



Poplar Bridge Neighborhood



Winter
2013/2014

Turn Restriction Follow-Up Report

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2013 Poplar Bridge Neighborhood Turn Restriction Follow-Up Report

Executive Summary

The attached report provides a detailed analysis of the traffic pattern changes resulting from the approved installation of turning movement restrictions at three access points into the Poplar Bridge Neighborhood, for traffic management purposes. The restrictions have been in place since June 2013 and the follow-up data was collected in late fall of 2013.

Below is a brief summary of the results:

- The turn restrictions are working as anticipated from the traffic study and device trial.
- Traffic volumes on Stanley Avenue have been reduced by about 800 vehicles per day, and on Nine Mile Creek Parkway by between 400 and 600 vehicles per day (about a 30% reduction).
- The Bloomington Police Department has provided periodic enforcement. The compliance rates for the turn restrictions are estimated to be between 93%-96%.
- There has been a slight increase in traffic volumes on two streets within the neighborhood, (approximately 100 cars per day) but the volumes on all of these internal neighborhood streets are within typical ranges for residential streets.

Staff Recommends the following:

- Keep the posted turn restrictions in place at all three locations.
- No additional turn restrictions are needed at this time. Traffic volumes should be monitored periodically for changes.
- Periodic Police enforcement should be conducted to maintain the effectiveness of the posted turn restrictions.

A separate, complete project history report is available to provide the problem statement, study process, public involvement process, and steps of implementation.

The purpose of this report is to give a clear picture of the effects the turning restrictions have had on the Poplar Bridge Neighborhood.

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Project History

2013 Poplar Bridge Neighborhood Turn Restriction Follow-Up Report

The Poplar Bridge Neighborhood has had traffic cut-through issues dating back to the 1980's. Beginning in 2004, a focused traffic management effort to mitigate cut-through traffic in this neighborhood began. A report summarizing the history of the traffic management efforts, study and implementation has been prepared under separate cover, "Poplar Bridge Neighborhood—History".

As part of the neighborhood traffic management plan, in March 2013, the Bloomington City Council gave its approval to install turn restrictions in the Poplar Bridge Neighborhood. As part of as part of the approval the City Council requested that the restrictions be installed after the end of the 2012/13 school year and that a traffic study be conducted after six months of the restrictions being put in place, to identify the resulting traffic changes throughout the neighborhood.

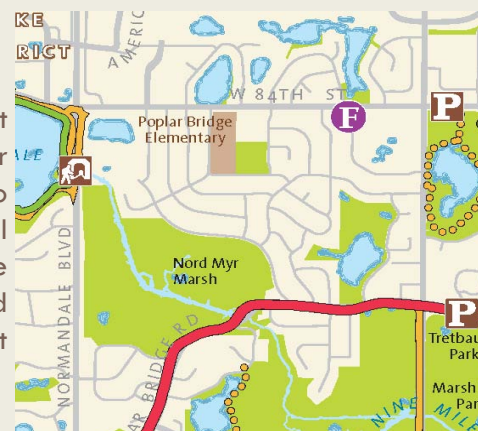
Turn Restrictions

- (Westbound) W 90th St. at Nine Mile Creek Pkwy, "No Right Turn, 7-9 AM, Mon-Fri"
- (Eastbound) W 84th St at Stanley Ave, "No Right Turn, 4-6 PM, Mon-Fri"
- (Northbound) France Ave at Poplar Bridge Rd, NB No Left Turn 7-9 AM Mon-Fri

A modification to the signs was made to allow for bicycle traffic to turn onto Stanley Avenue and Nine Mile Creek Parkway during the restricted hours.

Project Area

The Poplar Bridge neighborhood study area is bounded by West 84th Street, Normandale Boulevard, France Avenue and Poplar Bridge Road/West 90th Street (Fig 1.1). Public participation also included the neighborhoods north of West 84th Street. Arterial roadways in the area include Normandale Boulevard and France Avenue serving north-south movements and West 84th Street and Poplar Bridge Road/West 90th Street serving east-west movements.



Data Collected

Traffic data has been collected extensively throughout this neighborhood, throughout the traffic management efforts. Volume and speed data has been collected at **29** (tube) count locations and turning movement counts at **11** intersections. A complete data set was completed in the fall of 2012/Spring 2013 to gain a baseline for traffic before the turn restrictions were installed. The process was repeated again in October 2013. With these two data sets Engineering staff has prepared comparisons and analysis of the traffic patterns within the Poplar Bridge Neighborhood. All traffic data was taken while school was in session, during weeks with no holidays or roadway construction activities near the neighborhood.

