

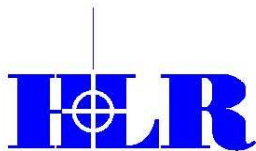
# **Prairie Centre Traffic Impact Study**

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## I. Executive Summary

Shodeen Group has proposed redevelopment the former St. Charles Mall site on IL Route 38 just east of Randall Road in St. Charles, Illinois. Shodeen Group has previously proposed a number of redevelopment concepts, none of which has been executed. Hampton, Lenzini and Renwick, Inc. (HLR) provided traffic engineering services to the City of St. Charles on most of those previous concepts, the most recent of which was in the form of a Traffic Impact Study in 2010. At that time, the development was known as the St. Charles Towne Centre.

The current concept is a mixed-use development called the St. Charles Prairie Centre. The Prairie Centre property is a 26± acre site located on the block bounded by IL Route 38 (Lincoln Highway), Randall Road, Prairie Street, and 14<sup>th</sup> Street in the City of St. Charles. See the Appendix for a general location map of the study area, an aerial photo overview and a preliminary plan of the proposed development. The concept plan consists of a mix of restaurant, retail, and residential spaces. The current concept plan is similar to the 2010 concept but includes shorter buildings and fewer units. As currently proposed, the Prairie Centre will utilize and improve existing access locations onto IL Route 38 and Prairie Street. No new access points to the surrounding street system are proposed.

### Existing Traffic Conditions

Peak period turning movement traffic counts were conducted on weekdays from 6:00 – 9:00 AM and from 3:30 – 6:30 PM and on Saturdays from 11:00 AM – 2:00 PM in May 2016 at the following 16 intersections:

- IL Route 38 & Randall Road
- IL Route 38 & Jewel Driveway
- IL Route 38 & West Mall Entrance
- IL Route 38 & East Mall Entrance/Vanderbilt Drive
- IL Route 38 & 14<sup>th</sup> Street/Bricher Road
- Randall Road & Prairie Street
- Prairie Street & Jewel Driveway
- Prairie Street & West Mall Entrance
- Prairie Street & East Mall Entrance
- Prairie Street & Covington Court/Wessel Court
- Prairie Street & 16<sup>th</sup> Street
- Prairie Street & 14<sup>th</sup> Street
- Prairie Street & 7<sup>th</sup> Street
- Prairie Street & 3<sup>rd</sup> Street
- 14<sup>th</sup> Street & Vanderbilt Drive
- 14<sup>th</sup> Street & Covington Court/Horne Street

Thirteen-hour weekday counts were also collected from 6:00 AM – 7:00 PM at three intersections on Prairie Street: at 14<sup>th</sup> Street, 7<sup>th</sup> Street and 3<sup>rd</sup> Street.

### Traffic Projections

To account for increases in overall traffic growth beyond what the proposed developments will generate, the existing traffic volumes were increased using growth rates provided by the Chicago Metropolitan Agency for Planning (CMAP). A copy of the memo from CMAP regarding these growth rates is included in the Appendix.

Estimated Site-Generated Traffic

Site-generated traffic was estimated using the ITE's *Trip Generation Manual, 9<sup>th</sup> Edition*. Land use assumptions were based on information provided by the developer. The residential units were modeled with ITE Code 220, Apartment. The restaurant units were modeled as a combination of ITE Code 932, High-turnover (Sit-down) Restaurant, and ITE Code 934, Fast-food Restaurant with Drive-through Window. The retail units were modeled with ITE Code 826, Specialty Retail Center, except for the weekday AM peak hour, for which ITE Code 820, Shopping Center, was determined to be more reasonable. Adjustments were made to the generated trip amounts for a combined 20% internal capture and pass-by reduction applied to the appropriate uses. The table below summarizes the resulting generated traffic volumes.

**Total New Trips after all Adjustments in veh/hr**

Peak Hour	In	Out	Total
Weekday AM	377	476	853
Weekday PM	493	377	870
Saturday	477	450	927

Source: ITE *Trip Generation Manual, 9<sup>th</sup> Edition*

Analyses and Recommendations

Capacity analyses were performed for the study area intersections using Synchro and Highway Capacity Software. The analyses were run for the weekday AM and PM peak hours and the Saturday peak. Analyses were performed for the 2016 Existing Traffic, 2026 Base Year Traffic, and the 2026 Total Traffic. Signal warrants were also analyzed for three intersections on Prairie Street. The resulting recommendations are summarized below. Where a study area intersection is not listed below, no improvements are recommended, and no significant issues were discovered.

IL Route 38 & Randall Road: This intersection and its turn lanes have sufficient capacity to accommodate the projected 2026 Total Site traffic. Individual movements may operate at LOS E or F, though this is not entirely attributed to the Prairie Centre Development as this occurs in the 2026 Base Traffic scenario also. The proposed future Kane County improvement to add through-traffic lanes to Randall Road will further enhance the capacity of this intersection. No improvements to this intersection are recommended as a result of the proposed development.

IL Route 38 & West Mall Entrance: The site plans show conversion of the southbound approach to consist of an exclusive left turn lane, an exclusive through lane, and an exclusive right turn lane. Additionally, the northbound and southbound left turn phases should be converted to protected-permissive phasing.

IL Route 38 & 14<sup>th</sup> Street: This intersection has the overall capacity to accommodate the projected 2026 Total Traffic. Consideration should be made for adding a northbound right turn lane to reduce existing delays and queues on that approach. No improvements are recommended in connection with the development.

Randall Road & Prairie Street: This intersection has the overall capacity to accommodate the projected 2026 Total Traffic. However, there are existing issues with the westbound left turn queues and with the interaction between this intersection and the Randall Road and IL

Route 38 intersection. Reconfiguration of the westbound approach and the driveways on that leg could help address this problem. Further, the planned widening of Randall Road will help alleviate these issues. However, since these are existing issues, no specific improvements are recommended as part of this development.

Prairie Street & 14<sup>th</sup> Street: Under 2026 traffic, the northbound left will enter LOS F range during the PM peak hour. However, this intersection has the overall capacity to accommodate the 2026 Total Traffic volumes, with queues reaching four vehicles at most. Although traffic signal warrants are met under the existing traffic at the intersection, installation of traffic signal control is not recommended at this time.

Prairie Street & 7<sup>th</sup> Street: Base Year average delays for this intersection reach LOS F during the PM peak hour. Traffic signal control is warranted under existing traffic. A number of improvements could alleviate delays, including signalization or conversion to a roundabout. No improvements are recommended as a part of the development, as the issues here are primarily existing.

Prairie Street & 3<sup>rd</sup> Street: Base Year average delays for this intersection reach LOS F during the PM peak hour. Traffic signal control is warranted under existing traffic. A number of improvements could alleviate delays, including signalization or conversion to a roundabout. No improvements are recommended as a part of the development, as the issues here are primarily existing.

In summary, few improvements are recommended with this development. The analyses revealed existing concerns within the study area, particularly along Randall Road and along the east end of Prairie Street. While the Prairie Centre development related traffic is expected to contribute to these concerns, the analyses show that the problems will not be avoided by preventing the development.

Kane County has plans to widen Randall Road through the study area limits, which is expected to address the vast majority of issues at the Randall Road intersections. The Prairie Street intersections at 14<sup>th</sup> Street, 7<sup>th</sup> Street, and 3<sup>rd</sup> Street could be improved with signalization, conversion to modern roundabouts, or other possible solutions, as determined by the City of St. Charles.

## II. Introduction

Shodeen Group has proposed redevelopment of their property on IL Route 38 just east of Randall Road in St. Charles, Illinois. The St. Charles Mall previously occupied this property before closing in 1996 and later being demolished. Since then, Shodeen Group has proposed a number of redevelopment concepts, none of which has been executed. Hampton, Lenzini and Renwick, Inc. (HLR) provided traffic engineering services to the City of St. Charles on most of those previous concepts, the most recent of which was in the form of a Traffic Impact Study in 2010. At that time, the development was known as the St. Charles Towne Centre.

The current concept is a mixed-use development called the St. Charles Prairie Centre. The Prairie Centre property is a 26± acre site located on the block bounded by IL Route 38 (Lincoln Highway), Randall Road, Prairie Street, and 14<sup>th</sup> Street in the City of St. Charles. See Exhibit 1A at the end of the report for a general location map of the study area. Exhibit 1B displays an aerial photo overview of the existing development parcel and adjoining land uses. A preliminary plan of the proposed development is included as Exhibit 2.

The Prairie Centre concept plan consists of a mix of restaurant, retail, and residential spaces. The current concept plan is similar to the 2010 concept but includes shorter buildings and fewer units. As currently proposed, the Prairie Centre will utilize and improve existing access locations onto IL Route 38 and Prairie Street. No new access points to the surrounding street system are proposed.

## III. Existing Conditions

A field reconnaissance of the site was conducted to inventory information on surrounding land uses and the area roadway network. In addition, traffic counts were conducted during the morning, evening and Saturday peak periods at 16 critical intersections.

### Surrounding Land Uses

Land uses surrounding the site are predominantly residential to the north and east and predominantly commercial to the south and west. A Jewel supermarket adjoins the west edge of the site, while a series of retail stores adjoin the southeast edge.

### Surrounding Roadway Network

The major roadways servicing the study area are Randall Road and IL Route 38. Prairie Street is a collector route that also provides access to this area. 14<sup>th</sup> Street is a minor collector street to which the site will also have indirect access. A brief description of these roadways is provided below:

- **Illinois Route 38**, along the frontage of the proposed site, is a four-lane, two-way, east-west major arterial roadway. There is a flush median along the frontage of the site with pavement striping providing left turn lanes at both existing full-access entrances into the site. The western entrance is controlled by traffic signals. The eastern entrance is controlled by a stop sign on the entrance approach. Approaching Randall Road, the IL Route 38 median is raised and widens to provide dual left turn lanes at the Randall Road intersection. IL Route 38 is under the jurisdiction of IDOT and is posted with a 45 miles-

per-hour (mph) speed limit. It has *not* been designated as a Strategic Regional Arterial (SRA) by IDOT.

