-	-	-	-	-	2.8	0.5	2.8	0.5
Totals	1434	1071	1473	1129	1473	1124	1392	470	85	2	0	0	0	0	1442.3	940.9	1442.3	940.9
Combined	2505		2602		2597		1862		87		0		0		2383.2		2383.2	
Split (%)	57.2	42.8	56.6	43.4	56.7	43.3	74.8	25.2	97.7	2.3	-	-	-	-	60.5	39.5	60.5	39.5

**Peak Hours**

12:00 AM - 12:00 PM	7:15 AM	10:45 AM	7:00 AM	10:45 AM	7:15 AM	11:00 AM	6:45 AM	10:45 AM	5:45 AM	12:00 AM	-	-	-	-	7:15 AM	10:45 AM	7:15 AM	10:45 AM
Volume	108	103	100	100	121	91	107	67	56	1	-	-	-	-	108.8	89.3	108.8	89.3
Factor	0.75	0.64	0.83	0.81	0.86	0.84	0.70	0.76	0.52	0.25	-	-	-	-	0.95	0.74	0.95	0.74
12:00 PM - 12:00 AM	4:15 PM	5:15 PM	3:45 PM	4:00 PM	4:15 PM	4:00 PM	4:15 PM	4:45 PM	-	-	-	-	-	-	4:15 PM	4:00 PM	4:15 PM	4:00 PM
Volume	300	140	266	137	317	121	265	54	-	-	-	-	-	-	275.5	105.5	275.5	105.5
Factor	0.77	0.71	0.98	0.90	0.83	0.92	0.85	0.64	-	-	-	-	-	-	0.84	0.92	0.84	0.92

# 54th Street Bridge and Street Improvements

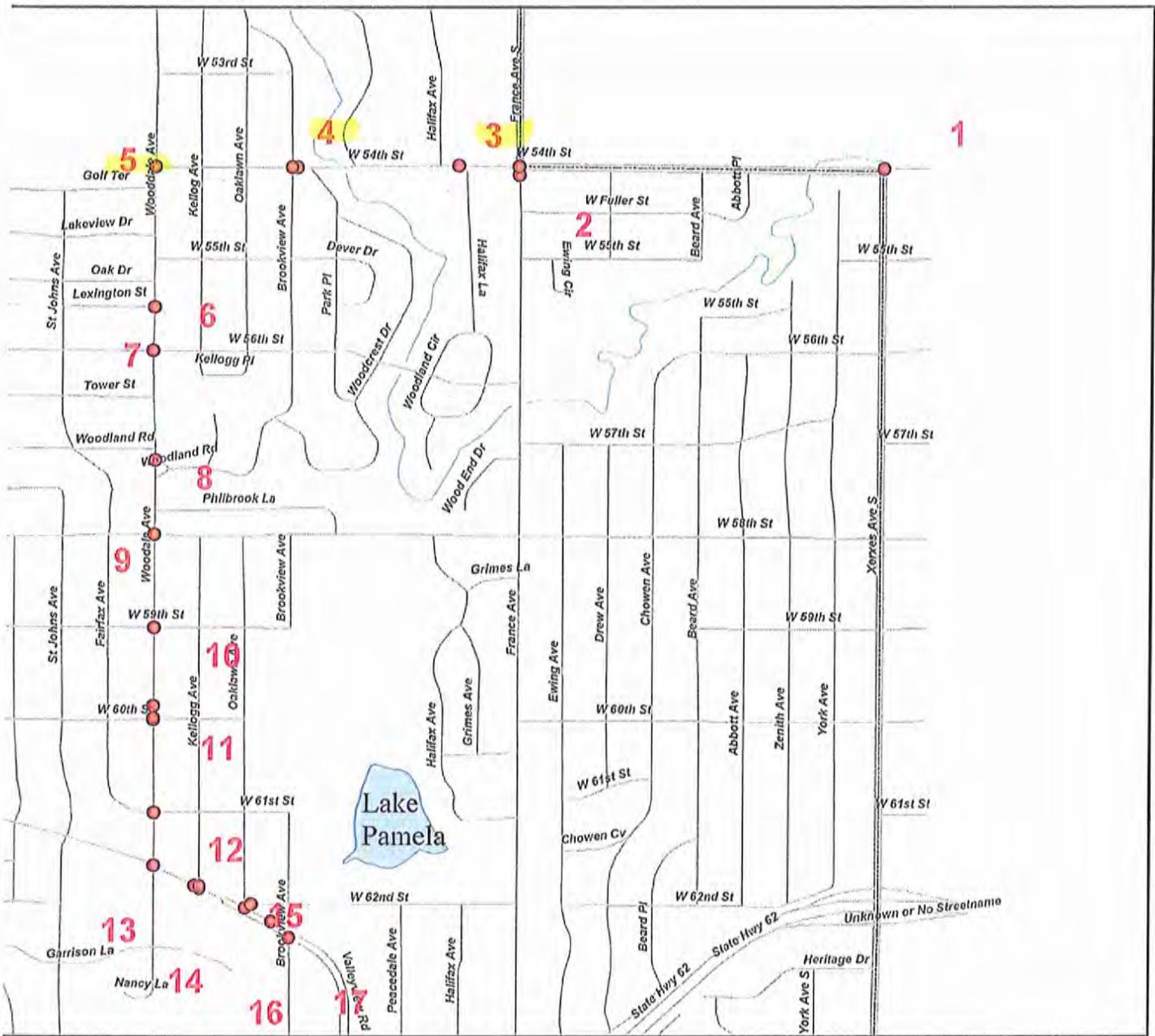


Traffic Data				
Location	Description	Year	Average Daily Traffic	85th Speed, MPH
1	54th Street West	2012	2353	30.2
2	54th Street West	2013	2437	26.5

Crash Data				
Location	Severity	Year	Month	Time
A	Injury - Possible Injury	2009	Aug.	1335
B	Property Damage - No Apparent Injury	2009	Feb.	1535
C	Injury - Possible Injury	2011	Dec.	1455
	Property Damage - No Apparent Injury	2010	Nov.	1713
	Property Damage - No Apparent Injury	2010	Nov.	1743
	Property Damage - No Apparent Injury	2009	Jul.	1413
	Property Damage - No Apparent Injury	2008	Dec.	1245
	Injury - Non-incapacitating Injury	2007	Apr.	1226
	Property Damage - No Apparent Injury	2006	Nov.	1945
	Property Damage - No Apparent Injury	2006	Sep.	1739
	Property Damage - No Apparent Injury	2006	Nov.	1945
	Property Damage - No Apparent Injury	2006	Sep.	1739
	Property Damage - No Apparent Injury	2005	May	1326
	Property Damage - No Apparent Injury	2004	Jun.	1020
	Property Damage - No Apparent Injury	2003	Jun.	1017
	Property Damage - No Apparent Injury	2003	May	855
	Property Damage - No Apparent Injury	2002	Aug.	2200
	Property Damage - No Apparent Injury	2001	Sep.	1100
	Property Damage - No Apparent Injury	2001	Feb.	1200





Location 3 Total: 1

	Year	2009	Date	Time
Severity:	1	Property Damage: No Apparent Injury	02/20;	1532
	0	Injury: Possible Injury		
	0	Injury: Non-Incapacitating Injury		
	0	Injury: Incapacitating Injury		

Location 4 Total: 4

Total: 3

	Year	2009	Date	Time
Severity:	1	Property Damage: No Apparent Injury	02/01;	1250
	1	Injury: Possible Injury	08/21;	1335
	1	Injury: Non-Incapacitating Injury	10/29;	1251
	0	Injury: Incapacitating Injury		

Total: 1

	Year	2004	Date	Time
Severity:	0	Property Damage: No Apparent Injury		
	1	Injury: Possible Injury	05/22;	251
	0	Injury: Non-Incapacitating Injury		
	0	Injury: Incapacitating Injury		

Location **5** Total: **5**

Total: **1**

	Year	2008	Date	Time
Severity:	1	Property Damage: No Apparent Injury	02/12;	1825
	0	Injury: Possible Injury		
	0	Injury: Non-Incapacitating Injury		
	0	Injury: Incapacitating Injury		

Total: **4**

	Year	2006	Date	Time
Severity:	2	Property Damage: No Apparent Injury	12/15 (2)	1050 (2)
	0	Injury: Possible Injury		
	2	Injury: Non-Incapacitating Injury	09/27 (2)	1645(2)
	0	Injury: Incapacitating Injury		

# **APPENDIX H**

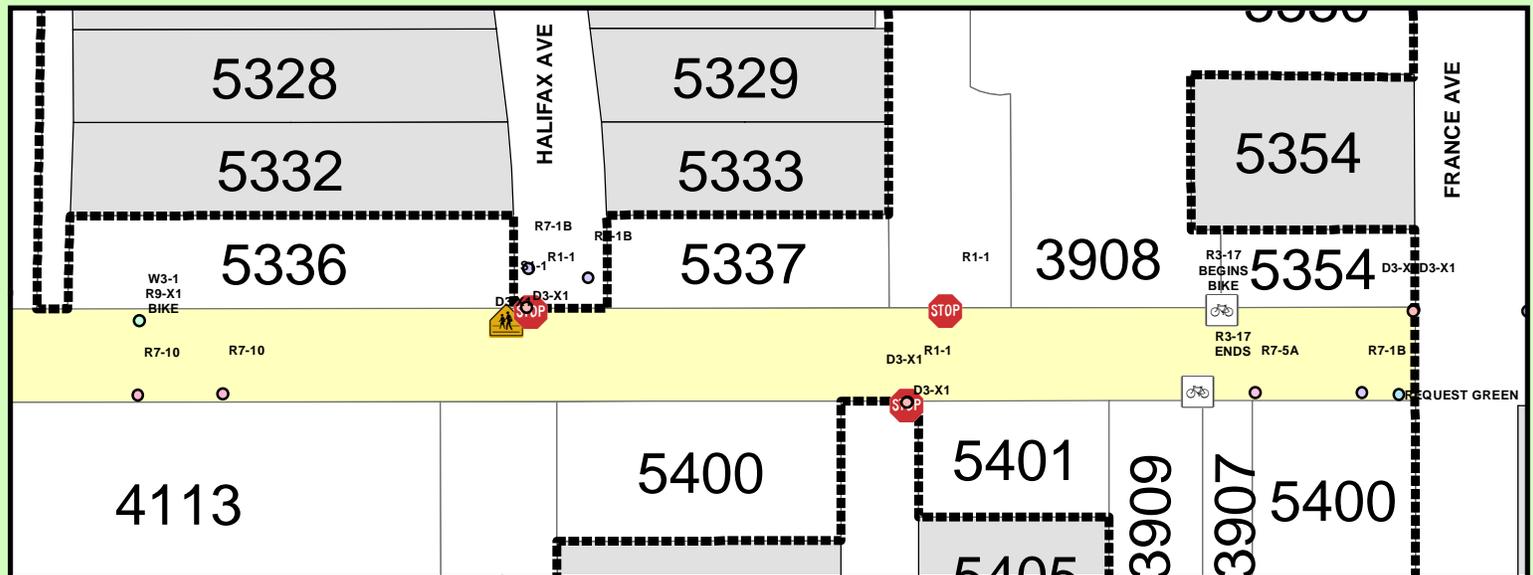
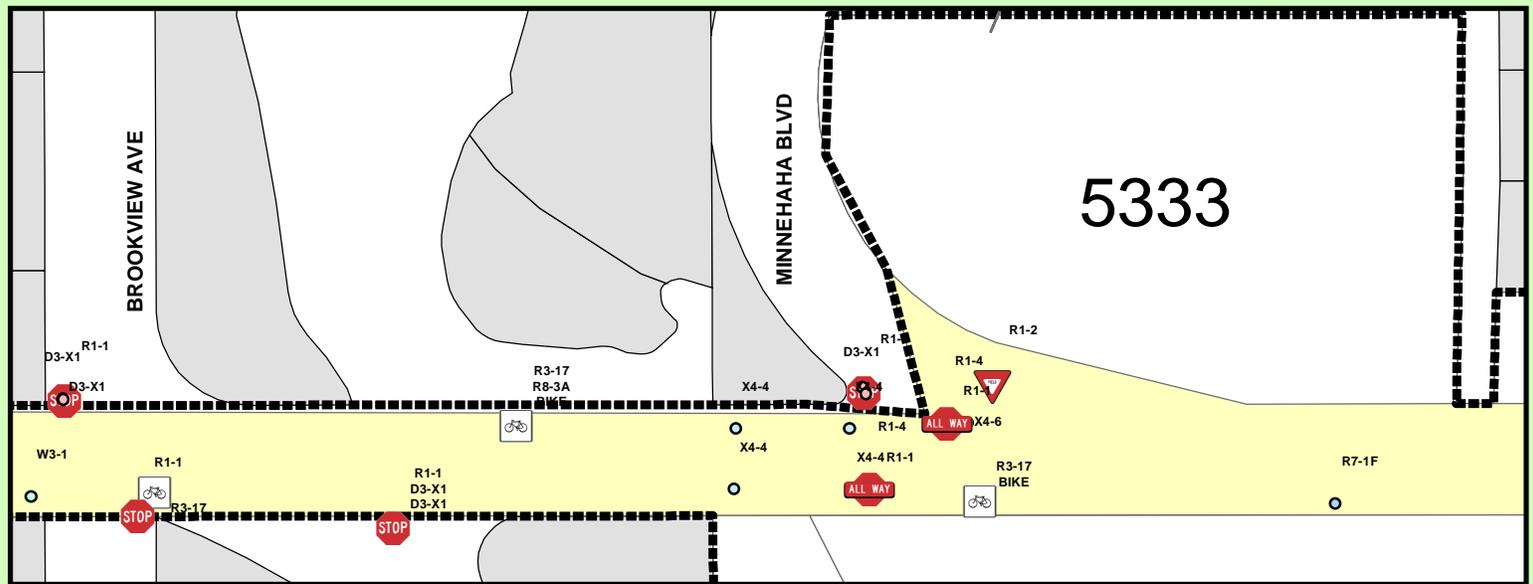
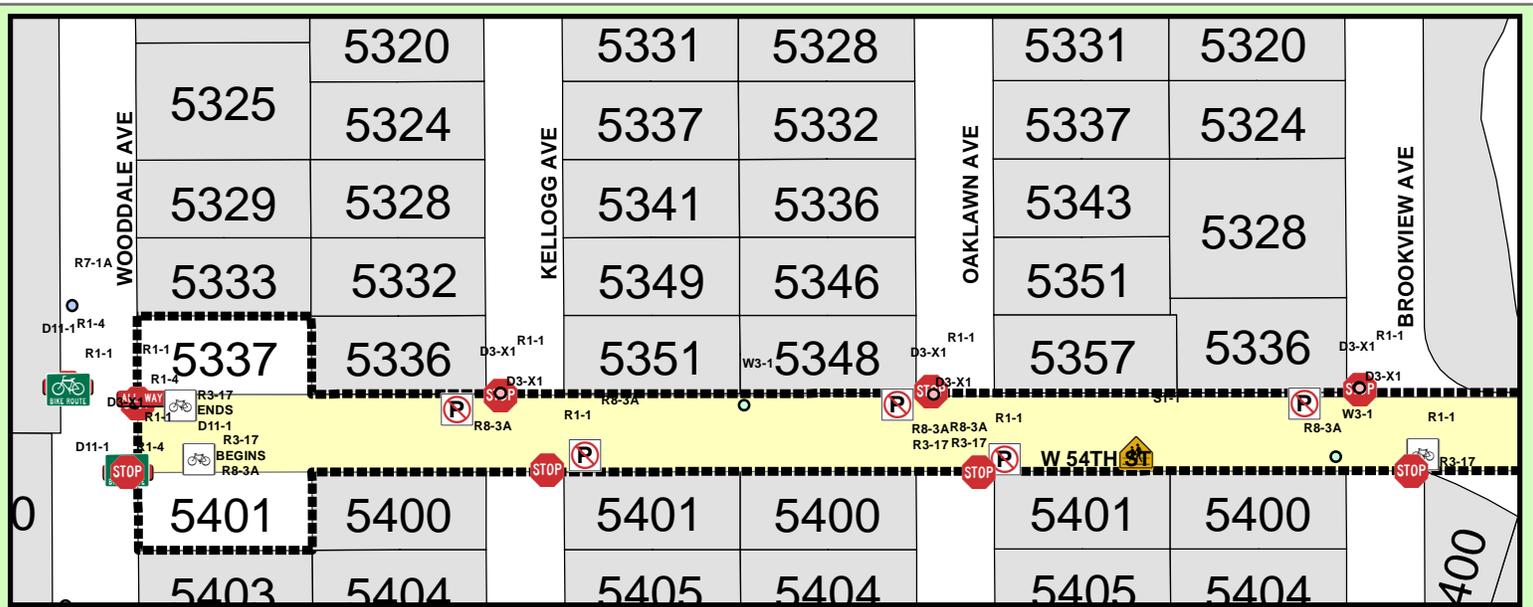
## **Existing Street Lights and Signs**



# Street Lights W. 54th St. Roadway Reconstruction Improvement No: BA-416



Engineering Dept  
October, 2013



**Signs**  
**W. 54th St.**  
**Roadway Reconstruction**  
**Improvement No: BA-416**



Engineering Dept  
 October, 2013

# **APPENDIX I**

## **54<sup>th</sup> Street Bridge MnDOT Structure Inventory Report**

# Mn/DOT Structure Inventory Report

Bridge ID: 90640      54 ST over MINNEHAHA CREEK

Date: 10/10/2013

+ GENERAL +	+ ROADWAY +	+ INSPECTION +
Agency Br. No.	Bridge Match ID (TIS)      1	Deficient Status      S.D.
District    METRO    Maint. Area	Roadway O/U Key      1-ON	Sufficiency Rating      40.2
County      27 - HENNEPIN	Route Sys/Nbr      MSAS 142	Last Inspection Date      10-30-2012
City          EDINA	Roadway Name or Description	Inspection Frequency      12
Township	54 ST	Inspector Name      EDINA
Desc. Loc.    0.2 MI W OF JCT TH 121	Roadway Function      MAINLINE	Structure      P-LOAD POSTED
Sect., Twp., Range      18 - 028NN - 24W	Roadway Type      2 WAY TRAF	+ NBI CONDITION RATINGS +
Latitude      44d 54m 19.43s	Control Section (TH Only)	Deck                              5
Longitude      93d 20m 02.92s	Ref. Point (TH Only)	Superstructure              5
Custodian      CITY	Date Opened to Traffic	Substructure                6
Owner          CITY	Detour Length      1 mi.	Channel                        5
Inspection By    CITY OF EDINA	Lanes      2 Lanes ON Bridge	Culvert                        N
BMU Agreement	ADT (YEAR)      2,586 (2008)	+ NBI APPRAISAL RATINGS +
Year Built      1935	HCA DT	Structure Evaluation              2
Year Fed Rehab	Functional Class.      URBAN LOCAL	Deck Geometry                  4
Year Remodeled      1948	+ RDWY DIMENSIONS +	Underclearances                N
Temp	If Divided      NB-EB    SB-WB	Waterway Adequacy              8
Plan Avail.      MUNICIPAL	Roadway Width              29.0 ft	Approach Alignment              7
+ STRUCTURE +	Vertical Clearance	+ SAFETY FEATURES +
Service On      HWY;PED	Max. Vert. Clear.	Bridge Railing      0-SUBSTANDARD
Service Under    STREAM	Horizontal Clear.              28.9 ft	GR Transition      0-SUBSTANDARD
Main Span Type      STEEL BM SPAN	Lateral Clr. - Lt/Rt	Appr. Guardrail      0-SUBSTANDARD
Main Span Detail	Appr. Surface Width              29.0 ft	GR Termini      0-SUBSTANDARD
Appr. Span Type	Roadway Width              29.0 ft	+ IN DEPTH INSP. +
Appr. Span Detail	Roadway Width              29.0 ft	Frac. Critical
Skew	Median Width	Underwater
Culvert Type	+ MISC. BRIDGE DATA +	Pinned Asbly.
Barrel Length	Structure Flared      NO	Spec. Feat.
Number of Spans	Parallel Structure      NONE	+ WATERWAY +
MAIN: 1    APPR: 0    TOTAL: 1	Field Conn. ID	Drainage Area
Main Span Length      32.0 ft	Cantilever ID	Waterway Opening      160 sq ft
Structure Length      36.0 ft	Foundations	Navigation Control      NO PRMT REQD
Deck Width      33.5 ft	Abut.      CONC - UNKN	Pier Protection      NOT APPL
Deck Material      C-I-P CONCRETE	Pier	Nav. Vert./Horz. Clr.
Wear Surf Type      BITUMINOUS	Historic Status      NOT ELIGIBLE	Nav. Vert. Lift Bridge Clear.
Wear Surf Install Year	On - Off System      OFF	MN Scour Code      I-LOW RISK
Wear Course/Fill Depth      0.25 ft	+ PAINT +	Scour Evaluation Year      2006
Deck Membrane      NONE	Year Painted              Pct. Unsound      5 %	+ CAPACITY RATINGS +
Deck Protect.      N/A	Painted Area	Design Load      UNKN
Deck Install Year	Primer Type	Operating Rating      HS 9.70
Structure Area      1,206 sq ft	Finish Type	Inventory Rating      HS 5.80
Roadway Area      1,044 sq ft	+ BRIDGE SIGNS +	Posting      VEH: 13 SEMI: 22 DBL: 22
Sidewalk Width - L/R                      3.5 ft	Posted Load      VEHICLE & SEMI	Rating Date      11-27-2006
Curb Height - L/R      0.50 ft    0.50 ft	Traffic      NOT REQUIRED	Mn/DOT Permit Codes
Rail Codes - L/R      35    35	Horizontal      OBJECT MARKERS	A: N    B: N    C: N
	Vertical      NOT APPLICABLE	

# **APPENDIX J**

## **54<sup>th</sup> Street Parking Study**



Building a Better World  
for All of Us®

## MEMORANDUM

TO: Toby Muse, PE  
SEH

FROM: Michael McCurdy, PE

DATE: November 22, 2013

RE: City of Edina - 54th Street Roadway Reconstruction Improvement No. BA-416 -  
Parking Survey  
SEH No. EDINA 124747

The City of Edina asked Short Elliott Hendrickson Inc. (SEH) to perform a traffic parking survey in the 54<sup>th</sup> Street Reconstruction Project area to identify existing on-street parking demand along 54<sup>th</sup> Street. The parking survey was conducted by SEH along 54th Street from Minnehaha Boulevard to France Avenue in October 2013. The residential segment of 54<sup>th</sup> Street west of Minnehaha Boulevard to Wooddale Avenue was not surveyed because on-street parking demand is low in this segment due to homes having driveway and garage access along 54<sup>th</sup> Street.

The parking occupancy survey was performed from Monday, October 7, 2013 to Sunday, October 13, 2013 during the following time periods:

- Monday: 6:00 p.m. – 8:00 p.m.
- Tuesday – Friday: 12:00 p.m. – 1:00 p.m. & 6:00 p.m. – 8:00 p.m.
- Sunday: 9:00 a.m. – 12:00 p.m.

These time periods were selected to capture the parking demand during midday, evening, and Sunday church service peak parking periods. Parking observations were made every 15 minutes within the above time periods.

The parking occupancy survey was performed along 54<sup>th</sup> Street in two separate sections; the first section was from Minnehaha Boulevard to Halifax Lane and the second was from Halifax Lane to France Avenue. Separate parking observations were made for the north and south side of 54<sup>th</sup> Street within each section. Parking occupancy was also surveyed within the Edina Community Lutheran Church (ECLC) parking lot to determine the utilization of the lot during these time periods.

The three parking areas surveyed are shown in yellow in Figure 1 below:



**Figure 1: 54<sup>th</sup> Street Parking Survey Areas**

Within Section 1, there is a no parking zone signed on the south side of 54<sup>th</sup> Street from the Edina Community Lutheran Church parking lot entrance to a point approximately 20 feet west. There is also a 43-foot, 15-minute parking zone signed directly in front of the Edina Community Lutheran Church on the south side of 54<sup>th</sup> Street. The 15-minute parking zone was not considered as available on-street parking for purpose of this survey.

There are signed Metro Transit bus stops on the north and south side of 54<sup>th</sup> Street at Halifax Avenue S. Field observations showed that vehicles are parking right up to the bus stop signs during the Sunday church period. Therefore, it was assumed for this survey that there is available parking at and in advance of the signed bus stop locations.

Within Section 2, there is a 30-foot, 1-hour parking zone signed directly in front of the Picket Fence Needlepoint business building. This parking zone was considered as available on-street parking for purposes of this survey.

Based on these parking restrictions and a typical on-street parking space length of 21 feet, the parking capacity for each of these sections was determined as follows:

- Section 1: 62 total spaces (north side – 34 spaces, south side – 28 spaces)
- Section 2: 19 total spaces (north side – 8 spaces, south side – 11 spaces)
- ECLC Parking Lot : 39 total spaces (actual striped spaces)

There are 38 standard striped parking spaces in the ECLC parking lot. There is also a parking space sized striped box behind and adjacent to the ECLC. The space is not crosshatch striped or signed to keep vehicles out of that space, so we assumed it was an available parking space for purpose of this survey, making 39 total available spaces in the ECLC parking lot.

Summaries of the parking occupancy survey are shown on the attached Tables A1-A8.

As shown on Table A1, during the week midday period, Section 1 was 2% occupied, Section 2 was 24% occupied, and the ECLC parking lot was 16% full, on average. The peak occupancy during this time period occurred on Wednesday, when the north side of Section 2 was 38% occupied and the south side was 55% occupied. Additional observations taken within Section 2 in the Corset Styling & Fashion Boutique parking lot at the corner of 54<sup>th</sup> Street and France Avenue showed the lot was approximately 33% full on average for the week during this time period. The peak occupancy in the ECLC parking lot occurred on Monday, when the lot was 21% full.

During the weeknight 6:00 p.m. – 8:00 p.m. period, Section 1 was 8% occupied, Section 2 was 1% occupied, and the ECLC parking lot was 16% full, on average. The peak occupancy during this time period occurred on Wednesday, from 7:00 p.m. to 8:00 p.m., when the north side of Section 1 was 32% occupied and the south side was 35% occupied. It was observed that the parking peaked from 7:45 p.m. to 8:00 p.m., when parents picked up their children on both sides of the street in front of the ECLC. These vehicles were parked for a short period of time. The ECLC parking lot was 18% full during this “pick-up” period. The peak occupancy in the ECLC parking lot occurred on Monday night from approximately 6:45 p.m. to 7:45 p.m., when the lot was 32% full.

As shown on Table A2, the peak occupancy during the Sunday church period occurred between 11:00 a.m. and 12:00 p.m., when the north side of Section 1 was 82% occupied, the south side of Section 1 was 79% occupied, and the ECLC parking lot was 92% full. Parked vehicles were also observed during this peak time period on the northbound side of Halifax Avenue S. for half the length of the street and within the three-vehicle parking bay on the south side of 54<sup>th</sup> Street, west of the Minnehaha Creek Bridge. There were no vehicles parked in Section 2 during this time period.

It was also observed that the Calvary Christian Reformed Church parking lot was 70% full on Sunday at its peak with only two vehicles parking in the smaller south lot near 54<sup>th</sup> Street.

In summary, parking on both sides of 54<sup>th</sup> Street is not utilized more than 35% during the week, with the exception of Sunday mornings during ECLC services. Peak parking occupancy occurred on Sunday between 11:00 a.m. – 12:00 p.m., when the area of 54<sup>th</sup> Street near the ECLC was approximately 80% occupied, the ECLC parking lot was 92% full, and vehicles are parked halfway down Halifax Avenue S. and west of the Minnehaha Creek Bridge.

The survey showed that there is off-street parking available in this area during the week. The ECLC parking lot was not utilized more than 21% during the week, and the Corset Styling & Fashion Boutique parking lot was on average 50% full during week midday and 16% during weeknights.

Based on the results of this parking survey, it appears that there is enough parking capacity during the week to limit parking on one side of 54th Street in project area. In addition, temporary parking on the north side of 54th Street between Minnehaha Boulevard and Halifax Avenue can be provided to support Sunday parking needs for the ECLC.

Attachments: Tables A1- A8

c: Chad Millner, City of Edina

Mark Nolan, City of Edina

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**Table A1**  
**54th Street Parking Survey**  
**Weekday Parking Demand Summary**

North	Section 1				Section 2				Edina Church Parking Lot			
	Peak	Occupancy	Average	Occupancy	Peak	Occupancy	Average	Occupancy	Peak	Occupancy	Average	Occupancy
12:00 pm -1:00 pm	1	3%	0.3	1%	3	38%	1.8	22%	8	21%	6.3	16%
6:00 pm - 7:00 pm	7	21%	2.4	7%	1	13%	0.2	3%	12	31%	6.2	16%
7:00 pm - 8:00 pm	11	32%	3.2	9%	1	13%	0.2	3%	11	28%	5.8	15%

South	Section 1				Section 2				Edina Church Parking Lot			
	Peak	Occupancy	Average	Occupancy	Peak	Occupancy	Average	Occupancy	Peak	Occupancy	Average	Occupancy
12:00 pm -1:00 pm	5	18%	1.3	4%	6	55%	2.8	25%				
6:00 pm - 7:00 pm	4	12%	1.4	4%	0	0%	0.0	0%				
7:00 pm - 8:00 pm	12	35%	3.2	9%	0	0%	0.0	0%				

Total	Section 1				Section 2				Edina Church Parking Lot			
	Peak	Occupancy	Average	Occupancy	Peak	Occupancy	Average	Occupancy	Peak	Occupancy	Average	Occupancy
12:00 pm -1:00 pm			1.5	2%			4.5	24%	8	21%	6.3	16%
6:00 pm - 8:00 pm			5.1	8%			0.2	1%	12	31%	6.0	16%

**Table A2  
54th Street Parking Survey  
Sunday Parking Demand Summary**

North	Section 1		Section 2		Edina Church Parking Lot	
	Peak	Occupancy	Peak	Occupancy	Peak	Occupancy
9:00 am - 10:00 am	23	68%	0	0%	34	87%
10:00 am - 11:00 am	28	82%	0	0%	36	92%
11:00 am - 12:00 pm	28	82%	0	0%	36	92%

South	Section 1		Section 2		Edina Church Parking Lot	
	Peak	Occupancy	Peak	Occupancy	Peak	Occupancy
9:00 am - 10:00 am	17	61%	0	0%		
10:00 am - 11:00 am	20	71%	0	0%		
11:00 am - 12:00 pm	22	79%	0	0%		

**Table A3**  
**54th Street Parking Survey**  
**Section 1 Detailed Weekday Mid-day & Evening 15-Minute Interval Parking Demand Summary**

**North Side - Minnehaha Boulevard to Halifax Lane**

Total Spaces 34

	Monday		Tuesday		Wednesday		Thursday		Friday		Weekday Summary			
	Parked	Occupancy	Parked	Occupancy	Parked	Occupancy	Parked	Occupancy	Parked	Occupancy	Peak	Occupancy	Average	Occupancy
12:00 PM			0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
12:15 PM			0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
12:30 PM			0	0%	0	0%	0	0%	1	3%	1	3%	0	1%
12:45 PM			0	0%	0	0%	0	0%	1	3%	1	3%	0	1%
<b>Summary</b>														
6:00 PM	0	0%	0	0%	4	12%	0	0%	0	0%	4	12%	1	2%
6:15 PM	0	0%	0	0%	4	12%	0	0%	0	0%	4	12%	1	2%
6:30 PM	0	0%	0	0%	5	15%	1	3%	0	0%	5	15%	1	4%
6:45 PM	4	12%	0	0%	7	21%	1	3%	0	0%	7	21%	2	7%
7:00 PM	4	12%	0	0%	7	21%	1	3%	0	0%	7	21%	2	7%
7:15 PM	4	12%	0	0%	7	21%	1	3%	0	0%	7	21%	2	7%
7:30 PM	4	12%	0	0%	9	26%	1	3%	0	0%	9	26%	3	8%
7:45 PM	4	12%	0	0%	11	32%	1	3%	0	0%	11	32%	3	9%

**South Side - Minnehaha Boulevard to Halifax Lane**

Total Spaces 28

	Monday		Tuesday		Wednesday		Thursday		Friday		Weekday Summary			
	Parked	Occupancy	Parked	Occupancy	Parked	Occupancy	Parked	Occupancy	Parked	Occupancy	Peak	Occupancy	Average	Occupancy
12:00 PM			0	0%	0	0%	0	0%	3	11%	3	11%	1	3%
12:15 PM			0	0%	0	0%	0	0%	3	11%	3	11%	1	3%
12:30 PM			0	0%	0	0%	0	0%	5	18%	5	18%	1	4%
12:45 PM			0	0%	0	0%	0	0%	5	18%	5	18%	1	4%
<b>Summary</b>														
6:00 PM	0	0%	0	0%	4	12%	0	0%	0	0%	4	12%	1	2%
6:15 PM	0	0%	0	0%	4	12%	0	0%	0	0%	4	12%	1	2%
6:30 PM	1	4%	0	0%	1	3%	0	0%	0	0%	1	3%	0	1%
6:45 PM	4	14%	0	0%	3	9%	0	0%	0	0%	4	12%	1	4%
7:00 PM	4	14%	0	0%	6	18%	0	0%	0	0%	6	18%	2	6%
7:15 PM	4	14%	0	0%	7	21%	0	0%	0	0%	7	21%	2	6%
7:30 PM	4	14%	0	0%	8	24%	0	0%	0	0%	8	24%	2	7%
7:45 PM	4	14%	0	0%	12	35%	0	0%	0	0%	12	35%	3	9%

**Table A4**  
**54th Street Parking Survey**  
**Section 2 Detailed Weekday Mid-day & Evening 15-Minute Interval Parking Demand Summary**

**North Side - Halifax Lane to France Avenue**

Total Spaces **8**

	Monday		Tuesday		Wednesday		Thursday		Friday		Weekday Summary			
	Parked	Occupancy	Parked	Occupancy	Parked	Occupancy	Parked	Occupancy	Parked	Occupancy	Peak	Occupancy	Average	Occupancy
12:00 PM			1	13%	2	25%	1	13%	2	25%	2	25%	2	19%
12:15 PM			1	13%	2	25%	2	25%	2	25%	2	25%	2	22%
12:30 PM			0	0%	3	38%	2	25%	1	13%	3	38%	2	19%
12:45 PM			0	0%	3	38%	1	13%	1	13%	3	38%	1	16%
<b>Evening</b>														
6:00 PM	0	0%	0	0%	0	0%	1	13%	0	0%	1	13%	0	3%
6:15 PM	0	0%	0	0%	0	0%	1	13%	0	0%	1	13%	0	3%
6:30 PM	0	0%	0	0%	0	0%	1	13%	0	0%	1	13%	0	3%
6:45 PM	0	0%	0	0%	0	0%	1	13%	0	0%	1	13%	0	3%
7:00 PM	0	0%	0	0%	0	0%	1	13%	0	0%	1	13%	0	3%
7:15 PM	0	0%	0	0%	0	0%	1	13%	0	0%	1	13%	0	3%
7:30 PM	0	0%	0	0%	0	0%	1	13%	0	0%	1	13%	0	3%
7:45 PM	0	0%	0	0%	0	0%	1	13%	0	0%	1	13%	0	3%