Although speed data was collected and is reported in the table in the Appendix, speed was not a primary focus in the device implementation and therefore not focused on in this follow-up report. It should be noted that although there were some changes noted in the speeds, there were no locations of notable concern.



example of count board

2013 Poplar Bridge Neighborhood Turn Restriction Follow-Up Report

Stanley Avenue

Traffic Volume: The turn restriction onto Stanley Avenue is during the evening rush hours of 4pm to 6 pm. The restriction prohibits an eastbound right turn onto Stanley Avenue. The turning movement restriction has reduced Average Daily Traffic (ADT) by **38% or 800 vehicles per day (vpd)**. The ADT for Stanley is now **1300 vpd**, down from 2100 vpd in 2012.

Turning Movements: Staff conducted before and after turning movement counts at the intersection of Stanley Avenue and 84th Street during the hours of the p.m. turn restriction. Prior to the turn restriction being put in place there were **348 vehicles** that made an eastbound to southbound right turn onto Stanley Avenue. After the restriction was added, that number was measured at **23 vehicles** taking the right turn. That's a reduction of **325 vehicles** or **93%**.

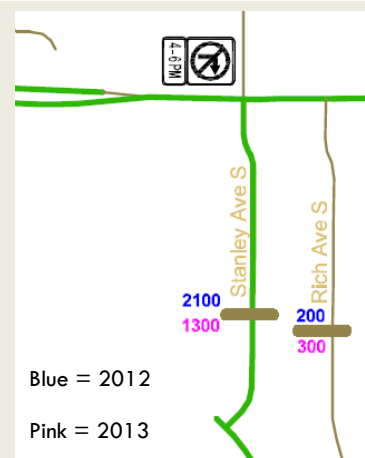


Resident Concern: Prior to the implementation of the turn restrictions, a concern was brought up by residents regarding the possibility of an increase in the number of southbound through vehicles from Stanley Avenue to Stanley Road. The worry was that eastbound commuter traffic would cut through the commercial properties in the NW quadrant of the area (Highland Bank/Lifetime Fitness) and turn right onto Stanley Road or drivers would change their route out of the Normandale Lakes District to be able to legally

continue south through the intersection of 84th Street to Stanley Avenue, avoiding the right turn restriction. Based on the data collected, that concern **has not** become a reality. The 2012 data collection showed **18 vehicles** making that southbound through move during the hours between 4pm and 6pm. In 2013, with the restrictions in place, the traffic counts showed a total of **14 vehicles** making the southbound through move, for a reduction of **4 vehicles**, during that same time interval.

Conclusion: The Stanley Avenue, 4-6 p.m. turn restriction is working as predicted and has reduced the traffic volume on Stanley Avenue:

- **Current ADT is 1300**
- **800 vehicle reduction (38%)**
- **No increase in the southbound through movement from Stanley Road**
- **Periodic enforcement will need to be conducted to maintain the effectiveness of the restriction.**



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Nine Mile Creek Parkway

Traffic Volume: The turn restriction onto Nine Mile Creek Parkway is during the morning rush hours of 7 AM to 9 AM. The restriction prohibits a westbound right turn onto Nine Mile Creek Parkway. The turning movement restriction has reduced Average Daily Traffic (ADT) by 29% or 600 vpd at the first count location (#1 on the map). The ADT was reduced 22% or 400 vpd at the second location (#2 on the map). The resulting ADT for Nine Mile Creek Parkway is 1400-1500 vehicles.

Turning Movements: Staff conducted before and after turning movement counts at the intersection of Nine Mile Creek Parkway and W 90th Street, during the hours of the turn restriction. Prior to the turn restriction there were 494 vehicles that made a right turn onto Nine Mile Creek Parkway from W 90th Street between 7 AM and 9 AM. During the restriction that number was measured as 18 vehicles taking the right turn. That's a reduction of 476 vehicles or 96%.

