

HENNEPIN COUNTY
MINNESOTA

Pedestrian and Bicycle Annual Count Report

2017

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Overview

Introduction

2017 marked Hennepin County's second annual volunteer pedestrian count initiative - this year, volunteers began counting people biking in addition to people walking. These short term counts rely on volunteers collecting data over a two hour window, from 4:00- 6:00 PM during the second week of September. Staff identified additional locations for 2017, totaling 30 count sites, though only 23 locations were counted due to volunteer availability. This data was then used to calculate estimated daily traffic (EDT) at each site, which means that 2-hour counts are extrapolated to understand larger trends in walking and biking.

Hennepin County's volunteer counts take place in conjunction with the City of Minneapolis pedestrian and bicycle counts. Hennepin County leads the initiative for all counts outside of the City of Minneapolis; however, the county still utilizes data for county roads within the City of Minneapolis. For more information on the City of Minneapolis bicyclist and pedestrian count initiative, visit their Pedestrian Count web page: <http://www.minneapolismn.gov/pedestrian/data/pedcounts>.

Hennepin County staff also set up automated bicycle counters at locations from May to October, alternating sites in the northern and southern half of the county every other year. In 2017, staff set up bicycle counters at 35 locations in the southern half of the county. As part of this process, staff set up bicycle counter tubes for 48-72 hours. These counts are different from the volunteer initiative in that they collect data for a longer period of time, only count bicyclists, vary in location, and vary in methodology for extrapolation. For more information on these counts, see the bicycle counting report section of the Hennepin County webpage: <http://www.hennepin.us/residents/transportation/biking>.

This report summarizes the count methodology and results for the 2017 volunteer counts.

Why count?

The primary focus of the pedestrian and bicycle volunteer counting initiative is to track and report pedestrian and bicyclist volume information along Hennepin County roadways.

The pedestrian and bicyclist counts provide crucial data to Hennepin County planners. The data collected from the counts serve several important functions, including:

- Track changes in pedestrian and bicycle volumes annually
- Provide pedestrian and bicycle data to inform and support planning and engineering decisions and identify where additional data is needed
- Track pedestrian and bicycle usage before and after county projects are implemented
- Develop a complete understanding of travel behavior for non-motorized modes of transportation
- Report pedestrian and bicycle data to elected officials, local government agencies, and the general public

