

HENNEPIN COUNTY  
MINNESOTA

# Pedestrian Annual Count Report

2016

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# Overview

## Introduction

In 2016, Hennepin County began its first volunteer pedestrian count initiative. 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 18 count locations, though only 16 of the 18 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>.

Additionally, Hennepin County and the City of Minneapolis coordinated to count pedestrians and bicyclists at bridge locations and key entrances and exits along the Midtown Greenway. Thirty sites were identified as part of this one-time count, though only 28 locations were counted due to volunteer availability. As bridges over the greenway need to be repaired and replaced, this data will allow city and county staff to make informed decisions regarding project prioritization. These one-time counts will document baseline conditions before any construction projects begin.

Hennepin County staff also set up automated bicycle counters at 33 locations from May to October, alternating sites in the northern and southern half of the county every other year. 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, results, and future steps for the 2016 volunteer counts, including the one-time Midtown Greenway bridge 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

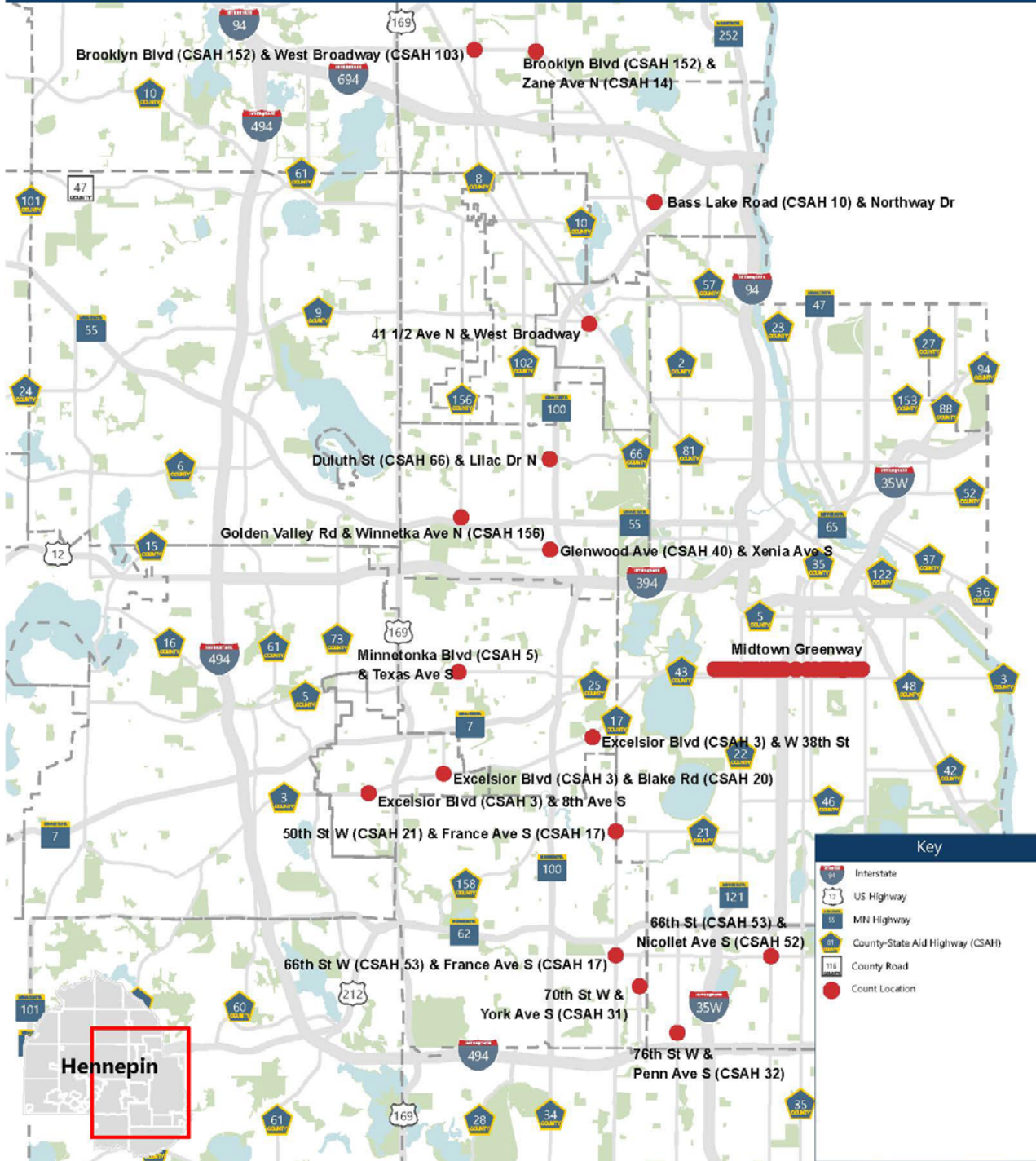
### Context

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, the Midtown Greenway bridge 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 Count Locations  
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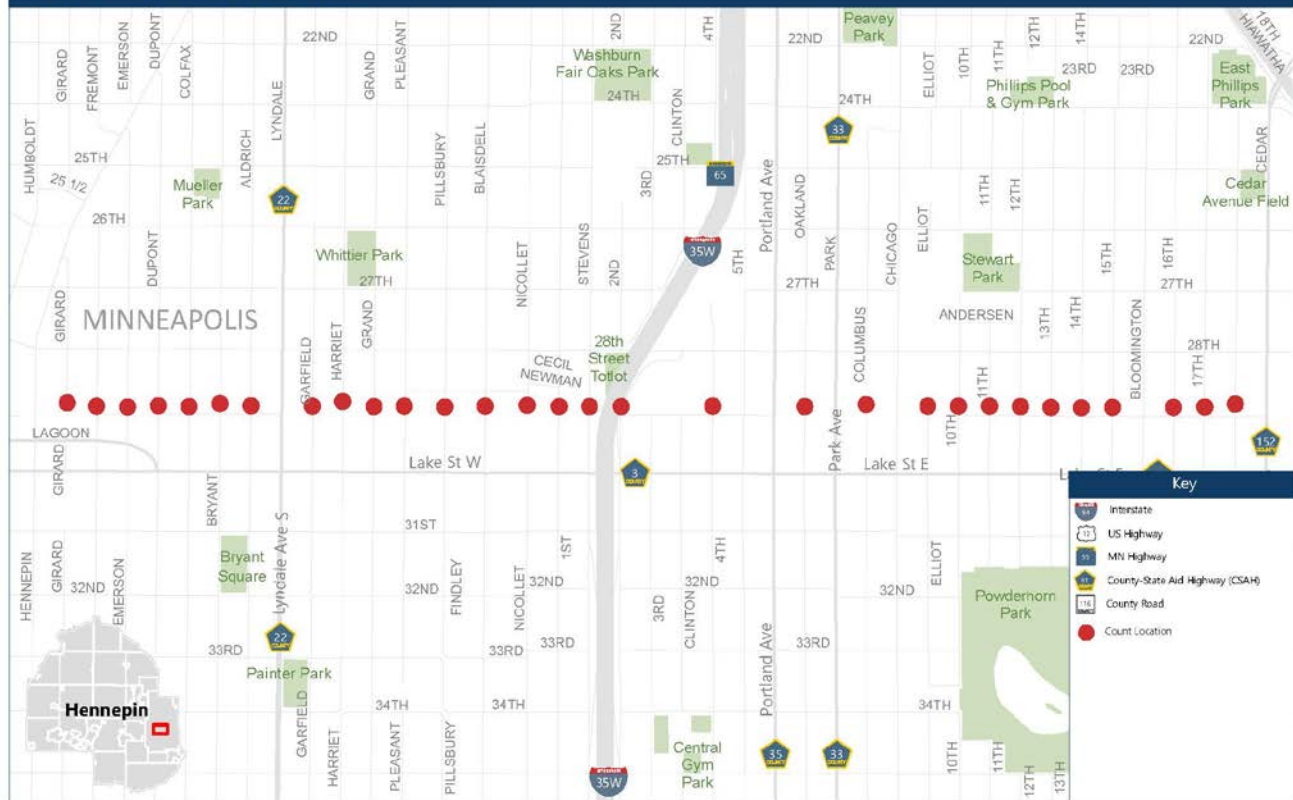
Publication date: 12/7/2017

Data sources (if applicable):