- **Randall Road** is a major north-south arterial roadway. Through this area, Randall Road provides two through lanes in each direction with left turn lanes at intersections. Randall Road is under the jurisdiction of the Kane County Division of Transportation (KDOT) and has been designated as an SRA. Randall Road is posted with a 45 mph speed limit. The Randall Road intersections with IL Route 38 and with Prairie Street are controlled by traffic signals, which are interconnected with signalized intersections to the north and south along Randall Road, as well as to the east and west along IL Route 38.
- **Prairie Street**, along the frontage of the proposed site, is a three-lane, two-way collector street. Prairie Street extends from Randall Road east over the Fox River to Riverside Avenue. Its intersection with Randall Road is controlled by traffic signals. Its intersections with 7<sup>th</sup> Street and with 3<sup>rd</sup> Street are controlled by all-way stop signs. Prairie Street is under the jurisdiction of the City of St. Charles and is posted with a 30 mph speed limit (25 mph east of 3<sup>rd</sup> Street).
- **14<sup>th</sup> Street** is a two-lane, two-way, north-south collector street that extends from IL Route 38 north to Prairie Street. 14<sup>th</sup> Street is under the jurisdiction of the City of St. Charles and is posted with a 25 mph speed limit.

Two other nearby streets of interest include 16<sup>th</sup> Street and Horne Street. 16<sup>th</sup> Street is a local street that extends north from Prairie Street and provides a connection to the neighborhood north of Prairie Street and east of Randall Road. Horne Street is a collector street that extends from IL Route 31 west to 14<sup>th</sup> Street. The westernmost three blocks of this route consist of several turns before Horne Street intersects 14<sup>th</sup> Street.

#### Existing Traffic Conditions

Peak period turning movement traffic counts were conducted on weekdays from 6:00 – 9:00 AM and from 3:30 – 6:30 PM and on Saturdays from 11:00 AM – 2:00 PM in May 2016 at the following 16 intersections:

- IL Route 38 & Randall Road
- IL Route 38 & Jewel Driveway
- IL Route 38 & West Mall Entrance
- IL Route 38 & East Mall Entrance/Vanderbilt Drive
- IL Route 38 & 14<sup>th</sup> Street/Bricher Road
- Randall Road & Prairie Street
- Prairie Street & Jewel Driveway
- Prairie Street & West Mall Entrance
- Prairie Street & East Mall Entrance
- Prairie Street & Covington Court/Wessel Court
- Prairie Street & 16<sup>th</sup> Street
- Prairie Street & 14<sup>th</sup> Street
- Prairie Street & 7<sup>th</sup> Street
- Prairie Street & 3<sup>rd</sup> Street
- 14<sup>th</sup> Street & Vanderbilt Drive
- 14<sup>th</sup> Street & Covington Court/Horne Street

Exhibit 3 in Appendix A presents the existing peak hour volumes at these intersections. Thirteen-hour weekday counts were also collected from 6:00 AM – 7:00 PM at three intersections on Prairie Street: at 14<sup>th</sup> Street, 7<sup>th</sup> Street and 3<sup>rd</sup> Street. It should be noted that the St. Charles Mall was demolished in 2002, well before the traffic counts were performed.

Traffic Projections

To account for increases in overall traffic growth beyond what the proposed developments will generate, the existing traffic volumes depicted on Exhibit 3 were increased at a rate of 1.04 percent per year on IL Route 38, 0.63 percent per year on Randall Road, 2.56 percent per year on Prairie Street, and 1.17 percent per year on 14th Street for 12 years. These growth rates were provided by the Chicago Metropolitan Agency for Planning (CMAP). A copy of the memo from CMAP regarding these growth rates is included in Appendix J. These increased traffic volumes were used to develop the 2026 Base Year Traffic.

Traffic generated by the new CVS Pharmacy and its outlots was added to the 2026 Base Year Traffic. This development was under construction at the time this study was executed. Table 1 below shows the traffic volumes added to the 2026 Base Year Traffic volumes. The traffic generated by this site was estimated using the Institute of Transportation Engineers’ (ITE) *Trip Generation Manual, 9<sup>th</sup> Edition*. The ITE numbers referenced in Table 1 refer to the land use codes from the *Trip Generation Manual*. The final 2026 Base Year Traffic (no development) volumes can be seen in Exhibit 4.

**Table 1  
2026 Base Traffic Adjustments**

Land Use	Weekday AM		Weekday PM		Saturday	
	In	Out	In	Out	In	Out
CVS Pharmacy (ITE 934)	22	20	59	59	48	49
Outlot (ITE 826)	13	15	14	16	1	1
Total Adjustment	35	35	73	75	49	50

Source: ITE Trip Generation Manual, 9<sup>th</sup> Edition

Capacity Analysis – Existing Traffic and 2026 Base Traffic

Capacity analyses of existing and 2026 Base Year (estimated short-term, no development) weekday AM and PM and Saturday mid-day peak hour traffic conditions were conducted at the aforementioned intersections.

Level of Service (LOS) criteria for signalized and stop sign controlled intersections are based on the methodologies presented in the *Highway Capacity Manual* (HCM) published by the Transportation Research Board (TRB). LOS criteria range from “A” (good) to “F” (poor) and are based on average delay. It should be noted that the LOS thresholds are different for signalized and stop sign controlled intersections. At two-way stop intersections, LOS criteria for stop sign controlled intersections are defined for each minor movement and are *not* defined for the intersection as a whole. The LOS delay thresholds for stop sign controlled intersections are also lower than for signalized intersections since driver expectation at a signalized intersection is for a greater delay. The LOS criteria for signalized and stop sign controlled intersections are presented in Table 2.



**Table 2**  
**Level of Service Criteria for Signalized and Stop Sign Controlled Intersections**

<b>Signalized Intersections</b>		
<b>Level of Service</b>	<b>Type of Operating Condition</b>	<b>Average Vehicle Delay (seconds)</b>
A	Very low delay, most vehicles arrive during the green and do not stop at all.	≤ 10.0
B	More vehicles stop at the traffic signal than LOS “A”, but otherwise good progression of traffic through the intersection.	10.1 – 20.0
C	Congestion starts to occur; number of vehicles stopping at the intersection is significant.	20.1 – 35.0
D	Congestion is more noticeable, longer delays; some vehicles may not clear on a single cycle.	35.1 – 55.0
E	High delays, poor progression through intersection. Most vehicles do not clear the intersection on a single cycle.	55.1 – 80.0
F	Unacceptable high delay to drivers, demand exceeds capacity, increasing queue lengths.	> 80.0

**Stop Sign Controlled Intersections**

<b>Level of Service</b>	<b>Average Control Delay (sec/veh.)</b>
A	0 – 10
B	>10 – 15
C	>15 – 25
D	>25 – 35
E	>35 – 50
F	>50

Source: *Highway Capacity Manual 2000*, Transportation Research Board, National Research Council, Washington, D.C.

Table 3 presents the existing and 2026 Base Year (projected short-term) traffic operations at the signalized intersections studied. Analysis of 2016 existing traffic was conducted using existing signal controller settings and existing intersection geometry. Analysis of 2026 Base Year Traffic retained existing intersection geometry but assumed that the traffic signal timings would be re-optimized. Copies of the capacity analysis summaries conducted for the existing critical intersections are included in Appendices E and F.

**Table 3**  
**Summary of Existing and Base Year (no development) Traffic Conditions**  
**Intersection Level of Service (LOS) and Delay (seconds)**

**Signalized Intersections**

Intersection	Existing 2016 Traffic			Base Year 2026 Traffic (no site)		
	AM Peak	PM Peak	Sat Peak	AM Peak	PM Peak	Sat Peak
IL 38 & Randall Rd	D (39)	D (43)	D (43)	D (40)	D (49)	D (45)
IL 38 & West Mall Entrance	A (6)	A (6)	A (5)	A (6)	A (8)	A (7)
IL 38 & 14 <sup>th</sup> St	C (28)	C (32)	C (34)	C (24)	D (37)	C (31)
Prairie St & Randall Rd	B (11)	C (23)	C (28)	B (12)	D (42)	D (44)

It should be noted that some individual movements operate at LOS E or F. Table 4 gives a detailed breakdown of the 2026 Base Year Traffic, showing each individual movement's Level of Service.

**Table 4**  
**LOS & Delay by Movement for 2026 Base Traffic**

Intersection	Peak Hour	Overall LOS & (delay)	LOS & (delay) by Movement											
			Eastbound			Westbound			Northbound			Southbound		
			L	T	R	L	T	R	L	T	R	L	T	R
IL 38 & Randall Rd	AM	D (40)	E (72)	D (54)	A (0)	E (67)	D (53)	B (15)	E (74)	D (38)	A (0)	F (81)	C (22)	A (3)
	PM	D (49)	F (84)	D (49)	A (6)	E (74)	E (73)	D (38)	E (77)	E (57)	A (0)	F (87)	C (28)	A (7)
	Sat	D (45)	F (87)	E (61)	A (9)	F (87)	F (87)	D (32)	E (63)	D (40)	A (1)	E (71)	C (26)	A (2)
IL 38 & W Mall Entrance	AM	A (6)	A (2)	A (6)		A (2)	A (2)		E (57)	B (17)		D (49)	D (48)	A (0)
	PM	A (8)	A (3)	A (6)		A (1)	A (5)		E (58)	B (15)		D (51)	D (46)	A (0)
	Sat	A (7)	A (3)	A (7)		A (1)	A (3)		D (49)	B (13)		D (43)	D (40)	A (0)
IL 38 & 14 <sup>th</sup> St	AM	C (24)	B (11)	B (19)		B (14)	B (19)		C (25)	D (43)		C (33)	D (35)	
	PM	D (37)	C (27)	C (38)		C (23)	C (34)		C (24)	E (56)		C (35)	D (40)	
	Sat	C (31)	B (16)	C (31)		D (37)	C (28)		B (18)	D (39)		C (24)	C (30)	
Prairie St & Randall Rd	AM	B (12)	D (45)	D (36)		E (68)	D (51)	A (10)	A (2)	A (5)		B (15)	B (12)	
	PM	D (42)	D (50)	D (37)		F (292)	E (61)	C (33)	B (11)	C (30)		D (43)	B (19)	
	Sat	D (44)	D (41)	D (53)		F (103)	D (53)	D (38)	B (16)	D (47)		E (75)	C (32)	

Analysis results show the following:

IL Route 38 and Randall Road: Under existing conditions and signal timings, this intersection operates at an over-all Level of Service D, although some individual movements currently operate at LOS E or F during peak times. With background traffic growth projected to 2026, and signal timings re-optimized, there will be both slight increases and slight decreases in delay depending on the particular movement and peak hour. Some vehicle queues do exceed turn lane storage lengths in both analyses, including some through-lane queues that extend beyond the turn lane tapers, periodically blocking entry by turning vehicles until through traffic moves up. Traffic volumes currently approach the capacity of the intersection and are expected to remain so under 2026 Base Year Traffic conditions.