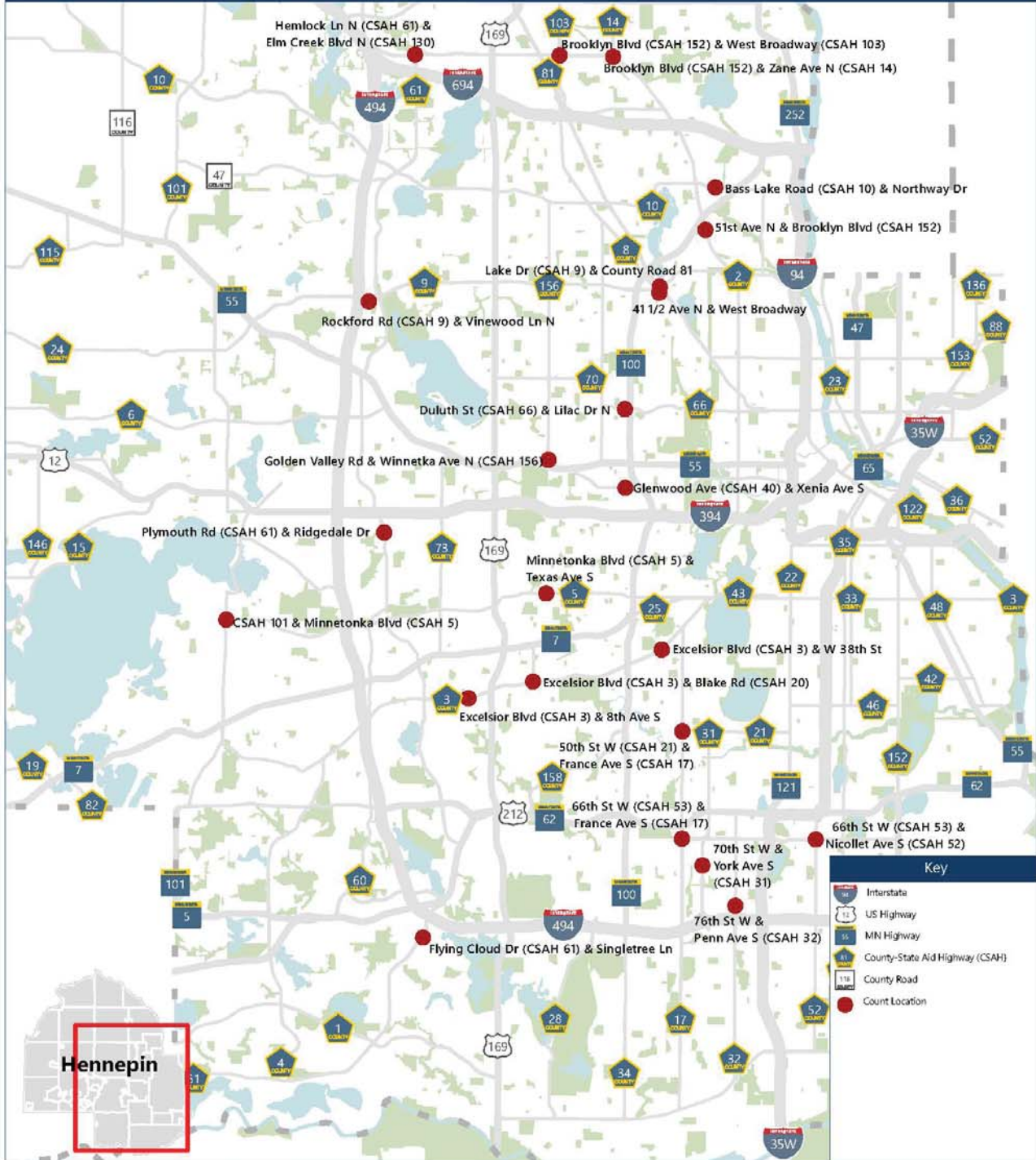
Context

Local, regional, and national plans, policies, and trends support the development of a comprehensive bicycle counting program.

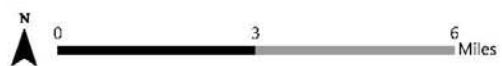
- Hennepin County's 2040 Bicycle Transportation Plan calls for the implementation of a system for bicycle counts and measuring the share of trips that are taken by bicycle in the county as well as a method for reporting ridership changes annually. While Hennepin County does have an automated bicycle counting program, these counts supplement the automated data as they are staged in different locations and include pedestrian volume data as well.
- Hennepin County's Pedestrian Plan calls for the development and implementation of a program to conduct annual pedestrian counts and to develop a pedestrian count database.
- Local, state, and federal transportation agencies nationwide are planning and implementing bicycle counting programs. Notably, the City of Minneapolis has been conducting annual bicycle and pedestrian counts since 2007.

Figure 1 - Pedestrian and Bicyclist Count Locations
2017 | Hennepin County Public Works

HENNEPIN COUNTY
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Publication date: 12/8/2017

Data sources (if applicable):

Materials and methodology

Materials

Hennepin County staff provide volunteers with the forms needed to conduct the counts. The forms provided include a map with two screen lines and instructions, as well as two count forms (one for each screen line).

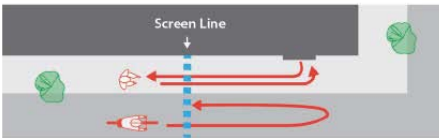
Figure 2 - Example forms for volunteers

Screen Line Instructions & Map

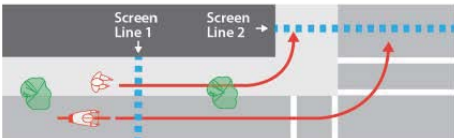
You have 2 screen lines.

Be sure to count bicyclists and pedestrians on each screen line using separate count forms.

If you notice someone making repeat trips, count them each time.





If an individual crosses two screen lines, count them both times.



Record bicyclist street and sidewalk/path riding accordingly.

	Path
	Sidewalk/ Path
	Bike Lane
	Street



Hennepin County Public Works Bicyclist & Pedestrian Count Form

Name: _____ Date: _____

Screen Line (see attached map): **66th St west of Nicollet Ave**

Instructions:

- Use tally marks in groups of 5 to indicate each bicyclist or pedestrian (4 = ||||, 5 = |||||).
- Count all bicyclists and pedestrians crossing your screen line.
- Count both sides of street, including sidewalks and/or paths in both directions.
- Count every person each time they cross the screenline.
- Please record your precise start time: _____ and precise end time: _____

Questions?
Please call
Emily Kettell at
612-543-1963

15 Minute Time Periods	Bicyclists ¹		Pedestrians ²
	Riding in Street	Riding on Sidewalk and/or Path	
4:00 - 4:15			
4:15 - 4:30			
4:30 - 4:45			
4:45 - 5:00			
5:00 - 5:15			
5:15 - 5:30			
5:30 - 5:45			
5:45 - 6:00			
Total			

¹ Count the number of people bicycling, rather than the number of bicycles. Someone walking a bicycle is a pedestrian.