Figure 2 - Midtown Greenway Pedestrian Count Locations

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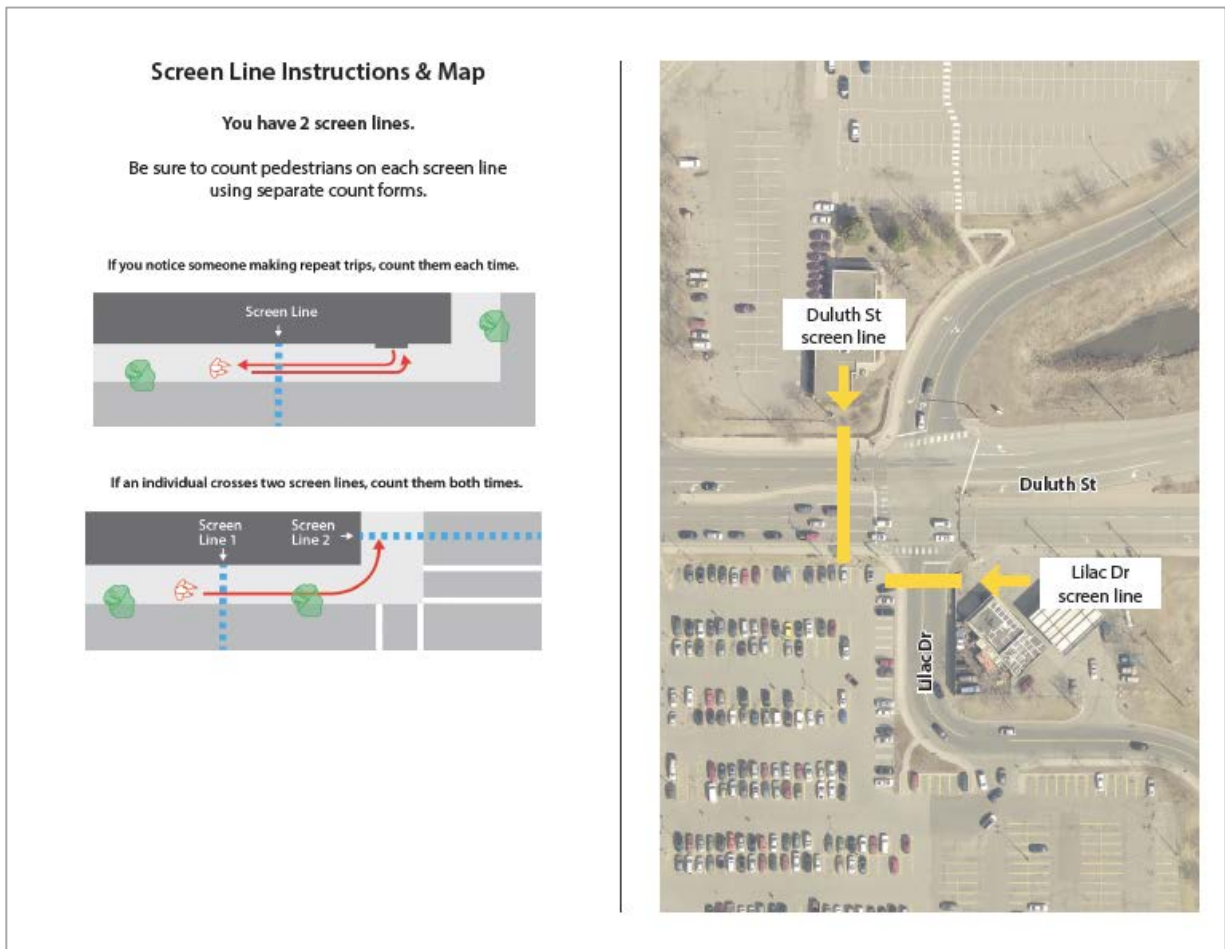


# Materials and methodology

## 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 of forms provided to volunteers in 2016



### Minneapolis Public Works Pedestrian Count Form

Name: \_\_\_\_\_ Date: \_\_\_\_\_

Screen Line (see attached map): **Duluth Street west of Lilac Drive**

**Instructions:**

- Use tally marks in groups of 5 to indicate each pedestrian (4 = ||||, 5 = |||||).
- Count all pedestrians crossing your screen line.
- Count both sides of street, including sidewalks and/or paths in both directions.
- Count repeat trips if noticeable.
- If you were late, please note the precise time you began counting here: \_\_\_\_\_

**Questions?**

Please call  
Sierra Saunders at  
612-596-0364

15 Minute Time Periods	Pedestrians
	Walking or Using Assisted Devices*
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	
<b>Total</b>	

\* 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. Someone walking a bicycle is a pedestrian.

Please mail completed count form to 701 Fourth Avenue South, Suite 400, Minneapolis, MN 55415  
or scan and email to [sierra.saunders@hennepin.us](mailto:sierra.saunders@hennepin.us)  
Thank you!