**South Side - Halifax Lane to France Avenue**

Total Spaces **11**

	Monday		Tuesday		Wednesday		Thursday		Friday		Weekday Summary			
	Parked	Occupancy	Parked	Occupancy	Parked	Occupancy	Parked	Occupancy	Parked	Occupancy	Peak	Occupancy	Average	Occupancy
12:00 PM			2	18%	6	55%	1	9%	2	18%	6	55%	3	25%
12:15 PM			2	18%	6	55%	1	9%	2	18%	6	55%	3	25%
12:30 PM			2	18%	6	55%	1	9%	2	18%	6	55%	3	25%
12:45 PM			0	0%	5	45%	2	18%	2	18%	5	45%	2	20%
<b>Evening</b>														
6:00 PM	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
6:15 PM	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
6:30 PM	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
6:45 PM	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
7:00 PM	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
7:15 PM	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
7:30 PM	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
7:45 PM	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%

**Table A5**  
**54th Street Parking Survey**  
**Edina Community Lutheran Church Parking Lot Detailed Weekday Mid-day & Evening 15-Minute Interval Parking Demand Summary**

**Edina Community Lutheran Church Parking Lot**

Total Spaces 39

	Monday		Tuesday		Wednesday		Thursday		Friday		Weekday Summary			
	Parked	Occupancy	Parked	Occupancy	Parked	Occupancy	Parked	Occupancy	Parked	Occupancy	Peak	Occupancy	Average	Occupancy
12:00 PM			8	21%	5	13%	5	13%	7	18%	8	21%	6	16%
12:15 PM			8	21%	5	13%	5	13%	7	18%	8	21%	6	16%
12:30 PM			7	18%	5	13%	4	10%	7	18%	7	18%	6	15%
12:45 PM			7	18%	5	13%	4	10%	6	15%	7	18%	6	14%
6:00 PM	1	3%	12	31%	4	10%	3	8%	1	3%	12	31%	4	11%
6:15 PM	1	3%	12	31%	4	10%	5	13%	1	3%	12	31%	5	12%
6:30 PM	3	8%	9	23%	2	5%	5	13%	1	3%	9	23%	4	10%
6:45 PM	12	31%	10	26%	3	8%	6	15%	0	0%	12	31%	6	16%
7:00 PM	11	28%	9	23%	3	8%	6	15%	0	0%	11	28%	6	15%
7:15 PM	11	28%	2	5%	3	8%	6	15%	0	0%	11	28%	4	11%
7:30 PM	9	23%	1	3%	5	13%	3	8%	0	0%	9	23%	4	9%
7:45 PM	9	23%	1	3%	7	18%	3	8%	0	0%	9	23%	4	10%

**Table A6**  
**54th Street Parking Survey**  
**Section 1 Detailed Sunday 15-Minute Interval Parking Demand Summary**

	Minnehaha Blvd to Church DW		Church DW to Halifax Ave S		Halifax Ave S to Halifax Ln		TOTAL	
	Spaces	10	Spaces	14	Spaces	10	Spaces	34
<b>North</b>	<b>Parked</b>	<b>Occupancy</b>	<b>Parked</b>	<b>Occupancy</b>	<b>Parked</b>	<b>Occupancy</b>	<b>Parked</b>	<b>Occupancy</b>
9:00 AM	6	60%	12	86%	0	0%	18	53%
9:15 AM	5	50%	8	57%	1	10%	14	41%
9:30 AM	5	50%	13	93%	3	30%	21	62%
9:45 AM	6	60%	13	93%	4	40%	23	68%
10:00 AM	6	60%	9	64%	4	40%	19	56%
10:15 AM	7	70%	10	71%	4	40%	21	62%
10:30 AM	8	80%	14	100%	4	40%	26	76%
10:45 AM	8	80%	13	93%	7	70%	28	82%
11:00 AM	9	90%	12	86%	7	70%	28	82%
11:15 AM	9	90%	11	79%	7	70%	27	79%
11:30 AM	8	80%	13	93%	6	60%	27	79%
11:45 AM	8	80%	13	93%	6	60%	27	79%

	Minnehaha Blvd to Church DW		Church DW to Halifax Ave S		Halifax Ave S to Halifax Ln		TOTAL	
	Spaces	9	Spaces	12	Spaces	7	Spaces	28
<b>South</b>	<b>Parked</b>	<b>Occupancy</b>	<b>Parked</b>	<b>Occupancy</b>	<b>Parked</b>	<b>Occupancy</b>	<b>Parked</b>	<b>Occupancy</b>
9:00 AM	6	67%	7	58%	2	29%	15	54%
9:15 AM	6	67%	6	50%	3	43%	15	54%
9:30 AM	8	89%	7	58%	0	0%	15	54%
9:45 AM	9	100%	8	67%	0	0%	17	61%
10:00 AM	8	89%	8	67%	0	0%	16	57%
10:15 AM	8	89%	8	67%	0	0%	16	57%
10:30 AM	9	100%	9	75%	0	0%	18	64%
10:45 AM	9	100%	7	58%	4	57%	20	71%
11:00 AM	8	89%	7	58%	4	57%	19	68%
11:15 AM	8	89%	8	67%	4	57%	20	71%
11:30 AM	8	89%	9	75%	4	57%	21	75%
11:45 AM	8	89%	10	83%	4	57%	22	79%

**Table A7**  
**54th Street Parking Survey**  
**Section 2 Detailed Sunday 15-Minute Interval Parking Demand Summary**

	Halifax Lane to Needlepoint Driveway		Business DW to France Avenue		TOTAL	
	Spaces	6	Spaces	2	Spaces	8
<b>North</b>	<b>Parked</b>	<b>Occupancy</b>	<b>Parked</b>	<b>Occupancy</b>	<b>Parked</b>	<b>Occupancy</b>
9:00 AM	0	0%	0	0%	0	0%
9:15 AM	0	0%	0	0%	0	0%
9:30 AM	0	0%	0	0%	0	0%
9:45 AM	0	0%	0	0%	0	0%
10:00 AM	0	0%	0	0%	0	0%
10:15 AM	0	0%	0	0%	0	0%
10:30 AM	0	0%	0	0%	0	0%
10:45 AM	0	0%	0	0%	0	0%
11:00 AM	0	0%	0	0%	0	0%
11:15 AM	0	0%	0	0%	0	0%
11:30 AM	0	0%	0	0%	0	0%
11:45 AM	0	0%	0	0%	0	0%

	Halifax Lane to Needlepoint Driveway		Business DW to France Avenue		TOTAL	
	Spaces	9	Spaces	2	Spaces	11
<b>South</b>	<b>Parked</b>	<b>Occupancy</b>	<b>Parked</b>	<b>Occupancy</b>	<b>Parked</b>	<b>Occupancy</b>
9:00 AM	0	0%	0	0%	0	0%
9:15 AM	0	0%	0	0%	0	0%
9:30 AM	0	0%	0	0%	0	0%
9:45 AM	0	0%	0	0%	0	0%
10:00 AM	0	0%	0	0%	0	0%
10:15 AM	0	0%	0	0%	0	0%
10:30 AM	0	0%	0	0%	0	0%
10:45 AM	0	0%	0	0%	0	0%
11:00 AM	0	0%	0	0%	0	0%
11:15 AM	0	0%	0	0%	0	0%
11:30 AM	0	0%	0	0%	0	0%
11:45 AM	0	0%	0	0%	0	0%

**Table A8**  
**54th Street Parking Survey**  
**Edina Community Lutheran Church Parking Lot Detailed Sunday 15 minute Interval Parking Demand Summary**

**Edina Community Lutheran Church Parking Lot**

	Spaces	39
	Parked	Occupancy
9:00 AM	26	67%
9:15 AM	22	56%
9:30 AM	34	87%
9:45 AM	34	87%
10:00 AM	34	87%
10:15 AM	35	90%
10:30 AM	35	90%
10:45 AM	36	92%
11:00 AM	36	92%
11:15 AM	36	92%
11:30 AM	36	92%
11:45 AM	36	92%

# **APPENDIX K**

## **Living Streets Policy**



**To:** City Council

**Agenda Item #:** VIII. A.

**From:** Karen M. Kurt  
Assistant City Manager

**Action**   
**Discussion**   
**Information**

**Date:** August 20, 2013

**Subject:** Approve Living Streets Policy

### **Action Requested:**

Approve Living Streets Policy

### **Information / Background:**

In May 2011, the City Council adopted a resolution in support of Living Streets and directed the Edina Transportation Commission to work with staff to develop a Living Streets Policy. Key steps in the development of the policy are outlined below:

- ETC formed a Living Streets Working Group. Members Paul Nelson, Jennifer Janovy and Michael Thompson played a critical role in policy development.
- The City received a \$15,000 grant from the Bloomington Health Department. These funds were used to hire a consultant to review current city policies and to provide a framework for moving forward.
- Blue Cross and Blue Shield sponsored a workshop on February 15, 2012 led by representatives from the National Complete Streets Coalition. Key community stakeholders attended and participated in a brainstorming session about Edina's vision for future streets.
- The ETC Working Group and staff prepared a draft Living Streets Policy which was reviewed with the Transportation Commission, Planning Commission, Human Rights and Relations Commission, Park Board, Energy and Environment Commission and Bike Edina Task Force. Feedback is collected for incorporation into the Living Streets Policy and future Living Streets Plan.
- The Living Streets Policy draft is reviewed during a joint work session with ETC and City Council.

Upon policy adoption, Mark Nolan, Transportation Planner, will begin working with internal and external advisory groups to draft content for the Living Streets Plan. The Living Streets Plan will address how the Policy will be implemented by providing more detailed information on street design, traffic calming, bike facilities, landscaping and lighting, as well best practices for community engagement during the design process.

Confirmed members of the external advisory group are:

- Arnie Bigbee, Human Rights and Relations Commission
- Claudia Carr, Planning Commission
- Jennifer Janovy, Transportation Commission
- Ellen Jones, Park Board
- Bill McCabe, Arts and Culture Commission
- Paul Nelson, Transportation Commission
- Paul Thompson, Energy and Environment Commission
- Courtney Whited, Transportation Commission

Staff is waiting for confirmation from additional representatives from the Planning Commission, Energy and Environment Commission and Community Health Committee. Additional community expertise will be sought as needed throughout the process.

Members of the internal advisory team are:

- Ross Bintner, Environmental Engineer
- Jeff Elasky, Police Lieutenant
- Susan Faus, Assistant Parks and Recreation Director
- Cindy Larson, Redevelopment Coordinator
- Chad Millner, Assistant City Engineer
- Bob Pestrud, Parks Foreman
- John Scheerer, Street Supervisor
- Jeff Siems, Fire Marshal

Additional staff expertise will be sought as needed throughout the process. Staff is also in the process of securing a \$5,000 grant from Bloomington Public Health that will be used to develop a community education and outreach plan for Living Streets.

**Attachments:**

Proposed Living Streets Policy



## Living Streets Policy

### Introduction

Living streets balance the needs of motorists, bicyclists, pedestrians and transit riders in ways that promote safety and convenience, enhance community identity, create economic vitality, improve environmental sustainability, and provide meaningful opportunities for active living and better health. The Living Streets Policy defines Edina’s vision for Living Streets and the principles and plans that will guide implementation.

The Living Street Policy ties directly to key community goals outlined in the City’s 2008 Comprehensive Plan. Those goals include safe walking, bicycling and driving, reduced storm water runoff, reduced energy consumption, and promoting health. The Living Streets Policy also compliments voluntary City initiatives such the “do.town” effort related to community health, and the Tree City USA and the Green Step Cities programs related to sustainability. In other cases, the Living Street Policy will assist the City in meeting mandatory requirements set by other agencies. For example, the Living Streets Policy will support the City’s Storm Water Pollution Prevention Plan which addresses mandates established under the Clean Water Act.

The Living Streets Policy provides the framework for a Living Streets Plan. The Living Streets Plan will address how the Policy will be implemented by providing more detailed information on street design, traffic calming, bike facilities, landscaping and lighting, as well as best practices for community engagement during the design process. Lastly, existing and future supporting plans such as the Bicycle Plan, Active Routes to Schools, Sidewalk Priority Plan and the Capital Improvement Plan will help to identify which projects are priorities with respect to this Policy.

### Living Streets Vision

Edina is a place where...

- Transportation utilizing all modes is equally safe and accessible;
- Residents and families regularly choose to walk or bike;
- Streets enhance neighborhood character and community identity;
- Streets are inviting places that encourage human interaction and physical activity;
- Public policy strives to promote sustainability through balanced infrastructure investments;
- Environmental stewardship and reduced energy consumption are pursued in public and private sectors alike; and
- Streets support vibrant commerce and add to the value of adjacent land uses.

### Living Streets Principles

The following principles will guide implementation of the Living Streets Policy. The City will incorporate these principles when planning for and designing the local transportation network and when making public and private land use decisions.

### All Users and All Modes

The City will plan, design, and build high quality transportation facilities that meet the needs of the most vulnerable users (pedestrians, cyclists, children, elderly, and disabled) while enhancing safety and convenience for all users, and providing access and mobility for all modes.

### Connectivity

- The City will design, operate, and maintain a transportation system that provides a highly connected network of streets that accommodate all modes of travel.
- The City will seek opportunities to overcome barriers to active transportation. This includes preserving and repurposing existing rights-of-way, and adding new rights-of-way to enhance connectivity for pedestrians, bicyclists, and transit.
- The City will prioritize non-motorized improvements to key destinations such as public facilities, public transit, the regional transportation network and commercial areas.
- The City will require new developments to provide interconnected street and sidewalk networks that connect to existing or planned streets or sidewalks on the perimeter of the development.
- Projects will include consideration of the logical termini by mode. For example, the logical termini for a bike lane or sidewalk may extend beyond the traditional limits of a street construction or reconstruction project, in order to ensure multimodal connectivity and continuity.

### Application

- The City will apply this Living Streets Policy to all street projects including those involving operations, maintenance, new construction, reconstruction, retrofits, repaving, rehabilitation, or changes in the allocation of pavement space on an existing roadway. This also includes privately built roads, sidewalks, paths and trails.
- The City will act as an advocate for Living Street principles when a local transportation or land use decision is under the jurisdiction of another agency.
- Living Streets may be achieved through single projects or incrementally through a series of smaller improvements or maintenance activities over time.
- The City will draw on all sources of transportation funding to implement this Policy and actively pursue grants, cost sharing opportunities and other new or special funding sources as applicable.
- All City departments will support the vision and principles outlined in the Policy in their work.

### Exceptions

Living Streets principles will be included in all street construction, reconstruction, repaving, and rehabilitation projects, except under one or more of the conditions listed below. City staff will document proposed exceptions as part of the project proposal.

Exceptions:

- A project involves only ordinary maintenance activities designed to keep assets in serviceable condition, such as mowing, cleaning, sweeping, spot repair, concrete joint repair, or pothole filling, or when interim measures are implemented on a temporary detour. Such maintenance activities, however, shall consider and meet the needs of bicyclists and pedestrians.
- The City exempts a project due to an excessively disproportionate cost of establishing a bikeway, walkway, or transit enhancement as part of a project.
- The City determines that the construction is not practically feasible or cost effective because of significant or adverse environmental impacts to waterways, flood plains, remnants or native vegetation, wetlands, or other critical areas.

### Design

The City will develop and adopt guidelines as part of the Living Streets Plan to direct the planning, funding, design, construction, operation, and maintenance of new and modified streets, sidewalks, paths and trails. The guidelines will allow for context-sensitive designs.

The City's design guidelines will:

- Keep street pavement widths to the minimum necessary.
- Provide well-designed pedestrian accommodation in the form of sidewalks or shared-use pathways on all arterial and collector streets and on local connector streets as determined by context. Sidewalks shall also be required where streets abut a public school, public building, community playfield or neighborhood park. Termini will be determined by context.
- Provide frequent, convenient and safe street crossings. These may be at intersections designed to be pedestrian friendly, or at mid-block locations where needed and appropriate.
- Provide bicycle accommodation on all primary bike routes.
- Allocate right-of-way for boulevards.
- Allocate right-of-way for parking only when necessary and not in conflict with Living Streets principles.
- Consider streets as part of our natural ecosystem and incorporate landscaping, trees, rain gardens and other features to improve air and water quality.

The design guidelines in the Living Streets Plan will be incorporated into other City plans, manuals, rules, regulations, and programs as appropriate. As new and better practices evolve, the City will update the Living Streets Plan.

### Context Sensitivity

Although many streets look more or less the same, every street is a unique combination of its neighborhood, adjacent land uses, natural features, street design, users, and modes. To accommodate these differences, the City will:

- Seek input from stakeholders;
- Design streets with a strong sense of place;
- Be mindful of preserving and protecting natural features, such as waterways, trees, slopes, and ravines;
- Be mindful of existing land uses and neighborhood character; and

- Coordinate with business and property owners along commercial corridors to develop vibrant commercial districts.

## **Benchmarks and Performance Measures**

The City will monitor and measure its performance relative to this Policy. Benchmarks demonstrating success include:

- Every street and neighborhood is a comfortable place for walking and bicycling;
- Every child can walk or bike to school or a park safely;
- Seniors, children, and disabled people can cross all streets safely and comfortably;
- An active way of life is available to all;
- There are zero traffic fatalities or serious injuries;
- No unfiltered street water flows into local waterways; storm water volume is reduced; and
- Retail streets stay or become popular regional destinations.

The City will draw on the following data to measure performance. Additional performance measures may be identified as this Policy is implemented.

- Number of crashes or transportation-related injuries reported to the Police Department.
- Number and type of traffic safety complaints or requests.
- Resident responses to transportation related questions in resident surveys.
- Resident responses to post-project surveys.
- The number of trips by walking, bicycling and transit (if applicable) as measured before and after the project.
- Envision ratings from the Institute for Sustainable Infrastructure.
- Speed statistics of vehicles on local streets.

## **Implementation**

The goal of this Policy is to define and guide the implementation of Living Streets principles. Several steps still need to be taken to reach this goal. The first step will be to develop a Living Streets Plan to guide the implementation of the Policy. The Plan will:

- Identify and implement standards or guidelines for street and intersection design, universal pedestrian access, transit accommodations, and pedestrian crossings;
- Identify and implement standards or guidelines for streetscape ecosystems, including street water management, urban forestry, street furniture, and utilities;
- Identify regulatory demands and their relationship to this Policy (ADA/PROWAG, MPCA, MNMUTCD, MnDOT state aid, watershed districts);
- Define the process by which residents participate in street design and request Living Streets improvements; and
- Define standards for bicycle and pedestrian connectivity to ensure access to key public, private and regional destinations.

Additional implementation steps include:

- Communicate this Policy to residents and other stakeholders; educate and engage on an ongoing basis;
- Update City ordinances, engineering standards, policies and guidelines to agree with this Policy;
- Inventory building and zoning codes to bring these into agreement with Living Streets principles as established by this Policy;
- Update and document maintenance policies and practices to support Policy goals;
- Update and document enforcement policies and practices to ensure safe streets for all modes;
- Incorporate Living Streets concepts in the next circulation of the City's general plans (Comprehensive Plan, Bicycle Plan, Active Routes to School Plan, etc.);
- Incorporate Living Streets as a criteria when evaluating transportation priorities in the Capital Improvement Plan (CIP);
- Review and update funding policies to ensure funding sources for Living Streets projects; and
- Coordinate with partner jurisdictions to achieve goals in this Policy.

# **APPENDIX L**

## **Envision Sustainable Infrastructure Rating System Summary Report**

# City of Edina: 54<sup>th</sup> Street Reconstruction and Arden Park Area Stormwater Plan: ENVISION™ Evaluation

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## Executive Summary

Staff and its consultant used ENVISION™ to help analyze the 54<sup>th</sup> Street project. ENVISION™ is a rating system for infrastructure developed in joint collaboration between the Zofnass Program for Sustainable Infrastructure at the Harvard Graduate School of Design and the Institute for Sustainable Infrastructure<sup>1</sup>

ENVISION™ was created to support transformational, collaborative approaches that promote sustainable infrastructure development using a comprehensive, triple bottom line approach toward decision-making. It is intended to foster a necessary and dramatic improvement in the performance and resiliency of physical infrastructure across the full economic, social, and environmental dimensions of sustainability.

### **The rating system includes a total of 60 credits organized into five categories:**

- **Quality of Life:** Goal is to improve the project's impact on the surrounding community
- **Leadership:** Goal is to strengthen collaboration, stakeholder involvement, and long-term planning considerations
- **Resource Allocation:** Goal is to wisely manage materials, energy, and water resources used for project
- **Natural World:** Goal is to understand and minimize negative environmental impacts of project
- **Climate and Risk:** Goal is to minimize emissions and design for resilience - in both the short-term and long-term

Within each credit, points are earned based on level of achievement obtained, with five levels of achievement ranging from "improved" to "enhanced" to "superior" to "conserving" to "restorative."

The project was evaluated based on a set of 52 ENVISION™ credits which were determined to be most relevant to the 54<sup>th</sup> Street Reconstruction and Arden Park Stormwater Management Plan.

The ENVISION™ evaluation was conducted at three stages during the planning process. During the first stage, the project team identified ENVISION™ credits deemed most relevant to the critical issues identified through stakeholder engagement including intercept surveys and door knocking.

During the second stage the project team used ENVISION™ to evaluate the alternative design scenarios for each of the three project sections (West End, Middle Section, and East End). Results of this evaluation were presented at the September 30<sup>th</sup> final scenario workshop and are provided in the Appendix.

Finally, ENVISION™ was used by the project team to evaluate the preferred design alternative which is being presented as part of this report. Results of this evaluation are summarized in the figure below and in the Appendix.

Overall, the preferred alternative scored 264 points out of a possible 687 points. It should be noted that the scores will increase substantially if the project moves from the feasibility phase to the detailed design and

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<sup>1</sup> The Institute for Sustainable Infrastructure is a not for profit education and research organization founded by the American Public Works Association, the American Society of Civil Engineers, and the American Council of Engineering Companies

construction phases. At this stage of the project there was no basis to assign points to a large number of the credits available because decisions related to those credits have not yet been made.

As can be seen in the point summary, the project scored relatively high in the Quality of Life and Leadership categories in particular. This reflects a number of factors including a very thorough stakeholder engagement program, a holistic planning approach that pro-actively considered infrastructure integration opportunities, and the extensive efforts to design the project in a manner that will preserve community quality of life, promote alternative transportation modes, and preserve cultural and natural resources.

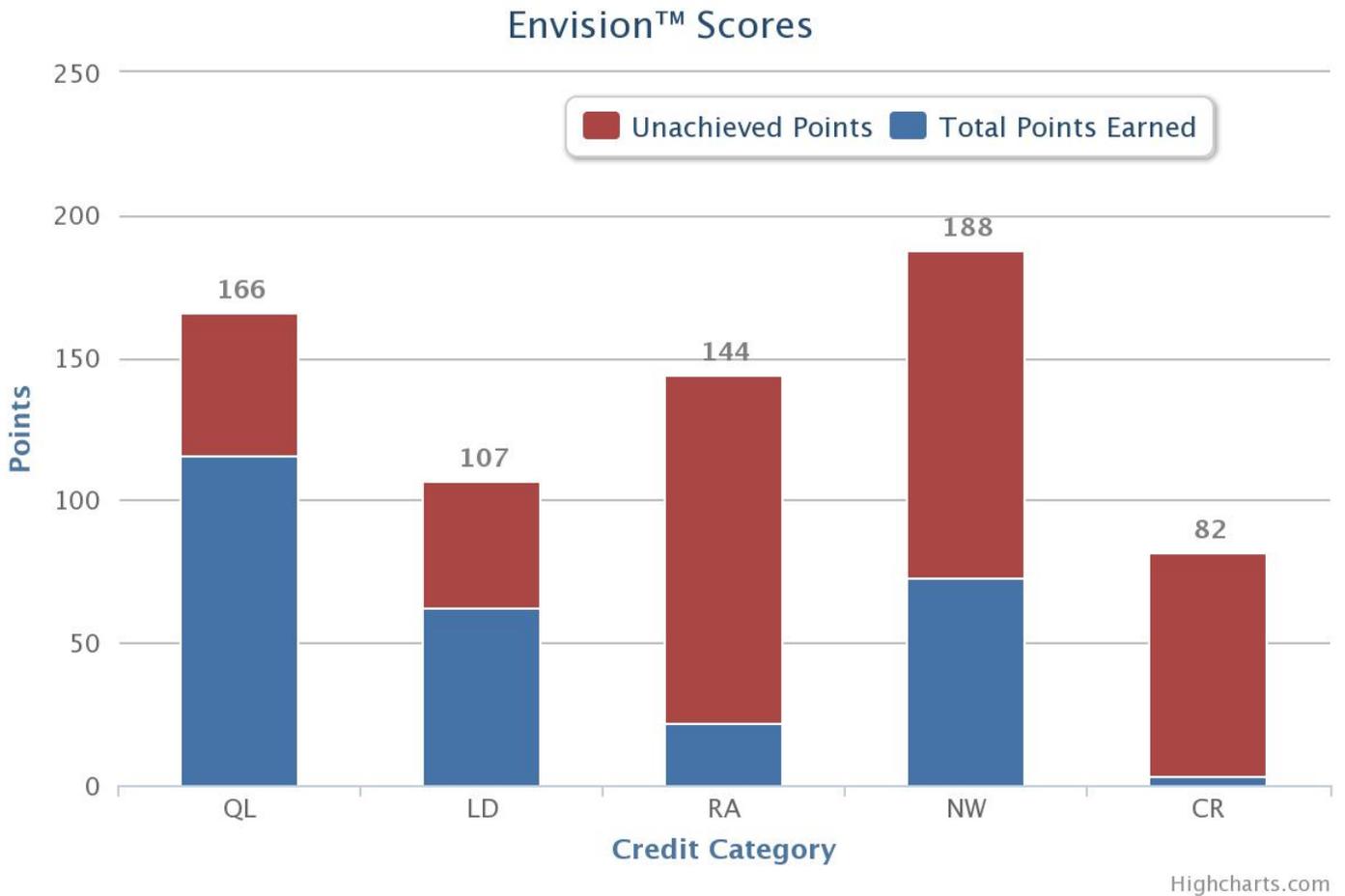


Figure 1 Total ENVISION Credit Scores

QL=Quality of Life; LD=Leadership; RA=Resource Allocation; NW=Natural World; CR=Climate & Risk

## Introduction

### Project Background

The City of Edina is working hard to protect the environment for future generations – through programs and initiatives such as “Go Green Edina,” the adoption of their “Living Streets” Policy, the “Emerald Energy Program” and participation in Minnesota’s “Green Step Cities” program.

The reconstruction of 54<sup>th</sup> Street provides another opportunity for Edina to lead the way - by ensuring the project is designed and built in a manner that maximizes the social, economic, and environmental benefits of the project. To do so, the City is using ENVISION™ - a sustainable infrastructure rating system designed by the Institute for Sustainable Infrastructure<sup>2</sup>.

The City has included sustainability evaluations in prior planning studies, and has used the three E’s framework which provides an analysis of how a project performs in terms of Equity, Environment, and the Economy. The ENVISION™ analysis in this report is intended to provide the City with another option for conducting future sustainability evaluations on a wide range of project types.

### Purpose of this Report

The purpose of this report is to summarize the results of applying the ENVISION™ rating system to the 54<sup>th</sup> Street Reconstruction and Arden Park Area Stormwater Management Plan. The report includes an overview of how ENVISION™ was used at different stages throughout the project along with illustrative examples. It includes a more detailed summary of the final results of applying ENVISION™ to the preferred alternative.

### The ENVISION™ Rating System

This unique new framework unites over 900 sector specific systems into a comprehensive tool to evaluate and rate the community, environmental, and economic benefits of infrastructure projects. It was developed jointly by APWA, ACEC, and ASCE in partnership with Harvard University’s Zofnass Program for Sustainable Infrastructure.

ENVISION™ was created to support transformational, collaborative approaches that promote sustainable infrastructure development using a comprehensive, triple bottom line approach toward decision-making. It is intended to foster a necessary and dramatic improvement in the performance and resiliency of physical infrastructure across the full economic, social, and environmental dimensions of sustainability.

The rating system includes a total of 60 credits organized into five categories: Quality of Life, Leadership, Resource Allocation, Natural World, and Climate and Risk (Figure 2). Quality of Life credits are intended to improve the project’s impact on the surrounding community. Leadership credits are design to strengthen collaboration, stakeholder involvement, and long-term planning considerations. Resource Allocation credits are intended to promote the wise use of materials, energy, and water resources. Climate and Risk credits encourage projects that minimize emissions and design for resiliency.

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<sup>2</sup> The Institute for Sustainable Infrastructure (ISI) is a non-profit established by the American Public Works Association (APWA), the American Society for Civil Engineers (ASCE), and the American Council of Engineering Companies (ACEC)



Figure 2 ENVISION Rating System

Within each credit, points are earned based on level of achievement obtained, with five levels of achievement (bulleted below) ranging from “improved” to “enhanced” to “superior” to “conserving” to “restorative.”

- **Improved:** Performance that is above conventional, but not by much. Encouraging, but mostly limited improvement in sustainable performance.
- **Enhanced:** Sustainable performance that is on the right track but not particularly remarkable. Indications that superior performance is within reach.
- **Superior:** Sustainable performance that is noteworthy, but falls slightly short of conserving.
- **Conserving:** Performance that has achieved essentially zero impact. May be combined with restorative if restoration is not applicable.
- **Restorative:** Highest level possible

## Methodology for Incorporating ENVISION™ into 54<sup>th</sup> Street Project

ENVISION™ was incorporated into the study in several different ways, each briefly described below.

### Defining Relevant ENVISION™ Credits

There are many different definitions of sustainability. One of the benefits of the ENVISION™ rating system is that it can provide a clear framework for defining sustainability at the project level. At the onset of the project, the project team including City staff reviewed the ENVISION™ credits and determined which were most applicable to the project. The intent was to help ensure consistent and clear communications and stakeholder engagement around sustainability. 52 of the 60 ENVISION™ credits were identified as relevant to the project and summarized into a single document (See Appendix for 54<sup>th</sup> Street ENVISION™ Credit List). The document was made available on the project website and shared with members of the project team.

### Linking Credits to Key Issues for Component Workshop

Following a rigorous stakeholder engagement process that helped identify key planning issues such as safety, aesthetics, creek issues, parking, signage, and traffic, the project team identified which ENVISION™ credits were most relevant to those issues. This analysis was used to help prepare materials for the August 19<sup>th</sup> Design Component Workshop. Figure 3 below shows one of the design component cards that were prepared

for the workshop. At the workshop participants also received a brief explanation of the ENVISION™ rating system and how it is being incorporated into the project.

The card is titled "REDUCE SPEED LIMIT TO 25MPH" with the subtitle "State statute allows for 25MPH speed limits on streets with bike facilities". It features a "SPEED LIMIT 25" sign as an example. A table lists "KEY ISSUES ADDRESSED" with green checkmarks for Safety (pedestrians, bicyclists), Creek access/safety, and Speeding. Below this, it asks "Which Envision sustainability credits may apply; see project website for more info" and shows a grid for "ENVISION SUSTAINABILITY CREDITS THAT MAY APPLY" with categories: Quality of Life, Leadership, Resource Allocation, Natural World, and Climate & Risk.

KEY ISSUES ADDRESSED	
● Safety, pedestrians	Parking
● Safety, bicyclists	Water quality
● Creek access/safety	Road drainage
● Speeding	Park flooding
Road geometry	

ENVISION SUSTAINABILITY CREDITS THAT MAY APPLY				
Quality of Life	Leadership	Resource Allocation	Natural World	Climate & Risk
fit				

Figure 3 Workshop Design Component Card

### Evaluating Alternative Scenarios

Following the design component workshop, the project team developed multiple scenarios for each of the three sections of the project: the West End, Middle Segment, and East End. Similar to the Design Component Workshop, ENVISION™ was also incorporated into the September 30<sup>th</sup> Design Scenario open house. For each of the three sections, ENVISION™ was used to rate the alternative scenarios against each other. The results were summarized by credit category (Quality of Life, Leadership, etc...) and by total points scored and presented on large poster boards. Figure 4 below illustrates the Total Score for the Middle Segment of the project.

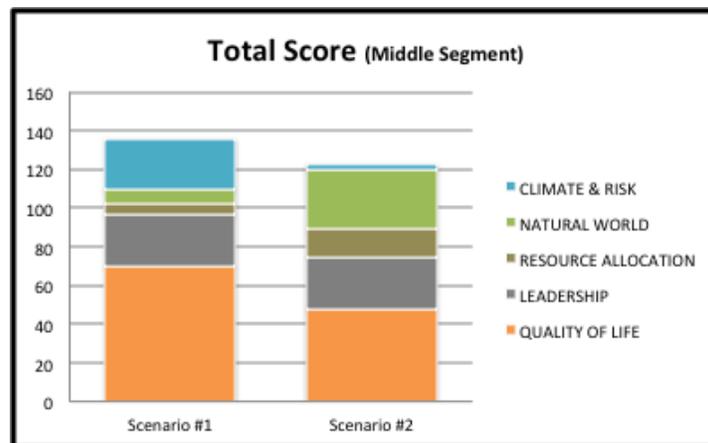
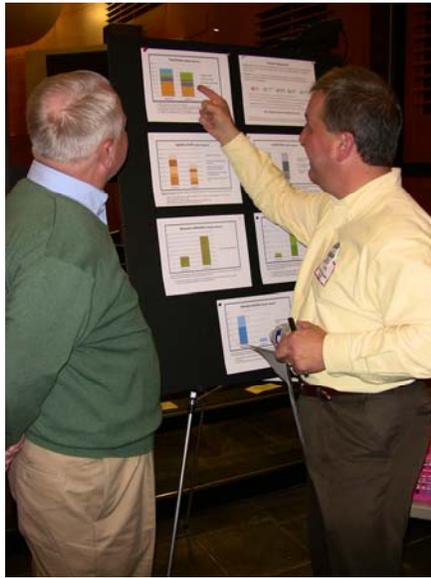


Figure 4 Total ENVISION Score Middle Segment

Scenario #1 (raised bridge, retain whitewater features) outperformed Scenario #2 (remove whitewater features, maintain existing vertical geometry) in terms of overall scoring. Scenario #1 scored higher in terms of quality of life – reflecting the extent to which stakeholders value the recreational and aesthetic qualities of the

existing rapids. Scenario #1 also scored higher in terms of climate and risk credits, because it provides greater resiliency in the face of short-term hazards such as flooding. Scenario #2, on the other hand, scored higher in terms of its potential impact on the environment, with greater opportunities for improving aquatic biodiversity, improving upstream water quality, and the overall ecological health of the creek.