² Includes individuals walking, crawling, using wheelchairs, electric scooters, children being carried or in a stroller, skaters, roller bladers, skateboarders, skiers, kick scooters, and segways. Do not count motor scooters or golf carts.

Please mail completed count form to 701 Fourth Avenue South, Suite 400, Minneapolis, MN 55415
or scan and email to emily.kettell@hennepin.us

Thank you!

Updated 2017



Hennepin County Public Works Bicyclist & Pedestrian Count Form

Name: _____ Date: _____

Screen Line (see attached map): **Nicollet Ave north of 66th St**

Instructions:

- Use tally marks in groups of 5 to indicate each bicyclist or pedestrian (4 = ||||, 5 = |||||).
- Count all bicyclists and pedestrians crossing your screen line.
- Count both sides of street, including sidewalks and/or paths in both directions.
- Count every person each time they cross the screenline.
- Please record your precise start time: _____ and precise end time: _____

Questions?
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Emily Kettell at
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15 Minute Time Periods	Bicyclists ¹		Pedestrians ²
	Riding in Street	Riding on Sidewalk and/or Path	
4:00 - 4:15			
4:15 - 4:30			
4:30 - 4:45			
4:45 - 5:00			
5:00 - 5:15			
5:15 - 5:30			
5:30 - 5:45			
5:45 - 6:00			
Total			

¹ Count the number of people bicycling, rather than the number of bicycles. Someone walking a bicycle is a pedestrian.

² Includes individuals walking, crawling, using wheelchairs, electric scooters, children being carried or in a stroller, skaters, roller bladers, skateboarders, skiers, kick scooters, and segways. Do not count motor scooters or golf carts.

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Thank you!

Updated 2017



Count locations

See Appendix A for a list of all locations and corresponding EDT.

Count locations were chosen and based on one or more of the following reasons:

- County roads: count site is located on at least one Hennepin County road
- Near county projects: future projects are planned at this location and counts will measure conditions before and after project implementation
- High activity area: location is a common route for bicyclists and pedestrians and/or is near a commercial node
- Near planned improvements or bicycle gaps on map

Data collection

Volunteers collected count information at 23 locations across Hennepin County. In accordance with the National Bicycle and Pedestrian Documentation Project, counts took place during the second week of September (September 12-14, 2017), though several locations were counted during the following week (September 20-21, 2017) as a result of volunteer availability.

Staff provided volunteers with site specific forms (pictured on pages 4-6). Each volunteer filled out two forms from 4:00 – 6:00 PM on the day of their assigned shift. Each form covered one screen line – an imaginary line that crosses a roadway for counting purposes.

In the example shown to the right, volunteers noted pedestrians and bicyclists crossing each line on a separate form. Volunteers did not need to note which direction someone was traveling in, only that they cross the screen line. If an individual crossed both screen lines, that person was counted twice, once on each form.

Volunteers were directed to count pedestrians, defined as individuals walking, crawling, using wheelchairs, electric scooters, children being carried or in a stroller, skaters, roller bladers, skateboarders, skiers, kick scooters, and segways. Volunteers were instructed not to count motor scooters or golf carts. An individual walking a bicycle is considered a pedestrian. This year, volunteers also counted the number of people biking and noted whether or not the person biking was riding in the street or riding on a sidewalk and/or path.



Example of screen lines at Minnetonka Blvd & Texas Ave

Volunteers mailed or scanned/emailed the forms back to Hennepin County staff upon completion of the count.

Data processing

The methodology used to calculate the EDT for a 24 hour period comes from the National Bicycle and Pedestrian Documentation Project, a nationwide model of data collection and analysis for non-motorized counts¹. This methodology is also used by the City of Minneapolis; therefore, the data collected and analysis results are consistent and can be shared across jurisdictions.

The raw data for the two-hour counts across the county are extrapolated using the assumptions developed by the National Bicycle and Pedestrian Documentation Project. Hennepin County uses this methodology to calculate EDT, though the National Bicycle and Pedestrian Documentation Project also provides adjustment factors in order to extrapolate two hour counts to a weekly, monthly, and annual number.

Data was entered into a master spreadsheet in order to calculate EDT for both pedestrians and bicyclists. Per the National Bicycle and Pedestrian Documentation Project, to calculate EDT at each site, staff assumed that 20% of daily bicycle traffic and 18% of daily pedestrian traffic occurs between 4:00 – 6:00 PM.

¹ Alta Planning & Design and the Institute of Transportation Engineers Pedestrian and Bicycle Council. (2016). The National Bicycle and Pedestrian Documentation Project. Retrieved from <http://bikepeddocumentation.org/>.

Results

How many people are walking and biking?