Conclusion: The Nine Mile Creek Parkway turn restriction is working as predicted and has reduced the traffic volume on Nine Mile Creek Parkway:

- **Current ADT is 1400-1500**
- **400-600 vehicle reduction (22%-29%)**
- **Periodic enforcement will need to be conducted to maintain the effectiveness of the restriction.**

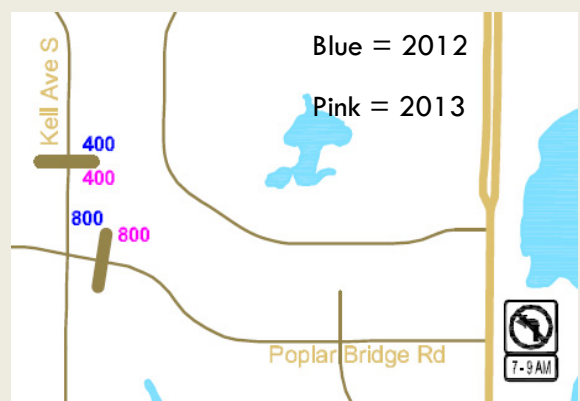


Poplar Bridge Road

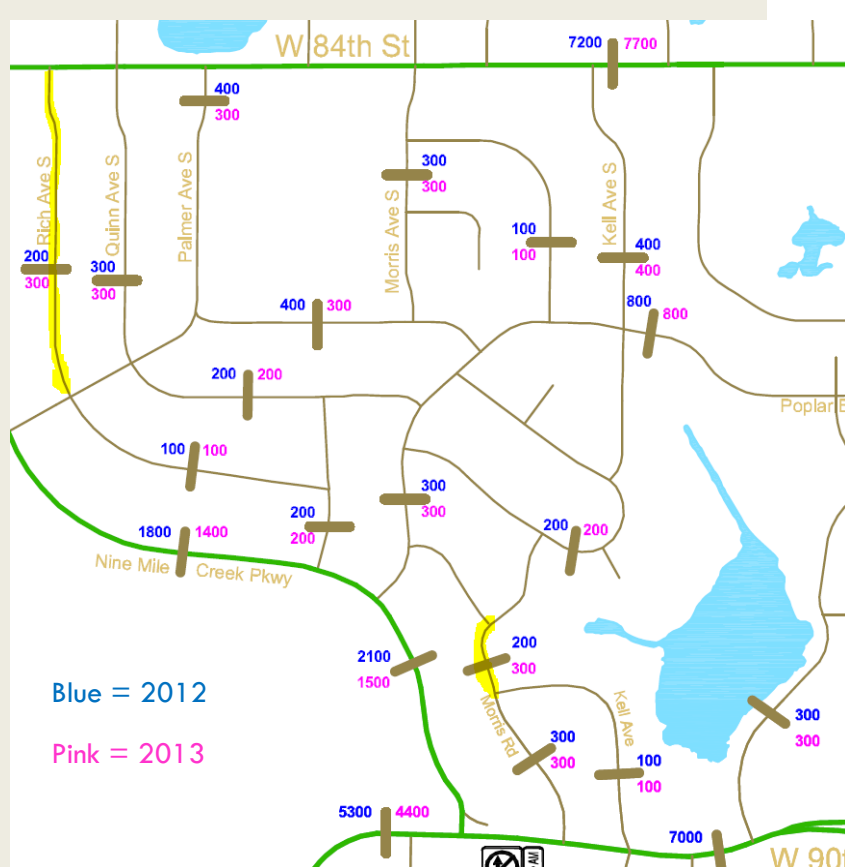
Traffic Volume: The turn restriction onto Poplar Bridge Road is during the morning rush hours of 7 AM To 9 AM. The restriction prohibits a northbound left turn from France Avenue onto Poplar Bridge Road. The turning movement restriction has had very little effect on traffic on Poplar Bridge Road. The existing ADT was 800 and the current ADT is unchanged at 800

Conclusion: The goal of this turn restriction was to eliminate the potential for this route to become an alternate cut-through route through the neighborhood. With that goal in mind this turn restriction is successful.

- **Current ADT is 800**



Again, although there was a measurable increase in traffic volume on this roadway, it is likely that the changes in traffic patterns of the residents living in the neighborhood could account for this increase in traffic volume. The resulting volumes are still within the range of what we would expect for a residential roadway in this neighborhood (or throughout Bloomington.) Staff recommends no changes be made to the operation of this roadway.