IL Route 38 and the West Mall Entrance: Analyses of existing traffic using existing signal timing settings show minimal delays to IL Route 38 traffic through this intersection. Drivers on the shopping center driveway approaches experience delays in the range of LOS D. Currently, IL Route 38 traffic is assigned about 75% of the available green time, which is an appropriate balance based on traffic volumes and the need to move traffic on the arterial route. Traffic volumes currently do not exceed the capacity of the intersection and are not expected to do so under 2026 Base Year Traffic conditions.

IL Route 38 and 14<sup>th</sup> Street: Traffic on IL Route 38 currently operates at an acceptable LOS C with small increases to delay in the projected 2026 base year. Vehicle queues do not exceed turn lane storage lengths in either analysis, although through-lane queues will extend beyond the turn lane tapers, periodically blocking entry by turning vehicles until through traffic moves up. As the volume of through traffic increases on IL Route 38, delays for all left turns and cross street movements will increase. However, analyses of existing and the 2026 base year show that traffic will not exceed the capacity of the intersection. Note that there are also lengthy delays on the northbound approach. Addition of a northbound right turn lane could reduce these delays. However, as mitigation for an existing issue, this improvement is not recommended as part of this study.

Prairie Street and Randall Road: Analysis of existing traffic shows that the overall Level of Service at this intersection is B to C. However, during PM and Saturday peak periods, the queue of westbound left turning traffic significantly overflows the westbound left turn lane. This movement operates at LOS E or F during these times. Green time for Prairie Street is limited by the need to provide adequate time for the large volume of traffic flowing on Randall Road and to keep these movements coordinated with the nearby IL Route 38/Randall Road intersection to the south. The existing peak period overflow of the westbound left turn lane will frequently block the Jewel Supermarket driveway, as well as the entrance to the retail strip mall on the south side of the street west of the Jewel store. These entrances could be converted to allow only right turns to reduce potential conflicts for left turning driveway traffic with the westbound queues from Randall Road. The retail development on the north side of Prairie Street has access to another Prairie Street driveway 200 feet to the east, and the Jewel supermarket has access to another Prairie Street driveway about 500 feet to the east. Additionally, the full access entry to the Jewel site could be relocated to align with the drive aisle at the front of the Jewel store to maintain Jewel's current access. Cross access from the Jewel site would need to be provided to the retail strip mall in the southeast corner of Randall Road and Prairie Street, since that site's full access on Prairie Street is currently its only access. This driveway conversion would enable the Prairie Street westbound left turn

lane at Randall Road to be lengthened, allowing traffic to clear more efficiently during the westbound left turn arrow. In order to reinforce the right-turn-only operation of these driveways and prevent illegal left turns, the flush median on Prairie Street would need to be converted to a raised median from Randall Road at least along the length of the extended westbound left turn lane and preferably to the relocated full access Jewel driveway.

In the 2026 PM and Saturday peak hours, northbound through queues are expected to spill back into the Randall Road/IL Route 38 intersection. The best way to alleviate this concern is to construct the planned widening of Randall Road to six lanes, which is discussed in detail later in this report.

Table 5 shows a summary of analysis results for stop sign controlled intersections. Capacity analyses of stop sign controlled intersections provide Levels of Service and delays for individual intersection movements, but not the intersection as a whole. Results for the most critical movement at each intersection are shown in the table below.

**Table 5  
Summary of Existing and Base Year (no development) Traffic Conditions  
Level of Service (LOS) and Delay (seconds)  
Stop Sign Controlled Intersections**

Critical Movement	Existing 2016 Traffic			Base Year 2026 Traffic (no site)		
	AM Peak	PM Peak	Sat Peak	AM Peak	PM Peak	Sat Peak
East Mall Entrance at IL 38	SB D (25)	SB D (28)	NB E (45)	NB C (23)	SB F (62)	NB F (85)
Prairie St at West Mall Ent.	NB A (9)	NB B (12)	NB B (10)	NB B (11)	NB B (13)	NB B (11)
Prairie St at East Mall Entrance	NBL B (13)	NBL C (15)	NBL B (13)	NBL B (15)	NBL C (19)	NBL C (16)
Prairie St at 16 <sup>th</sup> St	SB B (12)	SB B (15)	SB B (13)	SB B (14)	SB C (19)	SB C (17)
Prairie St at 14 <sup>th</sup> St	NBL C (16)	NBL D (31)	NBL C (19)	NBL C (20)	NBL F (73)	NBL D (33)
Prairie St at 7 <sup>th</sup> St	EB D (26)	WB D (27)	EB B (13)	EB E (39)	WB F (82)	EB C (16)
Prairie St at 3 <sup>rd</sup> St	EB D (27)	WB E (36)	WB B (14)	EB E (50)	WB F (197)	WB C (21)
14 <sup>th</sup> St at Covington Ct	WB B (12)	WB C (17)	WB B (12)	WB B (13)	WB C (19)	WB B (14)
14 <sup>th</sup> St at Vanderbilt Dr	EB B (11)	EB B (12)	EB B (12)	EB B (12)	EB B (15)	EB B (14)

Analysis of existing conditions and 2026 Base Year (no development) Traffic shows that the critical movements at the majority of the stop-controlled intersections included in the analysis operate at acceptable LOS D. There are some exceptions described below, which operate below LOS D.

East Mall Entrance at IL Route 38: The northbound approach during the Saturday peak hour currently has an LOS E. Both northbound and southbound are projected to have LOS F in

2026, with delays reaching 85 seconds for northbound traffic in the Saturday peak. The delays to the Entrance can be attributed to the large volume of east- and westbound through traffic conflicting with the left turning traffic from the Entrance. The expected 95% queue approaches 70 feet (almost three vehicles) in 2026.

Prairie Street at 14<sup>th</sup> Street: The northbound left turn movement during the 2026 Base Year PM peak hour is expected to reach LOS F, with delays up to 73 seconds. This delay can be attributed to the northbound left turning traffic having to wait for a sufficient gap in the east- and westbound through traffic. This approach is not expected to have any queuing problems, as the expected 95% queue is only 75 feet (three vehicles) which is well within the provided storage length. Although traffic signal warrants are met under the existing traffic at the intersection, installation of traffic signal control is not recommended at this time. The intersection currently operates satisfactorily under stop sign control. Further, signalization of the intersection could contribute to or create operational problems at Prairie Street and 16<sup>th</sup> Street, likely due to the resulting eastbound queues. Conversely, it could create gaps for turning traffic to enter Prairie Street by creating platoons and gaps of vehicles on Prairie Street. It is therefore recommended that there be no immediate change made to the intersection traffic control or geometry and that the intersection be monitored periodically as the site is developed, for example after each development phase, to determine the need for any changes in traffic control or geometry. If traffic control changes are to be made in the future, careful attention should be paid to the impacts on the adjacent 16<sup>th</sup> Street intersection.

Prairie Street at 7<sup>th</sup> Street: The eastbound and westbound movements are expected to experience LOS E or F during the weekday peaks in 2026, with the highest delay at 82 seconds. This delay can be attributed primarily to the large volume of traffic using Prairie Street during these peak periods. Despite these delays, the analysis results show the intersection approaching capacity in this scenario.

Prairie Street at 3<sup>rd</sup> Street: The westbound movement during the PM peak hour has an LOS E. In the base year 2026 scenario, that LOS drops to F, while the eastbound approach drops to E in the AM peak. In the 2026 PM peak, the eastbound and southbound movements also drop to LOS F. Delays up to 197 seconds are anticipated. This delay can be attributed primarily to the large volume of traffic using this intersection. The analysis results show the intersection approaching capacity. Even with some capacity at this intersection, attention should be paid to the interaction of traffic here with the intersection of IL Route 31 and Prairie Street. Based on the data, this will be of primary concern for westbound traffic during the PM peak. Queues at this intersection are likely to back into the IL Route 31 intersection. Also, eastbound queues from the IL Route 31 intersection could back into this intersection.

#### IV. Site Traffic Characteristics of Proposed Development

##### Proposed Land Uses

The concept plan for the proposed development includes the following uses:

- Residential
- Restaurant
- Retail

The current site plan has a number of restaurants along the IL Route 38 frontage, with some sit-down type restaurants and some fast food. The remainder of the site consists of 16 four-story

buildings. The central ones are planned to be residential consisting of apartments. Those closer to IL Route 38 and to Prairie Street will have apartments on the upper floors, while the ground floor will be retail.

The proposed site will also include the necessary access lanes, parking lots, and landscaped areas required by City ordinances. Access to the site is proposed via the following locations:

- IL Route 38 & Jewel right-turns-only driveway (existing, near west edge of site)
- IL Route 38 & West Mall Entrance (existing)
- IL Route 38 & East Mall Entrance (existing, west of JiffyLube)
- Prairie Street & West Mall Entrance (existing, behind Jewel)
- Prairie Street & East Mall Entrance (existing)
- 14<sup>th</sup> Street & Vanderbilt Drive (existing indirect access, south of Binny’s)

The locations of proposed points of access can be seen on the aerial photo in Exhibit 1B and on the concept plan in Exhibit 2. For traffic projection purposes, it is assumed that traffic signal control will remain at the IL Route 38/West Mall Entrance intersection. All other entrances to the proposed site will be controlled by stop signs on the minor street approaches.