### Minneapolis Public Works Pedestrian Count Form

Name: \_\_\_\_\_ Date: \_\_\_\_\_

Screen Line (see attached map): **Lilac Drive south of Duluth Street**

**Instructions:**

- Use tally marks in groups of 5 to indicate each pedestrian (4 = ||||, 5 = |||||).
- Count all pedestrians crossing your screen line.
- Count both sides of street, including sidewalks and/or paths in both directions.
- Count repeat trips if noticeable.
- If you were late, please note the precise time you began counting here: \_\_\_\_\_

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Please mail completed count form to 701 Fourth Avenue South, Suite 400, Minneapolis, MN 55415  
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Thank you!

## 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 16 locations across Hennepin County. In accordance with the National Bicycle and Pedestrian Documentation Project, counts took place during the second week of September (September 13-14, 2017), though several locations were counted during the following week (September 19-20, 2017) as a result of weather during the initial count week.

Staff provided volunteers with site specific forms (pictured on pages 5-7). 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 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.

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



Example of screen lines at Minnetonka Blvd & Texas Ave

## 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 counts<sup>1</sup>. 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 pedestrians. 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.

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<sup>1</sup> 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?

Based on the raw counts, the total EDT for pedestrians across all sites outside of Minneapolis is 7,000. This number is over 10,000 EDT for the one-time Midtown Greenway bridge counts.

**Table 1 - Locations with top 5 highest EDT for pedestrians\***

LOCATION	EDT
<b>W 50<sup>th</sup> St &amp; France Ave (Edina)</b>	1,911 pedestrians
<b>41 ½ Ave &amp; Broadway Ave (Robbinsdale)</b>	1,506 pedestrians
<b>Bass Lake Rd &amp; Northway Dr (Brooklyn Center)</b>	972 pedestrians
<b>Nicollet Ave &amp; 66<sup>th</sup> St (Richfield)</b>	594 pedestrians
<b>Excelsior Blvd &amp; 38<sup>th</sup> St (St Louis Park)</b>	522 pedestrians

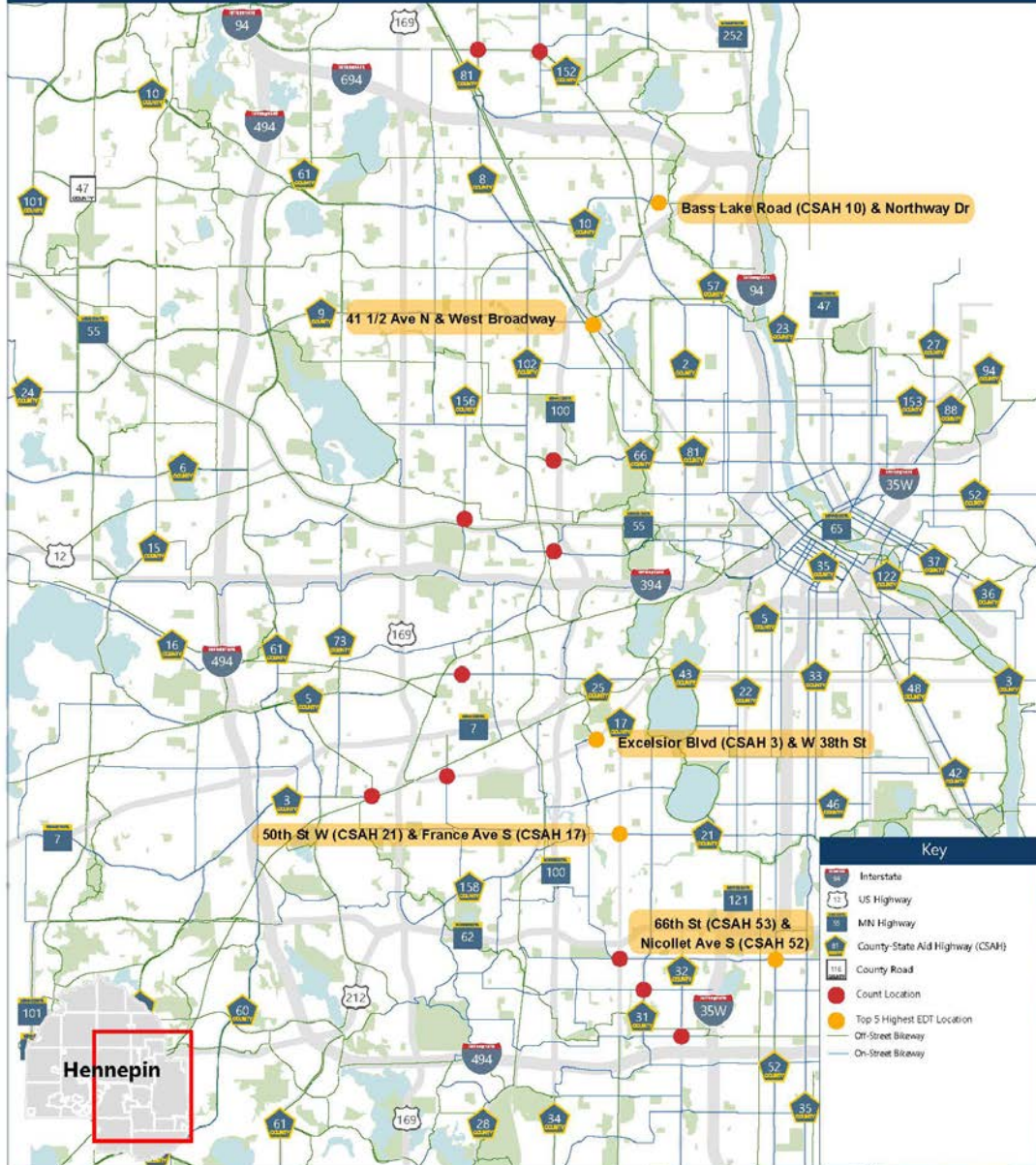
\*Note that this list excludes the Midtown Greenway bridges.

