

MEMORANDUM TO: Bill Novack
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FROM: Brendan May, PE
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Principal

DATE: August 11, 2020

SUBJECT: Summary Traffic Evaluation
Proposed Residential Development
Naperville, Illinois

This memorandum summarizes the results and findings of a summary traffic evaluation conducted by Kenig, Lindgren, O’Hara, Aboona, Inc. (KLOA, Inc.) for the proposed townhome residential development to be located in Naperville, Illinois. The site, which is occupied by Little Friends, is bounded by School Street on the north, Wright Street on the west, Columbia Street on the east and Franklin Avenue on the south in Naperville, Illinois. The purpose of this evaluation is to evaluate the adequacy of the roadway system in accommodating traffic resulting from the proposed development.

Site Location

The site, which is bound by School Street on the north, Wright Street on the west, Columbia Street on the east and Franklin Avenue on the south, is located in the Naperville Historic District. The site is located approximately one-half mile southeast of the Naperville Station for the Burlington Northern Santa Fe (BNSF) Metra Commuter railway and approximately one-half mile northeast of Downtown Naperville. The site is currently occupied by the buildings formerly occupied by the Naperville Campus for Little Friends, Inc. **Figure 1** shows an aerial view of the site location with the surrounding roadway network.

Existing Roadway Characteristics

The roadway system surrounding the site provides multiple alternative routes for vehicles to access the site. Vehicles to/from the north/south can utilize Wright Street, Columbia Street and Julian Street, and vehicles to/from the east/west can utilize Franklin Avenue and School Street. It should be noted that Columbia Street has an above grade railroad crossing, Loomis Street (775 feet west of Wright Street) has an at grade railroad crossing, and Washington Street (2,250 feet west of Wright Street) has a below grade railroad crossing with the BNSF Metra Commuter Railway. Furthermore, Columbia Street and Julian Street operate at a one-way pair in order to efficiently allow vehicles to travel between North Avenue which connects to the Naperville Metra Station and Chicago Avenue which connects to Downtown Naperville.



Aerial View of Site Location

Figure 1

School Street is an east-west roadway that extends from Washington Street east to its terminus at Huffman Street and provides one travel lane in each direction. School Street has an unsignalized intersection with Wright Street in which the School Street approaches operate under a free flow condition and an unsignalized intersection with Columbia Street in which the School Street approaches are under stop-sign control. Between Wright Street and Columbia Street, parking is prohibited on either side of School Street.

Franklin Avenue is an east-west roadway that extends from Loomis Street east to its terminus at Huffman Street and provides one travel lane in each direction. Franklin Avenue has an unsignalized intersections with Wright Street and Columbia Street in which the Franklin Avenue approaches are under stop-sign control. Between Wright Street and Columbia Street, parking is prohibited on the south side of Franklin Avenue and parking is permitted on the north side of the roadway but is restricted to 4-hour parking between 6:00 A.M. and 6:00 P.M.

Wright Street is a north-south roadway that provides one travel lane in each direction. At its unsignalized intersection with School Street, the Wright Street approaches are under stop-sign control and at its unsignalized intersection with Franklin Avenue, the Wright Street approaches operate under a free flow condition. Between Franklin Avenue and School Street, parking is prohibited on the east side of the roadway and parking is permitted on the west side of the roadway but is restricted to 4-hour parking between 6:00 A.M. and 6:00 P.M.

Columbia Street is a north-south roadway that in the vicinity of the site provides a single southbound travel lane between North Avenue and Chicago Avenue. At its unsignalized intersections with School Street and Franklin Street, Columbia Street operates under a free flow condition. Parking is prohibited on the west side of the roadway and parking is permitted on the east side of the roadway but is restricted to 4-hour parking between 6:00 A.M. and 6:00 P.M.

Julian Street is a north-south roadway that in the vicinity of the site provides a single northbound travel lane between North Avenue and Chicago Avenue. At its unsignalized intersections with School Street and Franklin Street, Julian Street operates under a free flow condition. Parking is prohibited on the east side of the roadway and parking is permitted on the west side of the roadway but is restricted to 4-hour parking between 6:00 A.M. and 6:00 P.M.

Existing Traffic Volumes

In order to determine current traffic conditions in the vicinity of the site, KLOA, Inc. utilized peak period traffic counts previously conducted by the City of Naperville during the weekday morning (7:00 A.M. to 9:00 A.M.) and weekday evening (4:00 P.M. to 6:00 P.M.) at the intersections of Columbia Street with North Avenue, Columbia Street with Chicago Avenue, Julian Street with Chicago Avenue, and School Street with Washington Street. Furthermore, due to the operations of Little Friends, Inc. (as discussed on the following page) KLOA, Inc. utilized afternoon peak hour counts from 2:00 P.M. to 3:00 P.M. previously conducted by the City of Naperville. Additionally, KLOA, Inc. utilized seven day, 24-hour counts conducted by the City of Naperville at the intersection of Columbia Street with School Street. The results of the peak-hour intersection counts are summarized in **Table 1** and the results of the 24-hour counts are summarized in **Table 2**. All tables are included in the Appendix of the report.