Estimated Site-Generated Traffic

Site-generated traffic was estimated using the ITE’s *Trip Generation Manual, 9<sup>th</sup> Edition*. The residential units were modeled with ITE Code 220, Apartment. The restaurant units were modeled as a combination of ITE Code 932, High-turnover (Sit-down) Restaurant, and ITE Code 934, Fast-food Restaurant with Drive-through Window. The retail units were modeled with ITE Code 826, Specialty Retail Center, which was determined to be the most appropriate use based on the information provided by the developer. However, there is no trip generation data for the weekday AM peak hour of adjacent street traffic for this use. The trip generation based on the weekday AM peak hour of the generator resulted in volumes that were much higher than seemed reasonable. Therefore, for the weekday AM peak hour trip generation estimates, the retail units were based on ITE Code 820, Shopping Center, weekday AM peak hour of adjacent street traffic. With the final site occupants unknown, it was determined that attempting further detail in land uses would be inappropriate at this time. The proposed land uses and sizes provided by the developer were used to estimate morning, evening, and Saturday peak hour trips to and from the site. The resulting generated traffic is shown in Table 6 below. Also refer to Appendix M for a more detailed breakdown.

**Table 6  
Trip Generation Table**

Land Use	ITE Code	Units	Qty	AM Peak Hour Volumes (veh/hr)			PM Peak Hour Volumes (veh/hr)			SAT Peak Hour Volumes (veh/hr)		
				In	Out	Total	In	Out	Total	In	Out	Total
Residential	220	DU	609	60	242	302	229	124	353	159	158	317
Retail	826	1000 SF	83	86	53	139	97	124	221	18	17	35
Sit-down Restaurants	932	1000 SF	26	156	127	283	155	103	258	196	173	369
Fast-food	934	1000 SF	7	161	155	316	118	109	227	209	201	410

Source: ITE *Trip Generation Manual, 9<sup>th</sup> Edition*

These projected trips have been adjusted for “internal capture” where there is potential for interaction among various uses within the multi-use site, i.e. between residential and restaurant

or between residential and retail. These trips occur entirely within the site and account for a portion of the trips generated by each land use. The capture rate of 15% percent was calculated using the ITE Internal Capture worksheet provided in Chapter 7 of the ITE *Trip Generation Handbook*. ITE internal capture estimation methods only pertain to PM peak hour scenarios. In order to determine the most accurate rate for AM and Saturday peaks, an internal capture field study would be required. Without conducting an internal capture field study, it is reasonable to apply the PM peak hour rate to all scenarios. A discussion of multi-use developments and internal capture from the ITE *Trip Generation Handbook* is included in Appendix N to this report for further reference.

The projected trip generation has also been adjusted for pass-by trips. Pass-by trips are those that already exist on the network but make an intermediate stop at the site location. For example, a driver on their way to work may leave their primary route to buy a cup of coffee and then re-enter their route at the same location. This would add turning movements to the intersection by diverting pre-existing main street through movements. A visual representation of this is provided in Exhibit 5. In the St. Charles Prairie Centre case, pass-by trip generation would not apply to the residential uses. A 5% pass-by rate was applied to the retail and restaurant uses. A higher pass-by rate would be reasonable given the proposed site uses, but IDOT limits the amount of internal capture and pass-by rates to a combined 20%. The resulting trip generation, in terms of its impact to the external intersections, is therefore conservatively high. It was determined that pass-by trips would most likely utilize primarily the West Mall Entrance on IL Route 38. The pass-by trip adjustment is provided in Exhibit 6. In Table 7, a summary is given of the total new trips generated after the internal capture and pass-by adjustments.

**Table 7**  
**Total New Trips after all Adjustments in veh/hr**

Peak Hour	In	Out	Total
Weekday AM	377	476	853
Weekday PM	493	377	870
Saturday	477	450	927

Source: ITE *Trip Generation Manual, 9<sup>th</sup> Edition*

Estimated Trip Distribution

The direction by which traffic will approach and depart the site is dependent on a variety of factors. These factors include existing travel patterns, characteristics and operating conditions of the surrounding roadways, ease of access, location of population and employment centers, and locations of similar competing uses. Based on these factors and a familiarity with the sites and the environs, trip distribution estimates were developed and are presented on Exhibit 7. Separate distribution factors were used for residential, office, and commercial trips, which are reflected in the exhibit. In that exhibit, the Commercial rates provided apply to the restaurant and retail uses. Note that the Commercial rates also apply to the CVS Pharmacy use and its outlots in the development of the 2026 Base Year Traffic.

Site Traffic Assignments

The estimated site-generated traffic volumes from the proposed development were assigned to the area roadway system based on the directional distribution identified above and on Exhibit 7. These volumes are the adjusted volumes, having removed internally captured trips and pass-by

trips, only leaving primary trips to and from the St. Charles Prairie Centre. The primary trip assignments for the proposed Prairie Centre development are illustrated on Exhibit 8 in Appendix A. The trip assignments presented on Exhibit 8 do *not* reflect assignment of the *off*-site development generated traffic from the CVS Pharmacy and its outlots described previously. These trips were included in the 2026 Base Year Traffic.

#### Total Traffic Assignments

The development's generated site traffic assignment was then combined with the pass-by traffic and the 2026 Base Year projected traffic to develop a Total Traffic Assignment, shown on Exhibit 9 in Appendix A.

## V. Future Traffic Operations

### Traffic Operations

Capacity analyses were conducted based on the traffic volumes estimated for the projected traffic assignments at the 16 intersections included in this study. Traffic signal warrant evaluation is discussed later in the report. There are several geometric improvements already included in these analyses. These improvements are those proposed at the entrances as shown on the developer's current concept plan. These improvements include reconstruction of the exit approaches to add or better demarcate turn lanes. The West Mall Entrance at IL Route 38 will have an exclusive left turn lane, an exclusive through lane, and an exclusive right turn lane on the exiting approach. At the East Mall Entrance on IL Route 38, the exiting approach will consist of an exclusive left turn lane and a shared through/right turn lane. The exiting approach of the East Mall Entrance on Prairie Street will have an exclusive left turn lane and an exclusive right turn lane. The lane configurations used in the 2026 Total Traffic analysis can be seen in Exhibit 10 in Appendix A.

For the analysis of 2026 Total Traffic conditions, no other geometric improvements were assumed. However, the signal timing plans were optimized for the anticipated traffic levels. There was one significant change recommended for this scenario. The existing northbound and southbound left turn phasing at the West Mall Entrance on IL Route 38 is permissive only. That is, left turns from the entrance approaches are currently only permitted with the green ball. Under the 2026 Total Traffic, it is recommended that exclusive left turn phases be added to these movements, converting them to protected/permitted left turns. Under protected/permitted operations, left turns are protected by left turn arrows for a portion of the cycle and then are permitted concurrently with the adjacent green ball during another portion of the cycle. Additionally, the analyses allowed for various lead/lag operations at Randall Road and Prairie Street. This intersection is owned by Kane County, and the signals have 4-section Flashing Yellow Arrow operation for all of the left turns, which enables a lot of flexibility. This flexibility in operation was not assumed at any of the IL Route 38 intersections because IDOT has been very hesitant to adopt such signal improvements and operations. Table 8 presents the results of the capacity analyses and provides a comparison to the year 2026 Base Year (no development) Traffic discussed earlier in this report. Synchro reports are also included in Appendices G and H for the 2026 Total Traffic with and without changes to the system.



**Table 8**  
**Summary of Base Year (no development) and Total (with site) Traffic Conditions**  
**Intersection Level of Service (LOS) and Delay (seconds)**  
**Signalized Intersections**

Intersection	Base Year 2026 Traffic (no site)			2026 Total Traffic (with site)		
	AM Peak	PM Peak	Sat Peak	AM Peak	PM Peak	Sat Peak
IL 38/ Randall Rd	D (40)	D (49)	D (45)	D (41)	D (52)	D (39)
IL 38/ West Mall Entrance	A (6)	A (8)	A (7)	A (8)	B (12)	B (17)
IL 38/ 14 <sup>th</sup> St	C (24)	D (37)	C (31)	B (19)	C (34)	C (32)
Prairie St/ Randall Rd	B (12)	D (42)	D (44)	B (12)	D (46)	E (56)

Note that when traffic growth occurs and signal timings are re-optimized to favor the higher-volume arterial street traffic, the over-all intersection delay may reduce, even though delays for some minor street movements will increase. Some individual movements have LOS E or F. Table 9 shows a detailed breakdown of individual movements for the 2026 Total Traffic.