**Table 2 - Midtown Greenway locations with top 5 highest EDT for pedestrians**

LOCATION	EDT
<b>Midtown Greenway Bridge Pillsbury Ave S</b>	1,039 pedestrians
<b>Midtown Greenway Bridge 10th Ave S</b>	944 pedestrians
<b>Midtown Greenway Bridge &amp; Bryant Ave S</b>	944 pedestrians
<b>Midtown Greenway Bridge &amp; Pleasant Ave S</b>	922 pedestrians
<b>Midtown Greenway Bridge &amp; Emerson Ave S</b>	694 pedestrians

**Figure 3 - Top 5 Highest Locations for Pedestrian EDT**  
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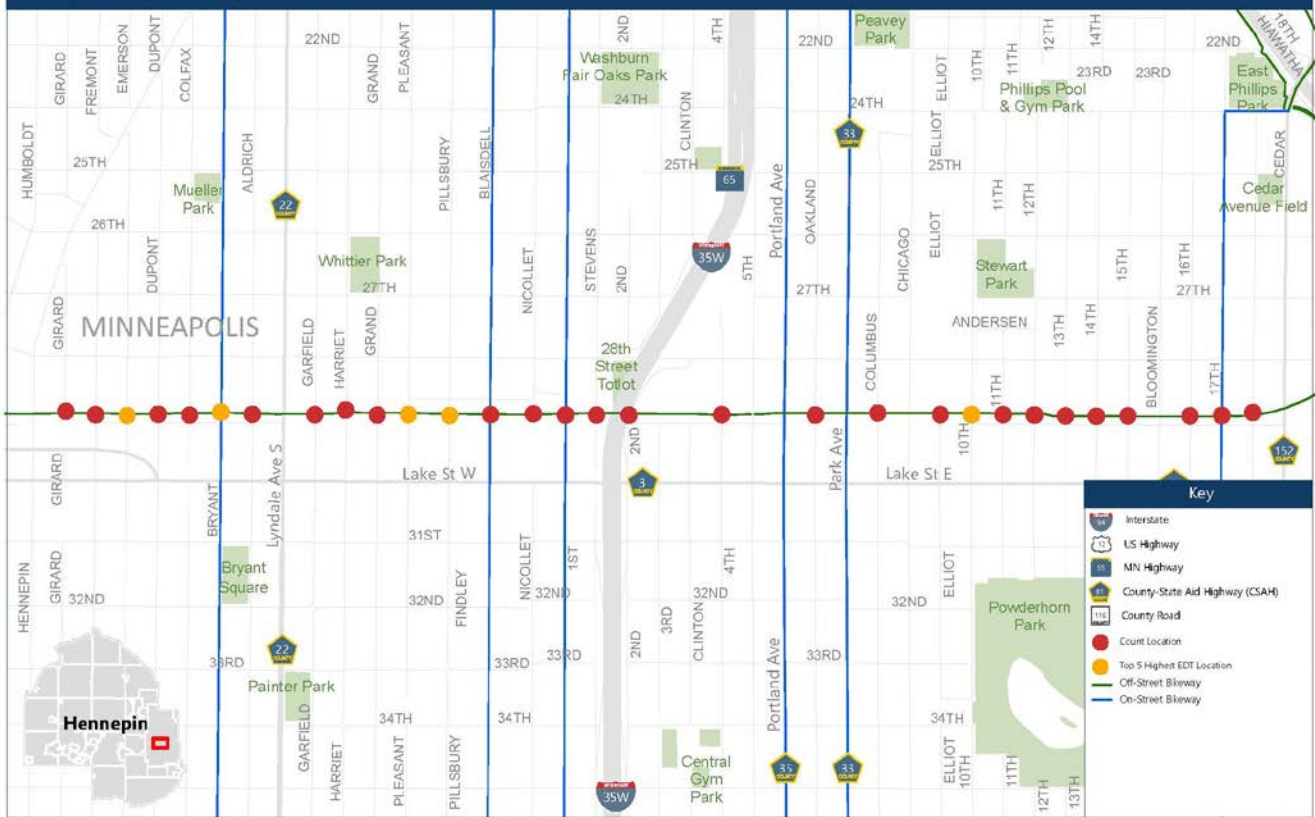
Publication date: 12/7/2017