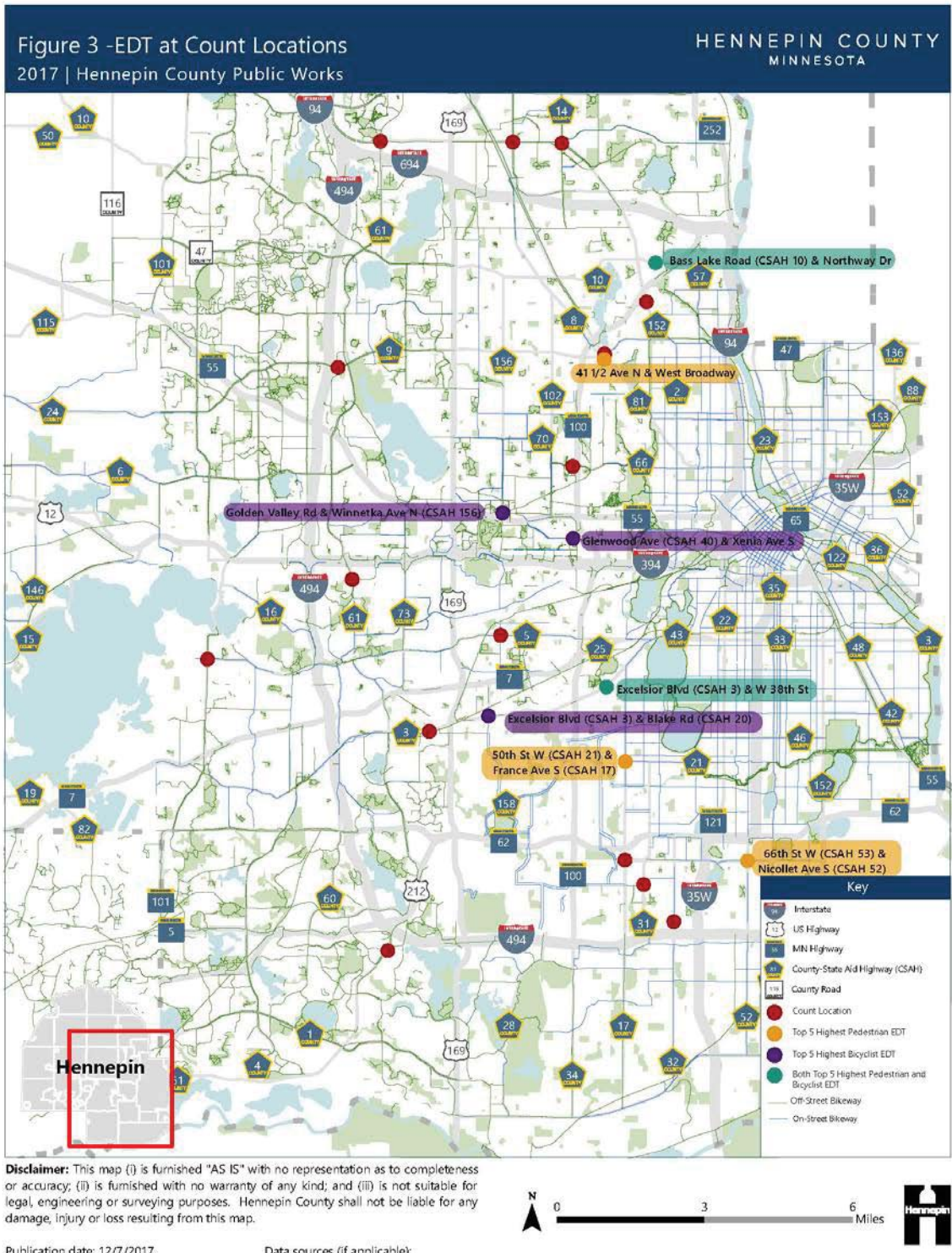
The EDT for pedestrians across all sites in 2017 is over 8,500. The EDT for bicyclists is nearly 3,000.

Table 1 - Locations with top 5 highest EDT for pedestrians

LOCATION	EDT
50 th St W & France Ave S	2,061
41 ½ Ave N & W Broadway	1,422
Bass Lake Rd & Northway Dr	806
66 th St & Nicollet Ave S	761
Excelsior Blvd & W 38 th St	667

Table 2 - Locations with top 5 highest EDT for bicyclists

LOCATION	EDT
Golden Valley Rd & Winnetka Ave N	740
Glenwood Ave & Xenia Ave S	315
Excelsior Blvd & Blake Rd	165
Excelsior Blvd & W 38 th St	165
Bass Lake Rd & Northway Dr	140