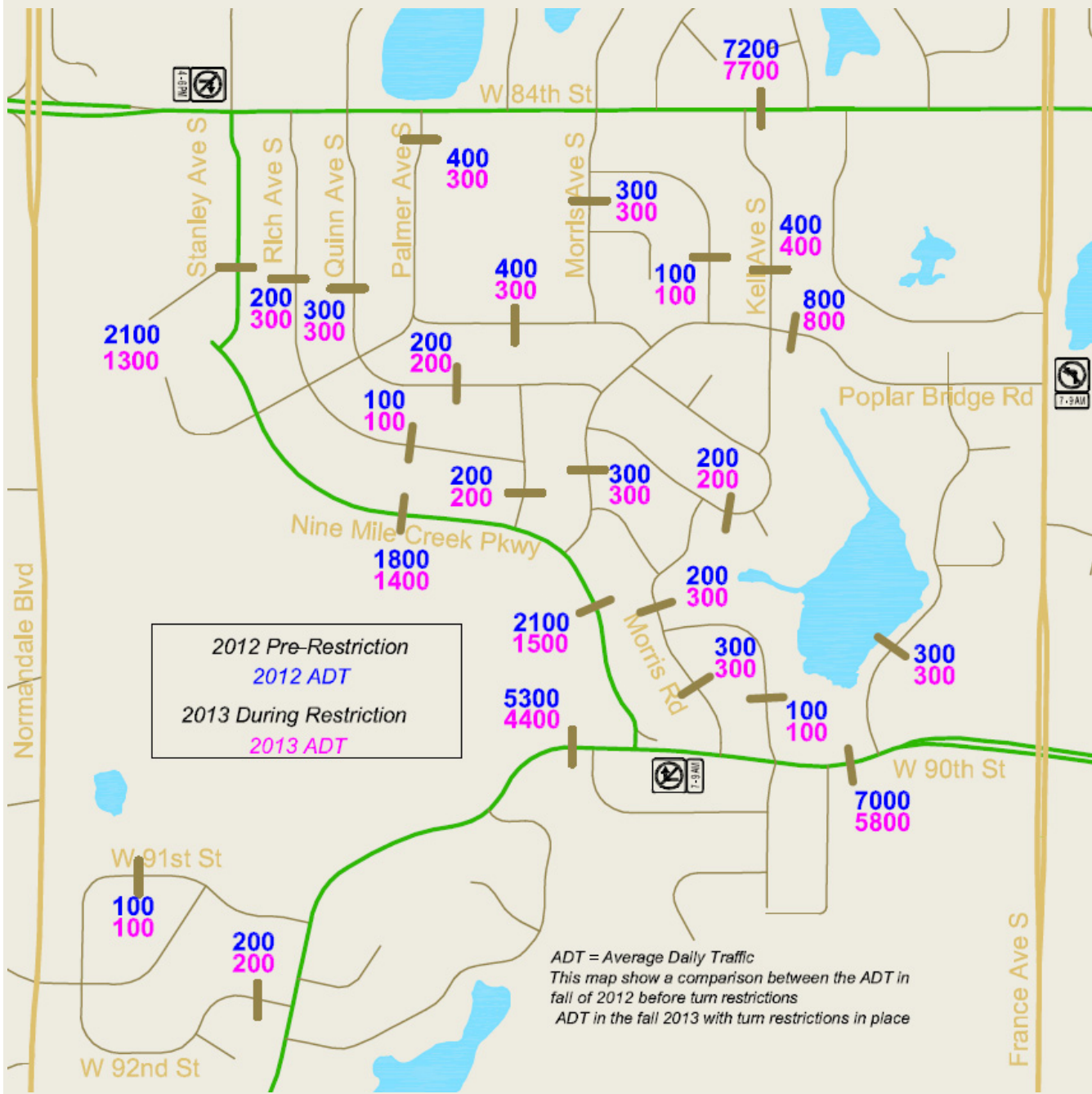


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Summary

The turn restrictions are working as anticipated from the traffic study and device trial, reducing vehicle traffic on Stanley Avenue and Nine Mile Creek Parkway by about **30%**. Traffic volumes on Stanley Avenue by about 800 vehicles per day and on Nine Mile Creek Parkway by between 400 and 600 vehicles per day (about a 30% reduction). Compliance rates for the turn restrictions are estimated to be between **93%-96%**.

Staff recommends continued enforcement to maintain the compliance rates. Staff recommends no changes to the posted restrictions and no additional restrictions be posted at entrances in the neighborhood.