**Table 9**  
**LOS & Delay by Movement for 2026 Total Traffic with Improvements**

Intersection	Peak Hour	Overall LOS & (delay)	LOS & (delay) by Movement											
			Eastbound			Westbound			Northbound			Southbound		
			L	T	R	L	T	R	L	T	R	L	T	R
IL 38 & Randall Rd	AM	D (41)	E (61)	E (54)	A (0)	E (62)	D (51)	B (18)	E (61)	D (42)	A (2)	E (74)	C (26)	A (4)
	PM	D (52)	F (101)	D (49)	B (11)	E (62)	E (61)	D (38)	E (62)	E (79)	A (8)	F (86)	C (21)	A (7)
	Sat	D (39)	D (50)	E (74)	B (13)	D (48)	E (55)	D (48)	B (18)	D (40)	A (8)	D (50)	C (28)	A (4)
IL 38 & W Mall Entrance	AM	A (8)	A (2)	A (3)	A (5)	A (9)			D (38)	B (18)		D (43)	D (47)	B (14)
	PM	B (12)	B (15)	B (15)	A (2)	A (7)			D (40)	B (17)		D (42)	D (49)	B (16)
	Sat	B (17)	B (16)	C (23)	A (3)	A (6)			D (50)	B (19)		D (54)	E (59)	B (16)
IL 38 & 14 <sup>th</sup> St	AM	B (19)	A (4)	A (8)	B (15)	B (19)			C (25)	D (45)		D (35)	C (35)	
	PM	C (34)	D (40)	B (19)	C (23)	C (35)			C (25)	E (59)		D (45)	D (41)	
	Sat	C (32)	A (9)	B (19)	C (30)	C (29)			C (28)	E (60)		D (46)	D (42)	
Prairie St & Randall Rd	AM	B (12)	D (39)	C (30)	E (65)	D (48)	B (16)		A (2)	A (5)		C (29)	B (11)	
	PM	D (46)	D (44)	D (43)	F (130)	E (55)	C (29)		C (22)	D (55)		F (81)	C (22)	
	Sat	E (56)	D (51)	F (83)	F (137)	E (63)	E (58)		C (24)	E (60)		F (117)	C (32)	

Analysis of the 2026 Total Traffic shows the following results:

IL Route 38 and Randall Road: With projected 2026 Total Traffic and re-optimized signal timings, this intersection operates at an over-all Level of Service D, although some individual movements will operate at LOS E or F during peak times. There is a general increase in delay when compared to the 2026 Base Year Traffic, which would be expected due to the additional traffic. Vehicle queues do not exceed turn lane storage lengths, although through-lane queues will occasionally extend beyond the turn lane tapers, periodically blocking entry by turning vehicles until through traffic moves up. Traffic volumes will not exceed the capacity of the intersection, though several movements do approach capacity. This analysis is very similar to both the existing conditions and the 2026 Base Year conditions, in which the intersection also approaches capacity. Virtually all of the potential improvements that could be reasonably considered have already been implemented at this intersection. Additional capacity was already recognized by Kane County as a need for Randall Road, hence the projected widening of Randall Road, which is discussed later in this report. Widening of IL Route 38 could similarly have beneficial impacts on operation.

IL Route 38 and the West Mall Entrance: With the projected 2026 Total Traffic and re-optimized signal timings, as well as the additional northbound and southbound left turn phases, this intersection operates at an overall LOS B during the PM and Saturday peaks. Drivers on the proposed site roadway approaches may experience delays in the range of LOS D or even E. Left turn queues are expected to reach six to seven vehicles. Currently, IL Route 38 traffic is assigned about 75% of the available green time, which can be expected in the future, since these signals are controlled by IDOT. Traffic volumes are not expected to exceed the capacity of the intersection under 2026 Total Traffic conditions.

IL Route 38 and 14<sup>th</sup> Street: With the projected 2026 Total Traffic and re-optimized signal timings, the intersection is expected to experience similar delays to those in the 2026 Base Year analysis, with different movements showing either slightly higher or slightly lower delay. The overall LOS is expected to be C or better. Analysis of 2026 Total Traffic shows that projected traffic will not exceed the capacity of the intersection.

Prairie Street and Randall Road: Analysis of 2026 Total Traffic with signal timings re-optimized and variable left turn phasing shows that the over-all Level of Service at this intersection will be B to E. The queue of westbound left turning traffic will continue to overflow the westbound left turn lane frequently during peak times. This movement will operate at LOS F during the PM and Saturday peaks. The queue of southbound left turning traffic during the PM and Saturday peak hours can also be expected to overflow the left turn lane with vehicle queues of 10 to 15 cars. This movement will operate at LOS F during the AM and Saturday peaks. As previously noted, green time for Prairie Street will continue to be limited by the need to provide adequate time for the large volume of traffic flowing on Randall Road and to keep these movements coordinated with the nearby IL Route 38/Randall Road intersection to the south. Further, the northbound through queue can be expected to spill back into the Randall Road/IL Route 38 intersection in the PM and Saturday peaks. This intersection, similar to the existing and 2026 Base Year Traffic, is expected to operate at or near capacity in peak periods. As mentioned under the Base Year analysis, the best solution is to execute the planned widening of Randall Road. The widening of Randall Road is described in greater detail later in the report. Alternative improvements could include extending turn lanes, adding right turn lanes, or reconfiguring the driveways on

Prairie Street east of Randall Road to reduce their potential interaction with the intersection, which is also discussed under the Base Year analysis.

In summary, the two Randall Road intersections are currently experiencing capacity issues, which are expected to continue into the future. The addition of traffic from new developments in the area will exacerbate these conditions. Optimizing the traffic signals and changing the order of phase operations can help significantly. Further improvements are needed to address what is an existing issue. Conversely, the other two signalized intersections studied are expected to continue to operate under capacity with relatively minimal changes, namely the addition of the left turn phases at the West Mall Entrance.

Table 10 shows a summary of analysis results for stop sign controlled intersections under 2026 Total Traffic. As noted before, capacity analyses of stop sign controlled intersections provide Levels of Service and delays for individual intersection movements, but not the intersection as a whole. Results for the most critical movement at each intersection are shown in Table 10.

**Table 10**  
**Summary of Base Year (no development) and Total (with site) Traffic Conditions**  
**Level of Service (LOS) and Delay (seconds)**  
**Stop Sign Controlled Intersections**

Critical Movement	Base Year 2026 Traffic (no site)			2026 Total Traffic (with site)		
	AM Peak	PM Peak	Sat Peak	AM Peak	PM Peak	Sat Peak
East Mall Entrance at IL 38	NB C (23)	SB F (62)	NB F (85)	SBL E (41)	SBL F (162)	NB F (162)
Prairie St at West Mall Ent	NB B (11)	NB B (13)	NB B (11)	NB B (14)	NB C (18)	NB B (15)
Prairie St at East Mall Entrance	NBL B (15)	NBL C (19)	NBL C (16)	NBL C (22)	NBL D (33)	NBL C (25)
Prairie St at 16 <sup>th</sup> St	SB B (14)	SB C (19)	SB C (17)	SB C (16)	SB C (23)	SB C (21)
Prairie St at 14 <sup>th</sup> St	NBL C (20)	NBL F (73)	NBL D (33)	NBL C (25)	NBL F (111)	NBL E (44)
Prairie St at 7 <sup>th</sup> St	EB E (39)	WB F (82)	EB C (16)	EB F (79)	WB F (129)	EB C (23)
Prairie St at 3 <sup>rd</sup> St	EB E (50)	WB F (197)	WB C (21)	EB F (86)	WB F (235)	WB D (30)
14 <sup>th</sup> St at Covington Ct	WB B (13)	WB C (19)	WB B (14)	WB B (13)	WB C (20)	WB B (14)
14 <sup>th</sup> St at Vanderbilt Dr	EB B (12)	EB B (15)	EB B (14)	EB B (11)	EB B (15)	EB B (14)

Analysis of 2026 Total Traffic shows that critical movements at the stop-controlled intersections included in the analysis operate in range of Level of Service from B to F. Below is a description of the intersections not meeting LOS D or better. See also Exhibit 12 for queue comparisons.

East Mall Entrance at IL Route 38: The southbound left turn movement is expected to operate at LOS F during the PM and Saturday peak hours. However, the vehicle queues are only anticipated to reach two cars, and the analyses show the intersection having reached

only about half its capacity. The large delay is caused by the large volume of through traffic on IL Route 38. There will be very few acceptable gaps for left turning vehicles to utilize. Further geometric improvements will not significantly affect the delay. Signalization is not appropriate to consider, as IDOT would not allow it due to the close spacing of existing signalized intersections nearby. No improvements are recommended.

14<sup>th</sup> Street at Prairie Street: The northbound left turn movement is expected to operate at a LOS E during the Saturday peak hour and F during the PM peak hour. Vehicle queues are not expected to grow by more than one vehicle. However, a left turning vehicle may be delayed an extended period of time waiting for a sufficient gap in traffic. The analysis results also show plenty of remaining capacity at this intersection. No improvements are recommended. See the Base Year analysis for a discussion of signalization.

Prairie Street at 7<sup>th</sup> Street: This intersection is expected to exceed capacity with the addition of 2026 Total Traffic volumes. Both the east- and westbound movements at this intersection are expected to see LOS F during the AM and PM peak hours. This delay is caused by the large volume of vehicles making a stop at this intersection. According to the analysis results, the intersection has not reached capacity. No improvements are recommended.

Prairie Street at 3<sup>rd</sup> Street: This intersection is expected to be near capacity in the PM peak hour with the addition of 2026 Total Traffic volumes. Several movements at this intersection are expected to reach LOS F during the peak hour. This delay is caused by the large volume of vehicles proceeding through this intersection. As described previously, the interaction between this intersection and the nearby signalized intersection of IL Route 31 and Prairie Street may need some attention. No mitigation is recommended.

#### Randall Road Widening

Kane County has completed a Phase I engineering study and design to widen Randall Road to provide six through-traffic lanes from north of IL Route 64 to south of Bricher Road. The first stage of this project was constructed in 2007, widening Randall Road from north of IL Route 64 south to Oak Street. The widening of Randall Road from Oak Street through the IL Route 38 intersection is planned as Stage 2 of the improvement. Construction is not currently programmed while the County seeks funding for the work.

If the Randall Road improvement is constructed by 2026, which can be reasonably anticipated, it will benefit traffic flow not only on Randall Road, but also on intersecting routes such as IL Route 38 and Prairie Street. Analysis of the peak hours at Randall Road intersections with six lanes on Randall Road is expected to show that the added capacity will reduce delays and shorten vehicle queues on all approaches at both intersections. Table 11 presents the results of the capacity analyses and provides a comparison to the year 2026 Total Year (with site) Traffic discussed earlier in this report. For the analyses shown, the only improvements assumed were the same as described in the previous section plus the widening of Randall Road from four to six lanes. As before, the phase order at Randall Road and Prairie Street was allowed to change by time of day. Synchro reports are also included in Appendix I.