Appendix A

2017 Estimated Daily Traffic (EDT) at Count Locations

Table 3 - 2017 Count Locations and EDT

ID	Location	City	Year	Pedestrian EDT	Bicyclist EDT
1a	Brooklyn Blvd west of W Broadway Ave	Brooklyn Park	2016	111	N/A
			2017	39	30
1b	W Broadway Ave south of Brooklyn Blvd	Brooklyn Park	2016	44	N/A
			2017	39	25
2a	Blake Rd north of Excelsior Blvd	Hopkins	2016	83	N/A
			2017	139	115
2b	Excelsior Blvd west of Blake Rd	Hopkins	2016	89	N/A
			2017	156	50
3a	W 50th St east of France Ave	Edina	2016	1061	N/A
			2017	1128	20
3b	France Ave north of W 50th St	Edina	2016	850	N/A
			2017	933	30
4a	France Ave south of W 66th St	Edina	2016	50	N/A
			2017	39	65
4b	W 66th St east of France Ave	Edina	2016	56	N/A
			2017	72	55
5a	Glenwood Ave east of Xenia Ave	Golden Valley	2016	33	N/A
			2017	128	255
5b	Xenia Ave south of Glenwood Ave	Golden Valley	2016	39	N/A
			2017	39	60
6a	Winnetka Ave north of Golden Valley Rd	Golden Valley	2016	111	N/A
			2017	78	380
6b	Golden Valley Rd east of Winnetka Ave	Golden Valley	2016	172	N/A
			2017	78	360
7a	Lilac Dr south of Duluth St	Golden Valley	2016	22	N/A
			2017	17	15
7b	Duluth St west of Lilac Dr	Golden Valley	2016	39	N/A
			2017	17	15
8a	Texas Ave south of Minnetonka Blvd	St Louis Park	2016	167	N/A
			2017	17	20
8b	Minnetonka Blvd west of Texas Ave	St Louis Park	2016	50	N/A
			2017	139	45
9a	Nicollet Ave north of 66th St	Richfield	2016	378	N/A

ID	Location	City	Year	Pedestrian EDT	Bicyclist EDT
			2017	461	55
9b	66th St west of Nicollet Ave	Richfield	2016	217	N/A
			2017	300	45
10a	76th St west of Penn Ave	Richfield	2016	122	N/A
			2017	144	20
10b	Penn Ave north of 76th St	Richfield	2016	50	N/A
			2017	83	95
11a	41 1/2 Ave west of Broadway Ave	Robbinsdale	2016	894	N/A
			2017	883	45
11b	Broadway Ave south of 41 1/2 Ave	Robbinsdale	2016	611	N/A
			2017	539	80
12a	70th St west of York Ave	Richfield	2016	78	N/A
			2017	117	40
12b	York Ave south of 70th St	Richfield	2016	11	N/A
			2017	111	90
13a	Zane Ave north of Brooklyn Blvd	Brooklyn Park	2016	128	N/A
			2017	250	40
13b	Brooklyn Blvd west of Zane Ave	Brooklyn Park	2016	94	N/A
			2017	144	40
14a	Bass Lake Rd west of Northway Dr	Brooklyn Center	2016	628	N/A
			2017	428	110
14b	Northway Dr south of Bass Lake Rd	Brooklyn Center	2016	344	N/A
			2017	378	30
15a	Bottineau Blvd south of 42nd Ave N	Robbinsdale	2016	N/A	N/A
			2017	78	50
15b	42nd Ave N west of Bottineau Blvd	Robbinsdale	2016	N/A	N/A
			2017	83	40
16a	Excelsior Blvd west of W 38th St	St Louis Park	2016	272	N/A
			2017	411	25
16b	W 38th St east of Excelsior Blvd	St Louis Park	2016	250	N/A
			2017	256	140
17a	8th Ave S south of Excelsior Blvd	Hopkins	2016	28	N/A
			2017	50	40
17b	Excelsior Blvd west of 8th Ave S	Hopkins	2016	28	N/A
			2017	61	25
18a	51st Avenue N east of Brooklyn Blvd	Brooklyn Center	2016	N/A	N/A