Figure 5 shows a picture of two participants viewing the results of the analysis on one of the poster boards at the open house.



**Figure 5 Participants at Design Scenario Open House**

### **Evaluating Preferred Alternative**

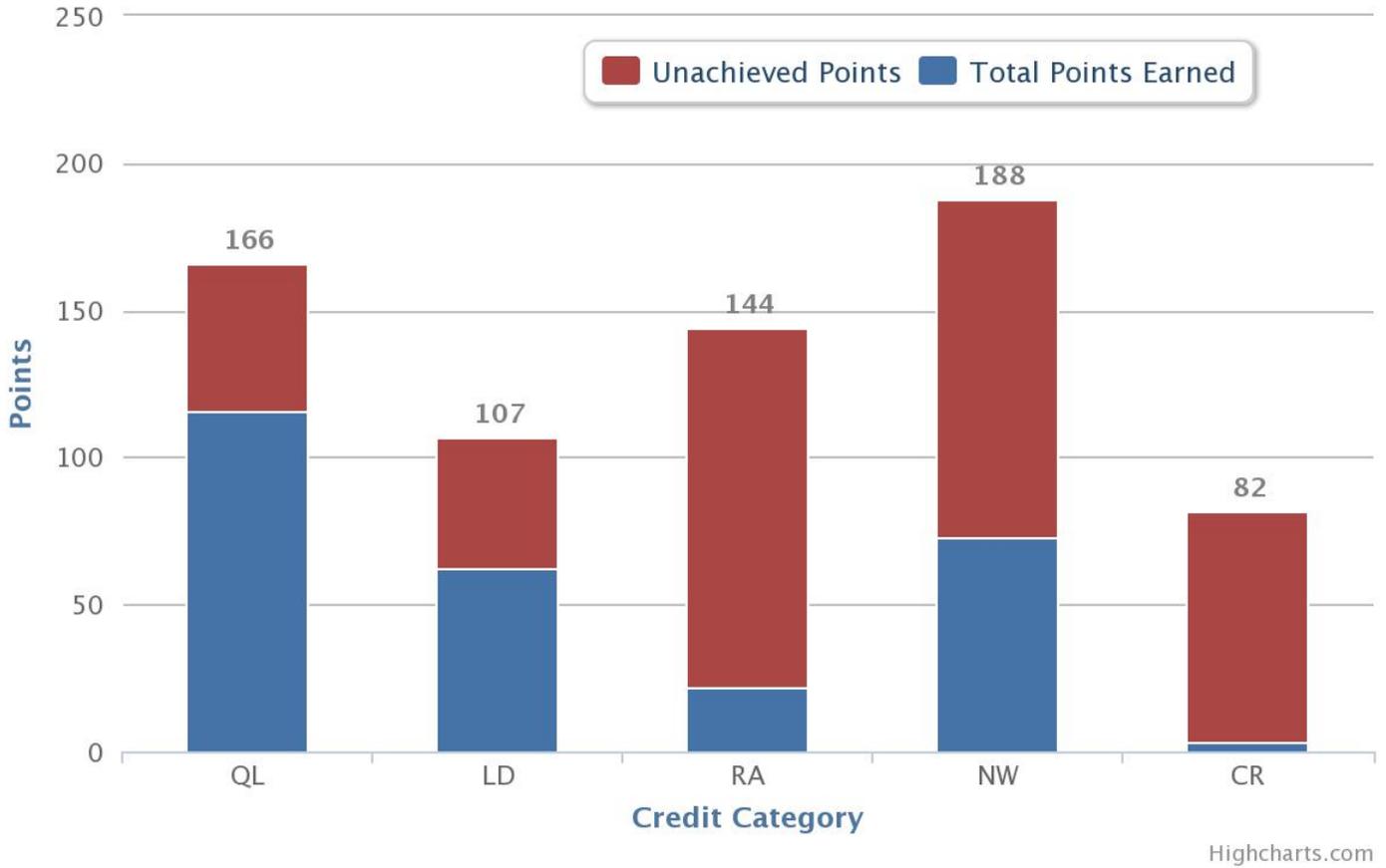
Finally, ENVISION™ was used to rate the preferred alternative, which was developed after the City and consultant team received additional feedback at the design scenario workshop and subsequent on-line survey. For each credit, brief comments were made to support the level of achievement given. In addition, recommendations for improving the credit score were identified.

## **Results**

### **Total Scoring**

Figure 6 presents a graphic summary of the total points achieved based on an evaluation of the preferred alternative presented in the feasibility report. Overall, the preferred alternative scored 264 points out of a possible 687 points. While the scoring shows a large number of unachieved points, it should be noted that the ENVISION™ rating system was designed to push the boundaries of project design and therefore it was anticipated that most projects would not achieve anywhere close to a perfect score. For example, based on the preliminary scoring, the 54<sup>th</sup> Street project would be eligible for a Silver Award through the Institute for Sustainable Infrastructure.

## Envision™ Scores



**Figure 6 Overall ENVISION Score Preferred Alternative**

Table 1 below provides a breakdown of applicable points (reflecting total number of points available based on which credits were deemed relevant to the project), actual points earned, innovation points earned, total points pursued, and percentage of available points.

**Table 1 Summary of ENVISION Scoring for Preferred Alternative**

Credit Category	Applicable Points	Points	Innovation Points	Total Points Pursued	Percentage of Available Points
QUALITY OF LIFE	166	108	8	116	65%
LEADERSHIP	107	58	4	62	54%
RESOURCE ALLOCATION	144	22	0	22	15%
NATURAL WORLD	188	73	0	73	39%
CLIMATE AND RISK	82	3	0	3	4%
<b>Total Workbook Points</b>	<b>687</b>	<b>264</b>	<b>12</b>	<b>276</b>	<b>38%</b>

Envision™ Scores



Overall, the preferred alternative scored 264 points out of a possible 687 points. It should be noted that the scores will increase substantially if the project moves from the feasibility phase to the detailed design and



construction phases. At this stage of the project there was no basis to assign points to a large number of the credits available because decisions related to those credits have not yet been made.

The preferred design scored highest in terms of quality of life credits (116 points), leadership (62 points), and Natural World (73 points). The preferred design achieved fewer points for Climate & Risk (3 points) and Resource Allocation (22 points).

In terms of Quality of Life, the preferred design scored well because it improves quality of life for the neighborhood, encourages alternative modes of transportation, improves site accessibility, safety, and way finding, and enhances public spaces. A summary of points achieved is shown in the table below.

**Table 2 Quality of Life Credits**

		<b>Credit #</b>	<b>Credit Name</b>	<b>Total Points</b>
<b>QUALITY OF LIFE</b>	<b>PURPOSE</b>	QL1.1	Improve community quality of life	20
		QL1.2	Stimulate sustainable growth and development	13
		QL1.3	Develop local skills and capabilities	NA
				<b>33</b>
	<b>COMMUNITY</b>	QL2.1	Enhance public health and safety	0
		QL2.2	Minimize noise and vibration	0
		QL2.3	Minimize light pollution	8
		QL2.4	Improve community mobility and access	4
		QL2.5	Encourage alternative modes of transportation	15
		QL2.6	Improve site accessibility, safety and way finding	15
				<b>42</b>
	<b>WELLBEING</b>	QL3.1	Preserve historic and cultural resources	16
		QL3.2	Preserve views and local character	6
		QL3.3	Enhance public space	11
				<b>33</b>
	<b>INNOVATION</b>	QL0.0	Innovate or exceed credit requirements	<b>8</b>
			<b>TOTAL</b>	<b>116</b>

For Leadership, the project scored well because of the City and project team's effective leadership and commitment to the project, a robust stakeholder involvement process, and efforts to improve infrastructure integration (linking Arden Park and 54<sup>th</sup> street reconstruction project planning together for example). A summary of points achieved is shown in the table below.

Table 3 Leadership Credits

		Credit #	Credit Name	Total Points
<b>LEADERSHIP</b>	<b>COLLABORATION</b>	LD1.1	Provide effective leadership and commitment	17
		LD1.2	Establish a sustainability management system	NA
		LD1.3	Foster collaboration and teamwork	8
		LD1.4	Provide for stakeholder involvement	14
				<b>39</b>
	<b>MANAGEMENT</b>	LD2.1	Pursue by-product synergy opportunities	0
		LD2.2	Improve infrastructure integration	16
				<b>16</b>
	<b>PLANNING</b>	LD3.1	Plan for long-term monitoring and maintenance	0
		LD3.2	Address conflicting regulations and policies	2
		LD3.3	Extend useful life	1
				<b>3</b>
	<b>INNOVATION</b>	LD0.0	Innovate or exceed credit requirements	4
			<b>TOTAL</b>	<b>62</b>

For the Natural World criteria, the project scored well, however at this stage of the project it is not possible to score several of the credits. The project team and City are however addressing a number of these credits, especially those related to the creek, and as the project moves forward there will be an opportunity to capture additional points associated with factors such as: protecting surface water, preserving floodplain functions, and preventing surface water contamination among several others.

It is noteworthy that the City is developing a stormwater plan in conjunction with the project and in collaboration with the watershed. The plan will the address whole Arden Park sub-watershed area, helping achieve synergistic project benefits that would have otherwise not been realized.

A summary of points achieved is shown in the table below.

Table 4 Natural World Credits

		Credit #	Credit Name	Total Points
			TOTAL	22
NATURAL WORLD	SITING	NW1.1	Preserve prime habitat	9
		NW1.2	Protect wetlands and surface water	9
		NW1.4	Avoid adverse geology	0
		NW1.5	Preserve floodplain functions	14
		NW1.6	Avoid unsuitable development on steep slopes	1
		NW1.7	Preserve greenfields	10
				<b>43</b>
	L&W	NW2.1	Manage storm water	4
		NW2.2	Reduce pesticide and fertilizer impacts	1
		NW2.3	Prevent surface and groundwater contamination	1
				<b>6</b>
	BIODIVERSITY	NW3.1	Preserve species biodiversity	13
		NW3.2	Control invasive species	5
		NW3.3	Restore disturbed soils	0
		NW3.4	Maintain wetland and surface water functions	6
				<b>24</b>
	INNOVATION	NW0.0	Innovate or exceed credit requirements	<b>0</b>
		TOTAL	73	

In terms of Resource Allocation, the project scored low because many of the credits become more relevant and easier to score during the design phase of the project. The project does anticipate using regional materials, diverting waste from landfills, and reduce excavated materials taken off site through the on-site re-use of road material however. This material will be used as fill material to help raise the road elevation around the bridge. Addressing this category of credits more fully in the next phase of the project will significantly increase scoring. A summary of points achieved is shown in the table below.

Table 5 Resource Allocation Credits

		Credit #	Credit Name	Total Points
<b>RESOURCE ALLOCATION</b>	<b>MATERIALS</b>	RA1.1	Reduce net embodied energy	0
		RA1.2	Support sustainable procurement practices	0
		RA1.3	Use recycled materials	5
		RA1.4	Use regional materials	6
		RA1.5	Divert waste from landfills	0
		RA1.6	Reduce excavated materials taken off site	4
		RA1.7	Provide for deconstruction and recycling	0
				<b>15</b>
	<b>ENERGY</b>	RA2.1	Reduce energy consumption	3
		RA2.2	Use renewable energy	0
		RA2.3	Commission and monitor energy systems	0
				<b>3</b>
	<b>WATER</b>	RA3.1	Protect fresh water availability	0
		RA3.2	Reduce potable water consumption	4
		RA3.3	Monitor water systems	0
			<b>4</b>	
<b>INNOVATION</b>	RA0.0	Innovate or exceed credit requirements	<b>0</b>	
		<b>TOTAL</b>	<b>22</b>	

In the Climate and Risk category, the project scored low, reflecting the fact that while the design (in particular raising the bridge) does help the community prepare for long-term adaptability and short-term hazards associated with changing climate conditions, it does not do so explicitly. Efforts such as minimizing pavement use helps manage heat island effects; however to improve the scoring in this category the City would need to conduct a more thorough assessment of potential risks as part of the design phase of the project. A summary of points achieved is shown in the table below.

Table 6 Climate & Risk Credits

		Credit #	Credit Name	Total Points
<b>CLIMATE &amp; RISK</b>	<b>EMISSION</b>	CR1.1	Reduce greenhouse gas emissions	NA
		CR1.2	Reduce air pollutant emissions	NA
				<b>0</b>
	<b>RESILIENCE</b>	CR2.1	Assess climate threat	0
		CR2.2	Avoid traps and vulnerabilities	2
		CR2.3	Prepare for long-term adaptability	0
		CR2.4	Prepare for short-term hazards	0
		CR2.5	Manage heat island effects	1
				<b>3</b>
	<b>INNOVATION</b>	CR0.0	Innovate or exceed credit requirements	<b>0</b>
			<b>TOTAL</b>	<b>3</b>



A summary of how the preferred alternative scored against each credit, including comments, evaluation criteria, and recommendations is provided below:

## Individual Credit Scoring

### QUALITY OF LIFE

#### QL1.1 IMPROVE COMMUNITY QUALITY OF LIFE

Improve the net quality of life of all communities affected by the project and mitigate negative impacts to communities.

##### Comments

- Extensive efforts undertaken to account for community needs and priorities through meaningful stakeholder involvement process.
- Multiple opportunities for stakeholders to contribute to and help shape preferred design alternative.

##### Evaluation Criteria

- Has project team identified and incorporated community goals and priorities into project?
- To what extent did affected communities engage in project design process?

##### Recommendations

Maintain high level of community engagement through final design

#### QL1.2 STIMULATE SUSTAINABLE GROWTH AND DEVELOPMENT

##### Comments

- Preliminary design balances community attractiveness, cultural, recreational enhancements with desire to improve creek habitat & water quality
- Jobs created during design and construction of project; some O&M jobs created

##### Evaluation Criteria

- Does project create new/enhance quality of existing recreational or cultural capacity for business, industry, or public?
- Does project improve community attractiveness for business, improve recreational opportunities?

##### Recommendations

Continue to seek out win-win opportunities to enhance cultural and recreational opportunities in conjunction with desired aquatic habitat improvements in creek

#### QL2.1 ENHANCE PUBLIC HEALTH & SAFETY

##### Comments

- No new requirements identified

##### Evaluation Criteria

- Has team assessed exposures and risks created by application of new and/or non-standard technologies, materials, equipment and methodologies to be employed?
- Have appropriate health & safety protocols been instituted during construction?

##### Recommendations

Pro-actively identify any potential safety concerns associated with new/enhanced whitewater features

#### QL2.2 MINIMIZE NOISE AND VIBRATION

##### Comments

- Project construction required to meet local noise level ordinances

##### Evaluation Criteria

- Have studies been carried out to predict noise levels and vibration during construction and post construction?
- Have proposals for ambient noise and vibration mitigation and monitoring been made and incorporated into project?

##### Recommendations

Identify alternative project staging locations to avoid impacting same neighbors heavily impacted by prior projects; specify noise/vibration mitigation strategies for construction period

#### QL1.2 MINIMIZE LIGHT POLLUTION

##### Comments

- Standard lighting assessment completed
- New lighting limited to north side of street
- City's standard lighting criteria includes night sky provision

##### Evaluation Criteria

- Has team conducted an assessment of lighting needs for project?
- Has team designed lighting components to reduce energy requirements?
- Has team designed lighting to reduce/eliminate light spillage and preserve night sky?

##### Recommendations

Identify non-lighting alternatives; design outdoor lighting to preserve night sky; Identify opportunities to reduce light pollution in project area beyond project scope

#### QL2.4 IMPROVE COMMUNITY MOBILITY AND ACCESS

##### Comments

##### Evaluation Criteria

##### Recommendations



- Project improves pedestrian accommodation through new sidewalks
  - Improves transit stops, and improves bike infrastructure
  - Consultation with adjacent land owners and public transit providers during planning process to determine best modes of access
  - Location utilizes/leverages existing transportation infrastructure
  - Have impacts on access and mobility during construction and operation been addressed?
  - Has project team considered and incorporated where feasible alternate modes of transportation?
  - Has team developed plans to reduce traffic disruption?
  - Has team expanded mobility and access considerations to include improvements to long-term transportation infrastructure efficiency, walkability, and livability?
- Reduce negative construction impacts on neighborhood mobility

## QL2.5 ENCOURAGE ALTERNATIVE MODES OF TRANSPORTATION

### Comments

- Project encourages transit use
- Project encourages non-motorized transportation
- Project design seeks to preserve & improve water access & canoe/kayak modes of transportation

### Evaluation Criteria

- Is constructed works within walking distance and is it pedestrian accessible to multi-modal facilities?
- Is project designed for convenience in access to multi-modal transportation facilities?
- Is project configured to users are encouraged to use non-motorized transportation?
- Has project owner and team identified under/unused pathways bikeways, and sought to upgrade these elements and incorporate into project?

### Recommendations

Continue to seek out win-win opportunities to enhance creek access & water based modes of transportation (tubing, kayaking, canoeing)

## QL2.6 IMPROVE SITE ACCESSIBILITY, SAFETY, AND WAYFINDING

### Comments

- Proposed design integrates with surroundings including Arden Park
- Efforts taken to protect watershed
- Neighborhood safety improvements incorporated into road design through reduced turning radii, crosswalks, and other roadway improvements

### Evaluation Criteria

- Has team developed appropriate signage for safety and wayfinding around construction site?
- Have project owner and team extended accessibility and signage to project nearby sensitive sites (wetlands, cultural sites, etc..) ro in populated areas neighborhood safety and security?
- Has team designed project to have a net positive impact on public safety?
- Does project integrate well with surroundings?
- Has team incorporated features into project design that restore and improve overall access and safety in adjacent neighborhoods?

### Recommendations

Pro-actively address safety concerns associated with new bridge over creek including pedestrian passage underneath; make sure adequate signage exists to make drivers aware of sharrows

## QL3.1 PRESERVE HISTORIC AND CULTURAL RESOURCES

### Comments

- Project includes strategies to enhance cultural resources including church (more parking)
- Project upgrades and expands recreational opportunities along creek
- Project designed to preserve narrow streets, trees, and other characteristics of the neighborhood

### Evaluation Criteria

- To what extent has team worked with community and required regulatory agencies to ID cultural resources?
- Has analysis identified possibilities of incorporating preservation or enhancement into project?
- Has team worked with stakeholders to develop culturally/character sensitive design?

### Recommendations

Continue to seek win-win opportunity to enhance recreational opportunities associated with the creek; seek input from community on additional opportunities to preserve neighborhood look & feel (signage, lighting, bridge design)

## QL3.2 PRESERVE VIEWS AND LOCAL CHARACTER

### Comments

- Project preserves existing vegetation to greatest extent possible; significant measures taken to make project fit with local character of neighborhood
- Project seeks to maintain highly valued water features within the creek (rapids)

### Evaluation Criteria

- To what extent has team demonstrated understanding of local character of project setting?
- Has team developed or adopted existing public view plans and design guidelines?
- To what extent does design address views

### Recommendations

Seek community input on bridge design, lighting  
Take views of nearby residents, views of water features, views of park into consideration during



- and local character?
- To what extent has team worked with local officials, communities, decision makers?
- Does contract include clauses on preservation of high value landscapes and associated features?

bridge design/construction

### QL3.3 ENHANCE PUBLIC SPACE

#### Comments

- Significant steps taken to preserve and enhance public space within project area in particular the landing area and whitewater features of the creek

#### Evaluation Criteria

- What effect will project have on public space?
- Are public agencies and other stakeholders satisfied with plans involving public spaces?
- Will meaningful and beneficial restoration efforts be undertaken?

#### Recommendations

Ensure that good access to creek is provided for various types of user groups; consider other trail/access enhancements that could be done in conjunction with project

### QL0.0 INNOVATE OR EXCEED CREDIT REQUIREMENTS

#### Comments

- Project team & partners taken considerable steps to balance multiple stakeholder needs and environmental considerations to identify a win-win opportunity for the creek.
- Extra analysis and effort made to preserve whitewater features while also meeting environmental objectives

#### Evaluation Criteria

- Does project clearly document a performance that exceeds both industry norms and the existing requirements within the system?
- Does project demonstrate innovative application of methods, technologies, or processes, novel either in their use, their application, or within the local regulatory or cultural climate?

#### Recommendations

Continue to seek win-win opportunity to balance whitewater user needs with environmental objectives

## LEADERSHIP

### LD1.1 PROVIDE EFFECTIVE LEADERSHIP AND COMMITMENT

#### Comments

- Sustainability considerations embedded through project planning
- Project team including City and partners made clear efforts to incorporate wide range of social, economic, and environmental objectives into project planning

#### Evaluation Criteria

- To what level and extent have the project owner and team made public commitments, both organizational and project specific, to improving sustainable performance

#### Recommendations

Continue using ENVISION™ tool through final design and document preparation; identify opportunities to modify/improve use of tool

### LD1.3 FOSTER COLLABORATION AND TEAMWORK

#### Comments

- Very multi-disciplinary team; pro-active effort to link stormwater management planning to 54<sup>th</sup> street reconstruction
- Formalized process to identify opportunities to improve sustainability performance
- Thorough parameter setting workshop

#### Evaluation Criteria

- To what extent has project team incorporated principles of collaboration, teamwork, and whole systems design in the execution of the project?
- To what extent has meaningful risk and reward sharing been made part of the contract between the project owner and project team?

#### Recommendations

Continue to work closely with watershed & other key stakeholders through final design and construction documents

### LD1.4 PROVIDE FOR STAKEHOLDER INVOLVEMENT

#### Comments

- Extensive communication & facilitated working sessions designed to involve broad range of stakeholders in decision making process through planning period
- Real changes made to design as a result of stakeholder input
- Solid, credible stakeholder engagement process used through project

#### Evaluation Criteria

- What is scope and extent to which key stakeholders/issues have been identified?
- To what extents has team solicited public issues and concerns through meetings etc...?
- To what extent has team provided opportunities for stakeholder input into plans?
- Have participation/communication programs been established?

#### Recommendations

Continue to seek community input during final design for key elements; de-brief with key stakeholders and community members following the project to discuss process for decision-making and identify ways to improve



for future planning projects

## LD2.1 PURSUE BY-PRODUCT SYNERGY OPPORTUNITIES

### Comments

- Informal identification and characterization of nearby facilities, waste streams. Availability of excess or unwanted resources unclear.

### Evaluation Criteria

- To what extent did team search for and identify unwanted by-products or discarded materials located in nearby facilities?
- How detailed was the assessment?
- Did team achieve success in making use of unwanted by-products or discarded materials in either design, construction, or operation stage?

### Recommendations

Take steps to identify other opportunities for re-use of deconstructed materials

## LD2.2 IMPROVE INFRASTRUCTURE INTEGRATION

### Comments

- City & project team pro-actively considered watershed impacts and engaged watershed in project planning
- High degree of integration & consideration given to how 54<sup>th</sup> street and Arden park infrastructure assets could be simultaneously improved & enhanced

### Evaluation Criteria

- To what extent did team seek to improve project sustainability performance through project wide systems integration? Through community-wide infrastructure system integration?
- Has team sought to restore existing community infrastructure assets for purpose of achieving higher performance through community-wide infrastructure systems integration?

### Recommendations

Continue high degree of communication & integrated planning

## LD3.1 PLAN FOR LONG-TERM MONITORING AND MAINTENANCE

### Comments

- Not specifically addressed within scope of project
- Watershed has worked successfully with property owners within the broader community to improve riverfront habitat & reduce erosion

### Evaluation Criteria

- Is there a clear and comprehensive plan for long-term monitoring and maintenance of the constructed works?
- Have sufficient resources been allocated for monitoring and maintenance?

### Recommendations

Verify if plan exists for long-term maintenance of creek; discuss if there are opportunities to work with creek user groups (whitewater, etc...) to help monitor creek and bridge conditions

## LD3.2 ADDRESS CONFLICTING REGULATIONS AND POLICIES

### Comments

- Bike and pedestrian accommodation meet all applicable guidelines
- Systematic assessment of the laws, regulations, policies and standards applicable to the project
- Team assessed potential conflicts and devised alternatives and set priorities; efforts made to resolve conflicts with regulating agencies

### Evaluation Criteria

- What is the scope and extent of search and assessment of negative impacts from conflicting regulations and policies?
- What is the extent to which team worked with regulators to mitigate the negative impacts?

### Recommendations

Communicate suggestions for improving state requirements regarding bike/ped accommodation

## LD3.3 EXTEND USEFUL LIFE

### Comments

- A few directed efforts to address flexibility, durability, and resilience

### Evaluation Criteria

- To what extent have owner and team considered ways to extend the durability and resilience of project early in planning and design stage to reduce future maintenance and waste?
- To what extent have the owner and project team considered the ability for future expansion or reconfiguration?

### Recommendations

Identify and incorporate additional design elements that could improve long term durability and resilience of reconstructed road & bridge; consider end of life deconstruction and re-purposing during design

## LD0.0 INNOVATE OR EXCEED CREDIT REQUIREMENTS

### Comments

### Evaluation Criteria

### Recommendations



- Significant efforts made to pursue project synergies between 54<sup>th</sup> street reconstruction and Arden Park
- Multiple meetings and iterative project design incorporated feedback from watershed and City
- Attempts to find innovative solution to balance whitewater elements and environmental protection elements of project

- To what extent has project exceeded highest levels of achievement for a given credit?
- To what extent does the project implement innovative technologies or methods?
- To what extent does the project overcome significant and/or transferable solutions?

Continue to seek win-win design solution that will preserve recreational asset while improving overall health of creek

## **RESOURCE ALLOCATION**

### **RA1.3 USE RECYCLED MATERIALS**

#### **Comments**

- Project identifies re-use of excavated materials on-site as base material for raising elevation of 54<sup>th</sup> street roadway near bridge

#### **Evaluation Criteria**

- To what extent has team identified appropriate reuse of existing structures and materials on site and incorporated them into project?
- To what extent has team specified recycled content?

#### **Recommendations**

Specify materials with recycled content in final design (benches, other streetscape elements, road material)

### **RA1.4 USE REGIONAL MATERIALS**

#### **Comments**

- Project will use recycled roadway for base material

#### **Evaluation Criteria**

- To what extent has team specified locally sourced materials, plants, aggregates, and soils?

#### **Recommendations**

Specify locally sourced plant material; identify opportunities to source other components regionally

### **RA1.5 DIVERT WASTE FROM LANDFILL**

#### **Comments**

- Re-using excavated material on-site
- To improve score need operations waste plan in place

#### **Evaluation Criteria**

- Has team developed a management plan to decrease project waste and divert waste from landfills and incinerators during operation?
- Has team identified potential destinations for waste generated on site?
- To what extent has project team diverted waste from landfills?

#### **Recommendations**

Formalize waste reduction strategies into concise management plan  
Communicate desire to reduce waste streams to contractors  
Require contractors to commit to waste reduction as part of bid package

### **RA1.6 REDUCE EXCAVATED MATERIALS TAKEN OFF SITE**

#### **Comments**

- Re-using excavated material on-site

#### **Evaluation Criteria**

- To what extent has the project team designed the project to balance cut and fill to reduce the excavated material taken off site?

#### **Recommendations**

Identify additional opportunities to minimize grading, retain all soil on site, and/or eliminate need to transport additional soil to site

### **RA1.7 PROVIDE FOR DECONSTRUCTION AND RECYCLING**

#### **Comments**

- None

#### **Evaluation Criteria**

- To what extent have owner and team specified materials that can be easily recycled or reused after the useful life of the project has ended?
- To what extent has design team facilitated the future disassembly and recycling of materials?

#### **Recommendations**

Factor end-of life/beneficial re-use considerations into bridge design

### **RA2.1 REDUCE ENERGY CONSUMPTION**

#### **Comments**

#### **Evaluation Criteria**

#### **Recommendations**



- Project will reduce energy consumption through use of re-use of materials on site, energy efficient lighting, and narrow roadway footprint which requires less on-going maintenance and operational energy inputs
  - To what extent have owner and team conducted planning/design reviews to reduce energy consumption in operation and maintenance?
  - Have owner and team conducted feasibility and cost analysis to determine the most effective methods for reduction and incorporated into design?
  - To what extent does project reduce energy consumption over industry norms?
- Conduct a 1-2 hr. design review to identify and analyze additional energy savings opportunities  
Document design review meeting

## RA2.2 USE RENEWABLE ENERGY

### Comments

- No planned use of renewable energy

### Evaluation Criteria

- To what extent is project's energy needs met through renewable energy?

### Recommendations

Consider solar for lighting

## RA3.1 PROTECT FRESH WATER AVAILABILITY

### Comments

- Project will include green infrastructure elements that require little/no fresh water
- Balance of project has little impact on fresh water availability, quantity, and quality

### Evaluation Criteria

- To what extent have the owner and project team conducted a water availability assessment?
- Has the project team assessed project water requirements?

### Recommendations

Conduct brief assessment of project water requirements  
Consider scoping this credit out of final project score if not applicable

## RA3.2 REDUCE POTABLE WATER CONSUMPTION

### Comments

- Project will include green infrastructure elements that require little/no fresh water
- Balance of project has little impact on potable water consumption

### Evaluation Criteria

- To what extent have the owner and project team conducted planning or design reviews to identify potable water reduction strategies during operation/maintenance of project?

### Recommendations

Conduct brief assessment to identify additional potable water reduction strategies

## RA3.3 MONITOR WATER SYSTEMS

### Comments

- None

### Evaluation Criteria

- Has the project team engaged a 3<sup>rd</sup> party to monitor or oversee monitoring of system?
- To what extent has design incorporated means to monitor water performance during operations?

### Recommendations

Conduct brief assessment of project water requirements  
Consider scoping this credit out of final project score if not applicable

## RA0.0 INNOVATE OR EXCEED CREDIT REQUIREMENTS

### Comments

- None

### Evaluation Criteria

- To what extent has project exceeded highest levels of achievement for a given credit?
- To what extent does the project implement innovative technologies or methods?
- To what extent does the project overcome significant and/or transferable solutions?

### Recommendations

Revisit credit if innovative stormwater management solutions are incorporated into final design

## NATURAL WORLD

### NW1.1 PRESERVE PRIME HABITAT

#### Comments

- Project design avoids prime habitat; preserves and possibly improves aquatic habitat

#### Evaluation Criteria

- Does project avoid development on prime habitat lands?
- Does project preserve appropriately sized buffers, habitat, and connectivity?
- Does project significantly increase area of prime habitat through restoration of vegetation and habitat connectivity?

#### Recommendations

Maximize opportunities to enhance creek habitat & overall aquatic health during reconstruction of bridge



## NW1.2 PROTECT WETLANDS AND SURFACE WATER

### Comments

- Difficult to score this project because of location on a previously developed site; however efforts to protect surface water were considered during planning process
- Opportunities for restoration identified and discussed during feasibility planning
- Stormwater management plan developed in tandem with street reconstruction feasibility study

### Evaluation Criteria

- Is project located on a site that neither contains nor is located within specified distance of pools, wetlands, etc...unless on a previously developed site?
- If site contains wetlands or water bodies has team established a vegetation and soil protection zone to provide a natural zone that maintains a buffer?
- Has team restored previously degraded buffer zones to a natural state on a previously developed site?

### Recommendations

Maximize design opportunities to reduce impact of stormwater runoff on creek  
Continue to work toward improving aquatic habitat connectivity  
Maximize opportunities to restore degraded buffer areas along creek

## NW1.4 AVOID ADVERSE GEOLOGY

### Comments

- Project will include green infrastructure elements that require little/no fresh water
- Balance of project has little impact on fresh water availability, quantity, and quality

### Evaluation Criteria

- Has team identified earthquake faults, low lying coastal areas, and karst formations and aquifers?
- Has team developed plans to reduce risk, establish operational procedures, and establish a monitoring program for adverse geologic settings?
- Has team established hazard areas, developed buffers, and created runoff controls and spill prevention/clean up plans?

### Recommendations

Document efforts to avoid sensitive geologic formations (if applicable)  
Scope out credit if not applicable

## NW1.5 PRESERVE FLOODPLAIN FUNCTIONS

### Comments

- Project maintains or enhances aquatic habitat connectivity and sediment transport
- Reduced roadway surface helps preserve floodplain functions
- Project minimizes floodplain impacts
- Project does not increase floodplain elevations

### Evaluation Criteria

- Does project avoid or limit new development within floodplains?
- Does project maintain pre-development floodplain infiltration and water quality?
- Does project maintain or enhance riparian aquatic habitat?
- Has a flood emergency plan been prepared for all infrastructures in floodplain?
- Does project maintain or enhance aquatic habitat connectivity and sediment transport?

### Recommendations

Provide documentation of strategies considered during planning and design stages

## NW1.6 AVOID UNSUITABLE DEVELOPMENT ON STEEP SLOPES

### Comments

- Positively impacts existing urban areas
- Makes use of existing infrastructure; minimizes impact on landscape through reduced size of project footprint

### Evaluation Criteria

- Does the project follow best management practices to manage erosion and prevent landslides?
- Is the project sited optimally and managed to avoid excessive erosion?
- Does the project avoid high risk hillsides or steep slopes?

### Recommendations

None

## NW1.7 PRESERVE GREENFIELDS

### Comments

- Project located on previously developed site
- Project restores adjacent natural resource areas

### Evaluation Criteria

- Is project located on a site that was previously developed?
- Is project located on a previously contaminated site?
- Has a brownfield remediation plan been

### Recommendations

None



prepared?

## NW2.1 MANAGE STORMWATER

### Comments

- Project employs low impact design measures to reduce generation of storm water runoff
- Stormwater management plan developed in conjunction with 54<sup>th</sup> street feasibility study

### Evaluation Criteria

- What percentage improvement for a greyfield or brownfield site does the site's proposed water storage, infiltration, evapotranspiration, and/or water harvesting capacity achieve or does site maintain a Greenfield site water storage capacity?
- Is 100% of target water storage capacity achieved for greyfield and brownfield sites?

### Recommendations

Quantify credit score by confirming anticipated percent improvement in water storage capacity  
Maximize opportunities to provide additional storage capacity

## NW2.2 REDUCE PESTICIDE AND FERTILIZER IMPACTS

### Comments

- None

### Evaluation Criteria

- What operational policies will be put in place to control the application of fertilizers and pesticides?
- What runoff controls will be installed to minimize groundwater and surface water contamination?
- Has the team selected pesticides and fertilizers that have low toxicity, persistence and bioavailability?
- Has team designed the landscaping to incorporate plant species that require no pesticides, herbicides, and fertilizers or use IPM practices?