Data sources (if applicable):

This map excludes the Midtown Greenway bridge locations from the top 5 EDT analysis.

Figure 4 - Top 5 Highest Locations for Pedestrian EDT (Midtown Greenway)  
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Publication date: 12/7/2017

Data sources (if applicable):



# Appendix A

## 2016 Estimated Daily Traffic (EDT) at Count Locations

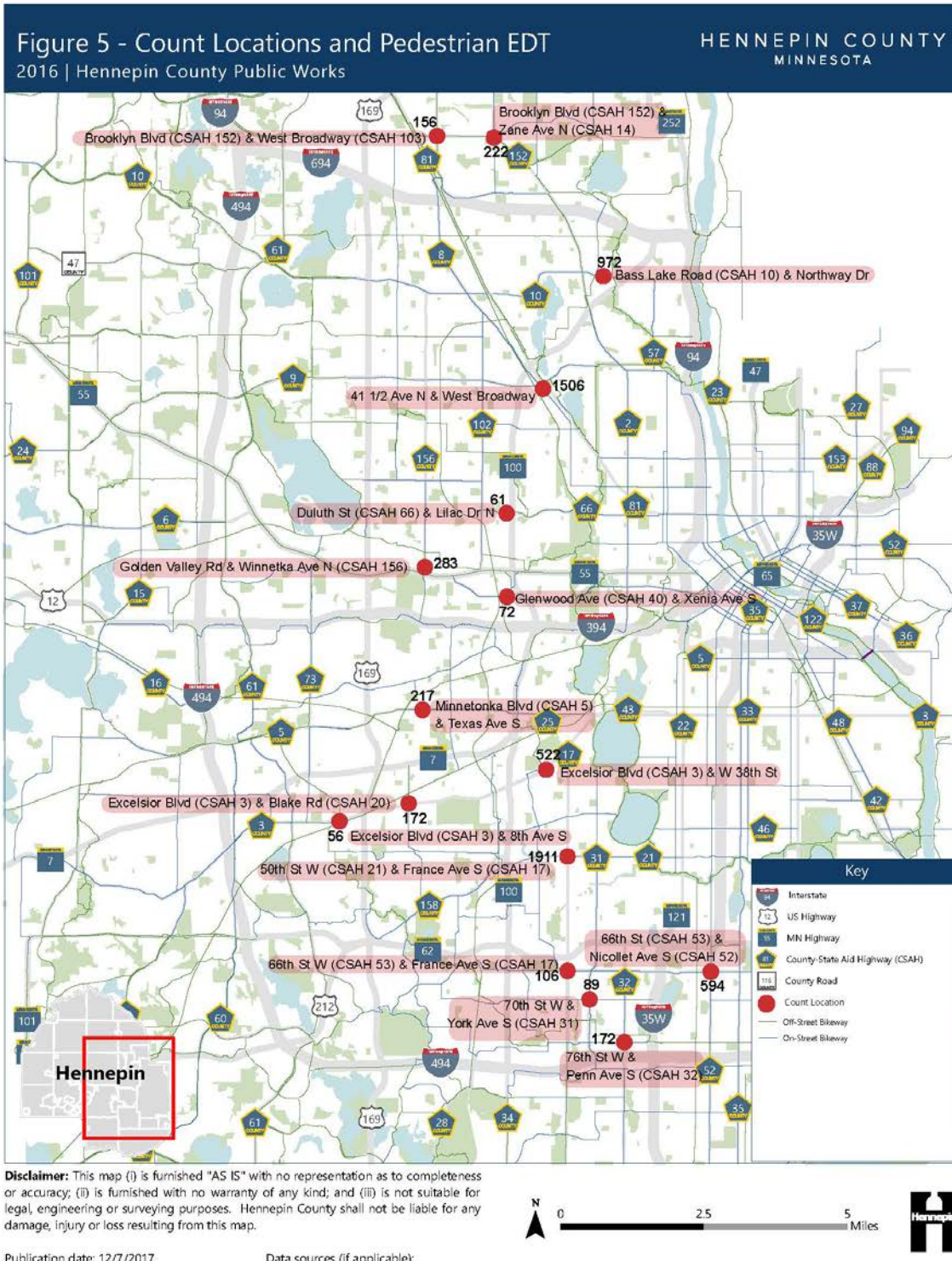
Table 3 - 2016 Count Locations and Pedestrian EDT