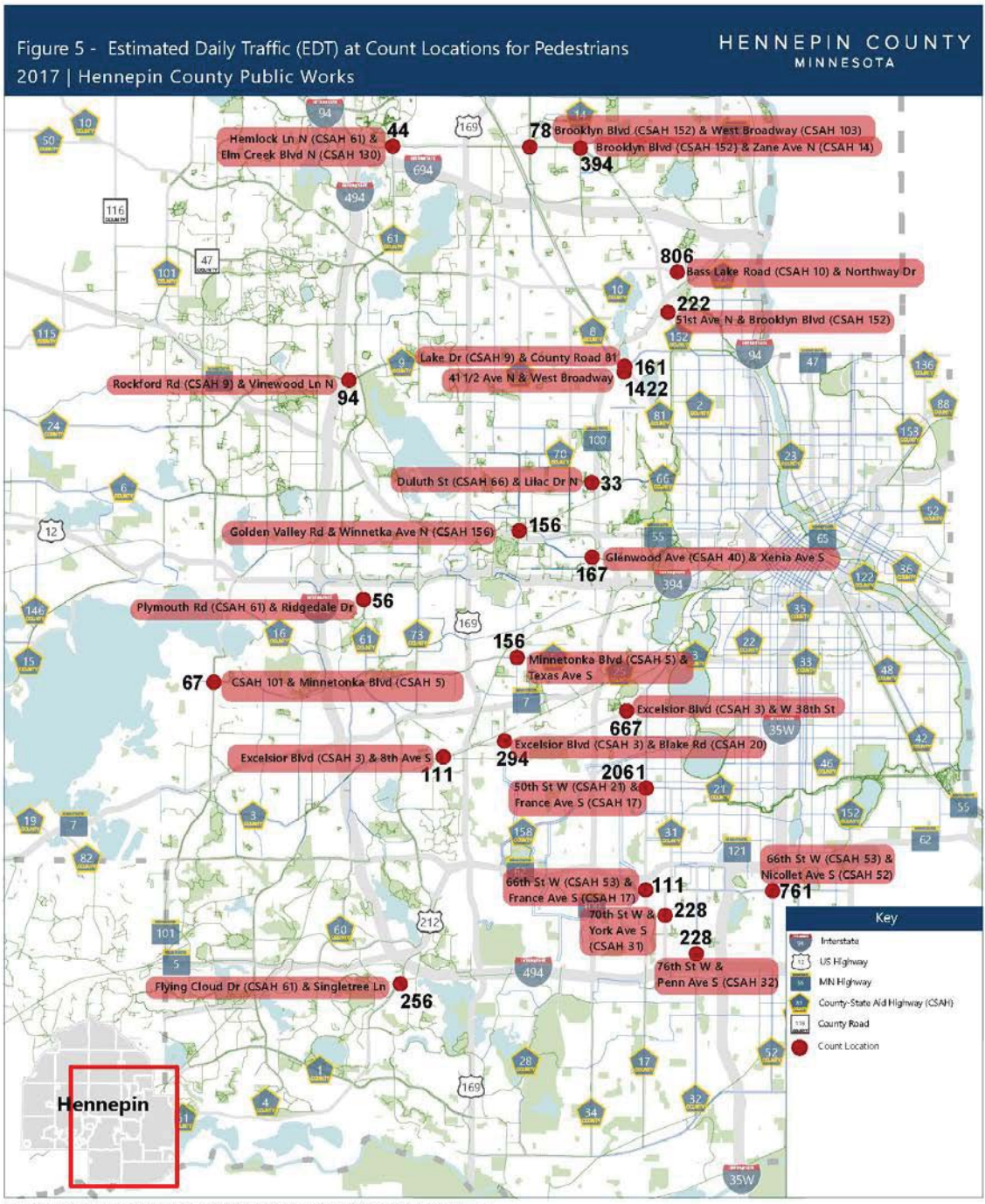
ID	Location	City	Year	Pedestrian EDT	Bicyclist EDT
			2017	222	50
18b	Brooklyn Blvd south of 51st Ave N	Brooklyn Center	2016	N/A	N/A
			2017	N/A*	N/A*
19a	101 south of Minnetonka Blvd	Minnetonka	2016	N/A	N/A
			2017	44	30
19b	Minnetonka Blvd east of 101	Minnetonka	2016	N/A	N/A
			2017	22	85
20a	Plymouth Rd south of Ridgedale Dr	Minnetonka	2016	N/A	N/A
			2017	39	0
20b	Ridgedale Dr west of Plymouth Rd	Minnetonka	2016	N/A	N/A
			2017	17	20
21a	Water St north of Oak St	Excelsior	2016	N/A	N/A
			2017	N/A	N/A
21b	Oak St east of Water St	Excelsior	2016	N/A	N/A
			2017	N/A	N/A
22a	Commerce Blvd south of Lynwood Blvd	Mound	2016	N/A	N/A
			2017	N/A	N/A
22b	Lynwood Blvd west of Commerce Blvd	Mound	2016	N/A	N/A
			2017	N/A	N/A
23a	N Medina St south of Railway St	Loretto	2016	N/A	N/A
			2017	N/A	N/A
23b	Railway St E east of N Medina St	Loretto	2016	N/A	N/A
			2017	N/A	N/A
24a	N/A**	Rogers	2016	N/A	N/A
			2017	N/A	N/A
24b	N/A**	Rogers	2016	N/A	N/A
			2017	N/A	N/A
25a	N/A**	Osseo	2016	N/A	N/A
			2017	N/A	N/A
25b	N/A**	Osseo	2016	N/A	N/A
			2017	N/A	N/A
26a	N/A**	New Hope	2016	N/A	N/A
			2017	N/A	N/A
26b	N/A**	New Hope	2016	N/A	N/A
			2017	N/A	N/A
27a	Rockford Rd west of Vinewood Ln N	Plymouth	2016	N/A	N/A