### Recommendations

Design specifications should require use of plants that require little or no pesticides, herbicides, or fertilizers  
Confirm operational policies exist for applying fertilizers and pesticides in project area; update policies if none exist or inadequate

## NW2.3 PREVENT SURFACE AND GROUNDWATER CONTAMINATION

### Comments

- None

### Evaluation Criteria

- Have adequate surface and groundwater quantity and quality monitoring systems been incorporated into the project design?
- Have spill and leak prevention response plans and design been incorporated into design?
- Has team eliminated or reduced potentially polluting substances from construction and operation of completed works?

### Recommendations

Confirm what plans exist through watershed  
Update credit score

## NW3.1 PRESERVE SPECIES BIODIVERSITY

### Comments

- Project seeks to remove barriers to fish passage
- Project seeks to improve aquatic habitat

### Evaluation Criteria

- Does project demonstrate that it does not impact natural habitat and movement corridors or will mitigate adverse development impacts?
- Does project facilitate movement between habitats, provide new connections, improve existing habitat?
- Does project increase available habitat, increase connectivity between habitat areas?

### Recommendations

Continue to partner with watershed to maximize environmental benefits of project

## NW3.2 CONTROL INVASIVE SPECIES

### Comments

- Project identifies native landscaping, rain gardens, and other strategies which would reduce invasive species in the project area

### Evaluation Criteria

- Does project use only locally appropriate and non-invasive plants on the site?
- Does project control invasive species already

### Recommendations

Specify native plantings in final design



- on the site?
- Does project actively eliminate invasive species and ensure that invasive species stay off the site?

### NW3.3 RESTORE DISTURBED SOILS

#### Comments

- Reduced footprint reduces overall impact
- Additional documentation of soil disturbance plans needed

#### Evaluation Criteria

- Have 100% of soils disturbed during construction been restored and reused properly?

#### Recommendations

Restore 100% of soils disturbed during construction in the site's vegetated area  
Update credit score

### NW3.4 MAINTAIN WETLAND AND SURFACE WATER FUNCTIONS

#### Comments

- Project seeks to enhance hydrologic connections above and below rapids
- Project design will improve overall health of creek ecosystem

#### Evaluation Criteria

- Does project maintain or enhance hydrologic connection?
- Does project maintain or enhance water quality?
- Does project maintain or enhance habitat?
- Does project maintain or restore sediment transport?

#### Recommendations

Continue to seek win-win solution that balances recreational needs and environmental quality objectives

### NW0.0 INNOVATE OR EXCEED CREDIT REQUIREMENTS

#### Comments

- Potential scoring opportunity related to improving aquatic habitat

#### Evaluation Criteria

- Does project clearly document a performance that exceeds both industry norms and the existing requirements within the system?
- Does project demonstrate innovative application of methods, technologies, or processes, novel either in their use, their application, or within the local regulatory or cultural climate?

#### Recommendations

Consider seeking points for this credit if innovative solution to restoring aquatic habitat and hydrologic connectivity is achieved

## CLIMATE & RISK

### CR2.1 ASSESS CLIMATE THREAT

#### Comments

- None

#### Evaluation Criteria

- Has team created a Climate Impact Assessment and Adaptation Plan that identifies climate change risks and possible responses?

#### Recommendations

Consider developing a climate adaptation plan for the City  
If plan exists cross reference plan to ensure project takes plan's recommendations into account

### CR2.2 AVOID TRAPS AND VULNERABILITIES

#### Comments

- Basic evaluation of floodplain issues conducted during feasibility stage

#### Evaluation Criteria

- Has team identified and assessed possible changes in key engineering design variables?
- Has team assessed potential traps and vulnerabilities and their associated potential costs and risks?
- Does project avoid, alleviate or eliminate significant infrastructure traps?

#### Recommendations

Identify and assess possible changes in key design variables to better anticipate potential traps/vulnerabilities associated with climate change – in particular related to bridge design

### CR2.3 PREPARE FOR LONG-TERM ADAPTABILITY

#### Comments

- TBD

#### Evaluation Criteria

- Has team selected site and designed infrastructure project and its related systems

#### Recommendations

Design project (in particular the bridge) to



- to be resilient and adaptive to these changes and function under altered climate conditions, supply shortfalls, or other L-T changes in operational or environmental conditions?
  - Has team made substantial efforts to restore or rehabilitate any existing effects of long-term change (desertification, beach erosion, loss of wetlands)
- withstand range of conditions that may result from future climate change impacts over life span of asset

## CR2.4 PREPARE FOR SHORT TERM HAZARDS

### Comments

- Plans and designs typically prepare for 1 in 100 year flood hazards

### Evaluation Criteria

- Has team considered which types of natural and man-made hazards are possible in the region, and researched how the frequency and severity of these disasters may change over the life of the project?
- Has team incorporated design strategies into the project to safeguard against these natural hazards?
- Does project restore habitats in a way that reduces impacts of future short-term disasters?

### Recommendations

Conduct a hazard assessment during design phase

## CR2.5 MANAGE HEAT ISLAND EFFECTS

### Comments

- Reduced project footprint minimizes heat island effect of pavement

### Evaluation Criteria

- Does project meet heat island requirements through shading or minimum SRI requirements for the designated percentage of hardscapes?

### Recommendations

Incorporate additional shading materials into project if feasible (trees, etc...)

## CR0.0 INNOVATE OR EXCEED CREDIT REQUIREMENTS

### Comments

- None

### Evaluation Criteria

- To what extent has project exceeded highest levels of achievement for a given credit?
- To what extent does the project implement innovative technologies or methods?
- To what extent does the project overcome significant and/or transferable solutions?

### Recommendations

Revisit credit if innovative bridge design concepts have merit

## Discussion

### Strengths and Weaknesses: Applying ENVISION™ to 54<sup>th</sup> Street Project

As more and more communities seek to embed sustainable decision making processes into their planning and engineering efforts, it is useful to compare the relative strengths and weaknesses of using local tools and approaches with the use of a 3<sup>rd</sup> party tool such as ENVISION™. The table below briefly summaries a few perceived strengths and weakness of Edina’s 3E’s framework for addressing sustainability in comparison with the ENVISION™ system.

Table 7 3E's vs ENVISION: Strengths & Weaknesses

	STRENGTHS	WEAKNESSES
<b>3 E’s framework</b>	<ul style="list-style-type: none"> <li>• Inexpensive</li> <li>• Easy to modify</li> <li>• Developed in-house</li> <li>• Focus on aspects of sustainability most relevant to City</li> </ul>	<ul style="list-style-type: none"> <li>• 3E’s approach difficult to apply to infrastructure projects</li> <li>• Narrow focus</li> <li>• Stand alone tool</li> </ul>
<b>ENVISION</b>	<ul style="list-style-type: none"> <li>• Provides recognition</li> <li>• National standard allows for benchmarking/comparisons</li> <li>• Comprehensive triple bottom decision-making tool</li> <li>• ISI provides continual improvement</li> <li>• 3<sup>rd</sup> party verification</li> </ul>	<ul style="list-style-type: none"> <li>• Complexity</li> <li>• Cost (if seeking certification)</li> <li>• Learning curve to understand system</li> <li>• Value proposition uncertain if paying for certification</li> </ul>

### Improving the Use of ENVISION™ for Future Projects

The City of Edina piloted the use of ENVISION™ on the 54<sup>th</sup> street project. Pilot projects provide an opportunity to learn from experience and apply that knowledge to future projects. Overall, the application of ENVISION™ to the 54<sup>th</sup> street project was seen as a benefit. City staff took the time to familiarize themselves with the system. A few key lessons learned and opportunities for improving the use of ENVISION™ are bulleted below:

- Additional time for project team discussion vs. one on one discussion relative to the rating system should be programmed into the work schedule from the start of the project. While the sustainability planner had the opportunity to participate in both public workshops and had multiple opportunities to discuss the rating system with the project manager, the overall evaluation would have benefited from participation at the parameter setting workshop and through 1 or 2 additional one hour meetings with the entire project team.
- Several credits were deemed not applicable to the project. However, even more credits could have been scoped out during the parameter setting workshop.
- During the initial public workshop, ENVISION™ was very briefly presented at each table. However, a more thorough group overview, perhaps lasting 10 minutes, would have provided a better grounding for incorporation of ENVISION™ results later in the process. Questions such as why the City is using ENVISION™, how it’s being used, etc...could be more pro-actively addressed at that stage.
- At the public workshops, ENVISION™ results could be incorporated within the main poster boards vs. stand alone display. Additional opportunities to fully embed the sustainability analysis within the core

planning and public information aspects of the project will ultimately make the analysis more holistic and easier to comprehend for all stakeholders.

**Appendices**

City of Edina ENVISION™ Credit List



# Envision Sustainable Infrastructure Rating System: Credits that Apply to these Edina Projects



## Edina: Quality of Life – Applicable Credits

QL1.1	<b>Improve community quality of life.</b> Improve the net quality of life of all communities affected by the project and mitigate negative impacts to communities.
QL1.2	<b>Stimulate sustainable growth and development.</b> Support and stimulate sustainable growth and development, including improvements in job growth, capacity building, productivity, business attractiveness and livability.
QL2.1	<b>Enhance public health and safety.</b> Take into account the health and safety implications of using new materials, technologies or methodologies above and beyond meeting regulatory requirements.
QL2.2	<b>Minimize noise and vibration.</b> Minimize noise and vibration generated during construction and in the operation of the constructed works to maintain and improve community livability.
QL2.3	<b>Minimize light pollution.</b> Prevent excessive glare, light at night, and light directed skyward to conserve energy and reduce obtrusive lighting and excessive glare.
QL2.4	<b>Improve community mobility and access.</b> Locate, design and construct the project in a way that eases traffic congestion, improves mobility and access, does not promote urban sprawl, and otherwise improves community livability.
QL2.5	<b>Encourage alternative modes of transportation.</b> Improve accessibility to non-motorized transportation and public transit. Promote alternative transportation and reduce congestion.
QL2.6	<b>Improve site accessibility, safety and wayfinding.</b> Improve user accessibility, safety, and wayfinding of the site and surrounding areas.
QL3.1	<b>Preserve historic and cultural resources.</b> Preserve or restore significant historical and cultural sites and related resources to preserve and enhance community cultural resources.
QL3.2	<b>Preserve views and local character.</b> Design the project in a way that maintains the local character of the community and does not have negative impacts on community views.
QL3.3	<b>Enhance public space.</b> Improve existing public space including parks, plazas, recreational facilities, or wildlife refuges to enhance community livability.
QL0.0	<b>INNOVATE OR EXCEED CREDIT REQUIREMENTS.</b> To reward exceptional performance beyond the expectations of the system as well as the application of innovative methods which advance the state of the art for sustainable infrastructure.

## Edina: Leadership – Applicable Credits

LD1.1	<b>Provide effective leadership and commitment.</b> Provide effective leadership and commitment to achieve project sustainability goals.
LD1.3	<b>Foster collaboration and teamwork.</b> Eliminate conflicting design elements, and optimize system by using integrated design and delivery methodologies and collaborative processes.
LD1.4	<b>Provide for stakeholder involvement.</b> Establish sound and meaningful programs for stakeholder identification, engagement and involvement in project decision making.
LD2.1	<b>Pursue by-product synergy opportunities.</b> Reduce waste, improve project performance and reduce project costs by identifying and pursuing opportunities to use

	unwanted by-products or discarded materials and resources from nearby operations.
<b>LD2.2</b>	<b>Improve infrastructure integration.</b> Design the project to take into account the operational relationships among other elements of community infrastructure which results in an overall improvement in infrastructure efficiency and effectiveness.
<b>LD3.1</b>	<b>Plan for long-term monitoring and maintenance.</b> Put in place plans and sufficient resources to ensure as far as practical that ecological protection, mitigation and enhancement measures are incorporated in the project and can be carried out.
<b>LD3.2</b>	<b>Address conflicting regulations and policies.</b> Work with officials to identify and address laws, standards, regulations or policies that may unintentionally create barriers to implementing sustainable infrastructure.
<b>LD3.3</b>	<b>Extend useful life.</b> Extend a project's useful life by designing the project in a way that results in a completed works that is more durable, flexible and resilient.
<b>LD0.0</b>	<b>INNOVATE OR EXCEED CREDIT REQUIREMENTS.</b> To reward exceptional performance beyond the expectations of the system as well as the application of innovative methods which advance the state of the art for sustainable infrastructure.

## Edina: Resources Allocation – Applicable Credits

<b>RA1.3</b>	<b>Use recycled materials.</b> Reduce the use of virgin materials and avoid sending useful materials to landfills by specifying reused materials, including structures, and material with recycled content.
<b>RA1.4</b>	<b>Use regional materials.</b> Minimize transportation costs and impacts and retain regional benefits through specifying local sources.
<b>RA1.5</b>	<b>Divert waste from landfills.</b> Reduce waste, and divert waste streams away from disposal to recycling and reuse.
<b>RA1.6</b>	<b>Reduce excavated materials taken off site.</b> Minimize the movement of soils and other excavated materials off site to reduce transportation and environmental impacts.
<b>RA1.7</b>	<b>Provide for deconstruction and recycling.</b> Encourage future recycling, up-cycling, and reuse by designing for ease and efficiency in project disassembly or deconstruction at the end of its useful life.
<b>RA2.1</b>	<b>Reduce energy consumption.</b> Conserve energy by reducing overall operation and maintenance energy consumption throughout the project life cycle.
<b>RA2.2</b>	<b>Use renewable energy.</b> Meet energy needs through renewable energy sources.
<b>RA3.1</b>	<b>Protect fresh water availability.</b> Reduce the negative net impact on fresh water availability, quantity and quality.
<b>RA3.2</b>	<b>Reduce potable water consumption.</b> Reduce overall potable water consumption and encourage the use of greywater, recycled water, and stormwater to meet water needs.
<b>RA3.3</b>	<b>Monitor water systems.</b> Implement programs to monitor water systems performance during operations and their impacts on receiving waters.
<b>RA0.0</b>	<b>INNOVATE OR EXCEED CREDIT REQUIREMENTS.</b> To reward exceptional performance beyond the expectations of the system as well as the application of innovative methods which advance the state of the art for sustainable infrastructure.

## Edina: Natural World – Applicable Credits

<b>NW1.1</b>	<b>Preserve prime habitat.</b> Avoid placing the project – and the site compound/temporary works – on land that has been identified as of high ecological value or as having species of high value.
<b>NW1.2</b>	<b>Protect wetlands and surface water.</b> Protect, buffer, enhance and restore areas designated as wetlands, shorelines, and waterbodies by providing natural buffer zones, vegetation and soil protection zones.
<b>NW1.4</b>	<b>Avoid adverse geology.</b> Avoid development in adverse geologic formations and safeguard aquifers to reduce natural hazards risk and preserve high quality groundwater resources.
<b>NW1.5</b>	<b>Preserve floodplain functions.</b> Preserve floodplain functions by limiting development and development impacts to maintain water management capacities and capabilities.
<b>NW1.6</b>	<b>Avoid unsuitable development on steep slopes.</b> Protect steep slopes and hillsides from inappropriate and unsuitable development in order to avoid exposures and risks from erosion and landslides, and other natural hazards.
<b>NW1.7</b>	<b>Preserve greenfields.</b> Conserve undeveloped land by locating projects on previously developed greyfield sites and/or sites classified as brownfields.
<b>NW2.1</b>	<b>Manage stormwater.</b> Minimize the impact of infrastructure on stormwater runoff quantity and quality.
<b>NW2.2</b>	<b>Reduce pesticide and fertilizer impacts.</b> Reduce non-point source pollution by reducing the quantity, toxicity, bioavailability and persistence of pesticides and fertilizers, or by eliminating the need for the use of these materials.
<b>NW2.3</b>	<b>Prevent surface and groundwater contamination.</b> Preserve fresh water resources by incorporating measures to prevent pollutants from contaminating surface and groundwater and monitor impacts over operations.
<b>NW3.1</b>	<b>Preserve species biodiversity.</b> Protect biodiversity by preserving and restoring species and habitats.
<b>NW3.2</b>	<b>Control invasive species.</b> Use appropriate non-invasive species and control or eliminate existing invasive species.
<b>NW3.3</b>	<b>Restore disturbed soils.</b> Restore soils disturbed during construction and previous development to bring back ecological and hydrological functions.
<b>NW3.4</b>	<b>Maintain wetland and surface water functions.</b> Maintain and restore the ecosystem functions of streams, wetlands, waterbodies and their riparian areas.
<b>NW0.0</b>	<b>INNOVATE OR EXCEED CREDIT REQUIREMENTS.</b> To reward exceptional performance beyond the expectations of the system and the application of innovative methods which advance the state of the art for sustainable infrastructure.

## Edina: Climate and Risk – Applicable Credits

<b>CR2.1</b>	<b>Assess climate threat.</b> Develop a comprehensive Climate Impact Assessment and Adaptation Plan.
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<b>CR2.2</b>	<p><b>Avoid traps and vulnerabilities.</b>          Avoid traps and vulnerabilities that could create high, long-term costs and risks for the affected communities.</p>
<b>CR2.3</b>	<p><b>Prepare for long-term adaptability.</b>          Prepare infrastructure systems to be resilient to the consequences of long-term climate change, perform adequately under altered climate conditions, or adapt to other long-term change scenarios.</p>
<b>CR2.4</b>	<p><b>Prepare for short-term hazards.</b>          Increase resilience and long-term recovery prospects of the project and site from natural and man-made short-term hazards.</p>
<b>CR2.5</b>	<p><b>Manage heat islands effects.</b>          Minimize surfaces with a high solar reflectance index (SRI) to reduce localized heat accumulation and manage microclimates.</p>
<b>CR0.0</b>	<p><b>INNOVATE OR EXCEED CREDIT REQUIREMENTS.</b>          To reward exceptional performance beyond the expectations of the system as well as the application of innovative methods which advance the state of the art for sustainable infrastructure.</p>

# **APPENDIX M**

**Stakeholder Feedback Session  
on Design Recommendations –  
October 23, 2013**

**Stakeholder Feedback Session  
on Design Recommendations –  
October 23, 2013**

**Sign In Sheet**

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Design 10/23/13

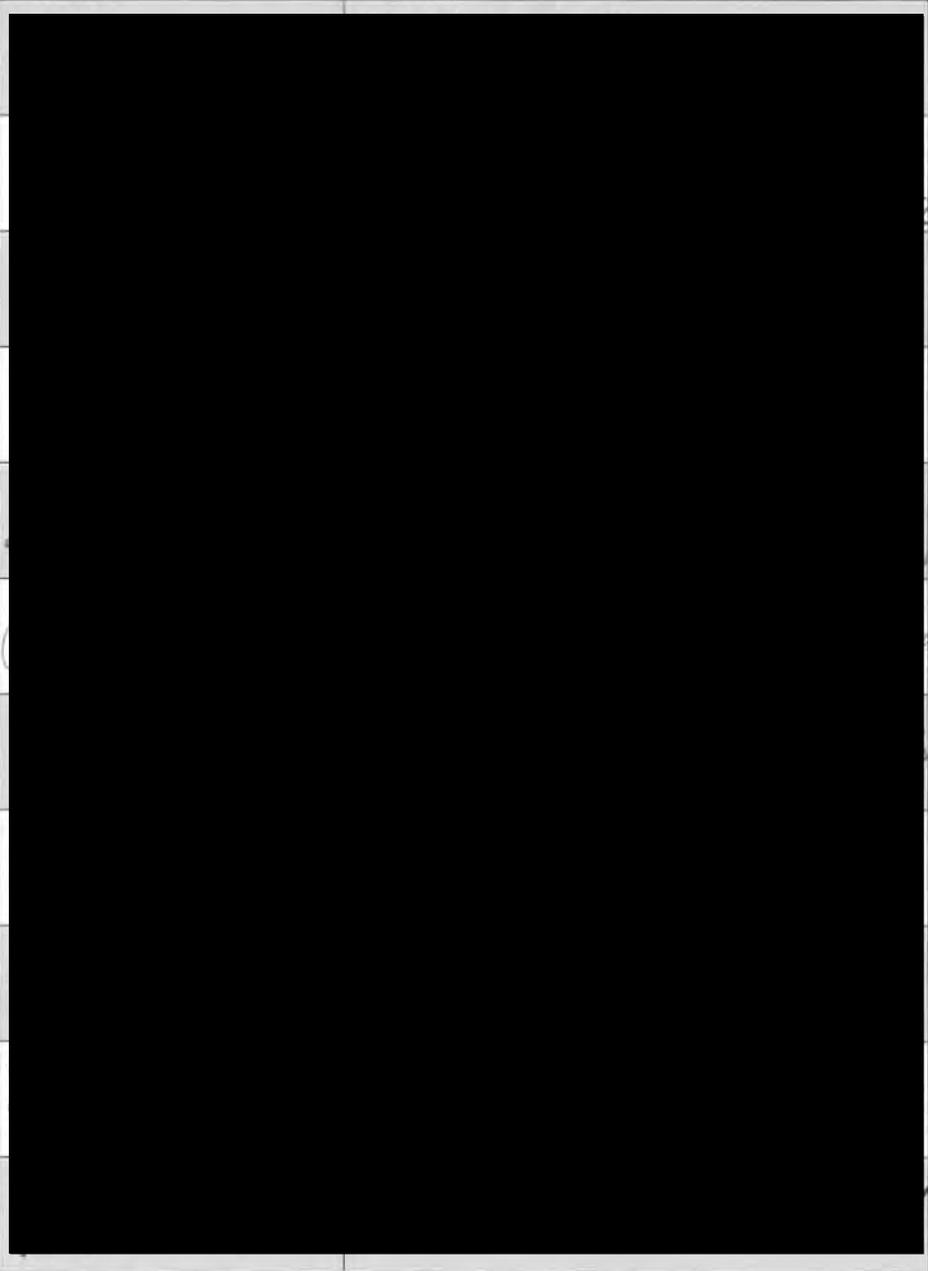
SIGN-IN FORM

Date:

Name	Street address	Phone	Email
Rick Elvey	5324 Brookview		
VAL + ROGER McVEETY	5343 OAKLAWN		
Mary Jean Weyl	5501 Oaklawn		
Catherine + Annika Businge	5428 Well 097 Ave.		
Chris Hornmann	9127 Hanson Blvd NW		
Bob Winston	2524 N. North Bellevue WA		
Jean Colwell	5401 Oaklawn Edina		
Bryan Colwell	"		
PETER Lafferty	5320 Brookview Ave		
Russ Stoenh	5112 Park Pl		
Ben Crabtree	5428 Woodcrest Dr		

# SIGN-IN FORM

Date:

Name	Street address	Phone	Email
Gary J Hanus	5336 Brookview Ave		
ED Murdock	5125 Arden Ave		
JEFF BERG	5300 39TH AVE S		
KEVIN GREEN	5400 KELLOGG AVE		
LARRY KOURI	5113 JOANITA		
Sam Longino	90 S 8th St #900 IDS		
KATHRYN GREEN	5400 KELLOGG AVE		
Nancy Egeen	5351 Kellogg Ave		
Sue Egan	5237 Wooddale Ave.		
Lisa O'Brien	5333 Minnehaha Blvd		
Doris + Benton Gummie	5400 Haujar Lane		

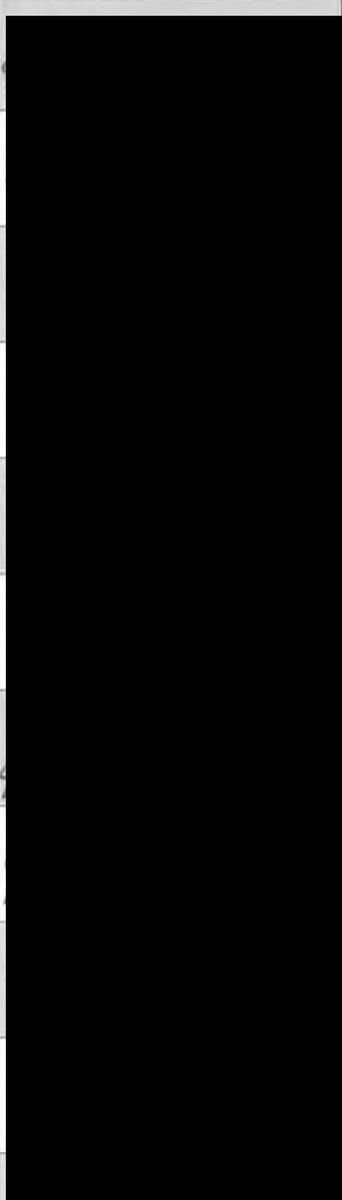
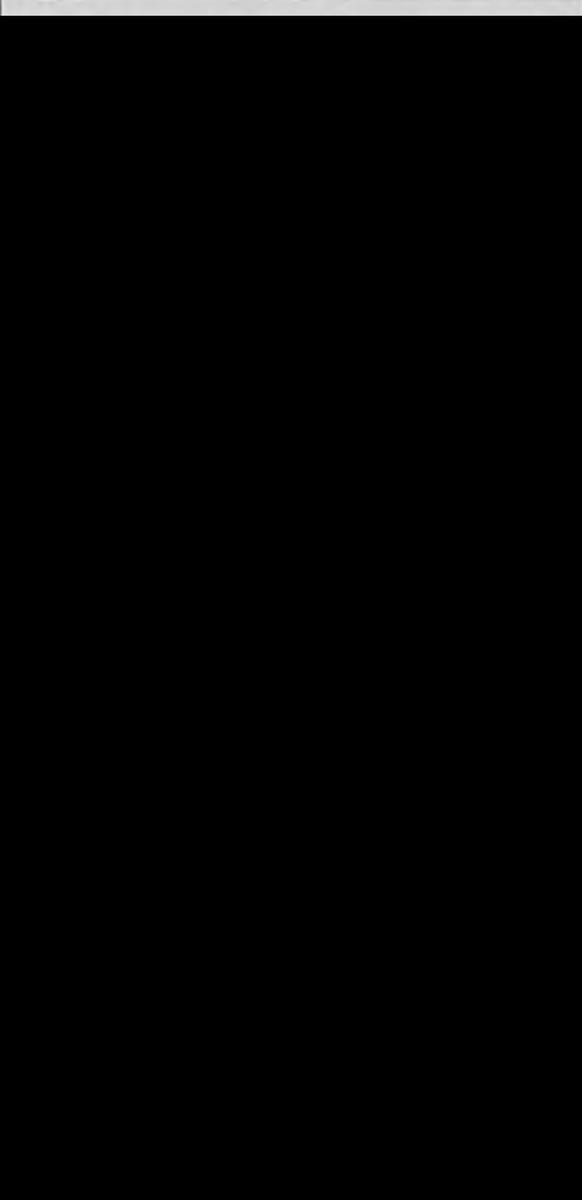
SM

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# SIGN-IN FORM

Date:

Name	Street address	Phone	Email
MARK EPPLE	5336 KELLOGG AVE		
TRISH & CO VAURTO	5328 OAKLAWN		
JOHN WHEATON	5109 Arden Ave		
RON KALIEBE	5404 OAKLAWN AVE		
Carol Kaliebe	5404 OAKLAWN AVE		
Alan Smith	1550 Northrop St		
Pat Olson	5002 Bruce Ave.		
Kathryn Koessel	5401 Kellogg		
Jane Fiegner	5225 Kellogg		
Pam: Kelly Storkay	5331 Oaklawn		

# SIGN-IN FORM

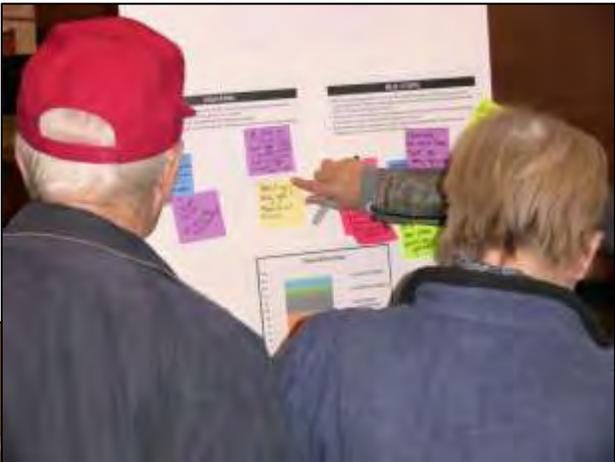
Date:

Name	Street address	Phone	Email
PETER ROBB	5337 OAKLAWN AVE EDINA	[REDACTED]	[REDACTED]
JACKEN Van Dyke	5903 MERIDIAN DR.		
Mary Balogh	5204 Halifax Ave		
Tom von Kuster	5113 WOODCREST		

# City of Edina: 54<sup>th</sup> Street Reconstruction and Arden Park Area Stormwater Plan

## Draft Design Stakeholder Feedback

23 October-3 November 2013



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# Overview and Executive Summary

Based on stakeholder input and feedback starting in June 2013, beginning with an October 23, 2013 workshop the project design team offered draft designs for the three segments of the project area:

- East, from Minnehaha to France
- Middle, from Brookview to Minnehaha and including the bridge, plus Minnehaha Creek and stormwater issues
- West, from Wooddale to Brookview

The project design team also presented draft designs and updates for the bridge, rapids and grade-control structure, boat landing, lighting, intersection configurations, and bus stops.

On 23 October over 40 people attended an in-person session at City Hall, and 43 contributed via an online survey open through 3 November. Below is a very high-level summary, followed by complete details.

**East end:** This draft design generated varied responses, with continued concerns about the six-foot increase for a short section just east of Minnehaha Boulevard to accommodate additional parking on Sundays. There was less concern for the two-foot increase for the remaining section. Other feedback included a need for landscaping around the rapids and bridge area.

**Middle section, bridge, rapids and grade-control structure, landing:** There was consistent support for the draft design, in particular around increased safety for children and creek users by raising the bridge and minimizing the need to cross 54<sup>th</sup> Street. Stakeholders indicated concerns over whether the new construction would damage the creek or rapids in any way, the overall width of the road, and the potential for undesirable activities underneath the bridge. Some also said they wanted a sidewalk on the south side to watch boat users and other creek activities. Overall, participants strongly supported maintaining the rapids and grade-control structure, and various stakeholders expressed different design ideas for the natural landing.

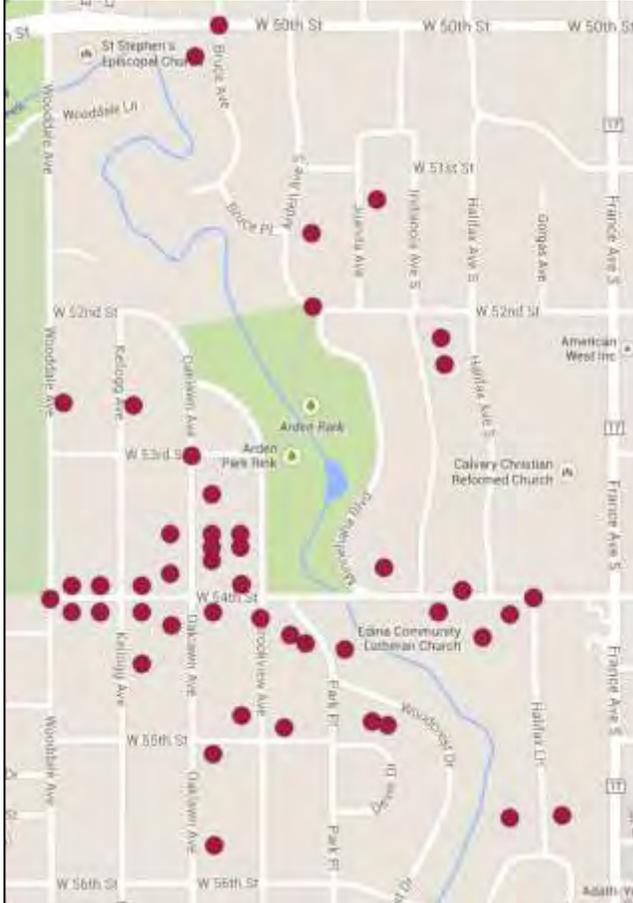
**West end:** Consistent throughout the engagement process, the draft design for this section generated the most response, especially from residents on 54<sup>th</sup> Street. The concerns remained focused on the impact of the increased width on properties and vehicle speed. Even though the draft design responded to stakeholder concerns by using shared bike/vehicle lanes (2-foot width increase) and no tree removal, some stakeholders continued to express their objections to bike lanes. Others wrote that a shared vehicle and bicycle lane is appealing.

**Lighting, intersection configurations, bus stops:** Responses to these topics were limited. Although the in-person and online surveys attempted to clarify that lighting decisions will be made during the final design process in early 2014 and will include stakeholder input, some stakeholders expressed a need for more details and information, and would have preferred being asked sooner.

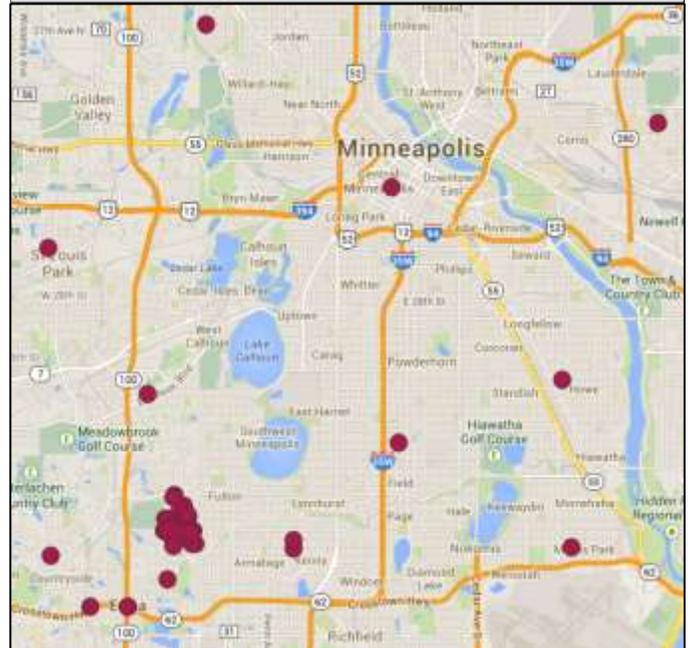
**Envision:** This innovative new tool to evaluate the sustainability of infrastructure investments was applied to the design and the results displayed at this feedback session. These results will be finalized and included in the Feasibility Study and design recommendations to the City Council in December 2013.

**Participants:** The maps below show the locations of the in-person and online participants in this round of stakeholder feedback who provided address information.

Map showing participants in project area



Map showing all participants in this round, except 7 people from Princeton, Redwing, Minnetonka, Crystal, Vadnais Heights, Shoreview, and Robbinsdale



**Stakeholder Impact on Design:** The table below illustrates the impact of stakeholder contributions on the design process.