Existing Little Friends Naperville Campus

The site is currently occupied by the Naperville Campus for Little Friends, Inc., which is an organization that provides services for children and adolescents ages 5 through 22 with Autism Spectrum Disorder (ASD). The Naperville Campus for Little Friends contained the administration offices, Krejci Academy, Mansion High School, Center for Autism, and the Residential Service programs. The campus is currently served by a full movement access drive off Wright Street, a full movement access drive off School Street, an inbound only access drive off Franklin Street, and via an outbound only access drive off Columbia Street.

Krejci Academy and Mansion Highschool have an enrollment of approximately 105 students and approximately 98 staff, the Center for Autism has approximately eight staff members and 25 visitors, and the Residential Services program has approximately 27 staff members. The hours of operation for Krejci Academy and Mansion High School are generally between 9:00 A.M. and 2:30 P.M., the hours of operation for the Center for Autism are generally between 8:30 A.M. and 7:00 P.M. and the Residential Services program generally operates between 6:00 A.M. and 6:00 P.M. **Table 3** summarizes the approximately number of students, staff and visitors for the Naperville Campus for Little Friends.

The volume of traffic generated by the Little Friends Naperville campus was based on trip generation surveys conducted at the campus by KLOA, Inc. in January 2019 during the weekday morning peak hour of student and staff arrival, weekday afternoon peak hour of student dismissal, and during the weekday evening peak hour of after school activities and staff departure. The volume of traffic generated by Little Friends, separated by pick-up/drop-off passenger vehicles, buses/vans, and staff/visitor passenger vehicles is summarized in **Table 4**.

It should be noted that similar to other schools Little Friends experiences surges of traffic during the weekday morning and weekday afternoon peak hours which is a result of student pick-up/drop-off activities. Observations conducted at the Little Friends campus during the weekday morning and weekday afternoon peak hours indicated that queues originating from main doors of the campus during drop-off activities extended onto Franklin Avenue and to the north and south on Wright Street. Furthermore, during the weekday afternoon peak hour queueing on the east side of the campus, resulted in vehicles queueing onto School Street. **Figures 2 through 4**, included in the Appendix, illustrate the queueing of vehicles on Franklin Street and Wright Street

Additionally, observations of parking conducted at the Little Friends, Inc. Naperville campus indicated that up to 29 staff members were observed to park on adjoining streets due to the limited availability of parking on the campus. These staff members parked on the street in order to preserve spaces on the campus for program visitors.

Proposed Development Plan

The plans call for redeveloping the site with 47 townhome residential units. Access to the development will be provided via two full movement access drives off School Street with the westerly access drive located approximately 130 feet east of Wright Street, and the easterly access drive is located approximately 125 feet west of Columbia Street. Additional access to the development will be provided via a full movement access drive off Franklin Avenue, located approximately 125 feet west of Columbia Street. All access drives should be wide enough to accommodate one inbound lane and one outbound lane with outbound movements under stop sign control. The proposed development will result in the elimination of existing curb cuts on Wright Street and Columbia Street which will help improve traffic flow in the area and reduce/eliminate conflicts with pedestrians.

Development Traffic Generation

The volume of traffic generated by the proposed townhome development was estimated using data published in the Institute of Transportation Engineers (ITE) *Trip Generation Manual*, 10th Edition. Land-Use Code (LUC) 220 was used for the proposed residential units. As previously indicated, the proposed development is located within one-half mile of the Naperville Station for the Burlington Northern Santa Fe Metra Commuter Railway as well as downtown Naperville. As such, many of the residents will utilize public transportation, bicycle or walk to get to work. Based on census data provided by the Center for Transit-Oriented Development for households located within one-half of a mile of the Naperville Metra Station, approximately 20 percent of existing residents utilize public transportation, bicycle or walking to travel to/from work. **Table 5** tabulates the vehicle trips anticipated for this development on a typical weekday during the morning, afternoon and evening peak hours and **Table 6** tabulates the daily two-way vehicle trips anticipated for this development. The ITE trip generation worksheets and the supporting census data is included in the Appendix of this memorandum. It should be note that the fitted curve equations were utilized to calculate the peak hour trip generation.

Land Use Comparison

As previously indicated, the site is currently occupied by the Naperville Campus for Little Friends, Inc. The volume of traffic generated by Little Friends compared to the volume of traffic estimated to be generated by the proposed development is summarized in **Table 7**. As can be seen from Table 5, the proposed development is projected to generate approximately 90 percent less trips during the weekday morning and weekday afternoon peak hours, and approximately 65 percent less trips during the weekday evening peak hour.

Directional Distribution

The directions from which residents will approach and depart the site were estimated based on the location of the site relative to proximity to the regional roadway network and on a review of the existing travel patterns, as determined from the traffic counts. Based on the above traffic count data, it is anticipated that approximately 40 percent of residents will travel to/from the north, 30 percent will travel to/from the south and 30 percent will travel to/from the west.

Total Projected Traffic Volumes

Based on Year 2050 population and employment projections prepared by the Chicago Metropolitan Agency for Planning (CMAP), the City of Naperville is projected to experience an increase in population and employment of less than one-half percent per year, between Year 2015 and Year 2050. As such, the existing traffic volume was increased by one-half percent per year for five years (2.5 percent total) to project Year 2025 background conditions.