ID	Location	City	Year	Pedestrian EDT	Bicyclist EDT
			2017	50	40
27b	Vinewood Ln N north of Rockford Rd	Plymouth	2016	N/A	N/A
			2017	44	20
28a	Hemlock Ln N south of Elm Creek Blvd N	Maple Grove	2016	N/A	N/A
			2017	28	55
28b	Elm Creek Blvd N east of Hemlock Ln N	Maple Grove	2016	N/A	N/A
			2017	17	20
29a	Flying Cloud Dr south of Singletree Ln	Eden Prairie	2016	N/A	N/A
			2017	111	10
29b	Singletree Ln east of Flying Cloud Dr	Eden Prairie	2016	N/A	N/A
			2017	144	10
30a	W Old Shakopee Rd east of France Ave S	Bloomington	2016	N/A	N/A
			2017	N/A	N/A
30b	France Ave S north of W Old Shakopee Rd	Bloomington	2016	N/A	N/A
			2017	N/A	N/A

Note that Figure 5 & Figure 6 combine the pedestrian and bicyclist EDT count at each location

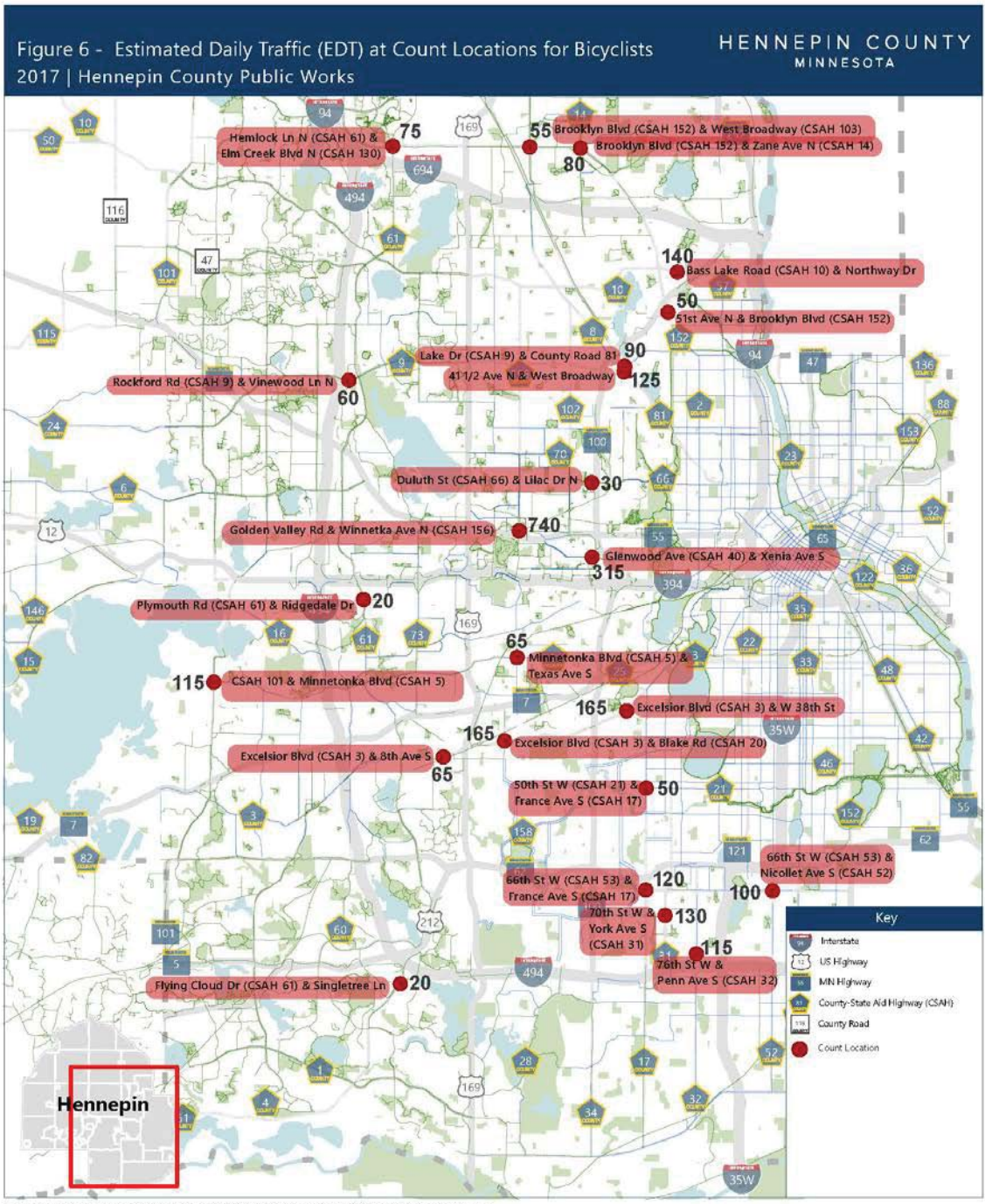
*Volunteer only completed one screen line form.