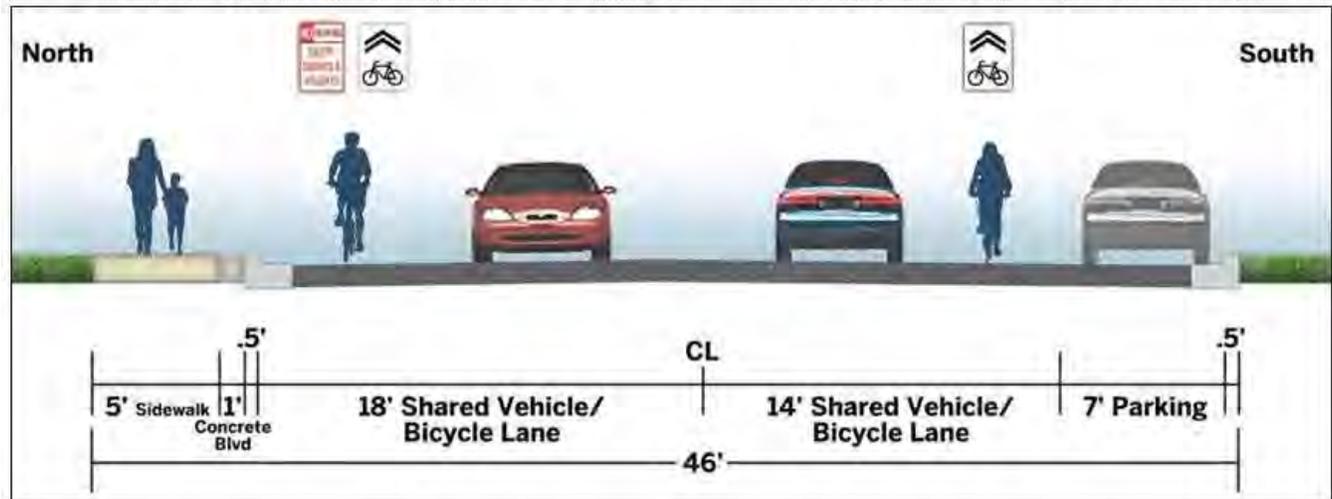
Issues/Components	Summer 2013 Status	October 2013 Status
<b>Boulevard width</b>	5' Turf	1' Concrete
<b>Lane width</b>	17': 11' vehicle, 6' bike	14': Shared vehicle and bike
<b>Sidewalk width</b>	5'	5'
<b>Lighting type</b>	Not specified	Downward facing/dark sky
<b>Bus stop pads</b>	Optional	Not included
<b>Wayfinding signs</b>	Optional	Not included
<b>Tree removal (entire corridor)</b>	8 removed	0 removed
<b>Relocated bus stops</b>	Optional	Recommended; staff work with Metro Transit
<b>Crossing safety at Minnehaha Boulevard/bridge</b>	<ul style="list-style-type: none"> <li>Stop sign: Optional</li> <li>Flashing sign: Optional</li> <li>Zebra crosswalk: Optional</li> </ul>	<ul style="list-style-type: none"> <li>Stop sign: Included</li> <li>Flashing sign: Not included</li> <li>Zebra sign: Not included</li> <li>Shelf under bridge to reduce pedestrian crossings</li> </ul>
<b>Bridge</b>	<ul style="list-style-type: none"> <li>Arch or slab: Optional</li> <li>Lighting design: Open</li> <li>Aesthetics: Open</li> </ul>	<ul style="list-style-type: none"> <li>Arch</li> <li>Lighting design: Further feedback required</li> <li>Aesthetics: Further feedback required</li> </ul>

## East End Draft Design

### EAST Description and Cross-Section A

1. East of Minnehaha Boulevard for approximately 350 feet up to Halifax Avenue:

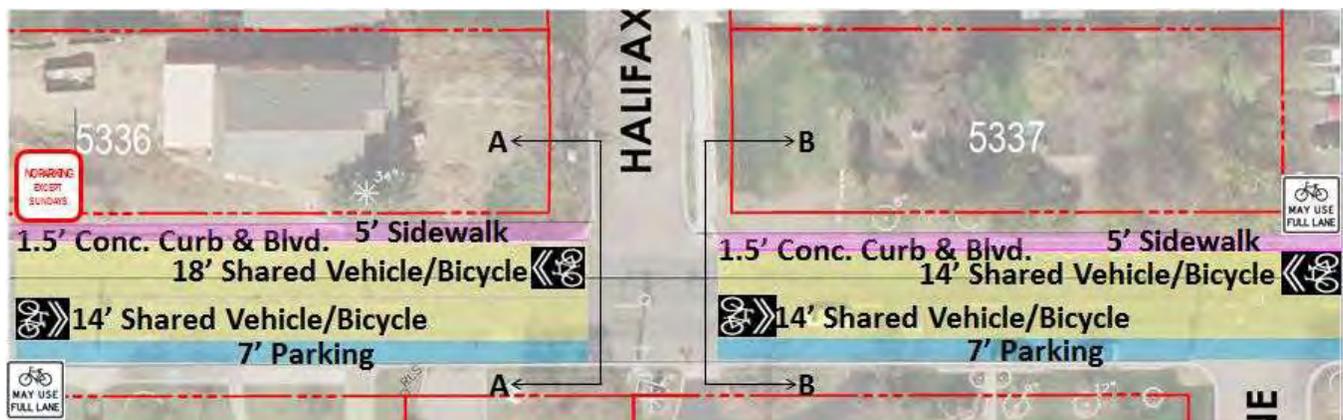
- Increase total width from 40' to 46' *for this short section only*
- One 7' parking lane on the south side
- One 14' shared vehicle/bicycle lane
- One 18' shared vehicle/bicycle lane *and Sunday-only parking* to accommodate parking needs near Edina Community Lutheran Church
- One 5' sidewalk and 1' concrete boulevard for safety, on north for Park access



## EAST A Stakeholder Needs/Priorities Addressed

The recommended design addresses the following stakeholder needs, issues, and concerns, and meets minimum State Aid and City design requirements:

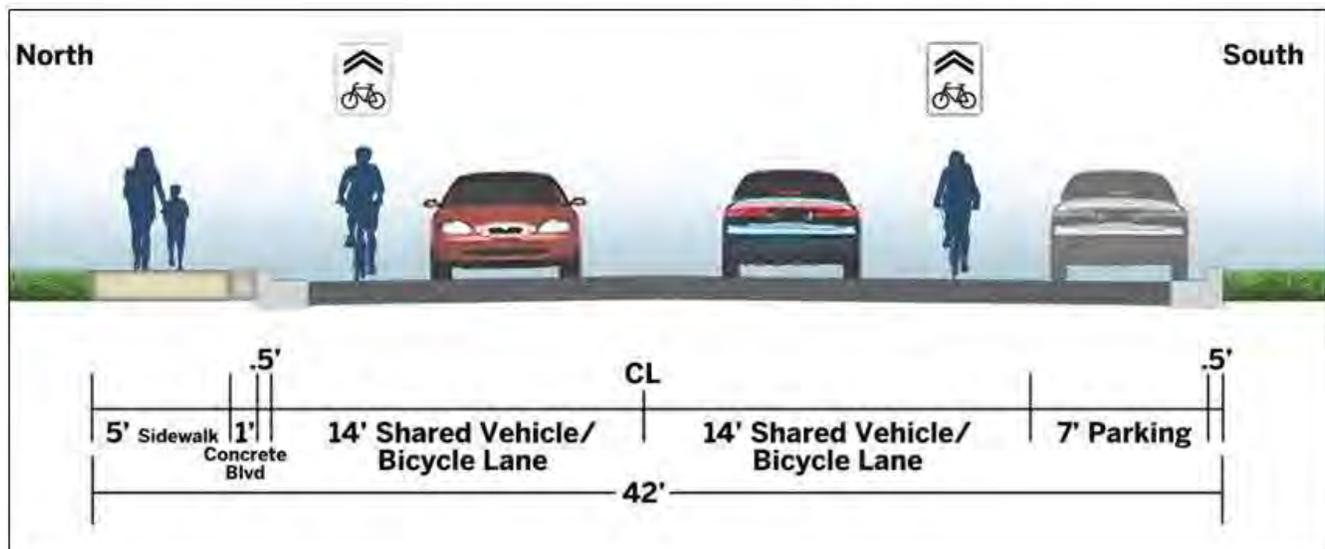
- Minimizes impact to adjacent right-of-way and calms traffic by using MnDOT's minimum width design standards for shared vehicle and bicycle lanes along with a dedicated parking lane
- Removes *no* trees from either side of the street
- Improves safety for bicyclists by creating facilities consistent through the corridor
- Accommodates the need identified in the parking study for additional parking near Edina Community Lutheran Church on Sundays
- Avoids a significant construction schedule delay to relocate 5 overhead power/telephone/cable TV poles and significant impact to Edina Community Lutheran Church landscaping, lighting, and retaining walls by generally matching the proposed south edge of the new concrete curb and gutter with the existing south edge of the existing street
- Minimizes the number of pedestrian street crossings by adding a sidewalk on the North side to support access to Arden Park, the corridor's primary pedestrian destination
- Increases pedestrian sidewalk safety, as recommended by the ADA, by installing a 1-foot detectable warning strip of exposed aggregate concrete between the concrete curb and the sidewalk



## EAST Description and Cross-Section B

### 2. East of Halifax Avenue to France Avenue:

- Increase total width from 40' to 42' *for this section only*
- Two 14' shared vehicle / bicycle lanes
- One 7' parking lane
- One 5' sidewalk with a 1' concrete boulevard for safety, on north for Park access



## EAST B Stakeholder Needs/Priorities Addressed

The recommended design addresses the following stakeholder needs, issues, and concerns, and meets minimum State Aid and City design requirements:

- Minimizes impact to adjacent right-of-way and calms traffic by using MnDOT's minimum width design standards for shared vehicle and bicycle lanes along with a dedicated parking lane
- Results in no tree removals on either side of the street
- Improves safety for bicyclists by creating facilities consistent through the corridor
- Avoids a significant construction schedule delay to relocate 2 overhead power/telephone/cable TV poles and removal of at least 5 trees by generally matching the proposed south edge of the new concrete curb and gutter with the existing south edge of the existing street
- Minimizes the number of pedestrian street crossings by adding a sidewalk on the North side to support access to Arden Park, the corridor's primary pedestrian destination
- Increases pedestrian sidewalk safety, as recommended by the ADA, by installing a 1-foot detectable warning strip of exposed aggregate concrete between the concrete curb and the sidewalk

## East: Appealing

- looks good
- More appealing if parking is on both sides 7 days/week.
- Nice, shared use.
- Section B looks to me moving in a more reasonable direction
- sidewalk

## East: Concerns

- It's a shame that the current plan does not include exclusive bike lanes. Sharrows seem like a weak attempt to include cycling into the infrastructure, especially on a street frequently used by SVMS students who bike to and from school. We will look back on this as a miss as the biking trend is growing.
- The street currently works fine as is. The parking on the north side while sparsely used provides a visual narrowing of the roadway with just one parked car. As currently configured the road is highly available to bikers for biking along the curbside.
- 12" concrete boulevard still adds unnecessary width to project. ADA may "recommend", but is it required? Is a nursing home/hospital nearby where we have a larger than average wheelchair population?
- way too wide
- Section A effectively moves problem traffic speeds and noise pollution traffic 4' closer to my dining room/family room and will have an exclusive adverse impact on our property value, quality of life, and safety of our property.
- road is way too wide....promotes speeding
- Keep the street configuration as it is. Add a sidewalk and be done. If it isn't broke don't fix it.
- Have curb bump-outs at intersections been explored to help calm traffic speeds?
- don't need parking
- It's concerning the Section B was WITHHELD FROM PRESENTATION at last night's preliminary proposal meeting. Clearly ALL resident tax payers would have far greater support for Section B implementation consistency to the creek.
- don't need the sharrows.
- skip north side parking even if needed on Sundays (they can make other arrangements). 5' bike, 11' travel, 11' travel, 5' bike, 7' parking = 40'
- Narrow streets!
- Keep narrow – sidewalk on south? Where is already exists – put pedestrian sign at bridge
- Why not have 4' sidewalk with 1' concrete curb/rumble strip?
- Keep the current street configuration of the east section of 54th. It currently serves the needs of everyone (residents, bikers, traffic) every day of the week.
- Keep 54th St. roughly same width as now
- This furnishes ample space for the uses
- How about speed bumps? Don't make 54th a thoroughfare! Narrow the street!
- Please don't make 54th a big thoroughfare. Keep the charm
- Falls area is a diamond in the rough. Needs landscaping
- Reduce speed with speed bumps
- Speed bumps?
- Speed bumps are not required on 54th St.
- Do not install speed bumps. Anywhere.
- Considering and blindly instituting are different things
- Overwhelming neighborhood input was narrow not wider. Why ask for input when it is not considered?
- Why can't 18' be 14'?
- 14' too wide. Please show proof of state-aid requirement
- Don't make 54th into a thoroughfare
- Narrower streets would reduce speed
- Narrow streets!
- Speed bumps? Minneapolis has them Douglas
- I'm very opposed to shared vehicle/ bicycle lanes. Especially considering the sloped nature of 54th Street. When wet/icy conditions exist you are inviting trouble.
- Collectively I believe all ADJACENT IMPACTED STAKEHOLDERS would like to see the narrowing

of the shared vehicle/bike lane to 12' by way of variance if/where necessary.

- wider street means faster cars/ awful plan
- More can be done on east side to help calm traffic (curb bump-outs near intersections). Why can't

advisory lanes be used like there is now? Parking is rare and bikers end up using parking lanes when they are empty. My concern is that it will be wide open and enticing for speeders.

- Don't let 54th become a way to bypass 50th

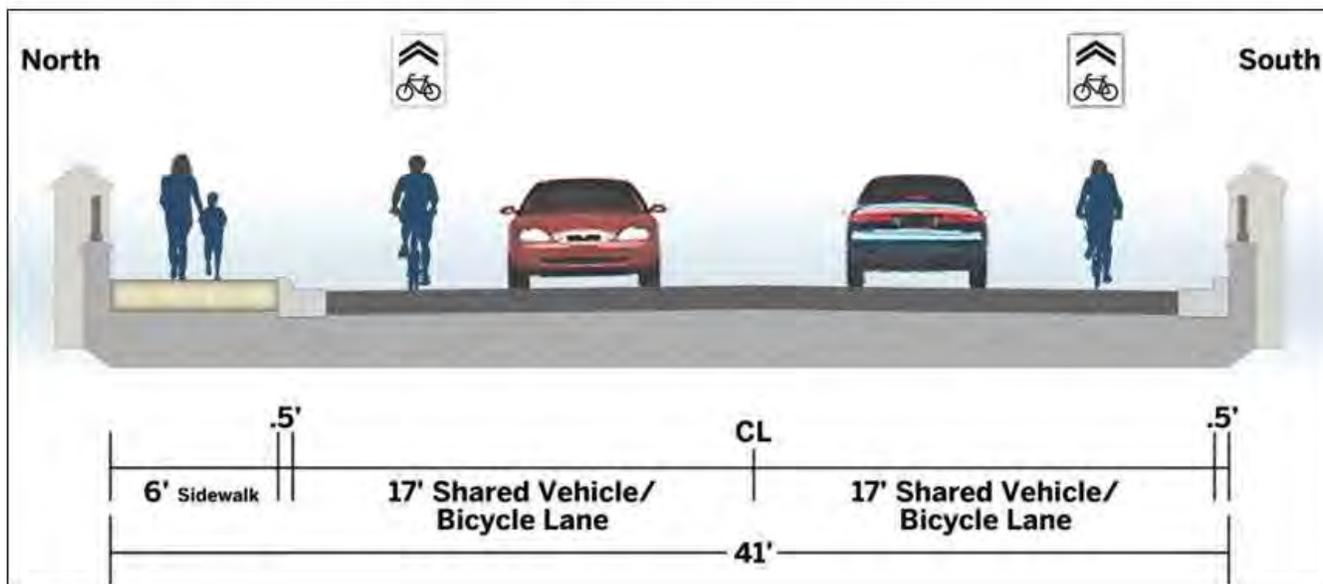
## East: Comments

- Parking both sides, shared lanes, sidewalk.
- What exactly is the "significant construction delay"? How long? How bad can it be if we plan on it? It's not like it is unexpected.
- As long as the local residents are good with it!!!
- disappointing. staff needs to push harder for dedicated bike facilities--figure out how to make it work and figure out how to communicate with public.
- Please provide details on the number of residents in this neighborhood who voted for this option.
- Landscaping around bridge and east side of 54th needed

## Middle Section Draft Design

### MIDDLE Description and Cross-Section

- Increase current width at bridge from 33.5' to 41'
- Two 17-foot shared vehicle / bicycle lanes
- 6-foot sidewalk on the north side to support Park access



### MIDDLE Stakeholder Needs/Priorities Addressed

The recommended design addresses the following stakeholder needs, issues, and concerns, and meets minimum State Aid and City design requirements:

- Raises the bridge approximately 3 feet to accommodate the access bench underneath; this improves safety by minimizing the need for creek users to cross 54th Street either to avoid the rapids or run them repeatedly
- Provides sufficient width to accommodate future bridge needs
- Improves safety for bicyclists by creating facilities consistent through the corridor
- Provides decorative knee-wall and railing for vehicle, pedestrian, and bicyclist safety



### Middle: Appealing

- very good
- No longer having to cross 54th street to do laps of the whitewater
- raising bridge; access bench; rapids access
- raising the bridge is a great idea to provide better clearance for paddlers.
- Bike lanes, sidewalk
- Repeat creek users could portage back and forth without disrupting traffic.
- I like raising the bridge to be able to run the rapids continually with bench
- Access bench to run rapids repeatedly.
- I love that it is wider to accommodate foot/bike and auto traffic
- The aesthetic of the bridge design were appealing
- Sidewalk
- Raised bridge offering more headroom for boaters going underneath.
- Access bench to portage if desired.
- Widen road.
- This IS a park and should continue to have wild spaces
- I love the height of the bridge for creek users

### Middle: Concerns

- It's a shame that the current plan does not include exclusive bike lanes. Sharrows seem like a weak attempt to include cycling into the infrastructure, especially on a street frequently used by SVMS students who bike to and from school. We will look back on this as a miss as the biking trend is growing.
- Why increase from 14' on the east side back up to 17'? That is NOT consistent with the west side. We don't want a wider bridge! What are the future bridge needs you mention? Why on earth does sidewalk increase to 6' when 5' is perfectly fine? What is width of side walls? They add significant amount to the overall width of the bridge. I would keep a railing system so creek can be viewed by motorists AND bicyclists as they are going by. The 41' dimension you use is VERY misleading because it doesn't even take into account the decorative knee wall/railing thickness
- That any re-build would damage the playable feature in the rapids
- How much will the street have to be widened?

- I would put the sidewalk on the south side. Often people enjoy watching boaters on the wave to the south of the bridge. A sidewalk on the south would also make it so pedestrians are not required to cross Minnehaha Boulevard
- The bridge width should - not - affect the creek bed width, as this would affect the water velocity going through the rapids, and potentially negatively affect them. PLEASE - consult with a whitewater flow firm to ensure the rapids are not destroyed, thanks!
- New design will disrupt the kayak surfing wave.
- Too wide. 17' lane is not necessary and should not continue to be forced upon the residents who pay taxes in this community.
- Too wide....can we not cut down on the width of the bridge to keep it quaint and fit into the neighborhood
- Where is the sidewalk on the south side? People like to be able to enjoy BOTH sides of bridge.
- High water might go above bench under bridge and high water times are just when this access is needed.
- Kids and adults alike wanting to observe creek activities on the SOUTH SIDE as they do now, will have nowhere to stand -- which could lead to them simply occupying the bike lane, resulting in an obvious traffic conflict!!!
- It is unfortunate that we are calling these 'shared bike lane' when in fact the road is being widened to an extent that designates the bike lanes.
- there's room for two dedicated bike lanes 6' 11' 11' 6'
- design lacks detail
- Keep stop sign please!
- Why increase shared lane to 17' when it is 14' further down the road? Keep it simple!
- Put sidewalks on both sides of the bridge – no widening required
- 2nd sidewalk No! No!
- 17'? Why so wide?
- Narrow streets!
- I would drive faster if the road was wider...
- Proven fact that wider roads equal faster cars
- The overwhelming input from those most affected was to not widen 54th Street to reduce traffic speed
- Road still too wide
- I'm very opposed to shared vehicle/ bicycle lanes. Especially considering the sloped nature of 54th Street. When wet/icy conditions exist you are inviting trouble.
- Do NOT raise bridge 3"! This is NOT a water park. You are designing for the 1% here...design for the neighborhood first!
- If there is one thing that has been made very clear through this process it is that the local resident tax payer do not support bike lanes that widen W54th st. There are days where we have ZERO road bikers utilizing these lanes. The bike volume/neighborhood support/relevance of the lanes simply don't exist.
- Way too wide! Sidewalk needs to be on both sides of bridge. 17' much too wide for a shared lane!
- Raising the bridge is not well thought out. Kayakers and canoeists just are not a large enough population that occupies this area. Where have they been since the very first neighborhood meeting? That would change the character of the neighborhood for the worst.

## Middle: Comments

- Go whitewater!!!!!! :)
- Again, from empirical observation this past Summer, most of the creek "audience" congregated on the SOUTH SIDE -- where a bike lane would now be. This makes no sense.
- Would like to see wave improved with possible fish ladder. Runoff when it rains drops a lot of oily water just below bridge.
- better judgment needed--can't expect to approach projects the same way (even with increased opportunities for public input) and expect better results
- Be sure to allow for future path on Minnehaha Boulevard

## Middle Draft Design: Bridge

### MIDDLE Bridge Design

- A natural bridge design is recommended based on stakeholder feedback to fit better into the neighborhood and complement the creek
- The actual type of bridge has not been determined; the City will gather stakeholder feedback on bridge aesthetics, lighting, and railing during final design
- The *example* bridge shown accommodates water flow and recreational use
- 42-feet of clear width provides for a 10-foot wide access on the west within the arch
- Stone texture and coloring could match local limestone



### Bridge: Appealing

- Stone looks nice, appealing to the neighborhood; lights provide safe, yet intimate illumination
- Limestone fascia
- Looks good
- 10 foot wide access within arch; access to rapids for recreational use
- I love paddling and surfing on these rapids and keeping them is the most important part of the project for me. Please keep them. A mini whitewater park would be amazing even if it's just one wave.
- Good looking bridge design
- Shelf to allow portaging is a great idea for safety. BUT, only necessary if the gradient and recreational feature (wave) is maintained
- [Shelf, raised bridge] Best solution for safety of creek users – so they can stay off the road
- Natural look. Local materials
- Nice aesthetic.
- Access bench
- I like the ability to see the creek thru the metal fencing
- Stone and general design look appealing and of quality

### Bridge: Concerns

- I have not seen accurate contextual elevations. Isolated bridge image does not provide enough information to understand how design relates to surrounding area

- in drawing, stone looks too golden--consider matching color of stone on 50th
- Ledge under bridge will attract unwanted activity; not a safe feeling when walking at night
- Need to show people so we have an idea just how large this is
- What will the path as a feature be like if it is under water in the spring?
- shelf
- How is the path under the bridge sitting decided. Will it be on summery water levels and then under water in the spring when water is released?
- If the concrete has to be removed please rebuild the wave the same or better.
- Walkway under bridge will attract graffiti
- Where does the south end of the walkway go? Walkway not required. Minimize change to current grade.
- No walkway below bridge. Crosswalk is good enough.
- Walkway under bridge will draw unsavory behavior
- Do not raise bridge!
- Minnesotans know how to portage – no walkway under bridge
- No walkway under the bridge, please
- No walkway needed under bridge. Portaging helps slow down traffic
- Walkway under bridge is unnecessary. Bad spot to portage from north side
- Boaters should portage above bridge – this will be a congregating point for teenagers
- Good spot for drinking alcohol if you're a minor
- This encourages crime, vandalism, teen congregation for better part of the year
- Headroom on passage limits its functional
- While a nice, aesthetically appealing design, the curvature cuts down the headroom on the creek left side.

## Bridge: Comments

- Keep bridge the same height it currently is
- How much will the grade of the bridge have to be raised to accommodate the path underneath?
- Copy design of other bridges over Minnehaha. Example: 50th and Wooddale by St. Stephens
- Is current bridge structure being removed?
- What is grade-control structure?
- Make bridge look old and charming – not modern or cheap
- Design lacked detail--how will raising the bridge affect elevation of street, especially at Minnehaha intersection?

# Middle Draft Design: Rapids and Grade-control Structure

## MIDDLE Rapids and Grade-control Structure

- Most stakeholders who provided feedback preferred maintaining the rapids for recreational use
- A number had questions about the purpose and need for the above-water portion of the grade control structure
- As of mid-October, the Minnehaha Creek Watershed District was exploring the feasibility of removing the structure while maintaining a form of rapids for recreational use

## Middle rapids/grade-control: Appealing

- That the community is overwhelmingly for maintaining the rapids and not "dumbing them down" to a meager water slide.
- YES...keep the rapids AS IS!
- maintain the rapids
- Keep the rapids playful.
- Keeping rapids
- Maintaining the rapids as they now are would be fantastic.
- improving wave
- Maintain the rapids!
- the rapids look like fun for a number of kayakers and it would be great if we can accommodate them
- Keep as natural as possible
- Maintain rapids
- I like rapids ☐
- I have personally witnessed fish navigating up and downstream through the rapids so a fish ladder that risks destroying the rapids is unnecessary. At most, a minimal width ladder would suffice.
- Keep rapids.
- Maintain grade control structure (rapids)
- Please have the watershed district consult with a knowledgeable whitewater park firm to preserve rapids for the wide spectrum of activities – kayaking, canoeing, tubing, shore fishing – they currently provide
- No messing with the rapids! Keep 'as is'
- Don't change the bridge footings or alter the current grade. This is a one-of-a-kind spot in the area for recreational use
- Structures to allow fish to move upstream should not change the character of the creek
- Minimize tree removal. Allow current gradient and recreational feature to remain
- I kayak the rapids on 54th St bridge, and don't want to see any changes to the rapids
- The 54th St bridge area is a favorite spot for many paddlers including myself. Other paddlers I have spoken with, do NOT want to see any changes to the rapids. To have a spot like this to paddle within the metro is a great thing. I don't see any reason to make changes to the rapids itself. Paddlers who go here also frequent local business' and spend money. I know I do. Changes to the rapids will result in lost revenue for the area.
- if a safe, fun water recreation facility can be created/enhanced as part of this project, that's a good thing

## Middle rapids/grade-control: Concerns

- changing the current rapids area
- Removing the grade change would mean less oxygen for fish and less fun for the community
- HOWEVER -- the creek bed is made of deteriorating asphalt. So while this project is being constructed, it would make sense to replace that creek bed with a new facing.
- disrupting the kayak and canoe play wave. Would also like to see all the jagged rock on the slide to the wave removed. I have seen enough people capsized

and swim prior to the wave get cut up on the very jagged rock

- Change to grade control structure by watershed district
- The less “engineered” the creek is the better. Fish can and do pass under the current bridge
- The recreational value of the wave of current creek gradient must not be minimized. The flow and creek should not change.
- Creek is not intended for rapids. This is a neighborhood not a park
- Again, "messing with" creek beds in the slightest can lead to wholly unexpected results, sometime destroying the "good" in search of the "ideal." It's best to bring in a whitewater consulting company well-versed in these designs to ensure this doesn't happen.

### **Middle rapids/grade-control: Comments**

- Keep it simple. Don't raise the grade. Keep street narrower to keep speeds down
- Take these things out [Above-water grade control structures]
- Rapids one year, drought the next. How does a “grade-control structure” improve this and what is that?
- Would like to see wave improved and a fish ladder installed.
- One need only look to the Vermilion River in Hastings as a natural model for constructing a smooth surfaced, yet harmonious, pool / drop type rapids.

## Middle Draft Design: Landing

### MIDDLE Landing

- A natural landing is recommended based on stakeholder feedback
- Landings are proposed on the west side of the Creek on both north and south sides of 54<sup>th</sup> Street
- Exact types, locations, and configurations will be determined once the Minnehaha Creek Watershed District completes their evaluation of the grade control structure



### Middle landing: Appealing

- good
- Natural landing makes more sense
- Like the approach
- yes, landings
- I real landing would be great and it would be awesome to have one that prevents erosion.
- Natural look
- This nicely melds with the environment while still providing access.
- Looks nice
- The canoe landings shelf are all based on maintaining the recreational nature of the creek is essential
- This would make it much easier to get in and out of the creek

### Middle landing: Concerns

- How close will landing be to the actual rapids?  
Preliminary design looked very close and dangerous
- Do not want to see any changes here
- Frost / heave could dislodge such a design?
- Nothing. If redevelopment of this landing only stands to draw external traffic into our Edina Tax Payer community, having an adverse impact on the home owners
- why do we need a landing if you will be able to pass under the bridge. This is not a state park area, this will promote loitering.
- It might make more sense to make the shore more on-level with the creek so (using that green canoe as an example) boats could be easily pulled up and not go floating off???

- Current landings make little sense for portaging. Move them to improve the route and make sure the path under the bridge corresponds. [Make sure landings are on the same side as the under-bridge shelf]
- Loose aggregate is slippery
- All of the overwhelming creek landing support seemed from a group of Mpls White Water Kayaker that chose to attend an Edina meeting. This was a very concerning part of the robust design process.

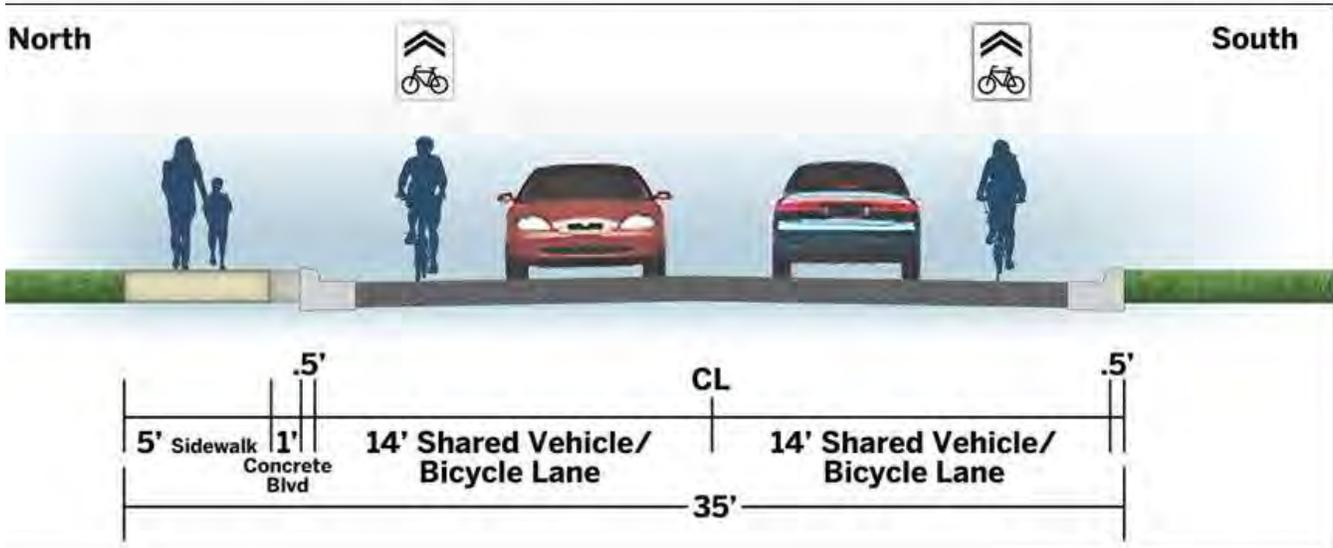
### **Middle landing: Comments**

- Canoes always land on the east side – due to current
- Would changes remove wildflowers/general flora on west bank?

## West End Draft Design

### WEST Description and Cross-Section

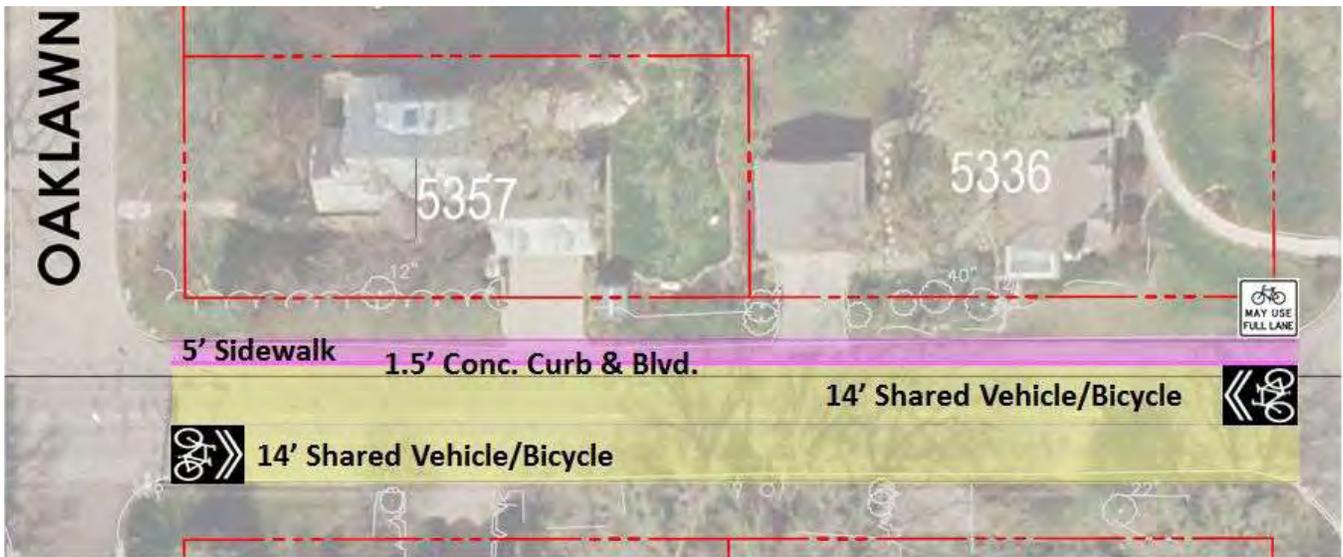
- Increase current average width of 32' to 35'
- Two 14' shared vehicle / bicycle lanes
- One 5' sidewalk and 1' concrete boulevard for safety, on north for Park access



### WEST Stakeholder Needs/Priorities Addressed

The recommended design addresses the following stakeholder needs, issues, and concerns, and meets minimum State Aid and City design requirements:

- Minimizes impact to adjacent right-of-way and calms traffic by using MnDOT's minimum width design standards for shared vehicle and bicycle lanes
- Removes *no* trees from either side of the street
- Improves safety for bicyclists by creating facilities consistent through the corridor
- Avoids a significant construction schedule delay to relocate 8 overhead power/telephone/cable TV poles and remove at least 5 trees by
- Minimizes the number of pedestrian street crossings by adding a sidewalk on the north side to support access to Arden Park – the corridor's primary pedestrian destination
- Increases pedestrian sidewalk safety, as recommended by the American with Disabilities Act (ADA), by installing a 1-foot detectable warning strip of exposed aggregate concrete between the concrete curb and the sidewalk



## West: Appealing

- fine
- Shared bike/vehicle lanes
- I like that the trees stay yet we have sidewalk and shared road program
- sidewalk
- Shared vehicle/bicycle
- Sidewalk
- Feedback is beginning to be heard, but not there yet.