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	Street	Location	2012 AADT	2013 AADT	% Change	2012 Avg Speed	2013 Avg Speed	% Change	2012 85th % Speed	2013 85th % Speed	% Change
S-1	Stanley Ave	S of W 84th St	2100	1300	-38.1%	28.5	23.1	-18.9%	32.5	33.4	2.8%
S-2	Rich Ave	S of W 84th St	200	300	50.0%	26.0	27	3.8%	31.5	31.7	0.6%
S-3	Quinn Ave	S of W 84th St	300	300	0.0%	25.6	22.7	-11.3%	30.1	26.9	-10.6%
S-4	Palmer Ave	S of W 84th St	400	300	-25.0%	24.8	24.7	-0.4%	28.8	28.4	-1.4%
S-5	Morris Ave	S of W 84th St	300	300	0.0%	27.2	27.2	0.0%	31.9	32.5	1.9%
S-6	Kell Ave	S of W 84th St	400	400	0.0%	22.8	22.9	0.4%	26.7	26.5	-0.7%
S-7	Nine Mile Creek Pkwy	W of Oxborough Rd	1800	1400	-22.2%	33.5	33.6	0.3%	37.2	37.5	0.8%
S-8	Nine Mile Creek Pkwy	S of Poplar Bridge Rd	2100	1500	-28.6%	32.0	32.1	0.3%	35.2	35.5	0.9%
S-9	Poplar Bridge Rd	N of W 88th St	300	300	0.0%	23.8	23.1	-2.9%	28.9	28.3	-2.1%
S-10	Poplar Bridge Rd	E of Kell Ave	800	800	0.0%	26.2	25.7	-1.9%	30.6	29.7	-2.9%
S-11	Poplar Bridge Rd	S of Collegeview Rd	6,200	5300	-14.5%	35.0	37.2	6.3%	39.6	40.9	3.3%
S-12	W 90th St	W of Harrison Rd	7000	5800	-17.1%	36.0	37.1	3.1%	40.1	40.7	1.5%
S-13	W 90th St	W of Nine Mile Creek Pkwy	5300	4400	-17.0%	35.2	30.3	-13.9%	39.1	37.0	-5.4%
S-14	W 91st St	W of Poplar Bridge Rd	100	100	0.0%	25.7	24.6	-4.3%	29.8	29.1	-2.3%
S-15	W 92nd St	W of Poplar Bridge Rd	200	200	0.0%	22.5	23.5	4.4%	26.5	27.1	2.3%
S-16	W 85th St	E of Palmer Ave	400	300	-25.0%	27.6	27.1	-1.8%	34.4	32.6	-5.2%
S-17	W 86th St	W of Oxborough Rd	200	200	0.0%	24.9	25.7	3.2%	29.3	31.6	7.8%
S-18	*Morris Road	N of 89th St	200	300	50.0%	23.8	22.7	-4.6%	28.4	26.9	-5.3%
S-19	Harrison Rd	N of W 90th St	300	300	0.0%	27.4	27.7	1.1%	31.7	31.6	-0.3%
S-20	W 86th St	E of Rich	200	200	0.0%	23.9	23.3	-2.5%	28.8	28.2	-2.1%
S-21	Oxborough Rd	N of Nine Mile Creek Pky	200	200	0.0%	20.6	23.1	12.1%	24.6	28.1	14.2%
S-22	Little Rd	N of Poplar Bridge Rd	100	100	0.0%	20.3	20.6	1.5%	24.6	24.5	-0.4%
S-23	Kell Ave	N of W 90th St	100	100	0.0%	20.1	25	24.4%	23.3	29.8	27.9%
S-24	Poplar Bridge Curve	E of Morris	200	200	0.0%	20.4	21.4	4.9%	23.7	26	9.7%
S-25	Toledo Rd	E of Utica Ave	200	200	0.0%	26.4	25.6	-3.0%	31.3	30.9	-1.3%
S-26	Rich Rd	E of 86th St	100	100	0.0%	23.3	23.4	0.4%	28.3	28.5	0.7%
S-27	Morris Rd	N of W 90th St	300	300	0.0%	19	19.8	4.2%	21.4	22.3	4.2%
S-28	W 84th St	E of Kell Ave	7200	7700	6.9%	31.5	32	1.6%	36	35.4	-1.7%
S-29	Stanley Rd	N of 84th St.	NA	3,300		NA	30		NA	33.5	