**Exact locations to be determined based on volunteer availability.



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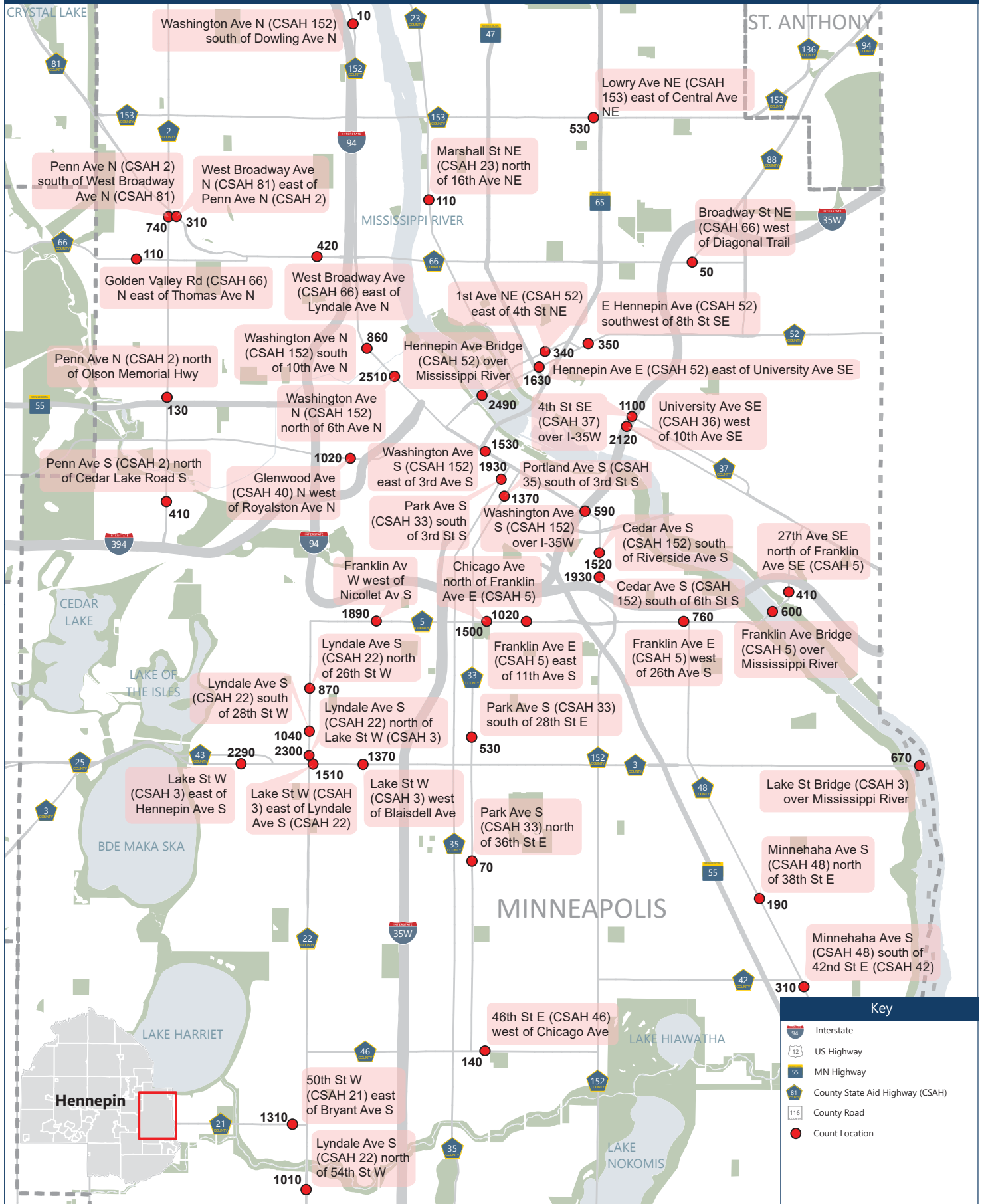
Publication date: 12/7/2017 Data sources (if applicable):



Minneapolis Pedestrian Count Locations on County Roads

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