ID	LOCATION NAME	CITY	YEAR	DATE	PEDESTRIAN EDT
1a	Brooklyn Blvd west of W Broadway Ave	Brooklyn Park	2016	9/20/2016	111
1b	W Broadway Ave south of Brooklyn Blvd	Brooklyn Park	2016	9/20/2016	44
2a	Blake Rd north of Excelsior Blvd	Hopkins	2016	9/13/2016	83
2b	Excelsior Blvd west of Blake Rd	Hopkins	2016	9/13/2016	89
3a	W 50th St east of France Ave	Edina	2016	9/19/2016	1061
3b	France Ave north of W 50th St	Edina	2016	9/19/2016	850
4a	France Ave south of W 66th St	Edina	2016	9/13/2016	50
4b	W 66th St east of France Ave	Edina	2016	9/13/2016	56
5a	Glenwood Ave east of Xenia Ave	Golden Valley	2016	9/20/2016	33
5b	Xenia Ave south of Glenwood Ave	Golden Valley	2016	9/20/2016	39
6a	Winnetka Ave north of Golden Valley Rd	Golden Valley	2016	9/14/2016	111
6b	Golden Valley Rd east of Winnetka Ave	Golden Valley	2016	9/14/2016	172
7a	Lilac Dr south of Duluth St	Golden Valley	2016	9/13/2016	22
7b	Duluth St west of Lilac Dr	Golden Valley	2016	9/13/2016	39
8a	Texas Ave south of Minnetonka Blvd	St Louis Park	2016	9/14/2016	167
8b	Minnetonka Blvd west of Texas Ave	St Louis Park	2016	9/14/2016	50
9a	Nicollet Ave north of 66th St	Richfield	2016	9/13/2016	378
9b	66th St west of Nicollet Ave	Richfield	2016	9/13/2016	217
10a	76th St west of Penn Ave	Richfield	2016	9/14/2016	122
10b	Penn Ave north of 76th St	Richfield	2016	9/14/2016	50
11a	41 1/2 Ave west of Broadway Ave	Robbinsdale	2016	9/13/2016	894
11b	Broadway Ave south of 41 1/2 Ave	Robbinsdale	2016	9/13/2016	611
12a	70th St west of York Ave	Richfield	2016	9/14/2016	78
12b	York Ave south of 70th St	Richfield	2016	9/14/2016	11
13a	Zane Ave north of Brooklyn Blvd	Brooklyn Park	2016	9/20/2016	128



ID	LOCATION NAME	CITY	YEAR	DATE	PEDESTRIAN EDT
13b	Brooklyn Blvd west of Zane Ave	Brooklyn Park	2016	9/20/2016	94
14a	Bass Lake Rd west of Northway Dr	Brooklyn Center	2016	9/13/2016	628
14b	Northway Dr south of Bass Lake Rd	Brooklyn Center	2016	9/13/2016	344
15a	Bottineau Blvd south of 42nd Ave N	Robbinsdale	2016	N/A	N/A
15b	42nd Ave N west of Bottineau Blvd	Robbinsdale	2016	N/A	N/A
16a	Excelsior Blvd west of W 38th St	St Louis Park	2016	9/19/2016	272
16b	W 38th St east of Excelsior Blvd	St Louis Park	2016	9/19/2016	250
17a	8th Ave S south of Excelsior Blvd	Hopkins	2016	9/19/2016	28
17b	Excelsior Blvd west of 8th Ave S	Hopkins	2016	9/19/2016	28
18a	51st Avenue N east of Brooklyn Blvd	Brooklyn Center	2016	N/A	N/A
18b	Brooklyn Blvd south of 51st Ave N	Brooklyn Center	2016	N/A	N/A

Note that there are more sites in Table 2 than in Figure 5 because sites at the same location have been consolidated for mapping purposes.