## West: Concerns

- Would be very happy if we could get west design to 34'. Thank you
- Width
- Still could be narrower overall; 1 foot concrete rumble boulevard does not need to make the overall sidewalk 6' wide...the 1 foot boulevard should be included in the overall 5' sidewalk...still appropriate for City snow removal equipment for City maintained sidewalks
- It's a shame that the current plan does not include exclusive bike lanes. Sharrows seem like a weak attempt to include cycling into the infrastructure, especially on a street frequently used by SVMS students who bike to and from school. We will look back on this as a miss as the biking trend is growing.
- Concrete boulevard/"glorified sidewalk extension" adds unnecessary width to the project; keep 5' sidewalk and just incorporate a 6"-12" rumble strip within the 5' overall width; still meets ADA requirements; a wheelchair only needs 5' to turn around; 35' is still too wide! We want to be as close to the existing 32'+/- width we currently have...adding an additional 12" of concrete is just not a luxury we can afford here. France/Wooddale Avenues' sidewalks are currently 5'.
- 14' is still too wide for the road. Need to control speeding by having narrow lanes
- 6' bike, 10', 10' + 2' = 28
- Where will the signage go and we need to keep that to a minimum
- Still too wide. Interesting that the 1' detectable warning strip is ADA recommended NOT required, which is how it was represented at meeting.
- The North side is required to take the lion's share of the overall change in width...there has to be a more equitable way to share this with the South side
- design lacks detail; 14' lanes
- Is the overall 35' width centered along the 60' right-of-way? It isn't, therefore the north side bears the brunt of excess
- This ENTIRE community wants to maintain more narrow driving lanes which support the high demand for walk-ability/safety that ALL resident/taxpayers support.

- Road is too wide – retain current width for safety and ambience
- Where is the proof that 14' is required vs. suggested?
- 34.5' still too wide – does not appear to be centered on right of way
- 14' still too wide. Our understanding that variance allows 11'
- Street too wide
- Narrow streets!
- Can this be done at 32' no wider
- These are larger dimensions than minimum
- 32' is fine!
- Street still too wide – need to keep speeding down
- Center the project
- Sidewalk too big!
- No bike/vehicle road. Vehicle only please
- Too wide!
- Which way will snow be plowed? North into yards? South into street?
- Have checked with MNDOT. Not the minimum!
- Speeding still occurs when widened
- Don't let 54th become a way to avoid 50th
- Don't need 1' concrete boulevard
- 4' sidewalk
- 32' total width
- Street still too wide – keep current width
- Would like to see proof of state-aid regulation for MN street width of 14'. 11' is plenty of space!
- Boulevard not required – and not worth widening the street, losing green space, diminishing property values
- 1' boulevard not necessary with 5' sidewalk
- 1.5' concrete boulevard not necessary. Respect wheelchair etc. needs, but sidewalk along accommodates them
- Still too wide!
- Don't take people's property for a bike lane
- No need for bike lanes
- Would prefer narrower travel lanes – at the expense of any bike lanes
- 4' sidewalk
- Too wide! Please keep the charm of the neighborhood
- Bike lanes not necessary on 54th
- Street still too wide – keep at 32' – concerned about speeding!
- 7:10 7:11 54th is secondary so why do we need the bike lane
- This would create a busier boulevard and decrease property value and eliminate green space. Do not widen
- Keep street narrow. Take out marked bike lanes – confuses drivers now – keep at 32'
- We do not need bike lanes at all. We haven't needed them – not that much bike traffic
- 35' is still too wide! Explain where ADA "recommends" 12' warning strip
- Remove mud delta
- I'm very opposed to shared vehicle/ bicycle lanes. Especially considering the sloped nature of 54th Street. When wet/icy conditions exist you are inviting trouble.
- do we really need sharrows??? People get it to slow down for the bikers, they don't need to have this pointed out...let common sense prevail!!!!
- Concerned for trees on north side; encroachment will eventually kill them due to root disturbance during digging; what trees would be removed if poles are moved further south? how far south are you making your assumptions? How many poles are you talking about? None of this was clear. What 5 trees are the ones to be removed? We've waited decades to get a new road, a schedule delay is not an issue here. You may as well do it right!
- Please reduce sidewalk to 4' with 1' strip which will work best with City equipment
- why do we need the 1' concert boulevard, incorporate that into the sidewalk width so the Cities snow plowing equipment will still work to maintain the sidewalk

## West: Comments

- Narrowing the entire lanes to 13', removing the 1' warning strip, allowing a 5' sidewalk, might be a solution.
- Accommodate pop up drain pipe
- 5401 Oaklawn. Pop-up drain pipe from our gutter system – buried under pavers to northwest corner. Power line buried underground in driveway next to street. Low spot in grade by driveway on northwest corner.
- Have found exposed aggregate is slippery. Dimples better! [For the 1' boulevard]
- Recommended? Not required?
- West side: if design is not flexible and needs to have an unnecessary 1' concrete boulevard, then explore the idea of taking down utility poles. That will allow project to be centered along the right-of-way (back edge of south curb to back edge of north sidewalk). I may be more inclined to go with a 34' wide scheme with poles staying intact. It was stated that the required distance a new curb must be from a utility pole is 2'-0" (is this truly measured from face of curb- not backside- to face of utility pole?). 35' total width is still much wider than the current 32'+/- along most of the west side.
- Disappointing all around. Please evaluate public input process--generated a lot of comments, but not better results.

# Lighting

## Lighting

- Based on stakeholder feedback, the design recommends low-impact, downward-directed (sky-friendly) lights
- These are consistent with established City lighting standards
- The City will gather additional stakeholder feedback on preferred light styles during final design

## Lighting: Appealing

- More light is good...gets very dark along the stretch at night.
- Subtle lighting.
- a large street light at the 54th/park place intersection
- How can I answer this without an image of the lights?

## Lighting: Concerns

- feedback on lighting should have been gathered earlier
- Otherwise this is a waste of time.
- No need to light the place up like a Shopping Center. As is, the natural light in the Summer months was more than enough.
- it simply, urgently needs to be lighted - far too dangerous as it is now
- what are "established city lighting standards"?
- Show us pictures of the lighting options.
- is this cost necessary?

## Lighting: Comments

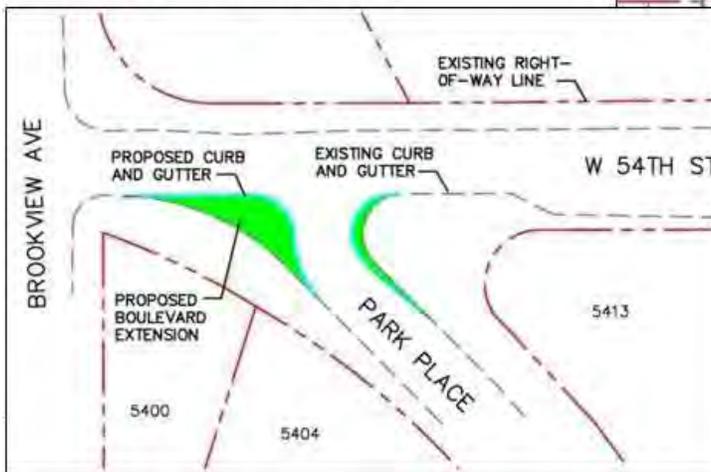
- lighting should not be an option, but a requirement wherever there is not adequate lighting for pedestrians

# Intersection Configurations

## Intersection Configurations

The recommended design reduces the curb radii at Park Place and Minnehaha Boulevard intersections.

- Reduces turning vehicular speeds
- Makes vehicle turns more deliberate for drivers and predictable for pedestrians
- Decreases maintenance



## Intersections: Appealing

- looks good
- I do like the boulevard extension
- less pavement
- It's interesting, and will slow traffic.

## Intersections: Concerns

- Right now, the parking to the right and left of the wording "Minnehaha Boulevard" though minimal -- means people turning right from 54th St. are met with a one-lane constriction.
- It might be best to keep cars (using a "No Parking Within 30ft." or what have you) away from 54th St.
- As is, cars parking on both sides led to congestion this past Summer.
- some negative feedback from past projects where curb radii reduced
- design lacks detail
- You have provided drawings with no rendering of sidewalks.

## Bus Stops

### Bus Stops

- The City will contact Metro Transit about relocating the existing bus stop on the south side of 54<sup>th</sup> Street at Minnehaha Boulevard to the existing sidewalk near the Edina Community Lutheran Church
- The City will contact Metro Transit about ridership along 54<sup>th</sup> Street and determine if bus stops can be consolidated along the corridor
- Small concrete bus stop pads may be placed at proposed bus stops where no sidewalk exists

### Bus stops: Appealing

- fine
- Good to consult MTC; not really sure how many passengers are picked up/dropped off at locations in question
- The Bus Stop is MOVED AWAY from the creek, thank you!

### Bus stops: Concerns

- It goes without saying that our family is absolutely opposed to the relocation of a bus stop to directly in front of our house. Our home is set very close to this street and this proposal is unacceptable to us.
- We are opposed to concrete bus stop pads. The non-peak bus volume is incredibly low. I am in support of any measure that reduces the number of buses that drive down W54th.

### Bus stops: Comments

- This should already have been done

## Final comments (online only)

- Obviously, take to heart the input from nearby residents but remember that streets are for public travel. Don't design a street for the people who live on it. It isn't their street. It's our street. "Our" meaning the pedestrians, cyclists, transit users and motorists who make up the general traveling public. If W. 54th were a private access road, the residents along it could make it as narrow as they want and dictate both its function and aesthetics. But it is not a private access road--it's a public street. Safety and ease of travel for all modes should drive the design. I don't think that is what has happened here.
- There has been improvement, but still more needs to be done for this to be considered a successful project. Much more detail needs to be shown (where are poles in relation to property lines? what trees would come down if poles were moved? are these even desirable trees? cross sections are not showing distances to adjacent property lines, etc.). Designers still don't seem to realize that 75% of the homes along this stretch of road have side yard setback conditions, with several homes having non-conforming conditions- **THESE HOMES ARE ALREADY CLOSE TO THE ROAD!** We are NOT too excited about having road/sidewalk creeping any closer to our homes. Get creative and find a way to get this done with a narrower footprint! Refer to the recent 44th Street Reconstruction project...how can a State-Aid road that is designated as a primary bike route (54th Street is a secondary route) be 33'-5" total width (at 44th & Coolidge) and not striped, with no intention to stripe? It baffles me that we are not able to get to that dimension. As a side note, I am convinced that whoever looked at this stretch of 54th Street as a secondary bicycle route had no idea that 75% of homes had side-yard setback and didn't even take that into account when making that determination.
- Halifax has had a very large incident of increased traffic -no left on 50th;waste collection from several competing services-(multiple trips to accommodate); lots of building activity- calling for large, heavy equipment which frequently blocks local drivers vision -both from driveways and passing ease as well as wear and damage to roads. - --Solutions or help might come from a small damage tax on heavy vehicles/schedule a short time frame to drop delivery of building materials/developing a plan for driveway building prior to main residence (which in later project development might accommodate in- driveway truck worker parking) city and resident contribution to single service supplier -once a week- which would accommodate fewer trips to damage roadways-and likely save overall costs.(such as garbage collection, or other neighborhood routine activities such as yard care, and so on.) Possibly speed bumps -and/or traffic turn circles at end street busy corners might help to reduce speed -especially on our busy child- active streets.
- thank you for keeping us all in the loop on this project!
- I would like to mention that by reducing the traffic on 50th Street to one lane, it has caused such a back up to 50th and Wooddale, that the cars turn there and then cut over on 54th. If you ask me, 50th Street should still be two lanes. You have moved a large portion of traffic onto a much more residential street (54th). I am not at all encouraged that any of the residents' comments will be addressed, since the City council seems to do whatever it decides is in its best interest and not ours. That is why I don't even bother to attend meetings that appear show concern for what the residents care about.
- It's important to keep the integrity of the neighborhood and don't promote this, any more than it is, as a cut through to avoid traffic jams on 50th. The road needs to be as narrow as possible to keep the speeding down, as so many studies prove this!!! Also important to not "cut into" the north side of 50th street. Work with in the present footprint of the street!!!

**APPENDIX N**

**ETC Meeting Minutes**

**October 24, 2013**

**MINUTES OF  
CITY OF EDINA, MINNESOTA  
TRANSPORTATION COMMISSION  
COUNCIL CHAMBERS  
OCTOBER 24, 2013  
6:00 P.M.**

**ROLL CALL** Answering roll call was members Bass, Boettge, Franzen, Janovy, LaForce, Nelson, Sierks, Spanhake, Van Dyke and Whited.

**APPROVAL OF MEETING AGENDA**

**Motion was made by member Janovy and seconded by member Franzen to approve the meeting agenda. All voted aye. Motion carried.**

**APPROVAL OF MEETING MINUTES**

**REGULAR MEETING OF SEPTEMBER 19, 2013 – Approved as corrected.**

**Motion was made by member Janovy and seconded by member LaForce to approve the amended minutes of September 19, 2013. All voted aye. Motion carried.**

**COMMUNITY COMMENT** – None.

**REPORTS/RECOMMENDATIONS**

**Safety in the Park Presentation**

Mr. Thom Miller and Ms. Jamie LaPrey gave the presentation on The St. Louis Park Freight Rail Re-route. Mr. Miller said the group, Safety in the Park, was formed in 2010, because of their deep concern about the proposed re-routing of freight rail traffic in their city. They do not support the re-route for safety and livability reasons; however they enthusiastically support LRT.

Their concern is that the MN&S was not built to handle heavy, long cars (also travels through Edina) and its proximity to St. Louis Park's (SLP) schools. Mr. Miller said "the railroad has publicly and repeatedly stated that unlike the trains that travel on the MN&S today, the re-routed trains WILL NOT BE ABLE TO STOP if an operator sees a child, car, or obstruction on the tracks due to the length and weight of the trains."

They went through the history of how they came to be where they are today and the different options that were laid out. They explained that Edina would be affected if the Southern Arm is replaced with a "switching wye" "which enables trains to change direction from east/west to north/south and vice versa" (a noisy, difficult, 3-4 hour process) vs a ramp which SLP City Council favors based on economic developments and a LRT stop closer to the hospital.

They said their main goal is to stop the re-route and they are concerned with the Southern Arm and modifying for heavy freight that the tracks were not built for. Mr. Miller said this should also concern Edina.

**2012 Neighborhood Roadway Reconstruction Survey – Results**

Director Houle explained that this was the survey results from the projects completed in 2012. He said this was the third year since they've started surveying residents. Member Janovy suggested grouping the survey results by projects so that they could see if there were any patterns. Member LaForce asked what happens to the feedback and how they are applied to future projects. Director Houle said traffic related questions are forwarded to transportation planner Nolan; others are used to for improvements; and areas where repairs were noted were taken care of during the warranty period. Chair Nelson asked how the surveys were distributed and director Houle said electronically through Survey Monkey but those who did not have electronic access could request a paper copy.

## **Draft 2013 Street Reconstruction Survey**

The following suggestions were made:

Questions 1 & 2: Separate these 'City Meetings and Open Houses' because people may like one or the other; also ask what their preferred options are, including social media.

Question 5: '...level of inconvenience...' is subjective; can we frame a question that measures something that the crew does?

Question 7: '...weather related delays...' and '...ample notices...' – not clear what is being asked; '...ample notices...' is subjective, can we give specific timeframe, e.g. 24 hrs?

Question 8: Last part of is ambiguous – '...any conflicts in dealing with the project'.

Question 11: '....end result and final design' probably have different meaning to people so consider separating them.

Questions with rating scale: Consider a 4 point rating scale because on a 5 point rating scale, 'Neither effective or ineffective' would be a 3 and it probably should not be a 3.

The survey was developed by the Engineering and Communications Departments.

## **2014 Neighborhood Reconstruction Projects – Updates**

### **Birchcrest B**

#### **Community Comment**

Wayne Lindholm, 5024 Valley View Road, said the survey result showed that residents were in favor of streetlights 50/50 but it is not being recommended as part of the project, while sidewalk results was 27 to 61 and it is being recommended. He opposes the sidewalk which is not shown in the Comp Plan.

Arthur Thelemann, 5132 Valley View Road, said he opposes the *sidewalk*. He said several historic surveys are included and one of them is a an updated pedestrian traffic survey but there is no mention of a concrete sidewalk; the area is noted not as a primary bike route but as a secondary bike route; there are more cyclists than casual riders (like himself); Mayor Hovland and Councilmember Swenson met with neighbors regarding the petition for the sidewalk and did not understand why the sidewalk was going in; and the bike route did not meet the definition because there are no place to recreate.

During discussion, director Houle clarified that the sidewalk ends where it does because that is the end of the project limit; the sidewalk will be 5 ft. with a 5 ft. boulevard with some variation on the width; he will check with staff to see why streetlights are not being recommended; traffic volume on Valley View is 1400-1500/day and speed is 35-36 mph.

Member Whited read last month's minutes where she had noted that the survey response was not in favor of sidewalk but staff reported that there was support from residents for the sidewalk, a contrast to tonight.

Member LaForce said there are no schools or parks; however, the value of the sidewalk is not necessarily to take *users somewhere specific but to be used recreationally* by walker. Member Janovy added that two criteria are met – high volume and speed.

**Motion was made member Bass and seconded by member Janovy to forward the Birchcrest B Neighborhood Reconstruction feasibility study to City Council for approval. All voted aye. Motion carried.**

### **Bredesen Park D**

**Motion was made member LaForce and seconded by member Spanhake to forward the Bredesen Park D Neighborhood Reconstruction feasibility study to City Council for approval. All voted aye. Motion carried.**

### **Countryside F**

**Motion was made member Janovy and seconded by member Franzen to forward the Countryside F Neighborhood Reconstruction feasibility study to City Council for approval. All voted aye. Motion carried.**

### **Morningside B**

Member Janovy said several emails were received in support of sidewalks on 42<sup>nd</sup> and continuing west of Grimes. She said staff made some changes since the feasibility study was first submitted and one of them is a recommendation to not build the sidewalk west of Grimes; however, residents want the sidewalk and some did not care which side of the road it was on, while others prefer the south side. She asked if Alden and Scott were part of the recommendation and transportation planner Nolan said yes. Member Janovy said as a resident in the neighborhood, she would not recommend *the sidewalks on Alden and Scott* and also there was no support for them in the survey and traffic volume is low. Director Houle said now is the time to fill in these missing segments because the opportunity will be lost for many years as experienced in another neighborhood and it is in the Comp Plan. He said staff is not recommending segment two (42<sup>nd</sup> from Grimes to city limit) because the residents have not been notified; however, they could use Nov/Dec. to notify residents and still have it folded in as part of this project. Staff, up until now was recommending the sidewalk on the north side but Member Janovy said putting the sidewalk on the south side would connect with existing sidewalks, and they can cross at Grimes and 42<sup>nd</sup> using the new crosswalk. She said further that there are some obstacles at Lynn & Oakdale and if these cannot be worked around it would be better to have the sidewalk from Grimes to Lynn. Member Franzen asked if the south side has been studied and transportation planner Nolan said the north side was studied and there are 28 conflicts compared to 32 on the south side. Some major conflicts on the south side include a driveway retaining wall, possibly a new driveway due to grading with likely impacts to the garage, and a huge tree that would be difficult to meander around.

It was noted that the ring path around the park is not being recommended at this time.

**Motion was made by member Janovy to forward to the City Council for approval the Morningside B Neighborhood Reconstruction feasibility study with the comments in the Oct. 7 memo with the exception of .2 and instead recommend that a sidewalk be constructed between Grimes and the city limits and that it be a 5 ft. sidewalk to match the others.**

### **Discussion**

Chair Nelson asked if the north/south sidewalks (Alden and Scott) were included in the above motion. Member Janovy said it does not matter if they are included or not.

### **Member Bass seconded the motion.**

Member Franzen said he does not have enough information on segment 2 to recommend it. Member LaForce asked if the motion included the north or south side and member Janovy said the side is to be determined based on further study. Chair Nelson asked for clarification on the north/south sidewalk and member Bass said she assumed they are included especially because they are in the Comp Plan. Member Franzen asked if it was possible to have the feasibility study for segment 2 done before final approval and staff felt that they could make this happen. Member LaForce asked what they are going to learn that they don't already know and transportation planner Nolan said the impact to the house and tree to the west and director Houle added that they have not followed protocol of notifying residents and getting their input. Member Janovy said more notice is better and historically residents would have been notified because they would be assessed but this is being paid from the PACS fund and wondered if this new funding strategy changes anything.

The motion was voted on as following:

**Aye: Bass, Whited, Nelson, Janovy, Spanhake, Boettge**

**Nay: Laforce, Franzen**

**Motion carried.**

### **Strachauer Park B**

Member Janovy asked if the REUs were changed to show that the park would be assessed 3 REUs instead of 2 and director Houle said it was not changed but will be addressed before going to City Council.

**Motion was made member LaForce and seconded by member Bass to forward the Strachauer Park B Neighborhood Reconstruction feasibility study to City Council for approval. All voted aye. Motion carried.**

### **54<sup>th</sup> Street Reconstruction and Arden Park Stormwater Management Plan**

Director Houle said at this point the plans are approximately 80-90% complete and Mr. Toby Muse with SEH would be presenting the design recommendation. He said the completed plan will come before the ETC in November before going to the City Council December for final approval. Mr. Paul Pasko with SEH was also in attendance.

Mr. Muse, project manager, said the project location is W. 54<sup>th</sup> Street between Wooddale and France Avenues. W. 54<sup>th</sup> is a state aid roadway with a bridge over Minnehaha Creek. The project has gone through two processes that are unusual for City projects and they are 1) a robust stakeholder engagement process to help shape design decisions and recommendations; and 2) Envision Sustainability Evaluation which is a scoring system that measures the effect project decisions and recommendations have on sustainability.

Current roadway conditions are different east and west of the creek. On the east, there are curb and gutter, advisory bicycle lanes, parking on both sides and the roadway width is 40 ft.; on the west there are no curb and gutter, dedicated bicycle lanes and the roadway width varies from 29-34 ft. The pavement is in poor condition both east and west. At a couple wider than usual intersections turning vehicle speeds are higher than normal and with diminished pedestrian crossing safety. There are seven Metro Transit bus stops, stop signs, driveway entrances that vary from flat to steep, and cobra head streetlights on wooden poles. The average daily traffic count is 2,400; the 85<sup>th</sup> percentile speed is from 29.8 to 30.5 mph; there are parking demands on Sundays (based on a parking study) otherwise one lane is sufficient on the east end; and there are 14 private retaining walls/landscaping within the right-of-way. The bridge was built in 1935 and widened in 1948. MnDOT has rated it structurally deficient and the rails as substandard.

Stakeholder engagement: the goal was to include everyone to help make decisions in developing alternatives and ultimately a final design. Mr. Muse showed a table that demonstrated how feedback has shaped the draft feasibility study from August to October 2013, for example, eight trees were going to be removed and based on feedback no trees will be removed, etc. More public meetings and online surveys are scheduled.

Proposed improvements to the west include curb and gutter, 14 ft. shared vehicle and bicycle lanes in both directions, a 1 ft. concrete boulevard adjacent to a 5 ft. sidewalk on the north side. The east section will have a 14 ft. shared vehicle lane with a 7 ft. parking lane on the south, an 18 ft. shared vehicle and bicycle lanes on the north with parking allowed only on Sundays, and a 1 ft. concrete boulevard adjacent to a 5 ft. sidewalk on the north side. The intersections at Park Place and Minnehaha Blvd will be narrowed but will accommodate turning movements of bigger vehicles. Other proposed improvements include bus stops consolidation to be coordinated with Metro Transit and decorative streetlights (style to be determined).

A final design for the bridge has not been determined but a natural looking bridge is preferred; the deck will be raised approximately 3 ft. to accommodate a shelf underneath to mitigate pedestrian crossing for users of the creek; exact railing, lighting and aesthetic treatments are still to be determined. It would have 17 ft. shared vehicle and bicycle lanes, a 1 ft. concrete boulevard adjacent to a 5 ft. sidewalk on the north side, and decorative kneewall and railing for vehicle, pedestrian and bicyclist safety.

The project planning began in June and from here, the feasibility study will come back to the ETC in November and then to the City Council in December for final approval.

## Discussion

Member Franzen asked if options were looked at for the power lines. Mr. Muse said they would need to be moved which would cause delays and impacts to trees. He asked if the City looked at burying the lines and director Houle said cost would be approximately \$1-2M that State Aid would not cover and would likely be assessed to residents. He said it is most likely that Xcel Energy would pay the relocation cost.

Member LaForce asked if the city has any jurisdiction over the creek and Mr. Muse said the City is working with the watershed district but he is not certain about jurisdiction. Director Houle said the watershed district has funding for shoreline improvements and also mainline improvements. Member Whited asked about water quality improvements and Mr. Muse said this will be addressed as they are working with the watershed district and also they need to meet minimum State Aid requirements.

Member Janovy said she struggles with the level of engineering detail that is provided in understanding or being able to tell exactly where the road widths changes. She said one concern that people had was speeding. She asked how does 14 ft. lane addresses the concern of speeding and Mr. Muse said 14 ft. is the minimum width for a shared lane and director Houle added that not having the centerline, drivers tend to drive more cautiously, similar to W. 44<sup>th</sup>. Member Janovy said it looks like W. 44<sup>th</sup> is functioning but they need data and she's asked for it twice.

## Community Comment

Mr. Steve Timmer, 54<sup>th</sup> & Oaklawn, said the following:

- As a stakeholder, he's worked hard to keep the footprint of the project small and prevent urban sprawl;
- Distributed a document yesterday that he and neighbors prepared that he would like added to the record;
- Last night was the first time he saw the final plan that was presented tonight and noticed 14-ft lanes (last plan had 13.5-ft lanes) and when pressed for a reason the engineering department said it was MnDOT's rule based on bike facility and certain traffic counts; he said this was a surprise for residents and probably a surprise to staff also;
- It is possible to ask for a variance to accommodate the conditions on the street and he asked the ETC to ask the City Council to request a variance based on reasons cited in the document he distributed;
- Loves the neighborhood and would like to keep it as is and save the trees.

Mark Epple, 5336 Kellogg, said the following:

- How are lane widths measured? What was presented is centerline to face of curb but MnDOT measures to edge of gutter which could potentially add another 3-ft; Mr. Muse's response was that lanes are measured to the face of the curb and MnDOT considers the 14-ft lane to be a wide outside lane because it has bike facility.
- There is a lack of detail showing impacts;
- Understands not moving the power poles;
- Heavily biased to the north side and is concerned about impacts to his two trees and their condition in future years;
- Wants to be sure that staff understands what MnDOT expects;
- How close can you get to a utility pole when building curb? Mr. Muse said measurement from the pole is from street side face of the pole to the face of the curb for a minimum 2-ft clear zone;
- Residents on west side want to keep project centered.

Teri Whaley, 5337 Wooddale, said the following:

- Became involved because of Wooddale project which was a debacle;
- Sidewalks are important and does not mind having it on her side but must consider the width; a 4-ft sidewalk with 1-ft rumble strip falls within guidelines;
- Regarding stakeholders, many at the first meeting were not Edina residents which probably caused fear and motivated residents involvement; others should enjoy the creek, etc. but homeowners are who make Edina

great; consider them first, not bikers or people at bus stops; no focus on school bus drop-offs but wants landing pads [for Metro Transit];

- Make decisions based on needs of homeowners, not needs of bikers, pedestrians, etc.

Jean Colwell, 5401 Oaklawn, said the following:

- Thanked staff and consultant for listening;
- There are still some issues residents are not happy with but is hopeful they can reach a compromise, i.e. the rumble strip which adds more concrete;
- Take into consideration how close to the roadway the houses are built, unlike 44<sup>th</sup> that 54<sup>th</sup> keeps being compared to.

John Crabtree, 5408 Oaklawn, said the following:

- Would like the police to comment on the underpass under the bridge in reference to loitering and intent;
- Regarding street widths, some would have liked to see parking but when it was fully understood, no longer supported it;
- Living Streets presentation by staff to City Council highlighted the following: street costs, streets run-off (environmental), quality of life survey (speeding and running stop signs); cannot do anything about drivers running stop signs but the others can be controlled by making street as narrow as possible.

John Adams, 5336 W. 54<sup>th</sup>, said the following:

- Appreciated that staff is coming around to residents' feedback;
- Concerned with lane widths;
- Noted that speed was measured at 30 mph but is concerned with aggregate speeding;
- Noted the difference in the 'feel' of the roadway east and west of creek;
- Wants to support parking for the church but not if it continues to cause speeding;

Kevin Green, 5400 Kellogg, said the following:

- New to neighborhood and moved here because of safety, character of the neighborhood and opportunity for rising property values;
- Hearing more questions about the details than they currently have answers to and asked that they consider additional time to provide more information so they understand the impacts to their property value before moving forward;
- Width of street is concerning; do not want to lose trees for bike lanes or parking; going from removing eight trees to zero is a great testament to what has been done over the past several months;
- Pleased with progress but is far from being satisfied so please consider additional details and facts with greater clarity so they understand the true impacts.

Ed Ross, 4015 W. 54<sup>th</sup>, said the following:

- Supports John Adams' comments;
- Removing parking on one side and creating 18-ft lane does not make sense;
- Supports parking on both sides to keep street narrow and provide use;
- Church event tonight and vehicles were parked on both sides so parking is needed other than on Sundays;
- Providing a lot of resources for bike traffic that is not there;

Member Franzen asked if the report included existing and proposed conditions survey. Mr. Houle said this level of detail is not generally provided at this point in the study and if it was to be provided it would increase the study cost. Member Franzen said this was a unique project and he is not able to respond to residents' concerns without this information. He suggested moving some of the power poles. Member Janovy concurred with member Franzen.

Member Janovy said the report included 2012 speed data and one reference to 2013 and asked if they would be provided 2013 data. She said getting bike and pedestrian video data would also be helpful.

Member Bass said she appreciated residents sharing their feedback and especially on the engagement process which is new for the City. She said she heard them asking for details and that it is important that what gets designed, gets built. She added that she was pleased to hear Mr. Crabtree's take away from the Living Streets presentation because a big part of the policy is addressing water quality and traffic calming. She said one piece not mentioned was the acknowledgement that people are moving about in different ways and patterns and transportation will continue to change for current and new residents and they need to consider the needs of all users and balance this with things like roadway widths and facility.

Member Janovy asked about placing signs in the 1-ft rumble strip as it relates to ADA requirements and Mr. Houle said they need at least 2-ft for sign placement. He explained that the reason for including the rumble strip was because the sidewalk is directly adjacent to the roadway with a 6" drop-off and though it is not required by ADA, they recommend not putting a sidewalk next to a drop off. Additionally, he said they've proposed a 5-ft sidewalk because the equipment that public works staff uses for snow maintenance is 5-ft wide and the next side down is a regular snow blower.

### **Traffic Safety Committee Report of October 8, 2013**

A.1. Chair Nelson asked if the school was contacted and transportation planner Nolan said the school was not contacted.

A.2 Member Janovy said it looks like there is transit bus stop by the bump-out – this has been corrected. Chair Nelson asked if the 'no parking' is going to be only at those locations where the bump-outs are and then 170 ft. north of the crosstown ramps – yes. Member Franzen said the bump-outs could be larger and more aesthetically-pleasing and still have enough parking – this is temporary for the winter said director Houle.

B.1. Member Franzen asked how pedestrians are counted and transportation planner Nolan said it is done electronically. Member Janovy said she understands why the crosswalk was denied but believes the NEETS called for crosswalk at Sunnyside and Grimes. Additionally, she said there are two curb cuts that do not align with the intersection and she has almost been hit there and something needs to be done.

C. 1. Member Whited said this area is a natural path for crossing that she uses and the number seems low to her. She asked if these types of counts could be done on the weekends and transportation planner Nolan said yes.

C.2. Member Bass said she understands where the requestor is coming from because she has almost been hit by bicyclists in the 50<sup>th</sup> & France area. She said there is a parking issue and they do not want to discourage people from taking other modes. She said there are no facilities for biking. She said they should be careful in the language they use and also ask Council to consider potential remedies for addressing the need for better bicycle facilities in the area. She said this highlights the potential conflicts when there isn't a good system for all the modes. Member Janovy agreed and said she sent a photo of pavement inset sign to transportation planner Nolan.

D.2. Member Janovy asked what the bump-out will look like and was told that it is already built.

**Motion was made by member Spanhake and seconded by member Franzen to forward the October 8 Traffic Safety Report to City Council. All voted aye. Motion carried.**

### **Updates**

Student Members - None

### Bike Edina Task Force

It was noted that the Sept. 12 minutes was not distributed. Member Janovy reported that they've reorganized – passed bylaws, standardized members, formed subcommittees and there are four open spots for new members. She said the subcommittees are infrastructure, bike friendly community, Active Routes to School, and education and outreach and these will be open to anyone who would like to participate. Member Bass asked if the status of the BETF with the City has been clarified and member Janovy said the consensus is that the group is not interested in being a working group of the ETC and since they are seen as a separate organization from the City, they are working to formalize their relationship with the City.

### Living Streets Working Group

Chair Nelson said the group continues to meet. Transportation planner Nolan added that the next meeting is Nov. 6 at which time they will review the results of the workshop exercise and talk about crafting the report.

### Communications Committee

Member LaForce clarified that they do not have any work in progress and that they work on a 'as needed basis.'

## **CORRESPONDENCE AND PETITIONS** - None

### **CHAIR AND COMMISSION MEMBER COMMENTS**

In reference to the neighborhood reconstruction that is taking place on his street, Member Franzen said he has been testing the engineering staff to see if he could *stump* them and was surprised when he emailed them regarding his property marker that was removed to hear that it was already scheduled to be re-installed. He said he was quite impressed that staff had thought of the little details of the project.

Chair Nelson said he's noticed on the Birchcrest B project that the plan is to replace the concrete streets with bituminous and since they have not done much work on concrete streets throughout the City, he asked if this was the plan going forward. Mr. Houle said there are about 50 miles of concrete streets and they do not have replacement plan so they are replacing them as they do neighborhood reconstruction projects, and they are being replaced with bituminous.