The volume of traffic estimated to be generated by the proposed development was distributed on the area roadway system and was combined with the Year 2025 background traffic volumes to estimate the Year 2025 total projected traffic volumes. **Tables 8 through 11** summarizes the total projected traffic volumes for the study area intersections and roadway segments.

As can be seen in Tables 8 through 10, the traffic that will be generated by the proposed development will be only approximately one percent or less of the total traffic traversing the area intersections during the weekday morning, weekday afternoon and weekday evening peak hours. As previously indicated, the existing Little Friends, Inc. traffic will be removed from the area roadway network and will more than offset the volume of traffic added to the area by the proposed residential development.

As can be seen in Table 11, the proposed development traffic is only projected to comprise of approximately five percent of the daily traffic volume on Columbia Street and approximately fifteen percent of the daily traffic volume on School Street.

Intersection and Roadway Segment Evaluation

Based on their existing traffic volumes School Street and Columbia Street are both classified as Neighborhood Connector Streets based on the typical City-wide daily traffic volume ranges experienced on neighborhood streets within the City of Naperville as provided by the City. These volume ranges are summarized in **Table 12**. As described in the City of Naperville Design Manual for Public Improvements, neighborhood connector roadways connect residential and local roadways within a neighborhood to collector streets and to the arterial street network. Taking into consideration the existing traffic volumes, regional growth, and the traffic estimated to be generated by the proposed development, the projected traffic volumes will continue to fall within the range of this roadway as a Neighborhood Connector Street.

It should be noted that the City of Naperville traffic volume ranges are consistent with national residential street standards as contained in *Residential Streets*, Third Edition published by the Urban Land Institute (ULI), National Associate of Home Builders (NAHB), American Society of Civil Engineers (ASCE), and ITE.

Furthermore, it should be noted that these projected traffic volumes are conservative as they include the trips generated by Little Friends, Inc. which will be removed from the area roadway network under projected conditions.

Access Drive Evaluation

As proposed the access drive locations are located adequately with relation to the area roadway network to provide efficient and flexible access to the site that allows for vehicles to be evenly spread along the roadway network, reducing the traffic load at any single intersection or access drive. Providing access via School Street and Franklin Avenue is recommended as these roadways have a limited number of residential driveways as the driveways serving the adjacent residences is provided via Wright Street and Columbia Street or via the north-south public alleys located midblock between the two roadways. Additionally, providing access off School Street is most desirable as parking is prohibited on both sides of the roadway between Wright Street and Columbia Street. As such, the proposed access system is located well with respect to the area roadway network and will be adequate in accommodating the traffic estimated to be generated by the proposed development.

Parking Evaluation

As proposed, the development will provide two garage spaces per unit and an additional two spaces behind each garage resulting in a total parking supply of four parking spaces per unit. Furthermore, the development will provide a total 12 guest parking spaces on-site (0.25 spaces per unit). The proposed parking supply per unit exceeds the City of Naperville parking code which requires two parking spaces per unit and meets the guest parking space requirement of 0.25 spaces per unit. Furthermore, with the relocation of Little Friends, Inc. the 29 staff that were observed parking on-street will no longer occur, thus reducing the number of vehicles parked on street on a typical weekday which will improve the flow of traffic along the roadways.

Conclusions

Overall, the area roadway network surrounding the site will be adequate in accommodating the traffic estimated to be generated by the proposed development, and the proposed access system will have a limited impact on the area intersections based on the following:

- The volume of vehicle trips generated by the proposed development will be reduced due to the proximity of the development to public transportation and Downtown Naperville.
- The proposed development will generate up to 90 percent less trips than Little Friends which will result in a significant reduction in impact especially when you consider the surge of traffic and on-street queueing that Little Friends experienced on a daily basis.
- The traffic that will be generated by the proposed development will be only approximately one percent or less of the total traffic traversing the intersections of Columbia Street with North Avenue, Columbia Street with Chicago Avenue, Julian Street with Chicago Avenue, and School Street with Washington Street.
- The removal of the Little Friends, Inc. traffic from the area roadway network will more than offset the volume of traffic added to the area by the proposed residential development.

- Under Year 2025 total projected conditions, the average daily traffic volumes on School Street and Columbia Street will continue to fall within the acceptable ranges of Neighborhood Connector Streets as described in the City of Naperville Design Manual for Public Improvements.
- Providing full access off School Street and Franklin Avenue will provide site access flexibility and will reduce the traffic load on any single roadway, intersection, or access drive.
- Providing two access drive off School Street will have a limited impact on the operations of the roadway as the segment of School Street along the site frontage prohibits parking on both sides of the roadway.
- The proposed development exceeds the City of Naperville zoning requirements for parking and the relocation of Little Friends, Inc. will eliminate the need for staff members to park on-street thus reducing the number of vehicles parked on-street on a typical weekday.