**Table 3 - 2016 Count Locations and Pedestrian EDT for Midtown Greenway Bridges**

ID	LOCATION NAME	YEAR	DATE	BIKE EDT	PEDESTRIAN EDT
AA	Midtown Greenway Bridge Girard Ave	2016	N/A	N/A	N/A
AB	Midtown Greenway Bridge Fremont	2016	09/19/16	80	389
AC	Midtown Greenway Bridge Emerson	2016	09/14/16	55	694
AD	Midtown Greenway Bridge Dupont	2016	09/14/16	85	522
AE	Midtown Greenway Bridge Colfax	2016	09/20/16	50	233
AF	Midtown Greenway Bridge Bryant	2016	09/14/16	1580	483
Afa	Midtown Greenway Bridge Bryant east ramp	2016	09/14/16	905	228
Afb	Midtown Greenway Bridge Bryant west ramp	2016	09/14/16	865	233
AG	Midtown Greenway Bridge Aldrich	2016	09/14/16	120	494
AH	Midtown Greenway Bridge Garfield	2016	09/13/16	135	233
AI	Midtown Greenway Bridge Harriet	2016	09/19/16	110	283
Aia	Midtown Greenway Bridge Harriet path	2016	09/19/16	45	311
AJ	Midtown Greenway Bridge Grand	2016	09/22/16	85	356
AK	Midtown Greenway Bridge Pleasant	2016	09/13/16	60	922
AL	Midtown Greenway Bridge Pillsbury	2016	09/14/16	95	1039
AM	Midtown Greenway Bridge Blaisdell	2016	09/14/16	463	467
AN	Midtown Greenway Bridge Nicollet	2016	09/14/16	65	150
Ana	Midtown Greenway Bridge Nicollet ramp	2016	09/14/16	1060	178
AO	Midtown Greenway Bridge 1st Ave S	2016	N/A	N/A	N/A
AP	Midtown Greenway Bridge Stevens Ave	2016	09/13/16	65	178
AQ	Midtown Greenway Bridge 2nd Ave	2016	09/14/16	5	17
AR	Midtown Greenway Bridge 4th Ave	2016	09/20/16	15	161
AS	Midtown Greenway Bridge Oakland	2016	09/13/16	15	156
AT	Midtown Greenway Bridge Columbus	2016	09/13/16	30	194
Ata	Midtown Greenway Bridge Columbus stairway	2016	09/13/16	0	78
AU	Midtown Greenway Bridge Elliot (ped bridge)	2016	09/13/16	0	200
AV	Midtown Greenway Bridge 10th Ave	2016	09/19/16	565	944
AW	Midtown Greenway Bridge 11th Ave	2016	09/19/16	115	189
AX	Midtown Greenway Bridge 12th Ave	2016	09/19/16	85	239
Axa	Midtown Greenway Bridge 12th Ave stairs	2016	09/19/16	0	72
AY	Midtown Greenway Bridge 13th Ave	2016	09/13/16	180	294
Aya	Midtown Greenway Bridge 13th Ave ramp	2016	09/13/16	190	33

ID	LOCATION NAME	YEAR	DATE	BIKE EDT	PEDESTRIAN EDT
AZ	Midtown Greenway Bridge 14th Ave	2016	09/20/16	25	117
BA	Midtown Greenway Bridge 15th Ave	2016	09/14/16	115	211
BB	Midtown Greenway Bridge 16th Ave	2016	9/20/2016	90	256
BC	Midtown Greenway Bridge 17th Ave	2016	9/13/2016	185	144
BD	Midtown Greenway Bridge 18th Ave	2016	9/13/2016	445	211
Bda	Midtown Greenway Bridge 18th Ave ramp	2016	9/13/2016	440	67

Note that there are more sites in Table 3 than in Figure 6 because sites at the same location have been consolidated for mapping purposes.