In reference to the presentation from Safety in the Park, Chair Nelson asked if it would be appropriate for the ETC to ask the City Council to take a position on the Southern Arm that is being proposed. Mr. Houle said this would be up to the ETC and he suggested discussing this at the next meeting. He said staff could not comment on it because they do not have enough information. He said the whistleblowing is a problem and the way to deal with this is for the City to install crossing arms and declare a whistle ban. He said this would be an expensive project.

Member Whited said the new roadway design for the entry/exit at Byerly's on France Ave makes it easier to exit onto France Ave. Secondly, she said she is no longer with PRISM Express as of this week and had to cancel the grant application with the City and the Met Council and she asked how to move forward. Chair Nelson said to add this to the agenda for discussion next month.

Member LaForce said there are lane closure signs on France Ave that is not visible until almost time to merge; he asked if they would consider putting the signs on the median so they are more noticeable.

Member Bass said the issues and concerns raised by neighbors reminded her that the communications committee had recommended modifying the City's website to have clear and easy information on right-of-way, sightline, etc. and asked if they were ever considered. Mr. Houle said he would have to check on this and get back to her.

### **STAFF COMMENTS**

Updates from Mr. Nolan:

- Metro Blvd sidewalk is almost complete.

- Vernon Ave mill and overlay still does not have bike markings and signage and these may not be done until next spring.
- A new traffic safety coordinator will be starting on Nov. 4.
- Educational safety campaign was added to the 2014 Work Plan and it was approved for funding; the amount is unknown.
- Councilmember Bennett has invited everyone to attend the City's quasiquicentennial and Founders Day event that is planned for Dec. 12.

Updates from Mr. Houle:

- France Ave and Hazelton Rd bid openings are scheduled for Nov. 20.
- Neighborhood reconstruction projects are wrapping up.
- Mark Nolan will be the staff liaison from now on as he is transitioning out of the City to a new assignment and next Thursday will be his last day.

**ADJOURNMENT**

Meeting adjourned.

**ATTENDANCE**

TRANSPORTATION COMMISSION ATTENDANCE - 2013																
NAME	TERM	J	F	M	A	M	J	J	A	S	O	N	D	Work Session	# of Mtgs	Attendance %
Meetings/Work Sessions		1	1	1	1	1	1	1	1	1	1			1	11	
														7/16		
Bass, Katherine	2/1/2014		1	1	1	1	1	1	1	1	1			1	10	91%
Boettge, Emily	2/1/2014								1	1	1				3	100%
Braden, Ann*	2/1/2014	1	1		1	1	1								5	45%
Franzen, Nathan	2/1/2016	1	1		1	1			1	1	1			1	8	73%
Iyer, Surya	2/1/2015	1	1	1		1	1	1		1				1	8	73%
Janovy, Jennifer	2/1/2014	1	1	1	1	1	1	1		1	1			1	10	91%
LaForce, Tom	2/1/2015	1	1	1	1	1	1	1	1	1	1			1	11	100%
Nelson, Paul	2/1/2016	1	1	1	1	1	1	1	1	1	1			1	11	100%
Schweiger, Steven	student	1	1			1									3	27%
Sierks, Caroline	student	1		1	1	1	1		1	1	1				8	73%
Spanhake, Dawn	2/1/2016			1		1	1		1	1	1				6	67%
Van Dyke, Jackson	student									1	1				2	100%
Whited, Courtney	2/1/2015	1	1	1	1	1		1	1	1	1			1	10	91%

# **APPENDIX O**

## **Resolution to Set Public Improvement Hearing**

**November 4, 2013**

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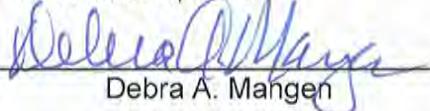
**RESOLUTION NO. 2013-110**  
**SET PUBLIC IMPROVEMENT HEARINGS FOR DECEMBER 10, 2013**  
**FOR NEIGHBORHOOD RECONSTRUCTION FOR:**  
**MORNINGSIDE B, IMPROVEMENT NO. BA-406**  
**COUNTRYSIDE F, HAWKES ADDITION, IMPROVEMENT NO. BA-407**  
**COUNTRYSIDE F, WARDEN AVENUE, IMPROVEMENT NO. BA-408**  
**BREDESEN PARK D, IMPROVEMENT NO. BA-409**  
**BIRCHCREST B, IMPROVEMENT NO. BA-410**  
**STRACHAUER PARK B, IMPROVEMENT NO. BA-411**  
**54<sup>th</sup> STREET RECONSTRUCTION, IMPROVEMENT NO. BA-416**  
**2014 CITY OF ST. LOUIS PARK, IMPROVEMENT NO. BA-418**

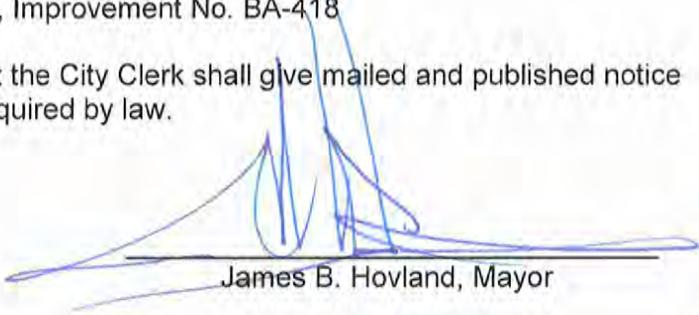
**NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF EDINA, MINNESOTA**, that a public hearing shall be held on the 10<sup>th</sup> day of December, 2013, in the Council Chambers at City Hall at 6:00 p.m., to consider street reconstruction in the neighborhoods of:

- Morningside B, Improvement No. BA-406
- Countryside F, Hawkes Addition, Improvement No. BA-407
- Countryside F, Warden Avenue, Improvement No. BA-408
- Bredesen Park D, Improvement No. BA-409
- Birchcrest B, Improvement No. BA-410
- Strachauer Park B, Improvement No. BA-411
- 54<sup>th</sup> Street Reconstruction, Improvement No. BA-416
- 2014 City of St. Louis Park, Improvement No. BA-418

**BE IT FURTHER RESOLVED** that the City Clerk shall give mailed and published notice of such hearings and improvements as required by law.

Dated: November 4, 2013

Attest:   
 Debra A. Mahgen

  
 James B. Hovland, Mayor

STATE OF MINNESOTA)  
 COUNTY OF HENNEPIN) SS  
 CITY OF EDINA )

**CERTIFICATE OF CITY CLERK**

I, the undersigned duly appointed and acting City Clerk for the City of Edina do hereby certify that the attached and foregoing Resolution was duly adopted by the Edina City Council at its Regular Meeting of November 4, 2013, and as recorded in the Minutes of said Regular Meeting.

WITNESS my hand and seal of said City this 4<sup>th</sup> day of Nov 2013  
  
 City Clerk

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**APPENDIX P**

**ETC Meeting Packet for  
November 21, 2013 Meeting**



Building a Better World  
for All of Us®

## MEMORANDUM

TO: Members of the Edina Transportation Commission (ETC)

FROM: Toby Muse, PE

DATE: November 13, 2013

RE: 54th Street Roadway Reconstruction Improvement No. BA-416 - Supplemental Items  
SEH No. EDINA 124747 16.00

The following items are a supplement to the draft feasibility study (study) dated October 21, 2013. These items will be included in the final study.

1. City staff met with MnDOT State Aid and Transit for Livable Communities (TLC) staff on November 4, 2013. The following items were discussed.
  - a. State Aid
    - i. Confirmed the shared use minimum lane width from centerline to face of curb is 14-feet.
    - ii. Confirmed a shared use lane is considered a Wide Outside Lane (WOL) per rule 8820.9941.
    - iii. Confirmed a variance can be requested for a 13-foot wide shared use lane, but the City will have to show hardship from a social, economic and environmental standpoint.
    - iv. The variance would likely not be approved if a safety concern is introduced as a result of the variance.
  - b. TLC
    - i. Supports the East typical sections proposed in the draft feasibility study.
    - ii. Understands the City is introducing a sidewalk on the north side of the corridor to promote further pedestrian activity.
    - iii. Will not request a re-payment of federal funds relative to the advisory bicycle lane project from 2012.
    - iv. Recommends painted dashed lines on either side of sharrow symbols; called priority shared lanes, throughout the corridor to assist users in further defining the shared bicycle lane location. An example of a priority shared lane is shown in the photo in Exhibit 1.
    - v. Recommends the sharrow symbol be placed 11-feet from face of curb on the east side of the project where the 7-foot parking lane is designated on the south side of 54<sup>th</sup> Street.
  - c. No centerline stripe is proposed along 54th St except the approaches to the stop condition at the Minnehaha Boulevard intersection.
2. Exhibit 2 attached is a copy of an email received from Public Works Director Brian Olson regarding sidewalk maintenance widths.

3. Bicycle counts for 2012 and 2013 are attached as Exhibit 3.
4. Metro Transit has approved the removal of bus stops at the Halifax Avenue, Brookview Avenue and Kellogg Avenue intersections.
5. Graphics showing the difference between the north edge of the existing road and north edge of the proposed sidewalk are shown in Exhibit 4.

tm

Attachments

c: Chad Millner, City of Edina

Mark Nolan, City of Edina

p:\ae\edina\124747\1-gen\16-meet\11 21 13 etc mtg\etc memo 11 13 13.docx



EXHIBIT 1



FW: 20131112 54th Street - Sidewalk Maintenance Widths  
Chad Millner to: tmuse@sehinc.com

11/12/2013 12:04 PM

2 attachments



winmail.dat image001.gif

Here's the response from public works on the 54th Street Project.

Thanks,  
Chad

[<http://intranet/images/signature/citylogosig.gif>]

Chad Millner, Interim City Engineer  
952-826-0318 | Fax 952-826-0392  
cmillner@EdinaMN.gov | [www.EdinaMN.gov](http://www.EdinaMN.gov)  
...For Living, Learning, Raising Families & Doing Business

From: Brian Olson  
Sent: Tuesday, November 12, 2013 12:01 PM  
To: Chad Millner  
Subject: RE: 20131112 54th Street - Sidewalk Maintenance Widths

Chad,

Public Works does whatever we can to be as efficient as we can with City tax dollars. In fact, our mission statement states that we will provide "efficient, effective resource management" and we aim to provide the highest and best possible quality service. The sidewalk snowplow route that would have this section of sidewalk added has a 55" v-plow and blower attachment. We have indicated that a 5 foot sidewalk is ideal for our equipment to pass and minimize damage to yards. The narrower the sidewalk: 1) the more damage there is to adjacent yards, 2) the more complaints that we get due to front yard damage and 3) the slower we have to travel which increases the amount of time to completely remove the snow.

If it were up to the Public Works Department we would like the design to include at least a 5 foot sidewalk and a 6-8 foot grassy boulevard area for snow storage. The boulevard allows separation of the road plowing and the sidewalk plowing activities. I understand that the additional one foot width that is proposed in the design is a compromise and it will at least assist us in staying away from the lawn and provided a narrow area for a small windrow of snow.

As you know we can maintain anything if given the right tools and the appropriate amount of manpower. No disrespect intended but we could build a 3 foot sidewalk and hand shovel each sidewalk if we had the right amount of manpower. In another example, there is a smaller piece of equipment (52") at 50th and France that maintains a narrower sidewalk. In that instance, the business owners pay to have an employee stationed down there full time to take care of the issues that come up. That employee shovels, sweeps and plows their sidewalks. They pay for the equipment, they pay for the time and they pay for the materials to increase to that level of service.

The current six foot design on 54th, whereas not ideal, is acceptable.

Sincerely,  
Brian

[<http://intranet/images/signature/citylogosig.gif>]

Brian Olson, Public Works Director  
952-826-0311 | Fax 952-826-0392  
bolson@EdinaMN.gov<mailto:bolson@EdinaMN.gov> | www.EdinaMN.gov<  
<http://www.EdinaMN.gov>>  
...For Living, Learning, Raising Families & Doing Business

From: Chad Millner  
Sent: Tuesday, November 12, 2013 10:42 AM  
To: Brian Olson  
Subject: 20131112 54th Street - Sidewalk Maintenance Widths

Brian,

Staff will be recommending a 5-ft wide sidewalk along 54th Street at the 54th Street Project Public Improvement Hearing scheduled for Dec. 10. Below is text pulled from a letter we received from a resident concerning minimums sidewalk widths. From a public works maintenance standpoint, can you clarify adequate sidewalk widths for maintenance with the type of equipment the City currently operates?

Thanks for your time in clarifying this matter,  
Chad

Text from Resident Letter

5. According to the city's Department of Public Works, the city's sidewalk sweepers sweep a 52" path (4'-4"). This is far less than the 72" (6'-0") Mr. Houle claimed at the 10/24 Transportation Commission meeting, and actually less than a typical 5' wide sidewalk. So, it isn't a factor in determining sidewalk width. Wooddale Avenue, which is maintained by the city, is currently 5' wide and has been that way since I've lived here (summer of 2002) and I haven't been aware of any problems with snow removal. Why are we being told 5' is not wide enough?

[<http://intranet/images/signature/citylogosig.gif>]

Chad Millner, Interim City Engineer  
952-826-0318 | Fax 952-826-0392  
cmillner@EdinaMN.gov<mailto:cmillner@EdinaMN.gov> | www.EdinaMN.gov<  
<http://www.EdinaMN.gov>>  
...For Living, Learning, Raising Families & Doing Business



**FW: 54th St**  
Chad Millner to: tmuse@sehinc.com

10/31/2013 07:40 AM

2 attachments



winmail.dat



image001.gif

Here's a few of the counts. More coming by the end of the week.

[<http://intranet/images/signature/citylogosig.gif>]

Chad Millner, Assistant City Engineer  
952-826-0318 | Fax 952-826-0392  
cmillner@EdinaMN.gov | [www.EdinaMN.gov](http://www.EdinaMN.gov)  
...For Living, Learning, Raising Families & Doing Business

From: Mark K. Nolan  
Sent: Wednesday, October 30, 2013 3:28 PM  
To: 'Mike Anderson'  
Cc: Chad Millner  
Subject: RE: 54th St

Mike,

I finally verified that the videos for Spring/Summer '13 were never taken. So we won't have those.

Do you have an ETA on Fall 2013 data tabulation?

Thanks,

[<http://intranet/images/signature/citylogosig.gif>]

Mark Nolan, AICP, Transportation Planner  
952-826-0322 | Fax 952-826-0392  
MNolan@EdinaMN.gov<<mailto:MNolan@EdinaMN.gov>> | [www.EdinaMN.gov](http://www.EdinaMN.gov)<  
<http://www.EdinaMN.gov>>  
...For Living, Learning, Raising Families & Doing Business

From: Mike Anderson [<mailto:manderson@alliant-inc.com>]  
Sent: Thursday, October 24, 2013 4:59 PM  
To: Mark K. Nolan  
Subject: 54th St

Mark,

Sorry for my late reply, but I was out of the office on a project today. I was able to look through the data you provided to us. Here is what we have:

\* Summer 2012 - 129 daily peds / 106 daily bikes. Vehicle count not provided.

\* October 2012 - 304 daily peds / 16 daily bikes. Vehicle count not

provided. (seems low, I am curious of weather conditions on that day?)

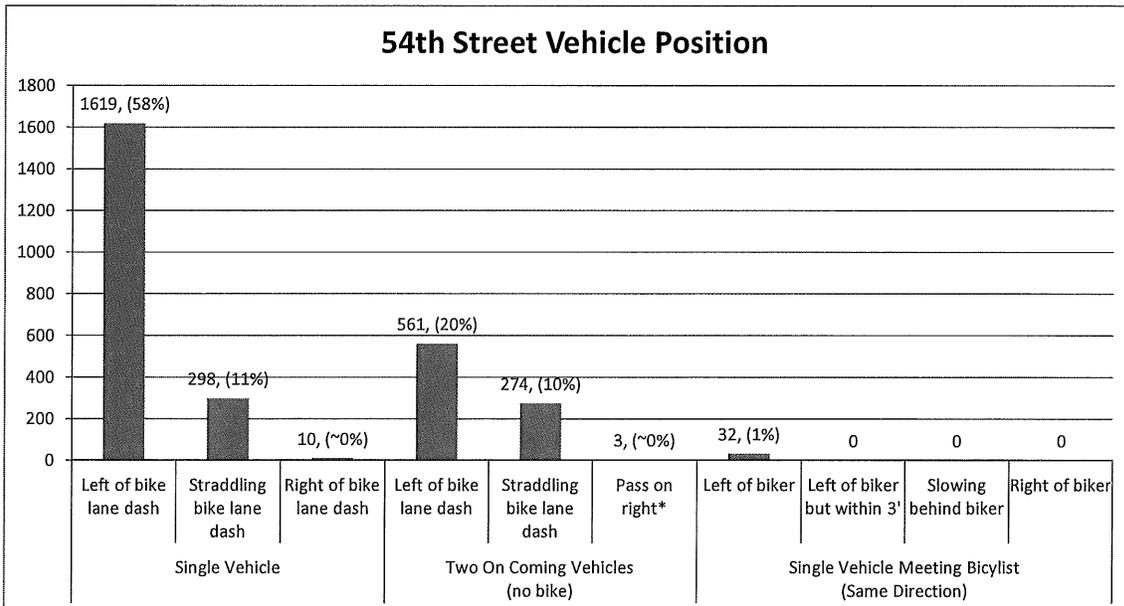
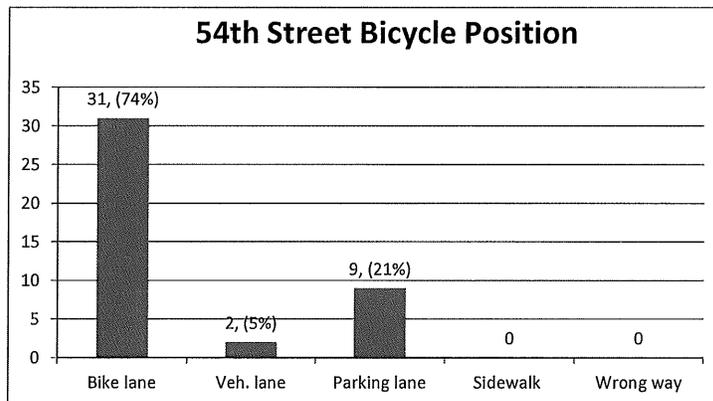
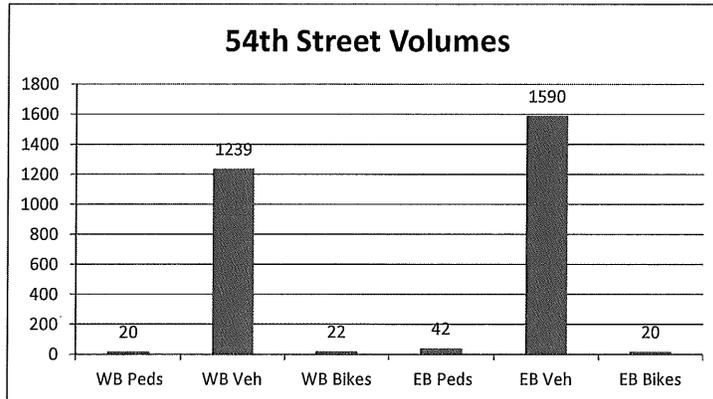
\* Spring/Summer 2013 - Data not provided to us.

\* Fall 2013 - Video recorded, but data not tabulated for 54th Street yet.

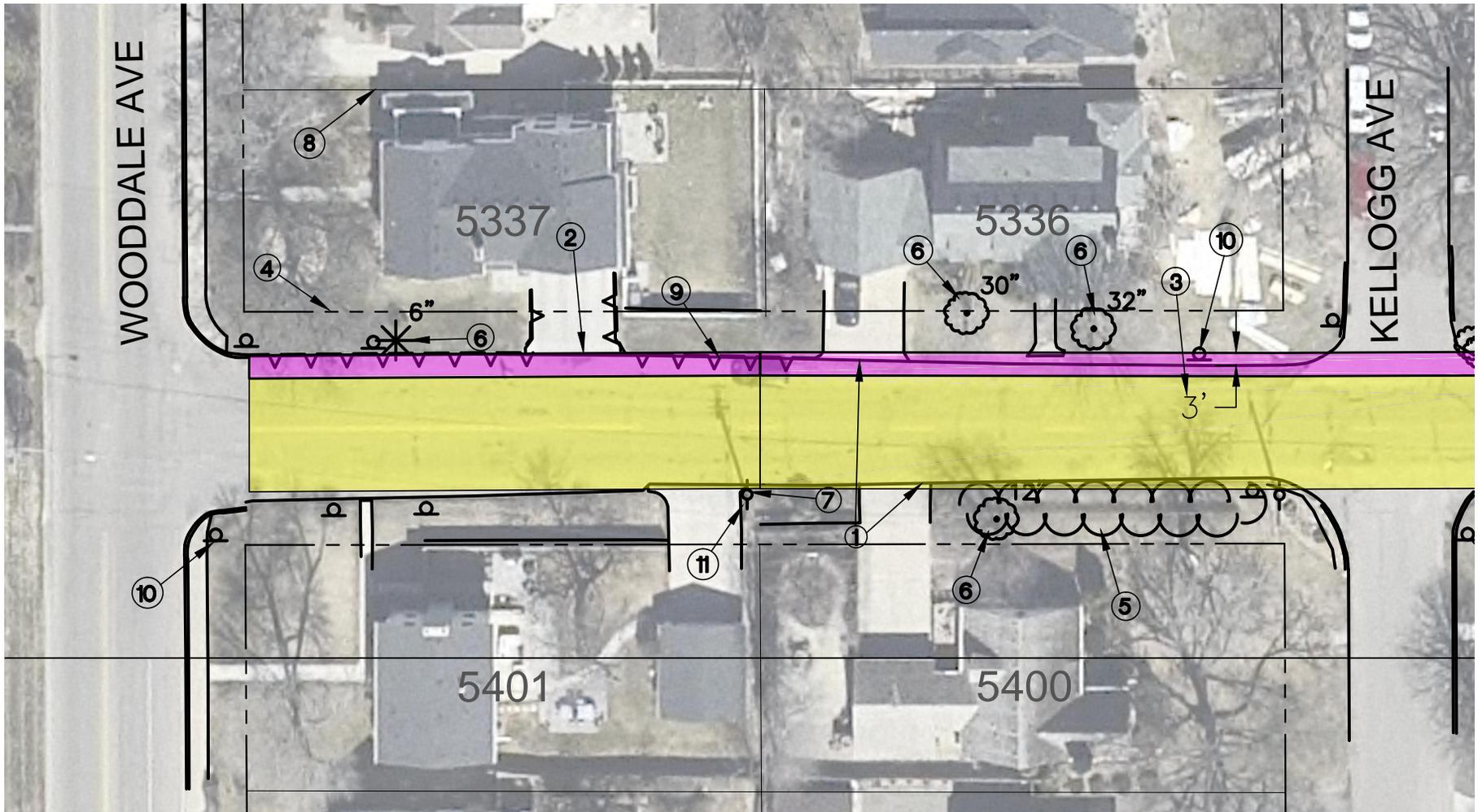
The spring/summer 2013 would be very informative to see. Were you able to track down these videos?

Hope this helps.  
Mike

54th Street Advisory Lane Vehicle and Bicycle Observation Data



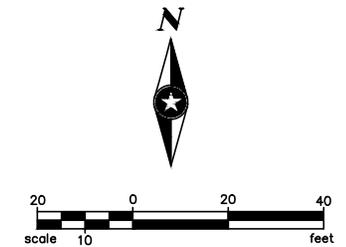
\*Vehicle passing on right due to motorist stopping to make left turn  
 Source: 24-Hour Study Period. Data collected on October 10, 2013



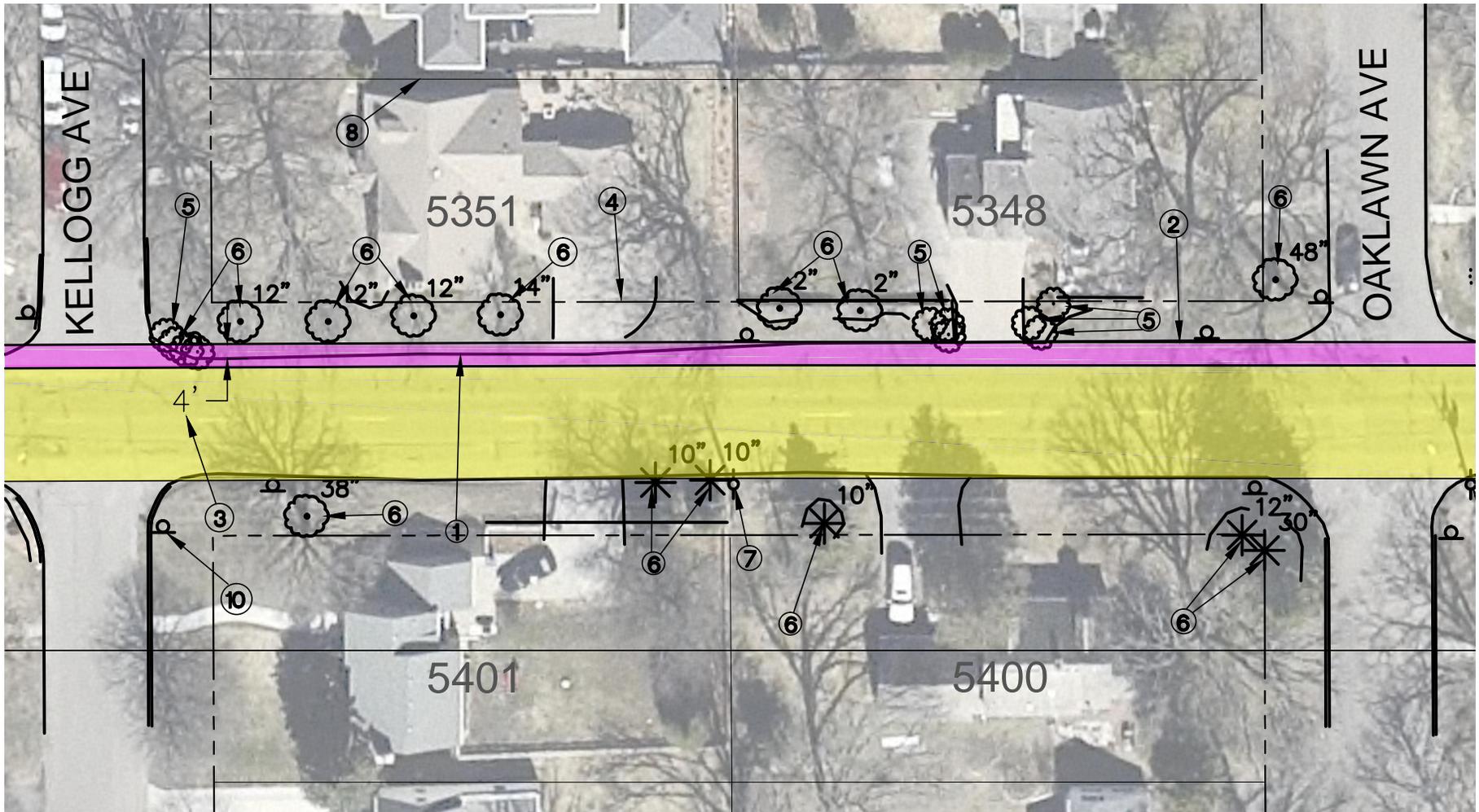
**LEGEND**

- |  |   |   |
|--|---|---|
|  - 6-FOOT WIDE CONCRETE BOULEVARD/WALK (1 FOOT CONCRETE BOULEVARD WITH 5-FOOT SIDEWALK) |  - 29-FOOT WIDE STREET (2-14 FOOT VEHICLE/BIKE LANES WITH 0.5 FOOT WIDE CURB ON EACH SIDE) |   |
| ① - EDGE OF EXISTING STREET PAVEMENT   | ⑤ - EXISTING SHRUBS/BUSHES  | ⑨ - EXISTING RETAINING WALL/PAVER BLOCK |
| ② - NORTH EDGE OF PROPOSED SIDEWALK  | ⑥ - EXISTING TREE   | ⑩ - EXISTING SIGN                       |
| ③ - DISTANCE TO THE NEAREST FOOT BETWEEN EDGE OF EXISTING STREET PAVEMENT AND NORTH EDGE OF PROPOSED SIDEWALK  | ⑦ - EXISTING POWER POLE   | ⑪ - EXISTING TELEPHONE PEDESTAL         |
| ④ - EXISTING RIGHT-OF-WAY LINE   | ⑧ - EXISTING PROPERTY LINE  |   |

\*\* DISCLAIMER: CONSTRUCTION LIMITS ARE NOT SHOWN AND WILL BE MINIMIZED DURING FINAL DESIGN



11/13/2013



**LEGEND**

 - 6-FOOT WIDE CONCRETE BOULEVARD/WALK (1 FOOT CONCRETE BOULEVARD WITH 5-FOOT SIDEWALK)

 - 29-FOOT WIDE STREET (2-14 FOOT VEHICLE/BIKE LANES WITH 0.5 FOOT WIDE CURB ON EACH SIDE)

① - EDGE OF EXISTING STREET PAVEMENT

⑤ - EXISTING SHRUBS/BUSHES

⑨ - EXISTING RETAINING WALL/PAVER BLOCK

② - NORTH EDGE OF PROPOSED SIDEWALK

⑥ - EXISTING TREE

⑩ - EXISTING SIGN

③ - DISTANCE TO THE NEAREST FOOT BETWEEN EDGE OF EXISTING STREET PAVEMENT AND NORTH EDGE OF PROPOSED SIDEWALK

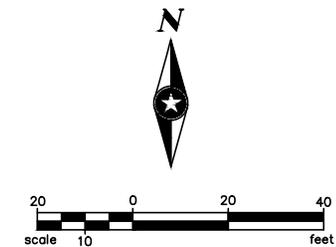
⑦ - EXISTING POWER POLE

⑪ - EXISTING TELEPHONE PEDESTAL

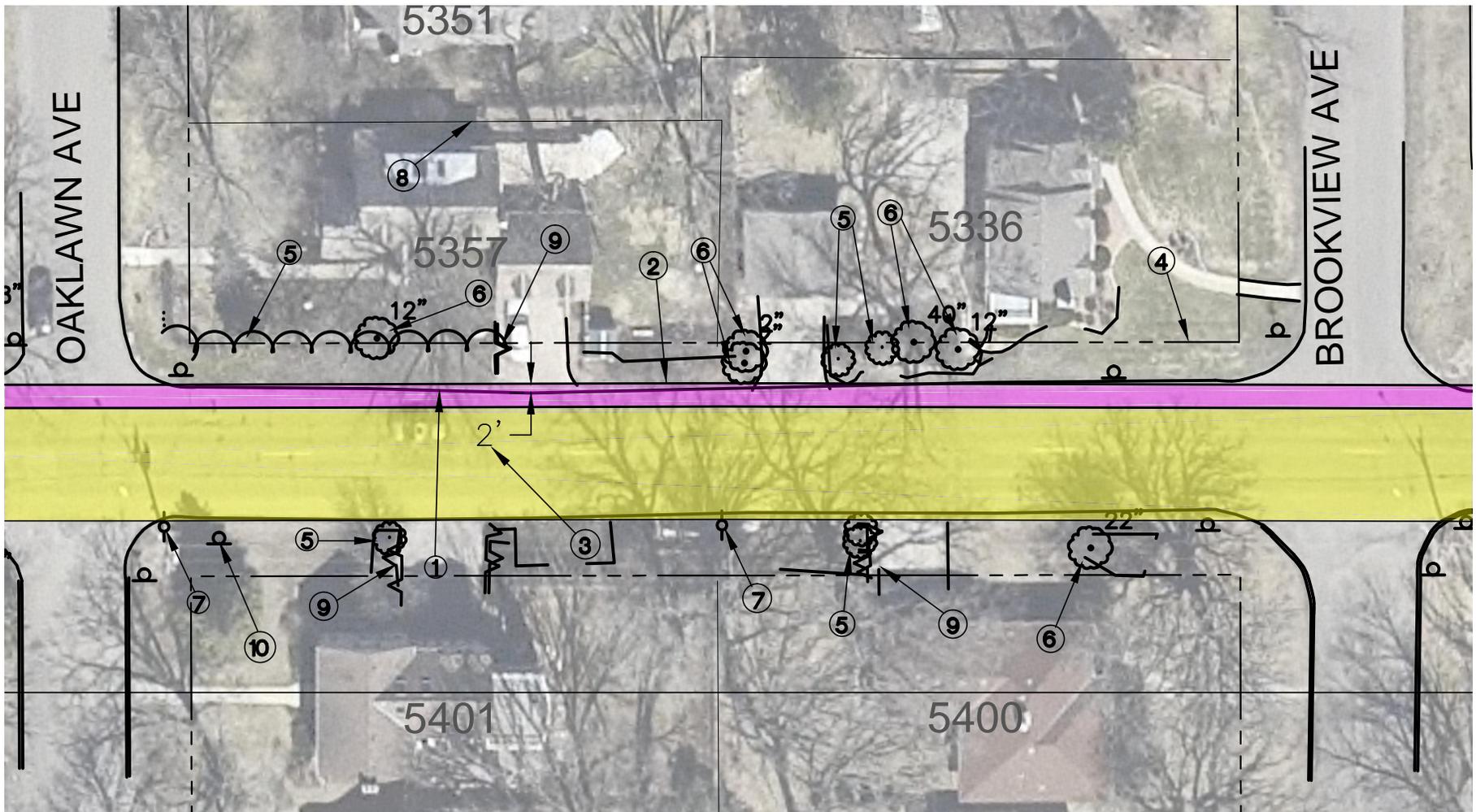
④ - EXISTING RIGHT-OF-WAY LINE

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11/13/2013



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 - 29-FOOT WIDE STREET (2-14 FOOT VEHICLE/BIKE LANES WITH 0.5 FOOT WIDE CURB ON EACH SIDE)

① - EDGE OF EXISTING STREET PAVEMENT

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⑨ - EXISTING RETAINING WALL/PAVER BLOCK