Note at Randall Road and Prairie Street, the northbound and southbound left turn movements have been evaluated with protected-only phasing, meaning turns are only allowed on a green arrow. This is required because IDOT does not allow permissive phasing across three opposing through lanes.

**Table 11**  
**Summary of Total (with site) and Total (with site) with Randall Widening Traffic Conditions**  
**Intersection Level of Service (LOS) and Delay (seconds)**  
**Signalized Intersections**

Intersection	2026 Total Year Traffic (with site)			2026 Total Traffic (with site) with Randall Road Widening		
	AM Peak	PM Peak	Sat Peak	AM Peak	PM Peak	Sat Peak
IL 38/ Randall Rd	D (41)	D (52)	D (39)	C (32)	D (35)	C (27)
IL 38/ West Mall Entrance	A (8)	B (12)	B (17)	B (11)	B (12)	B (13)
IL 38/ 14 <sup>th</sup> St	B (19)	C (34)	C (32)	B (19)	C (35)	C (31)
Prairie St/ Randall Rd	B (12)	D (46)	E (56)	B (12)	C (28)	C (30)

Note that with the widening of Randall Road assumed and signal timings re-optimized to favor the higher-volume arterial street traffic, the over-all intersection delay may reduce, even though delays for some minor street movements will increase. Some individual movements have LOS E or F. Table 12 shows a detailed breakdown of individual movements for the 2026 Total Traffic with Randall Road widening.

**Table 12**  
**LOS & Delay by Movement for 2026 Total Traffic with Improvements and Randall Widening**

Intersection	Peak Hour	Overall LOS & (delay)	LOS & (delay) by Movement											
			Eastbound			Westbound			Northbound			Southbound		
			L	T	R	L	T	R	L	T	R	L	T	R
IL 38 & Randall Rd	AM	C (32)	D (51)	D (42)	A (0)	D (47)	D (38)	B (15)	D (48)	C (34)	A (4)	E (63)	B (19)	A (2)
	PM	D (35)	E (68)	D (45)	A (4)	D (48)	D (44)	C (32)	E (62)	D (39)	A (7)	E (62)	B (18)	A (8)
	Sat	C (27)	C (34)	D (53)	A (8)	C (27)	D (42)	C (34)	B (16)	C (33)	A (8)	C (30)	B (15)	A (5)
IL 38 & W Mall Entrance	AM	B (11)	A (2)	A (6)		B (10)	B (19)		C (29)	B (15)		C (32)	D (38)	B (11)
	PM	B (12)	B (17)	B (15)		A (2)	A (6)		D (40)	B (17)		D (42)	D (49)	B (16)
	Sat	B (14)	A (9)	B (14)		A (4)	A (8)		D (40)	B (17)		D (44)	D (49)	B (16)
IL 38 & 14 <sup>th</sup> St	AM	B (19)	A (6)	B (12)		B (15)	B (20)		C (20)	D (37)		C (27)	C (27)	
	PM	C (35)	D (40)	C (22)		C (23)	C (35)		C (25)	E (59)		D (45)	D (41)	
	Sat	C (31)	A (9)	C (23)		C (31)	C (27)		C (24)	D (53)		D (39)	D (37)	
Prairie St & Randall Rd	AM	B (12)	C (30)	C (25)		D (51)	D (39)	A (6)	C (29)	A (6)		E (55)	B (10)	
	PM	C (28)	D (38)	D (40)		E (67)	D (47)	C (20)	D (50)	C (22)		E (77)	B (20)	
	Sat	C (30)	D (40)	D (52)		E (74)	D (50)	C (26)	D (51)	C (24)		F (87)	C (20)	

If the proposed add-lanes improvement to Randall Road is in place by 2026, delays and queues are expected to be significantly reduced. This improvement is particularly necessary to alleviate the spillback concerns on Randall Road between IL Route 38 and Prairie Street. Note however, there will still be queuing concerns for the southbound and westbound left turn lanes at Randall Road and Prairie Street. This is due to the requirement to use protected-only phasing for the northbound and southbound left turns. Permissive phasing would help reduce the expected queues but would need to be studied carefully and would require obtaining concurrence from IDOT.

#### Traffic Signal Warrants

Traffic Signal Warrants were analyzed at three intersections with this study. Traffic Signal Warrants are analytical tools outlined in Part 4C of the *Manual on Uniform Traffic Control Devices* (MUTCD) published by the Federal Highway Administration (FHWA). The MUTCD outlines nine warrants dealing with various factors in the need for traffic signals, such as traffic volumes, pedestrian activity, school crossings, railroad crossings, etc. It is important to understand that meeting at least one traffic signal warrant is necessary before traffic signals should be installed at an intersection. However, meeting a traffic signal warrant does not require an agency to install traffic signals at an intersection. Often, traffic signals are not the best solution to handling traffic, even where warrants are met.

For the analyses provided, 13-hour traffic count data was collected. For analyses of the existing traffic, all count data was able to be used. For future years, projection of traffic volume counts is only reasonable for the peak hour volumes. Therefore, analysis of Warrant 1, Eight-hour Vehicular Volume, is limited to what can be estimated. The eighth-highest hour of traffic volume can be estimated as 55% of the peak hour volume. This rule of thumb is an industry practice and is used by IDOT in their Signal Warrant analyses (IDOT *BDE Manual*, 2002 Ed., p. 14-3(3), item 4c. Proposed Volumes). Caution needs to be applied when using the 55% estimate of eighth-highest hourly volumes to evaluate Warrant 1. Similarly, Warrant 2, Four-hour Vehicular Volume, is even more difficult to analyze. There is no accepted method to estimate the fourth-highest hourly volume in the absence of actual traffic count data. Subsequently, where the estimated eighth-highest hourly volume satisfies Warrant 2, it could be reasonably assumed the warrant is met. However, if the peak hour volumes meet it but the eighth-highest hourly volume does not, no conclusion can be drawn regarding Warrant 2.

Prairie Street & 14<sup>th</sup> Street: Traffic Signal Warrant 1A, Minimum Vehicular Volumes, has been met by existing traffic volumes at this intersection. This means that, for at least eight hours of the day, the traffic counted at this intersection exceeded the thresholds outlined in the *MUTCD*. Traffic Signal Warrant 3, Peak Hour, also has been met with existing traffic volumes. Additional warrants are anticipated to be met by future traffic volumes. However, despite delays to the northbound left turn, the capacity analyses show remaining capacity in the operations and short queue lengths under all scenarios studied. Installation of traffic signal control is not recommended at this time.

Prairie Street & 7<sup>th</sup> Street: Traffic Signal Warrant 2, Four-hour Vehicular Volume, has been met by existing traffic volumes at this intersection. This means that, for at least four hours of the day, the traffic counted at this intersection exceeded the thresholds outlined in the *MUTCD*. Additional warrants are anticipated to be met by future traffic volumes. Traffic operations at this intersection are at or near capacity with or without the site traffic added. Note also the distance of the intersection from the site, which makes it difficult to assign

impact from the site to this intersection relative to existing traffic and surrounding traffic generators. Installation of traffic signals at this intersection could potentially improve operations, although this and other remedies have not been studied in detail. Installation of traffic signal control or other mitigation techniques are not recommended at this time.

Prairie Street & 3<sup>rd</sup> Street: Traffic Signal Warrant 2, Four-hour Vehicular Volume, has been met by existing traffic volumes at this intersection. This means that, for at least four hours of the day, the traffic counted at this intersection exceeded the thresholds outlined in the *MUTCD*. Additional warrants are anticipated to be met by future traffic volumes. Traffic operations at this intersection are at or near capacity with or without the site traffic added. Note also the distance of the intersection from the site, which makes it difficult to assign impact from the site to this intersection relative to existing traffic and surrounding traffic generators. Installation of traffic signals at this intersection could potentially improve operations, although this and other remedies have not been studied in detail. Installation of traffic signal control or other mitigation techniques are not recommended at this time.

## VI. Additional Considerations

### Cut Through Routes

Some concerns have been raised about the existing use of neighborhood residential streets by cut-through traffic. These streets include 7<sup>th</sup> Street, 12<sup>th</sup> Street, 13<sup>th</sup> Street, 14<sup>th</sup> Street, 16<sup>th</sup> Street and Oak Street. Seventh, 12<sup>th</sup>, and Oak Streets adjoin schools and are school traffic routes. Seventh and Oak Streets, along with Prairie Street, are designated as collector streets in the City's Comprehensive Plan. Concerns have also been raised about the potential for increased use of these streets by cut-through traffic with the development of the Prairie Centre site and the additional traffic it will generate.

A study and analysis that would quantify the existing volumes of cut-through traffic on surrounding west-side neighborhood streets would be an undertaking that requires a significant investment of time and manpower. Due to the variable nature of this driver behavior, a prediction of any future increase in cut-through traffic on individual streets could only be very roughly estimated. Any recommendations to discourage or impede cut-through traffic on an individual street would need to be carefully considered, as this often results in traffic diverting to the nearest adjacent street. Following a discussion of this with City staff, HLR was directed to not undertake a formal engineering study of cut-through traffic, but to instead provide an overview of the potential cause and remedy for this situation.

Drivers typically use side streets as cut-through routes to avoid traffic congestion along an otherwise desired route. If traffic is flowing smoothly, drivers are more likely to stay on the through street. During peak traffic periods, Prairie Street now experiences some congestion at its all-way stop intersections at 7<sup>th</sup> and 3<sup>rd</sup> Streets. Traffic volumes at these intersections do meet traffic signal warrants without the addition of the Prairie Centre development.

If congestion is not alleviated on the main collector route (such as Prairie Street), measures taken to discourage or block through traffic on individual side streets often result in traffic rerouting to the next adjacent street. If the 3<sup>rd</sup> Street and 7<sup>th</sup> Street intersections remain under all-way stop control, peak hour delays and the lengths of lines of traffic will increase, further encouraging drivers to seek alternate routes down other streets. If both intersections are signalized and are under coordinated control with each other and with Prairie Street at IL Route

31, delays and congestion will be significantly reduced. This will reduce the desirability of using cut-through routes down side streets, drawing those drivers back to Prairie Street, the main collector route.