Appendix

Table 1
INTERSECTION COUNTS – TOTAL OF ALL APPROACHES

Intersection	Total Traffic Volumes Traversing Intersection		
	Weekday Morning Peak Hour	Weekday Afternoon Peak Hour	Weekday Evening Peak Hour
Columbia Street with North Avenue	869	550	1158
Columbia Street with Chicago Avenue	849	1006	1162
Julian Street with Chicago Avenue	1006	897	1204
School Street with Washington Street	2786	1817	2719

Table 2
AVERAGE DAILY TRAFFIC VOLUMES

Roadway Segment	Average Daily Traffic Volume
School Street between Wright Street and Columbia Street	736
Columbia Street between School Street and Franklin Avenue	3436

Table 3
LITTLE FRIENDS POPULATION BREAKDOWN

Population Group	Students	Staff	Visitors	Total
Little Friends Administration	0	18	0	18
Krejci Academy ¹	91	93	0	184
Mansion High School	14	5	0	19
Center for Autism ²	0	8	25	33
Residential Services Staff	0	27	0	27
Total	105	151	25	281

¹ School staff includes administrators, teachers, teaching assistants, paraprofessionals and student aides.

² Two staff members work off-site.

Table 4
LITTLE FRIENDS – PEAK HOUR TRAFFIC VOLUMES

Vehicle Type / Population Group	Weekday Morning Peak Hour			Weekday Afternoon Peak Hour			Weekday Evening Peak Hour		
	Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total
Student Drop-Off/Pick-Up by Auto	18	18	36	17	17	34	0	0	0
Student Drop-Off/Pick-Up by Bus-Van	29	29	58	26	26	52	0	0	0
Staff/Visitor ¹	80	8	88	9	28	37	8	60	68
Total	127	55	182	52	71	123	8	60	68

1 - Includes staff parked along the streets and visitors to non-school programs (i.e., Center for Autism, Residential Services)



Figure 2 - View of Morning Drop-Off Stacking from Krejci Academy/Mansion HS Entrance back onto Franklin St



Figure 3 - View of Krejci Academy/Mansion HS Morning Drop-Off Stacking on Northbound Wright St at Franklin St



Figure 4 - View of Krejci Academy/Mansion HS Morning Drop-Off Stacking on Southbound Wright St at Franklin St

Table 5
ESTIMATED PEAK HOUR DEVELOPMENT-GENERATED TRAFFIC VOLUMES

Land Use Type	Weekday Morning Peak Hour			Weekday Afternoon Peak Hour			Weekday Evening Peak Hour		
	In	Out	Total	In	Out	Total	In	Out	Total
Townhomes/Rowhomes (LUC 220) - 47 Units	5	18	23	11	7	18	19	11	30
20% Public Transportation Reduction	-1	-4	-5	-2	-2	-4	-4	-2	-6
Total New Trips	4	14	18	9	5	14	15	9	24

Table 6
ESTIMATED DAILY TWO-WAY DEVELOPMENT-GENERATED TRAFFIC VOLUMES

Land Use Type	Daily Two-Way Traffic		
	In	Out	Total
Townhomes/Rowhomes (LUC 220) - 47 Units	157	157	314
20% Public Transportation Reduction	-31	-31	-62
Total New Trips	126	126	252

Table 7
TRIP GENERATION COMPARISON

Land Use Type	Weekday Morning Peak Hour			Weekday Afternoon Peak Hour			Weekday Evening Peak Hour		
	In	Out	Total	In	Out	Total	In	Out	Total
Proposed Development	4	14	18	9	5	14	15	9	24
Little Friends, Inc.	127	55	182	52	71	123	8	60	68
Difference	-123	-41	-164	-43	-66	-109	7	-51	-44

Table 8
TOTAL PROJECTED TRAFFIC VOLUMES – WEEKDAY MORNING PEAK HOUR

Intersection	Total Traffic Volumes Traversing Intersection		
	Existing Traffic ¹	Site Generated Traffic	Total Projected Traffic
Columbia Street with North Avenue	891	7	898
Columbia Street with Chicago Avenue	870	6	875
Julian Street with Chicago Avenue	1031	6	1034
School Street with Washington Street	2856	5	2861

1 – Increased by the 2.5 percent regional growth factor

Table 9

TOTAL PROJECTED TRAFFIC VOLUMES – WEEKDAY AFTERNOON PEAK HOUR

Intersection	Total Traffic Volumes Traversing Intersection		
	Existing Traffic ¹	Site Generated Traffic	Total Projected Traffic
Columbia Street with North Avenue	564	6	570
Columbia Street with Chicago Avenue	1057	2	1059
Julian Street with Chicago Avenue	919	4	923
School Street with Washington Street	1862	4	1866

1 – Increased by the 2.5 percent regional growth factor

Table 10

TOTAL PROJECTED TRAFFIC VOLUMES – WEEKDAY EVENING PEAK HOUR

Intersection	Total Traffic Volumes Traversing Intersection		
	Existing Traffic ¹	Site Generated Traffic	Total Projected Traffic
Columbia Street with North Avenue	1187	10	1197
Columbia Street with Chicago Avenue	1191	3	1194
Julian Street with Chicago Avenue	1234	7	1241
School Street with Washington Street	2787	7	2794

1 – Increased by the 2.5 percent regional growth factor

Table 11

TOTAL PROJECTED TRAFFIC VOLUMES – ROADWAY SEGMENTS

Intersection	Total Traffic Volumes Traversing Intersection		
	Existing Traffic ¹	Site Generated Traffic	Total Projected Traffic
School Street between Wright Street and Columbia Street	754	151	905
Columbia Street between School Street and Franklin Avenue	3522	176	3698

1 – Increased by the 2.5 percent regional growth factor
Note: The existing traffic volumes include traffic from the existing Little Friends, Inc. development.