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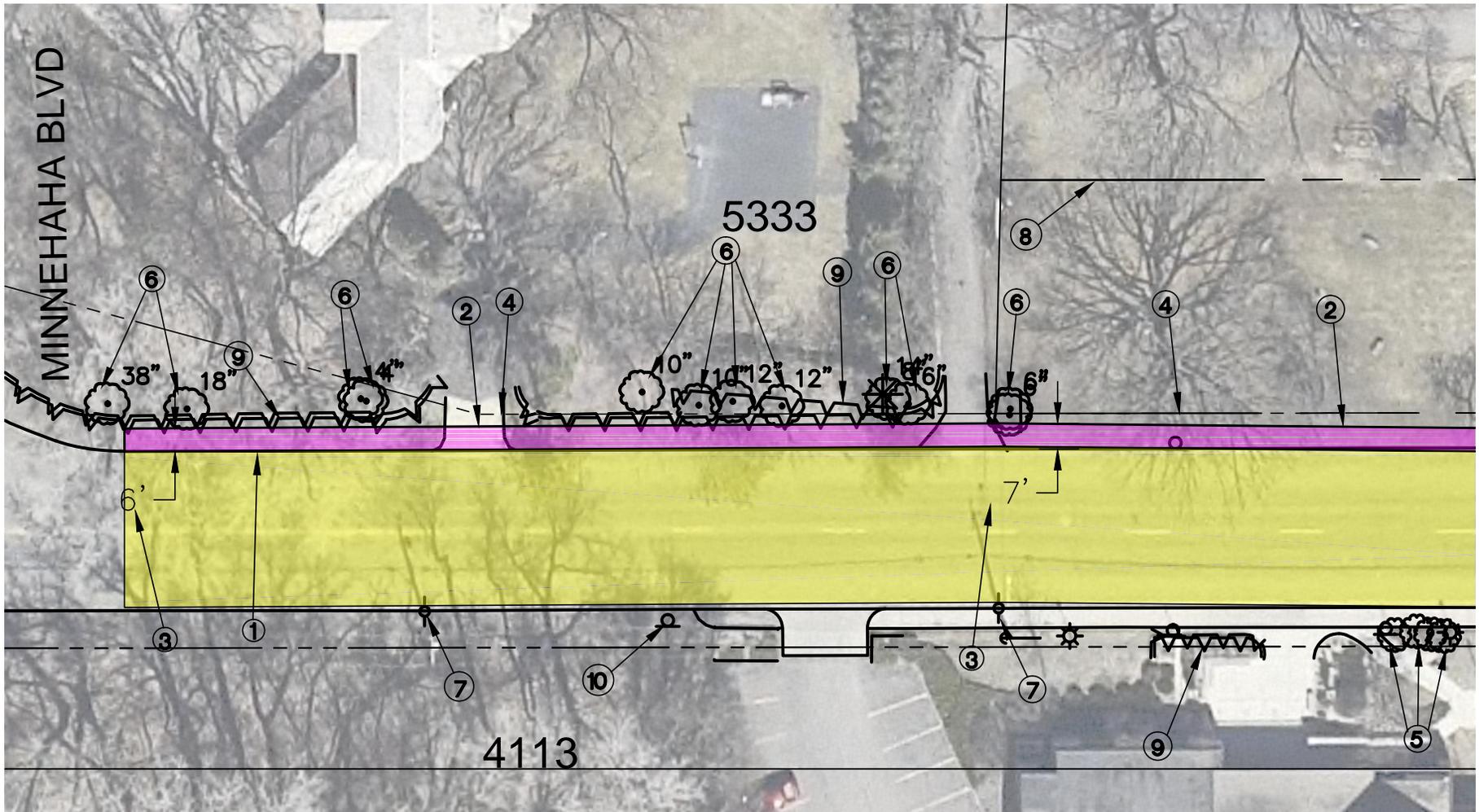
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11/13/2013



**LEGEND**

 - 6-FOOT WIDE CONCRETE BOULEVARD/WALK (1 FOOT CONCRETE BOULEVARD WITH 5-FOOT SIDEWALK)

 - 40-FOOT WIDE STREET (1-7 FOOT PARKING LANE, 1-14 FOOT , AND 1-18 FOOT VEHICLE/BIKE LANES WITH 0.5 FOOT WIDE CURB ON EACH SIDE)

① - EDGE OF EXISTING STREET PAVEMENT

⑤ - EXISTING SHRUBS/BUSHES

⑨ - EXISTING RETAINING WALL/PAVER BLOCK

② - NORTH EDGE OF PROPOSED SIDEWALK

⑥ - EXISTING TREE

⑩ - EXISTING SIGN

③ - DISTANCE TO THE NEAREST FOOT BETWEEN EDGE OF EXISTING STREET PAVEMENT AND NORTH EDGE OF PROPOSED SIDEWALK

⑦ - EXISTING POWER POLE

⑪ - EXISTING TELEPHONE PEDESTAL

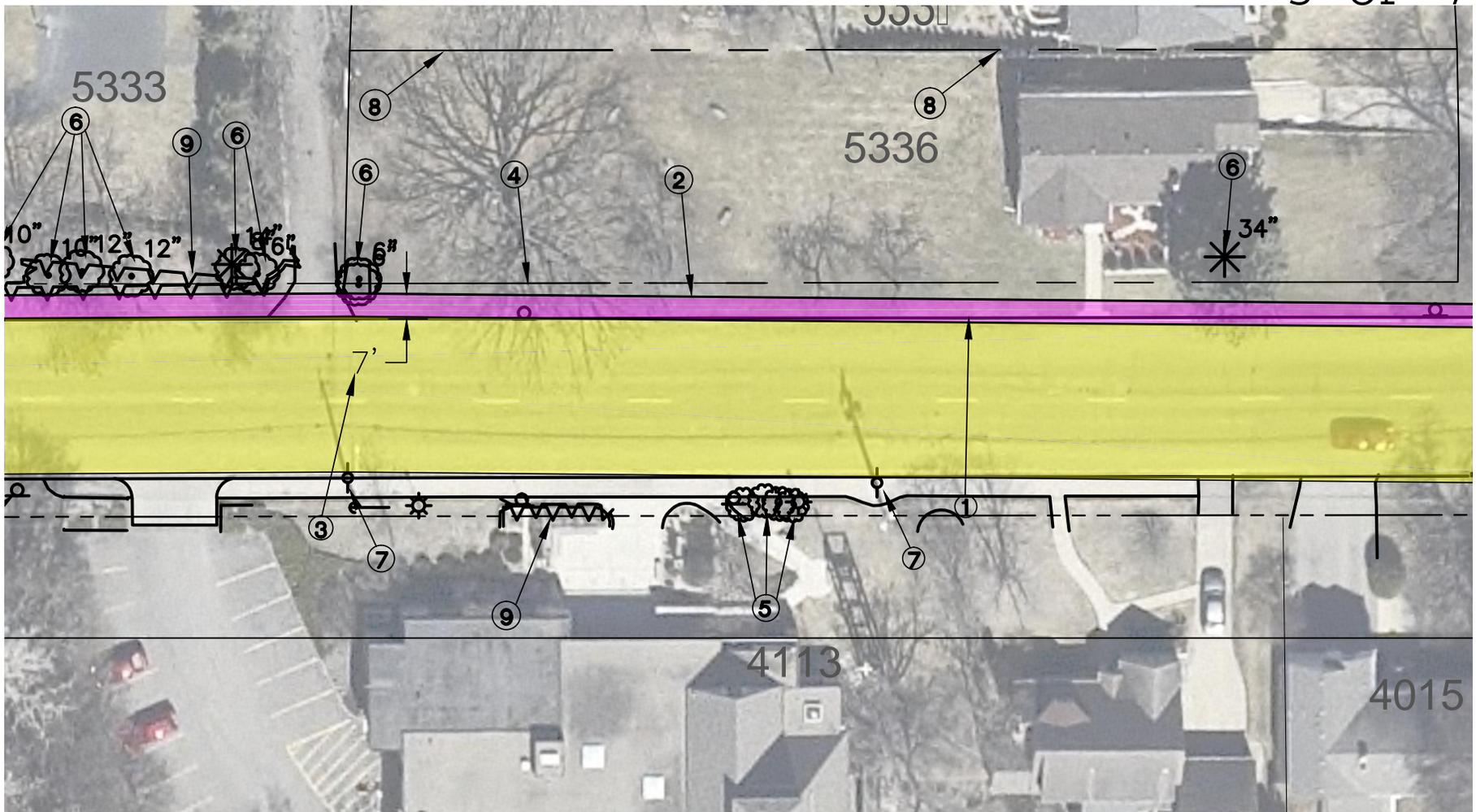
④ - EXISTING RIGHT-OF-WAY LINE

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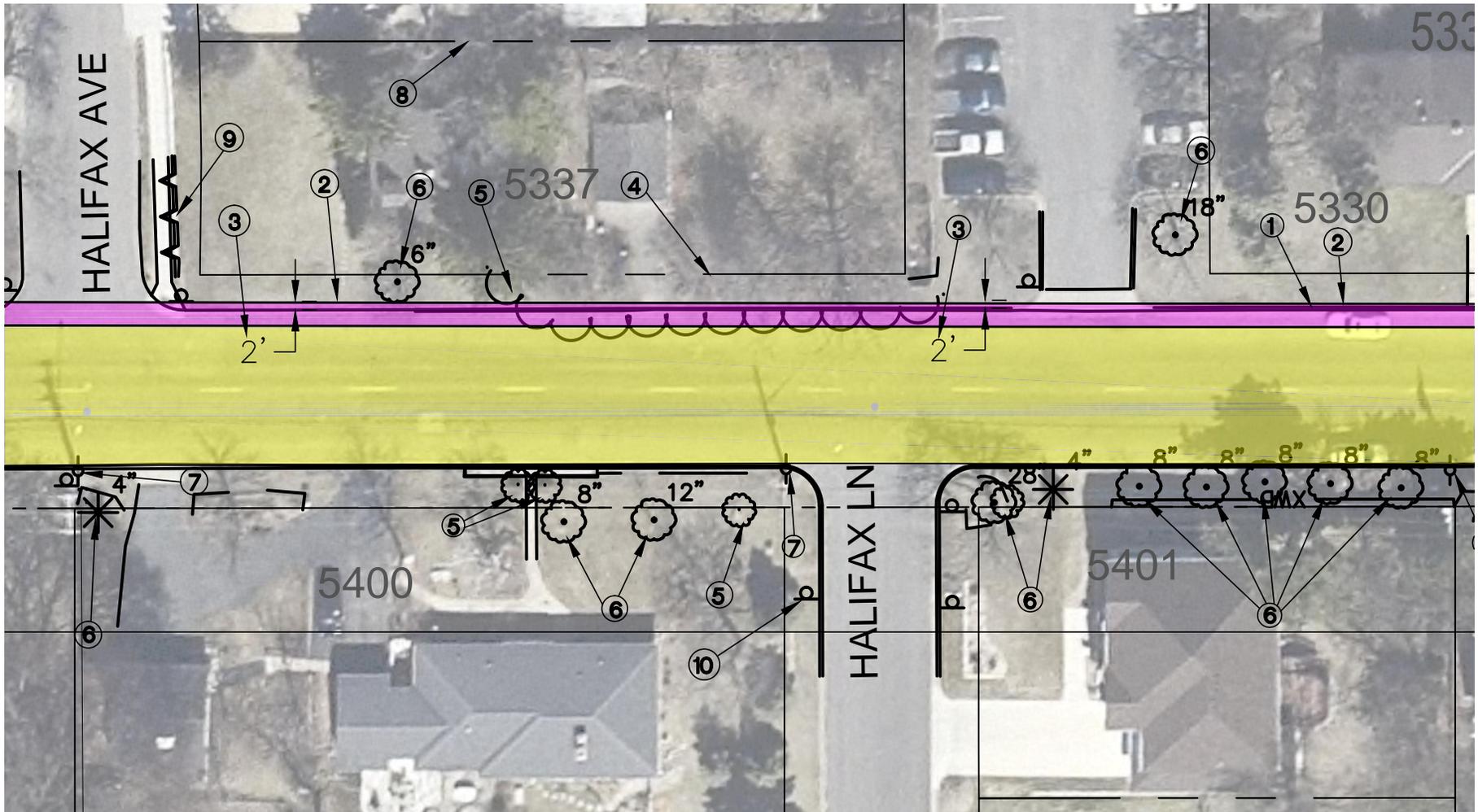
④ - EXISTING RIGHT-OF-WAY LINE

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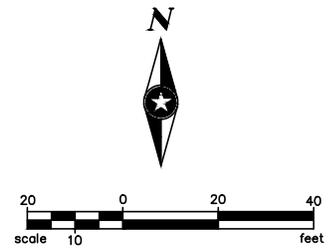
11/13/2013



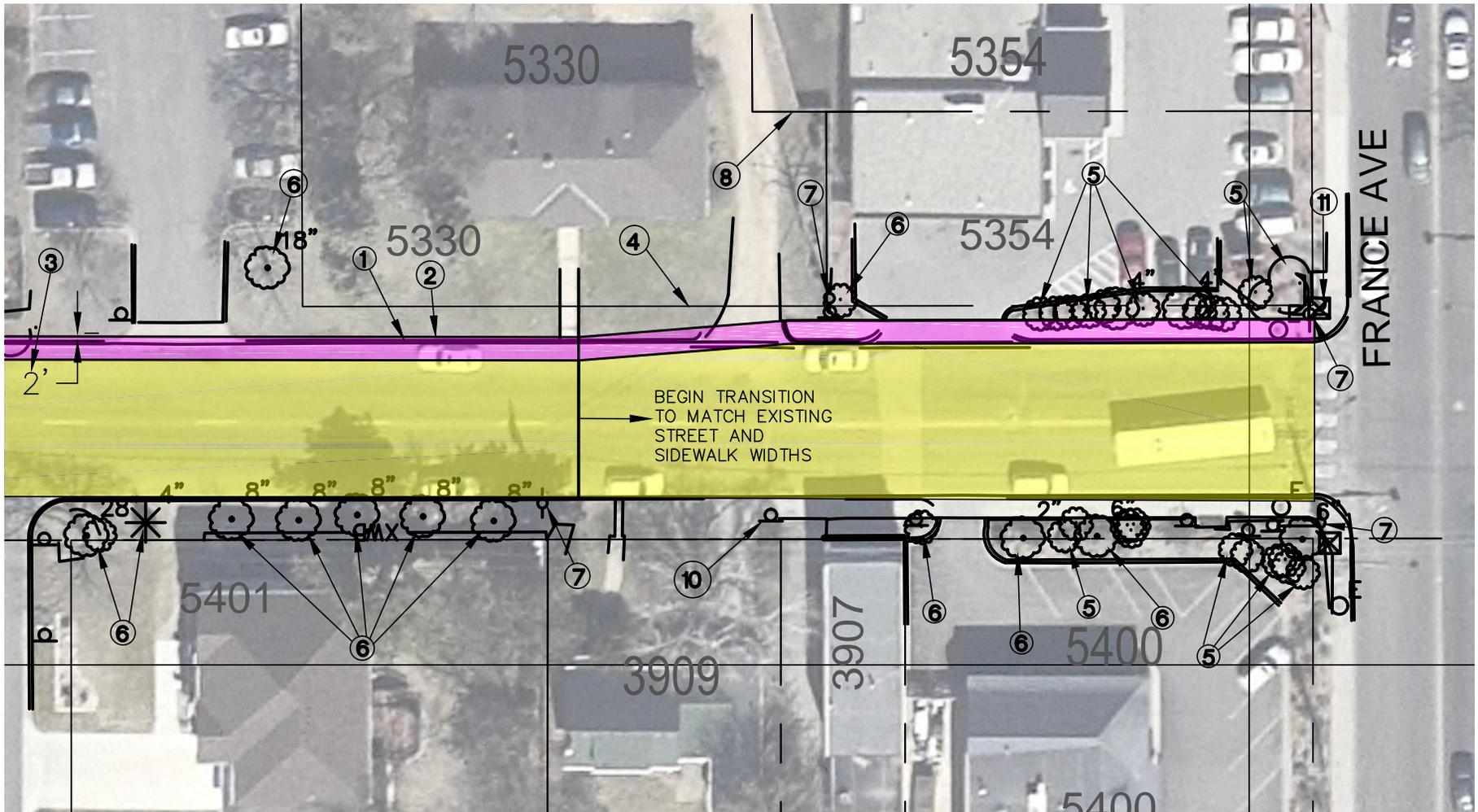
**LEGEND**

-  - 6-FOOT WIDE CONCRETE BOULEVARD/WALK (1 FOOT CONCRETE BOULEVARD WITH 5-FOOT SIDEWALK)
-  - 36-FOOT WIDE STREET (1-7 FOOT PARKING LANE, 2-14 FOOT VEHICLE/BIKE LANES WITH 0.5 FOOT WIDE CURB ON EACH SIDE)
- ① - EDGE OF EXISTING STREET PAVEMENT
- ② - NORTH EDGE OF PROPOSED SIDEWALK
- ③ - DISTANCE TO THE NEAREST FOOT BETWEEN EDGE OF EXISTING STREET PAVEMENT AND NORTH EDGE OF PROPOSED SIDEWALK
- ④ - EXISTING RIGHT-OF-WAY LINE
- ⑤ - EXISTING SHRUBS/BUSHES
- ⑥ - EXISTING TREE
- ⑦ - EXISTING POWER POLE
- ⑧ - EXISTING PROPERTY LINE
- ⑨ - EXISTING RETAINING WALL/PAVER BLOCK
- ⑩ - EXISTING SIGN
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11/13/2013



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⑨ - EXISTING RETAINING WALL/PAVER BLOCK

② - NORTH EDGE OF PROPOSED SIDEWALK

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⑩ - EXISTING SIGN

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11/13/2013

**APPENDIX Q**

**ETC Meeting Minutes**

**November 21, 2013**

**MINUTES OF  
CITY OF EDINA, MINNESOTA  
TRANSPORTATION COMMISSION  
COMMUNITY ROOM  
NOVEMBER 21, 2013  
6:00 P.M.**

**ROLL CALL** Answering roll call was member Boettge, Franzen, Iyer, Janovy, LaForce, Nelson, Sierks, Spanhake, and Van Dyke.

**APPROVAL OF MEETING AGENDA**

Motion was made by member Franzen and seconded by member Janovy to approve the meeting agenda. All voted aye. Motion carried.

**APPROVAL OF MEETING MINUTES**

**REGULAR MEETING OF OCTOBER 24, 2013** – Approved as corrected.

Motion was made by member LaForce and seconded by member Franzen to approve the amended minutes of October 24, 2013. All voted aye. Motion carried.

**COMMUNITY COMMENT** – None.

**REPORTS/RECOMMENDATIONS**

**Promenade Phase 4**

**54<sup>th</sup> Street Reconstruction and Arden Park Stormwater Management Plan - Updates**

Mr. Toby Muse, the City's consultant with SEH said last month he presented this project's draft feasibility study and is in attendance to answer questions regarding the updates that were submitted.

In reference to a variance, member LaForce asked for some examples of hardships and the likelihood that a variance would be approved. Mr. Muse said examples would be to design a specific curve that MnDOT requires or creating unsafe sightline conditions because of a driveway. He was asked if any hardships exist and he said he is not aware of any.

In reference to raising the bridge, member Janovy said if it was a commercial development, the ETC would have been provided existing elevation, proposed elevation, etc. like is provided to the Planning Commission but in this case, no detail was provided that she can use to judge impacts to the road, shoreline, or intersection, though she assumed it is being designed to be safe. She said they don't have similar procedures for this structural change and since the ETC does not see the final design they will not know how concerns are addressed. Mr. Muse said it is related to process and right now they are in the preliminary design phase and this level of detail is usually done in the final design phase.

Member Spanhake asked if there will be an opportunity for the community to be involved in the bridge design and Mr. Muse said yes. She asked what the impacts are with raising the bridge 3-ft. and Mr. Muse said the area will need to be regraded to allow proper drainage and add new retaining walls.

Member Janovy asked about bus stops and Mr. Muse said all the bus stops will remain in the same location, except for a few that is being removed; they will not have landing pads because they are only required when new stops are being added.

Member Janovy asked if a 26-ft curb to curb street width was realistic and Mr. Muse said if it was being built without bike facility it would be 26-ft wide to meet State Aid requirements and also based on feedback to stay as narrow as possible. She said the bike plan does not require a bike facility on this road and her concern is that as lanes narrow, cyclists are squeezed and so placement of sharrows are important. Mr. Muse said MnDOT has specific guidelines regarding placement of sharrows. She said designing to minimum standards is the safe thing but it is not always the best thing to do and she is skeptical if this will improve conditions for cyclists. Planner Nolan said MnDOT, TLC and staff discussed adding the dash lines. Additionally, he believes having pavement markings helps to raise awareness that there could be cyclists on the road and having consistent treatment helps to improve conditions for them. He said further that this route was identified because it connects to the Minneapolis system.

Member Franzen asked if bike lane, sidewalk and two lanes of traffic are required by Comp Plan and/or City Council and Mr. Muse said the bike facility is in the Comp Plan and this is why it is included. Member LaForce said he thought 54<sup>th</sup> was part of the TLC grant to connect to Minneapolis and asked if they are talking about removing the markings from 54<sup>th</sup> which would create a hole in the system and if this was an option. Planner Nolan and Mr. Muse said they believe TLC is okay with sharrows but if the markings are removed completely it is likely the City would have to give grant money back.

Member LaForce asked if they've received any feedback about the advisory lanes on 54<sup>th</sup> (east of France) and planner Nolan said no and they can only assume it is working because staff has not heard from anyone. Member LaForce said to add a third treatment that is different is going to be confusing and member Boettge concurred. Mr. Muse said this marking was recommended by TLC because it is better understood by both cyclists and drivers.

Member Janovy said the church sent a letter recently regarding their parking needs which is not limited to Sundays only. She is concerned about the extra width of the road for parking and providing parking in general for the church.

### **Community Comment**

Mr. Gary Hanus, 5336 Brookview, said the following:

- In favor of sidewalk; however, 6-ft is excessive; would like it to be the City standard 5-ft. including the rumble strip; he is on the northside and his property taking the brunt of the project.

Pam Starkey, 5331 Oaklawn Ave, said the following:

- Empathized with everyone and agreed that the northside is taking the brunt of project;
- Seen what happens on 50<sup>th</sup> with huge line of traffic and traffic will move to 54<sup>th</sup> with nice, smooth roads so 13-ft seem reasonable;
- Not sure why there is a big push for bike lanes; she would just as soon ride in the street and follow traffic rules; do not add another 1-ft to the road;
- Keep it in proportion to the neighborhood.

John Adams, 5336 W. 54<sup>th</sup>, said the following:

- So many moving parts – State Aid road, secondary bike facility, etc.
- Put yourself in his shoe and review the context of his street – 7-ft. parking, 12-ft. driving lanes
- Traffic speed issues as it exist today;
- Parking will be closer to his dining room;
- Most discriminated section of the proposal;
- Does not believe anyone supports road widening;
- Church that needs parking;
- Neighbors having to defend their own interest;
- Take away bike designation and everyone would support 13-ft lane, 5-ft. sidewalk, 7 day a week parking on both sides and same design across the bridge;

Mark Epple, 5336 Kellogg, said the following:

- Speaking for the west end side – all corner lots with a 15-ft. setback requirement, average housing age is 71, and several with non-conforming setback; concern about the project coming any closer;
- Wants project centered and do not touch utility poles;
- Have made several attempts to find out from the consultant where the utility poles are located to no avail;
- Make sidewalk 5-ft (no boulevard);

Mr. Steve Timmer, 5448 Oaklawn Ave, said the following:

- Against raising bridge 3-ft. because it changes sightline, approaches and is expensive;
- Could reduce road width by 2-ft based on Wooddale's example which he measured;

Lori Grotz, 5513 Park Pl, said the following:

- The streets in her neighborhood were reconstructed two years ago;
- The intersection at Park Pl is wide and dangerous; the proposed plans has it narrower; now that it is paid for they want to make it smaller; retaining wall is more dangerous;
- Spending too much money just so canoeists can go under the bridge; concerned about crime under the bridge;
- Would like Park Pl to stay wide and bridge stay low.

Ed Ross, 4015 W. 54<sup>th</sup>, said the following:

- Supports comments John made;
- Supports comments Pam made about biking;
- Jumping through hoops and paying a price for bike lanes;
- Church needs more parking;
- Counted bikes and only 9 in 90 minutes on a Sunday; 4 or 5 during the week;
- Pay the TLC money back and get rid of bike lanes.

Kathryn Green, 5400 Kellogg Ave, said the following:

- They are focused on keeping streets narrow for safety, maintain charm and property values;
- Working to be one voice and to prioritize what the needs are;
- Understands that streets has to be livable, safe to walk;
- Make them livable but in a responsible fashion and not only for the people who use the streets occasionally.

Member Janovy asked Mr. Muse about the utility poles and he said State Aid requires a 2-ft clear zone which is shown in the graphic. He said it does not meet this today but all rules must be adhered to since they are reconstructing the road.

For clarification on Wooddale lane width, chair Nelson said Wooddale was only restriped within the last two years, not reconstructed, and he is not sure what the rule was then.

Member Spanhake asked if the sidewalk could be 4-ft with a 1-ft rumble strip. Yes, this would meet the requirement but Public Works prefers a 5-ft sidewalk with a 1-ft boulevard or rumble strip so they'll have a place to store snow instead of pushing it in the street. She asked if it could be a different width if not maintained by the City. Yes.

Chair Nelson asked if there are other material treatments other than a concrete rumble strip and Mr. Muse said there are several options but they have decided on one yet. Chair Nelson stated that he feels that having no boulevard is acceptable.

Member Boettge asked if the residents would prefer maintaining the sidewalk themselves.

Member LaForce said it sounds like the residents would like to see a different plan and asked if the plan was representative of wider feedback. Mr. Muse said the 54<sup>th</sup> St residents are in attendance but the plan was developed based on the aggregate feedback (including over 700 participants) to keep street as narrow as possible.

**Motion was made by member Janovy to recommend the following to the City Council – from France Ave west to the bridge: 7-foot striped parking lane on the north side, two 11-foot travel lanes (no centerline stripe), 7-foot striped parking lane on the south side; do not raise the bridge and include a sidewalk on both sides of the bridge; from the bridge west to Wooddale Ave: two 13-foot (11 ft + 2 ft reaction) unstriped travel lanes. The motion was seconded by member LaForce.**

**Ayes: Boettge, Franzen, Janovy, LaForce, Spanhake**

**Nay: Nelson**

**Abstain: Iyer**

**Motion carried.**

#### **2014 Neighborhood Reconstruction Projects – Updates**

Planner Nolan said interim city engineer Millner prepare with updates including the following:

##### Morningside B

Staff met with residents regarding the 42<sup>nd</sup> St and Grimes Ave sidewalks; speed and volume data were submitted and they will continue to monitor the area west of Grimes Ave. For the 42<sup>nd</sup> St sidewalk, they are recommending it on the northside to the City limits. Planner Nolan said additional surveying was done and they found more conflicts on the southside including a less right-of-way.

##### Birchcrest B

Updated traffic counts were provided.

##### Community Comment

Wayne Lindholm, 5024 Valley View Rd, said the following:

- Reiterated what he said on 10/24 regarding streetlights and sidewalk survey results.
- Last time he asked why they decided to move forward with the sidewalk and not streetlights even though most were not in favor of sidewalk and Director Houle said he would check with staff but he still has not gotten a response.
- He attended the neighborhood sidewalk meeting and they were not asked their preference for sidewalk. He said Mr. Millner did not get overwhelming support for the sidewalk.

Art Thelemann, 5132 Valley View Rd, said the following:

- Ask to have his name spelled correctly and the minutes corrected to show that he opposed the sidewalk;
- Asked why are they using the Living Streets Policy when it is not implemented yet;

#### **Traffic Safety Committee Report of November 6, 2013**

**Motion was made by member Spanhake and seconded by member Franzen to forward the October 8 Traffic Safety Report to City Council. All voted aye. Motion carried.**

**Updates**

Student Members - None

Bike Edina Task Force

Living Streets Working Group

Communications Committee

**CORRESPONDENCE AND PETITIONS** - None

**CHAIR AND COMMISSION MEMBER COMMENTS**

**STAFF COMMENTS**

Updates from Mr. Nolan:

**ADJOURNMENT**

Meeting adjourned.

**ATTENDANCE**

DRAFT

**APPENDIX R**

**City Sidewalk Maintenance  
Communications**

4/5

1/4



20131115 54th Street FW: sidewalk width  
Chad Millner to: tmuse@sehinc.com, Mark K. Nolan

11/15/2013 07:46 AM

2 attachments



winmail.dat image001.gif

Clarification on snow removal ability of City staff.

[<http://intranet/images/signature/citylogosig.gif>]

Chad Millner, Interim City Engineer  
952-826-0318 | Fax 952-826-0392  
cmillner@EdinaMN.gov | www.EdinaMN.gov  
...For Living, Learning, Raising Families & Doing Business

From: Brian Olson  
Sent: Friday, November 15, 2013 7:03 AM  
To: Chad Millner  
Subject: FW: sidewalk width

FYI

[<http://intranet/images/signature/citylogosig.gif>]

Brian Olson, Public Works Director  
952-826-0311 | Fax 952-826-0392  
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...For Living, Learning, Raising Families & Doing Business

From: Jennifer [<mailto:rjmeyovy@comcast.net>]  
Sent: Thursday, November 14, 2013 2:09 PM  
To: Brian Olson  
Subject: Re: sidewalk width

Thank you. This information would be so helpful to share. Is this something you could share with the ETC and Council, or with Chad and/or Mark and they can pass it along?

Thanks,

Jennifer

On Nov 14, 2013, at 1:54 PM, Brian Olson wrote:

It all boils down to the expectations of service within the community and in this case now it even borders on an unsafe condition. Please remember that this piece of equipment used for snow removal has a 55" width. Even though we have professional snowplow drivers, that are very good at what they do, that only gives them 2 1/2 inches on either side of their machine. This doesn't change with a 5 foot sidewalk and a 6-8' boulevard except that the equipment doesn't fall off of a barrier curb when they are plowing snow. I would be

happy to show you the equipment some time but I really believe that the 5' width with a 1 foot strip would be an absolute minimum if we are to live up to the expectations of the community and plow this sidewalk.

Once again thank you for providing me the opportunity to comment.

Brian

<image001.gif>

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From: Jennifer [mailto:rjmeyovy@comcast.net]  
Sent: Thursday, November 14, 2013 12:06 PM  
To: Brian Olson  
Subject: Re: sidewalk width

Thank you. That's very helpful. If ok, I have one more question. Some residents have asked why the City can't do a 4' sidewalk with a 1' exposed aggregate strip or a 5' sidewalk with no exposed aggregate strip. How (if at all) would that complicate snow removal?

Jennifer

On Nov 14, 2013, at 11:49 AM, Brian Olson wrote:

Dear Ms. Janovy,

Thank you for providing me an opportunity to comment on this issue. Below you will find an email string between Chad Milner and myself responding this concern on Tuesday. I hope it addresses your questions. Please let me know if there are additional questions.

Sincerely,  
Brian

<image001.gif>

Brian Olson, Public Works Director  
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Chad,

Public Works does whatever we can to be as efficient as we can with City tax dollars. In fact, our mission statement states that we will provide "efficient, effective resource management" and we aim to provide the highest and best possible quality service. The sidewalk snowplow route that would have this section of sidewalk added has a 55" v-plow and blower attachment. We have indicated that a 5 foot sidewalk is ideal for our equipment to pass and minimize damage to yards. The narrower the sidewalk: 1)the more damage there

is to adjacent yards, 2) the more complaints that we get due to front yard damage and 3) the slower we have to travel which increases the amount of time to completely remove the snow.

If it were up to the Public Works Department we would like the design to include at least a 5 foot sidewalk and a 6-8 foot grassy boulevard area for snow storage. The boulevard allows separation of the road plowing and the sidewalk plowing activities. I understand that the additional one foot width that is proposed in the design is a compromise and it will at least assist us in staying away from the lawn and provided a narrow area for a small windrow of snow.

As you know we can maintain anything if given the right tools and the appropriate amount of manpower. No disrespect intended but we could build a 3 foot sidewalk and hand shovel each sidewalk if we had the right amount of manpower. In another example, there is a smaller piece of equipment (52") at 50th and France that maintains a narrower sidewalk. In that instance, the business owners pay to have an employee stationed down there full time to take care of the issues that come up. That employee shovels, sweeps and plows their sidewalks. They pay for the equipment, they pay for the time and they pay for the materials to increase to that level of service.

The current six foot design on 54th, whereas not ideal, is acceptable.

Sincerely,  
Brian

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From: Chad Millner  
Sent: Tuesday, November 12, 2013 10:42 AM  
To: Brian Olson  
Subject: 20131112 54th Street - Sidewalk Maintenance Widths

Brian,

Staff will be recommending a 5-ft wide sidewalk along 54th Street at the 54th Street Project Public Improvement Hearing scheduled for Dec. 10. Below is text pulled from a letter we received from a resident concerning minimums sidewalk widths. From a public works maintenance standpoint, can you clarify adequate sidewalk widths for maintenance with the type of equipment the City currently operates?

Thanks for your time in clarifying this matter,  
Chad

Text from Resident Letter

5. According to the city's Department of Public Works, the city's sidewalk sweepers sweep a 52" path (4'-4"). This is far less than the 72" (6'-0") Mr. Houle claimed at the 10/24 Transportation Commission meeting, and actually less than a typical 5' wide sidewalk. So, it isn't a factor in determining sidewalk width. Wooddale Avenue, which is maintained by the city, is currently 5' wide and has been that way since I've lived here (summer of 2002) and I haven't been aware of any problems with snow removal. Why are we being told 5' is not wide enough?

AE

4/4

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<image001.gif>

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From: Jennifer [mailto:rjmeyovy@comcast.net]  
Sent: Thursday, November 14, 2013 11:23 AM  
To: Brian Olson  
Subject: sidewalk width

Hi, Brian. This is in reference to your email to Edina resident Steve Timmer, copied below. The email was forwarded by Mr. Timmer to the Edina Transportation Commission.

I wonder if you can help me to understand the considerations related to setting a minimum width for sidewalks that will be maintained by the City. Is the width of the equipment or, more specifically, the broom, the only consideration?

If a sidewalk is narrower than 5', in what ways, if any, does that complicate snow removal?

Personally, I support wider sidewalks, but there seems to be an interest in disproving the statement that sidewalks must be at least 5' wide for the City to maintain them. Understanding the considerations that go into that statement may help.

Thanks,

Jennifer Janovy

From: Brian Olson [mailto:bolson@EdinaMN.gov]  
Sent: Monday, October 28, 2013 9:54 AM  
To: 'stimmer@planetlawyers.com<mailto:stimmer@planetlawyers.com>'  
Subject: FW: brushes on the sidewalk sweepers

Dear Mr. Timmer,

Thank you for your interest in the City of Edina Public Works Department. We have multiple pieces of equipment for sidewalk cleaning. Our broom attachment for our typical sidewalk machine is 69 1/2 inches. That includes an approximate 15" (7-8" on either side) overhang but it does not take into account that most sweepers must sweep at an angle to get the debris off of the sidewalk. So the broom is actually about 54" wide.