#### Traffic Calming

Traffic should continue to be monitored on the surrounding street network for issues that may require traffic calming. Should measures be required, the City of St. Charles has a traffic calming policy that should be followed.

The developer has many features planned to be incorporated into the site plan that will have traffic calming benefits for the on-site traffic circulation. The following list enumerates some of the planned traffic calming features and other design features that will have some traffic calming effects:

- Central, circular, landscaped island/traffic circle on the main driveway
- Narrow vehicle lanes
- Brick crosswalks
- Corner bump-outs
- On-street parking
- Non-continuous vehicle routes through the site

#### On-site Traffic Circulation

A detailed review of the site plan should be conducted by City staff and by the Fire Department to ensure that adequate access is provided for emergency vehicles throughout the site. When geometric plans for the access lanes within the site are finalized, they should be reviewed for access by the largest St. Charles Fire Department truck, which can be approximated with a WB-50 turning template. Locations of trash collection areas and standing/parking areas for service and delivery vehicles should also be reviewed to ensure that these operations do not block traffic circulation. Truck access to the Jewel store west of the site will be modified or affected by the development of the Prairie Centre site. Care should also be taken in the site design to ensure that the trucks have a viable route in and out of the site. Finally, the site plan should provide for sufficient lane widths throughout the site, particularly at locations where it can be expected that traffic will need to go around stopped or standing vehicles in loading zones, etc.

Many of the traffic calming features described above also have, or primarily have, benefits for pedestrian traffic. Considering the nature of the development and the surrounding residential areas, the site design should include safe and efficient pathways for pedestrian use. The current preliminary site plan appears to make safe pedestrian access a priority. As the site plan develops further, it should be reviewed by City staff to ensure that safe and efficient pedestrian routing is provided.

Finally, it should be noted that, even with installation of the pedestrian features previously described, and considering the relatively dense nature of the development, it is unlikely that the Prairie Centre site will generate significant pedestrian traffic that would cross IL Route 38. Adjacent to the site, IL Route 38 is a five-lane arterial maintained by IDOT. Due to the width of the street and the volume of traffic on IL Route 38, it would be difficult for pedestrians to cross and feel safe. Further, with this site being located in a northern climate, user habits will tend toward moving the vehicle for each stop, especially when crossing to sites on the opposite side of IL Route 38.



### Alternate Development Ideas

As a point of reference, this section discusses some potential alternatives for development of the Prairie Centre site. Comparisons of estimated generated traffic from two alternatives to the generated traffic presented in this study are summarized in this section. The first comparison was to the estimated volumes from the previous study in 2010. The second comparison was to a development scenario that could potentially be constructed under the existing zoning of the site.

The last time this site was studied was in 2010, and the site was referred to as the Towne Centre. At that time, the general concept for development of the site was similar to the current proposal. The primary difference was in the number of units on the site. The residential use was slightly more intense in the 2010 proposal as compared to the current one. The retail uses, including restaurants, had about three times the square footage. The previous proposal also included a hotel and about 142,000 SF of office space, which are not included in the current proposal. Table 13 summarizes the trips generated in the 2010 study. Note that the previous study was performed prior to the publication of the 9<sup>th</sup> Edition of *Trip Generation Manual*. The data presented in Table 13 were taken straight from that study. The 2010 study based trip generation on the 8<sup>th</sup> Edition of *Trip Generation Manual*, which was the current edition at that time. The formulas and rates in the 9<sup>th</sup> Edition are only slightly different for most of the assumed land uses, while many of the uses have no changes. Also note that the data presented in Table 13 account for a combined reduction of 20% due to internal capture and to pass-by trips. However, pass-by does not apply to all uses, such as residential. Therefore, the values for the combined internal capture and pass-by trips will not equal 20% of the raw total generated trips.

**Table 13**  
**Trip Generation Table from 2010 Towne Centre TIS**

Land Use	ITE Code	Units	Qty	AM Peak Hour Volumes (veh/hr)			PM Peak Hour Volumes (veh/hr)			SAT Peak Hour Volumes (veh/hr)		
				In	Out	Total	In	Out	Total	In	Out	Total
Residential	233	DU	650	54	182	236	303	179	482	125	106	231
Office	710	1000 SF	142	218	30	248	40	198	238	26	23	49
Commercial	820	1000 SF	349	196	126	322	721	750	1471	1005	927	1932
Hotel	310	Rms	115	30	19	49	36	32	68	47	37	84
Total Generated Trips				498	357	855	1100	1159	2259	1203	1093	2296
Internal Capture + Pass-by (20%)				(68)	(52)	(120)	(180)	(186)	(366)	(210)	(199)	(409)
Total New Trips				430	305	735	920	973	1893	993	894	1887

Source: Towne Centre Traffic Impact Study, January 26, 2010

For another comparison, City staff recommended generating traffic based on a land use assumption that assumes full development of the site with land uses that conform to the existing zoning for the site. Being constructed per existing zoning, this potential development would not require review by the City's Plan Commission. This scenario was also examined in the 2010 Towne Centre study. At that time, City staff provided recommended land use assumptions for the basis of this analysis via a memo dated January 29, 2009, which is included in Appendix K for reference. The City's recommendation was to model a development consisting of approximately 626,000 SF of gross leasable area of Shopping Center (ITE Land Use 820). Table 14 summarizes the estimated generated trips for such a development with and without an estimated combined 20% of internal capture and pass-by.

**Table 14 - Trip Generation Table for Alternate Development of Prairie Centre Site**

Land Use	ITE Code	Units	Qty	AM Peak Hour Volumes (veh/hr)			PM Peak Hour Volumes (veh/hr)			SAT Peak Hour Volumes (veh/hr)		
				In	Out	Total	In	Out	Total	In	Out	Total
Shopping Center	820	1000 SF	626	296	181	477	983	1066	2049	1498	1384	2882
Internal Capture + Pass-by (20%)				(59)	(36)	(95)	(197)	(213)	(410)	(300)	(277)	(577)
Total New Trips				237	145	382	786	853	1639	1198	1107	2305

Source: ITE Trip Generation Manual, 9<sup>th</sup> Edition

In general, both of the outlined alternatives are expected to generate much larger volumes of traffic than does the current proposal. Although the weekday AM peak hour volumes are expected to be similar in all three cases, the generated volumes are much higher in the weekday PM and Saturday peak hour cases. Tables 15 and 16 summarize and compare the generated traffic for each development case with a percentage change relative to the traffic generated by the current proposal. Table 15 shows the comparison without any internal capture or pass-by adjustments, while Table 16 includes those adjustments.

**Table 15  
Total Site Generated Traffic (vph) *without* Internal Capture or Pass-by Adjustments by Development Scenario and Peak Hour**

Development Scenario	AM Peak	PM Peak	SAT Peak
	Total	Total	Total
Prairie Centre	1040	1059	1131
Towne Centre 2010	855	2259	2296
Percentage Difference	-18%	+113%	+103%
Max Development per Current Zoning	477	2049	2882
Percentage Difference	-54%	+93%	+155%

Sources: ITE Trip Generation Manual, 9<sup>th</sup> Edition and Towne Centre Traffic Impact Study, January 26, 2010

**Table 16  
Total Site Generated Traffic (vph) *with* Internal Capture and Pass-by Adjustments by Development Scenario and Peak Hour**

Development Scenario	AM Peak	PM Peak	SAT Peak
	Total	Total	Total
Prairie Centre	853	870	927
Towne Centre 2010	735	1893	1887
Percentage Difference	-14%	+117%	+104%
Max Development per Current Zoning	382	1639	2305
Percentage Difference	-55%	+88%	+149%

Sources: ITE Trip Generation Manual, 9<sup>th</sup> Edition and Towne Centre Traffic Impact Study, January 26, 2010

As shown, the 2010 Towne Centre proposal was expected to generate just over twice the traffic of the Prairie Centre proposal for the weekday PM and Saturday peaks, while the Saturday peak is 1.5 times the Prairie Centre traffic for the potential development under current zoning. Although the weekday AM peak volume is expected to be higher for the Prairie Centre as compared to both alternate scenarios, the critical peak hours were still the weekday PM and Saturday peak hours, for which both the generated traffic volumes and the counted traffic volumes were higher than those for the weekday AM peak hour.

The larger volumes anticipated for the alternate development scenarios result in more significant impacts to the surrounding roadway network. To provide satisfactory operation, more improvements are needed. Dual left turn lanes would be needed at the main entrance on IL Route 38. Many turn lanes in the area would need to be extended. The interaction on Randall Road between IL Route 38 and Prairie Street would be exacerbated. Longer delays would be experienced at many of the driveways where further improvements are unrealistic for various reasons.

## VII. Findings and Recommendations

The estimates and analyses discussed in the preceding pages, based on the proposed site layout and access as shown in Exhibit 2, indicate the following:

IL Route 38 & Randall Road: This intersection and its turn lanes have sufficient capacity to accommodate the projected 2026 Total Site traffic. Individual movements may operate at LOS E or F, though this is not entirely attributed to the Prairie Centre Development as this occurs in the 2026 Base Traffic scenario also. The proposed future Kane County improvement to add through-traffic lanes to Randall Road will further enhance the capacity of this intersection. No improvements to this intersection are recommended as a result of the proposed development.

IL Route 38 & West Mall Entrance: The site plans show conversion of the southbound approach to consist of an exclusive left turn lane, an exclusive through lane, and an exclusive right turn lane. Additionally, the northbound and southbound left turn phases should be converted to protected-permissive phasing.

IL Route 38 & East Mall Entrance: This intersection has the overall capacity to accommodate the projected 2026 Total Traffic. The north- and southbound left turn movements will experience long delays and LOS F but with short queues.