Table 12

CITY OF NAPERVILLE RESIDENTIAL ROADWAY TRAFFIC VOLUMES

Roadway Classification	Daily Traffic Volumes
Collector Street	5,000 to 12,000
Neighborhood Connector Streets	500 to 5,000
Local Street	0 to 1,500

Multifamily Housing (Low-Rise) (220)

Vehicle Trip Ends vs: Dwelling Units
On a: Weekday

Setting/Location: General Urban/Suburban

Number of Studies: 29

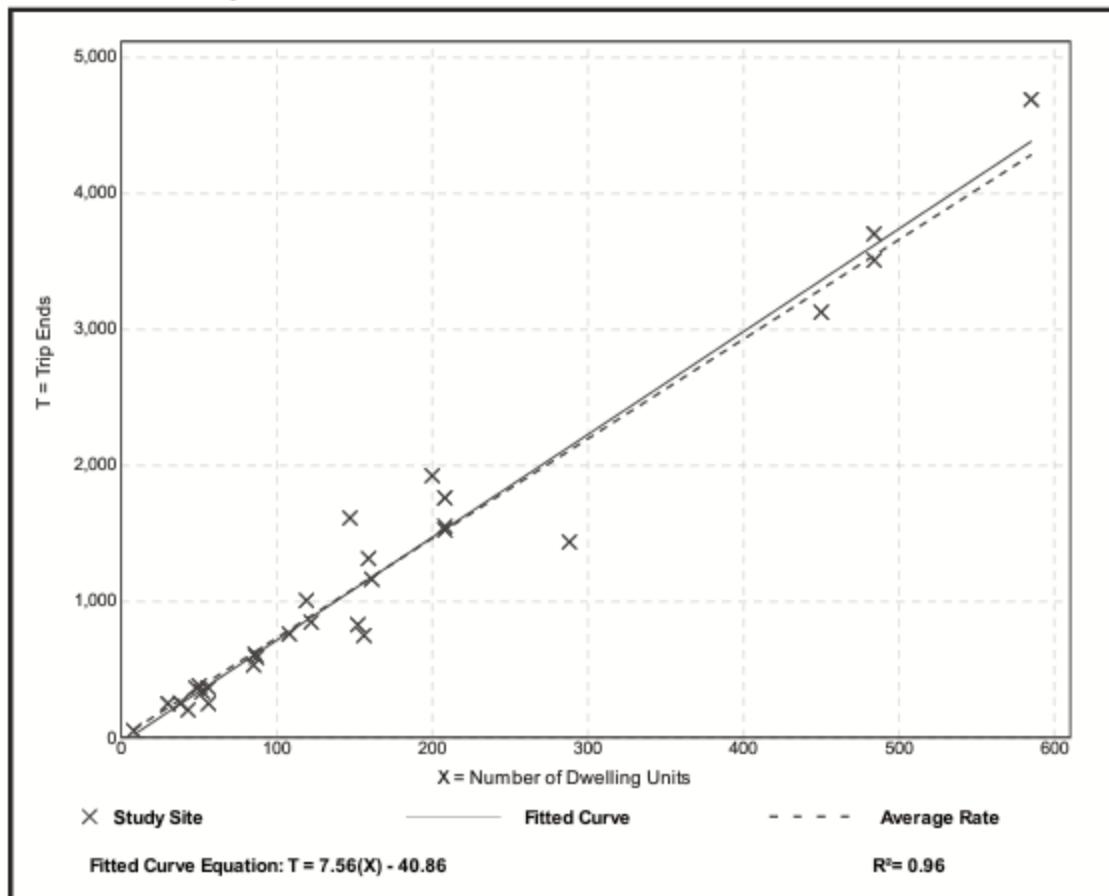
Avg. Num. of Dwelling Units: 168

Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
7.32	4.45 - 10.97	1.31

Data Plot and Equation



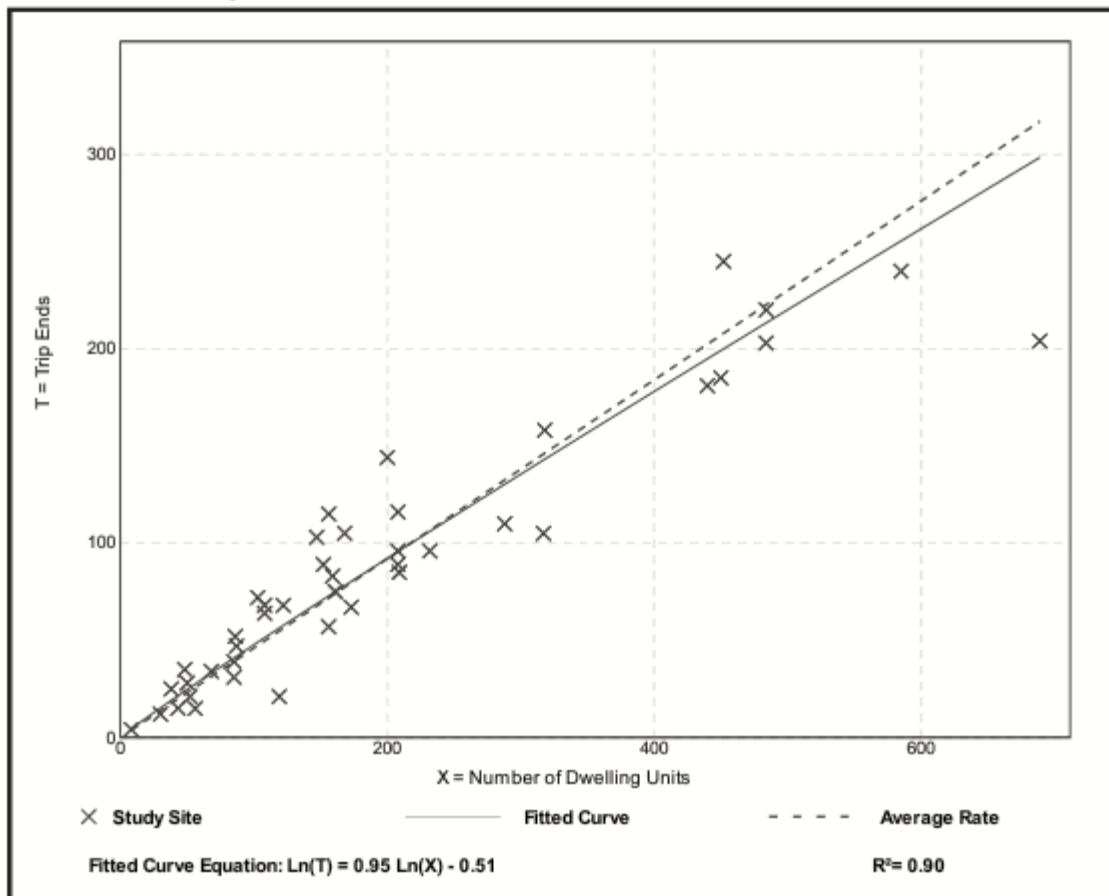
Multifamily Housing (Low-Rise) (220)

Vehicle Trip Ends vs: Dwelling Units
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: General Urban/Suburban
Number of Studies: 42
Avg. Num. of Dwelling Units: 199
Directional Distribution: 23% entering, 77% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.46	0.18 - 0.74	0.12

Data Plot and Equation



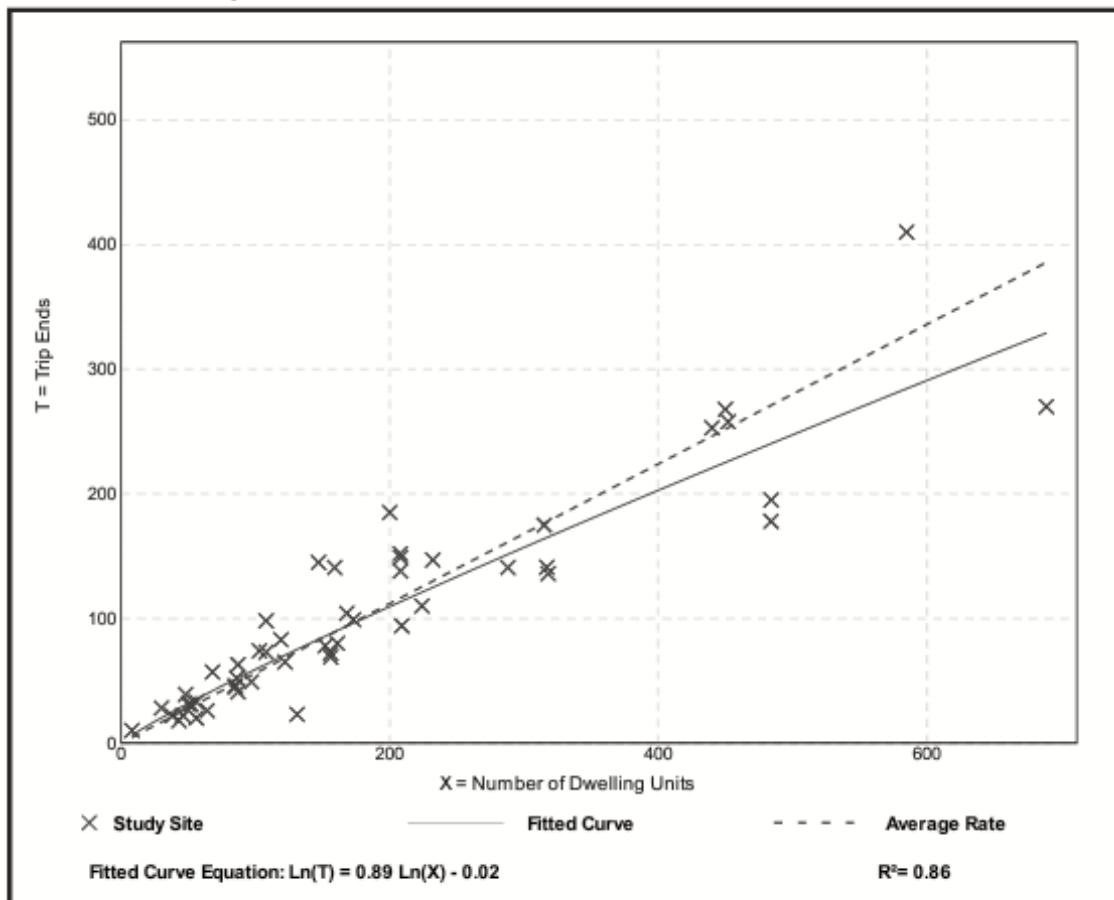
Multifamily Housing (Low-Rise) (220)

Vehicle Trip Ends vs: Dwelling Units
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: General Urban/Suburban
Number of Studies: 50
Avg. Num. of Dwelling Units: 187
Directional Distribution: 63% entering, 37% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.56	0.18 - 1.25	0.16

Data Plot and Equation



Percent of Daily Traffic During the 60-Minute Period Beginning at Displayed Time

Land Use	210 Single-Family Detached Housing						220 Multifamily Housing (Low-Rise)					
	Setting		General Urban/Suburban				General Urban/Suburban				Dense Multi-Use Urban	
Time Period	Weekday		Saturday		Sunday		Weekday		Saturday		Sunday	
Trip Type	Vehicle		Vehicle		Vehicle		Vehicle		Vehicle		Vehicle	
# Data Sites	6		2		1		10		1		1	
	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
12:00	0.3	5.5	0.9	7.6	1.0	6.8	0.7	5.4	0.0	8.0	0.0	12.3
12:15	0.3	5.6	0.7	8.8	1.0	9.4	0.7	5.3	0.0	10.6	0.0	12.3
12:30	0.2	5.8	0.6	9.3	0.5	9.9	0.6	5.2	0.0	11.7	0.0	12.3
12:45	0.2	6.1	0.7	8.5	1.0	7.3	0.5	4.9	0.0	9.6	0.0	10.3
1:00	0.2	6.0	0.5	8.2	1.0	7.8	0.4	4.6	0.0	7.4	0.0	12.3
1:15	0.2	6.1	0.5	7.7	1.0	4.7	0.3	4.9	0.0	3.2	0.0	8.9
1:30	0.2	6.2	0.4	6.8	0.5	5.2	0.3	5.0	0.0	2.1	0.0	8.2
1:45	0.1	6.2	0.4	8.2	0.0	6.3	0.3	5.6	0.0	3.7	0.0	8.2
2:00	0.1	6.6	0.4	8.6	0.0	4.2	0.3	5.7	0.0	5.3	0.0	8.2
2:15	0.1	6.8	0.4	9.2	0.0	4.2	0.4	5.7	0.0	5.9	0.0	8.2
2:30	0.1	6.7	0.4	9.4	0.0	3.6	0.4	6.3	0.0	5.3	0.0	6.2
2:45	0.1	7.1	0.4	9.3	0.0	2.6	0.3	5.9	0.0	5.9	0.0	6.2
3:00	0.2	7.2	0.6	10.0	0.5	5.2	0.4	6.2	0.0	5.9	0.0	3.4
3:15	0.2	7.7	0.9	8.2	0.5	7.3	0.3	6.5	0.0	6.9	0.0	5.5
3:30	0.3	8.5	0.8	8.6	0.5	8.9	0.4	6.4	0.0	5.9	0.0	6.8
3:45	0.5	8.9	0.8	7.2	0.5	11.5	0.6	7.0	0.0	5.3	0.0	6.2
4:00	0.6	9.0	0.6	6.2	0.0	9.9	0.6	7.6	0.0	5.9	0.0	6.2
4:15	0.7	8.9	0.2	7.0	1.0	9.9	0.7	8.1	0.0	6.4	0.0	2.7
4:30	1.0	8.9	0.5	7.3	1.6	9.9	0.8	8.8	0.5	9.0	0.7	4.1
4:45	1.0	8.9	0.6	7.7	2.1	10.4	1.0	9.2	1.1	8.5	1.4	6.2
5:00	1.2	8.8	0.9	8.0	2.1	11.5	1.3	9.1	1.1	10.1	1.4	7.5
5:15	1.6	8.6	1.1	7.4	1.6	10.4	1.6	9.2	1.1	10.1	1.4	8.9
5:30	2.0	8.3	0.9	6.5	1.0	9.4	1.9	9.0	0.5	9.6	0.7	8.9
5:45	2.9	7.9	0.9	5.9	1.0	6.8	2.4	8.2	0.0	11.2	0.7	6.2
6:00	3.8	7.2	0.9	5.4	1.6	7.3	2.9	7.9	1.1	8.5	1.4	4.8
6:15	4.5	6.7	1.2	5.6	1.0	6.8	3.8	7.2	2.1	6.4	2.7	4.8
6:30	5.4	6.0	1.5	5.3	1.6	7.3	4.9	6.6	2.1	4.8	2.7	3.4
6:45	6.2	5.6	1.9	5.9	2.1	8.9	6.3	6.4	2.1	3.7	2.1	3.4
7:00	6.7	5.2	1.9	5.6	2.1	6.8	7.4	5.7	2.7	2.7	1.4	3.4
7:15	7.3	5.0	2.5	5.8	3.1	6.3	7.7	5.4	1.6	4.3	2.7	4.1
7:30	7.1	4.8	3.5	5.8	3.6	5.7	7.7	5.4	1.6	4.8	4.1	2.7
7:45	6.6	4.7	3.8	5.4	3.6	4.2	6.9	4.9	2.7	4.3	6.2	2.7
8:00	6.2	4.7	4.3	5.0	3.1	5.2	6.3	5.1	1.6	3.7	6.8	2.7
8:15	5.7	4.5	4.7	3.6	2.6	4.2	6.0	4.8	2.7	4.8	6.2	0.7
8:30	5.1	4.3	4.0	3.2	3.1	2.6	5.6	4.1	4.3	4.3	6.2	1.4
8:45	4.9	3.7	4.8	2.8	2.1	1.6	5.5	4.1	4.3	3.2	4.8	1.4
9:00	4.3	3.4	5.2	2.1	3.6	0.0	5.3	3.6	6.9	3.7	6.2	0.7
9:15	4.1	2.8	5.4	2.2	5.2	0.0	5.1	3.6	9.0	2.7	5.5	2.1
9:30	4.4	2.3	6.0	2.1	6.3	0.0	4.6	3.6	10.1	3.2	5.5	1.4
9:45	4.4	2.0	7.3	1.5	10.9	0.5	4.1	3.3	12.2	4.3	8.9	2.1
10:00	4.8	1.6	7.9	1.3	12.5	0.5	4.0	2.9	9.6	3.7	10.3	2.7
10:15	5.0	1.3	8.1	0.9	13.0	0.5	4.3	2.2	7.4	2.1	11.6	1.4
10:30	5.0	1.2	7.7	0.9	11.5	0.5	4.7	1.8	6.4	2.7	11.6	1.4
10:45	5.2	1.2	6.2	0.8	9.4	0.0	5.2	1.4	5.9	1.6	8.9	0.7
11:00	5.2	1.0	6.5	1.4	7.3	0.0	5.3	1.2	10.6	1.6	8.2	0.0
11:15	5.3	0.8	6.5	1.4	6.3	0.0	5.3	1.0	11.2	1.6	10.3	0.0
11:30	5.4	0.7	7.2	1.5	5.7	1.0	5.2	0.8	11.2	0.0	11.6	0.0
11:45	5.4	0.4	7.9	1.3	6.3	1.0	5.4	0.7	10.6	0.0	13.7	0.0

Station .5 Mile Transit Zone: Metra Burlington Northern (BNSF); Naperville Metra	
Year Opened: (1)	Pre-2000
Latitude: (2)	41.7797222
Longitude: (2)	-88.1455556
Average Travel Time to Work: (3)	29.17
Median Household Income 2009: (4)	74,698
Percent who take public transportation 2009: (5)	8.56
Percent who bicycle 2009: (6)	1.25
Percent who walk 2009: (7)	9.94
Percent who take public transportation, bicycle or walk 2009: (8)	19.75
Average number of vehicles available per household 2009: (9)	1.56
Average number of vehicles available per household 2009: Owner Occupied: (10)	1.85
Average number of vehicles available per household 2009: Renter Occupied: (11)	1.27
Percent of households with 0 or 1 vehicle available 2009: (12)	52.06
Median Year Structure Built 2009: (13)	1,955

- 1 The year in which this station opened. This value is intended to inform the analysis of available statistics, and therefore all stations open prior to 2000 report as "Pre-2000", the year of the earliest available statistic.
- 2 Station location, current as of July 1, 2020. Station locations are updated (as necessary) on a quarterly basis which may result in changes in aggregated data.
- 3 American Community Survey 2005-2009 5-Year Estimates b08013_001 / b08132_001 aggregated from Census 2009 Tracts
- 4 American Community Survey 2005-2009 5-Year Estimates b19013_001 aggregated from Census 2009 Block Groups
- 5 American Community Survey 2005-2009 5-Year Estimates (b08301_010) / (b08301_001) aggregated from Census 2009 Block Groups
- 6 American Community Survey 2005-2009 5-Year Estimates (b08301_018) / (b08301_001) aggregated from Census 2009 Block Groups
- 7 American Community Survey 2005-2009 5-Year Estimates (b08301_019) / (b08301_001) aggregated from Census 2009 Block Groups
- 8 American Community Survey 2005-2009 5-Year Estimates (b08301_010 + b08301_018 + b08301_019) / (b08301_001) aggregated from Census 2009 Block Groups
- 9 American Community Survey 2005-2009 5-Year Estimates b25046_001 / b25044_001 aggregated from Census 2009 Block Groups
- 10 American Community Survey 2005-2009 5-Year Estimates b25046_002 / b25044_002 aggregated from Census 2009 Block Groups
- 11 American Community Survey 2005-2009 5-Year Estimates b25046_003 / b25044_009 aggregated from Census 2009 Block Groups
- 12 American Community Survey 2005-2009 5-Year Estimates (b25044_003+b25044_004+b25044_010+b25044_011) / b25044_001 aggregated from Census 2009 Block Groups
- 13 American Community Survey 2005-2009 5-Year Estimates b25035_001 aggregated from Census 2009 Block Groups