IL Route 38 & 14<sup>th</sup> Street: This intersection has the overall capacity to accommodate the projected 2026 Total Traffic. The eastbound and westbound left turn queues will periodically approach the full left turn lane length during PM and Saturday peak hours. If needed, the painted median and taper can be adjusted to increase the storage length of the left turn lane. Further, consideration should be made for adding a northbound right turn lane to reduce existing delays and queues on that approach.

Randall Road & Prairie Street: This intersection has the overall capacity to accommodate the projected 2026 Total Traffic. The peak period queues of southbound left turning traffic are anticipated to be as long as 10 to 15 cars. This is due partly to a projected increase in the left turning volume and partly to anticipated background growth in opposing through-

traffic volumes, limiting the amount of green time available for the left turn movement. An interim improvement can be made by adjusting the median and left turn lane alignment to provide additional storage length in the taper. If the proposed add-lanes improvement to Randall Road is in place by 2026, the southbound left turn queues can be expected to be reduced. There is also the potential for spillback on the northbound approach into the IL Route 38 intersection during the PM and Saturday peak periods. The proposed widening of Randall Road will be necessary to alleviate this concern.


Further, the existing peak period overflow of the westbound left turn lane will be increased with the addition of projected traffic, frequently blocking the Jewel Supermarket driveway, as well as the entrance to the retail strip mall on the south side of the street west of the Jewel store. These entrances could be converted to right turns only, as described in detail in the Base Year analysis. These improvements are not recommended with this development, as it treats what is an existing issue. Additionally, the degree of improvement needed will be impacted by the planned Randall Road widening. Therefore, the specific improvements to the westbound approach should be developed with some accounting for the Randall Road widening and when the two sets of improvements would happen relative to each other.

Prairie Street & 14<sup>th</sup> Street: Existing average delays to the northbound left turn movement are in the range of LOS D. With the addition of the background growth and the site development traffic, this movement will enter LOS F range during the PM peak hour. However, this intersection has the overall capacity to accommodate the 2026 Total Traffic volumes, with queues reaching four vehicles at most. Although traffic signal warrants are met under the existing traffic at the intersection, installation of traffic signal control is not recommended at this time. See Base Year analysis for more discussion about signalization.

Prairie Street & 7<sup>th</sup> Street: Base Year average delays for this intersection reach LOS F during the PM peak hour. The addition of site development traffic only adds to the delays at this intersection. For the westbound approach, queues will nearly reach the Prairie Street & 4<sup>th</sup> Street intersection. Traffic signal control is warranted under existing traffic. A number of improvements could alleviate delays, including signalization or conversion to a roundabout. No improvements are recommended as a part of the development, as the issues here are primarily existing.

Prairie Street & 3<sup>rd</sup> Street: Base Year average delays for this intersection reach LOS F during the PM peak hour. The addition of site development traffic only adds to the delays at this intersection. For the westbound approach, queues will nearly reach the IL Route 31 and Prairie Street intersection. Traffic signal control is warranted under existing traffic. A number of improvements could alleviate delays, including signalization or conversion to a roundabout. No improvements are recommended as a part of the development, as the issues here are primarily existing.

Respectfully Submitted,



Alexander S. Garbe, PE  
Hampton, Lenzini and Renwick, Inc.

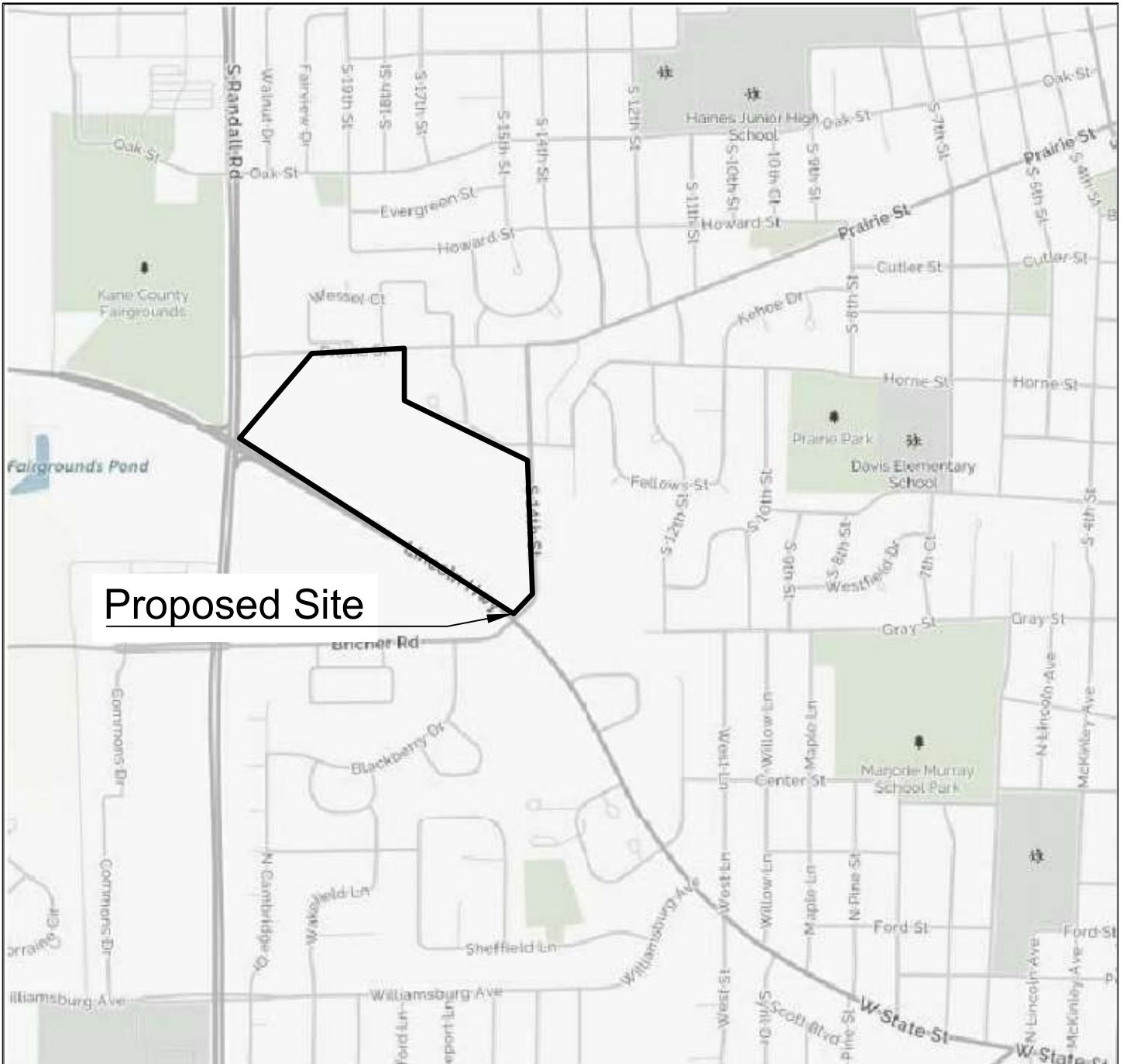
## APPENDIX

- A. EXHIBITS
- B. HCS ANALYSIS REPORTS, 2016 EXISTING TRAFFIC
- C. HCS ANALYSIS REPORTS, 2026 BASE TRAFFIC
- D. HCS ANALYSIS REPORTS, 2026 TOTAL TRAFFIC
- E. SYNCHRO ANALYSIS REPORTS, 2016 EXISTING TRAFFIC
- F. SYNCHRO ANALYSIS REPORTS, 2026 BASE TRAFFIC
- G. SYNCHRO ANALYSIS REPORTS, 2026 TOTAL TRAFFIC, NO IMPROVEMENTS
- H. SYNCHRO ANALYSIS REPORTS, 2026 TOTAL TRAFFIC, WITH IMPROVEMENTS
- I. SYNCHRO ANALYSIS REPORTS, 2026 TOTAL TRAFFIC, RANDALL WIDENING
- J. CMAP MEMO TO ST. CHARLES, JUNE 3, 2016
- K. ST. CHARLES ALTERNATE DEVELOPMENT MEMO, JANUARY 29, 2009
- L. ITE LAND USE DIAGRAMS
- M. TRIP GENERATION DIAGRAMS
- N. ITE TRIP GENERATION HANDBOOK CH. 7, MULTI-USE DEVELOPMENT
- O. INTERNAL CAPTURE DIAGRAM
- P. TRAFFIC COUNTS
- Q. TRAFFIC SIGNAL WARRANT ANALYSIS REPORTS

## APPENDIX A

### Exhibits

1. Location Exhibits
  - a. Location Map
  - b. Aerial Photo
2. Preliminary Site Plan
3. 2016 Existing Traffic
4. 2026 Base Traffic
5. Pass-by Traffic Example
6. Pass-by Traffic
7. Trip Distribution Diagram
8. Preliminary Site Traffic
9. 2026 Total Traffic
10. Lane Configurations
11. Intersection Spacing
12. Queue Length Exhibits
  - a. Prairie Street & 14<sup>th</sup> Street
  - b. Prairie Street at 7<sup>th</sup> Street and at 3<sup>rd</sup> Street



Proposed Site

# Exhibit 1A

## Location Map

City of Saint Charles  
Prairie Centre

**Hampton, Lenzini and Renwick, inc.**

Civil & Structural Engineers . Land Surveyors . Environmental Services



ELGIN . SPRINGFIELD . WOODRIDGE . MT. CARMEL  
[www.hltrengineering.com](http://www.hltrengineering.com)



RANDALL ROAD

PRAIRIE ST.

IL ROUTE 38

**PROPOSED  
SITE**

14th STREET

BRICHER ROAD

©2007 Microsoft Corp.

©2007 NAVTEQ

# Exhibit 1B

## Aerial Photo Overview City of Saint Charles Prairie Centre

**Hampton, Lenzini and Renwick, Inc.**

Civil & Structural Engineers . Land Surveyors . Environmental Services



ELGIN . SPRINGFIELD . WOODRIDGE . MT CARMEL

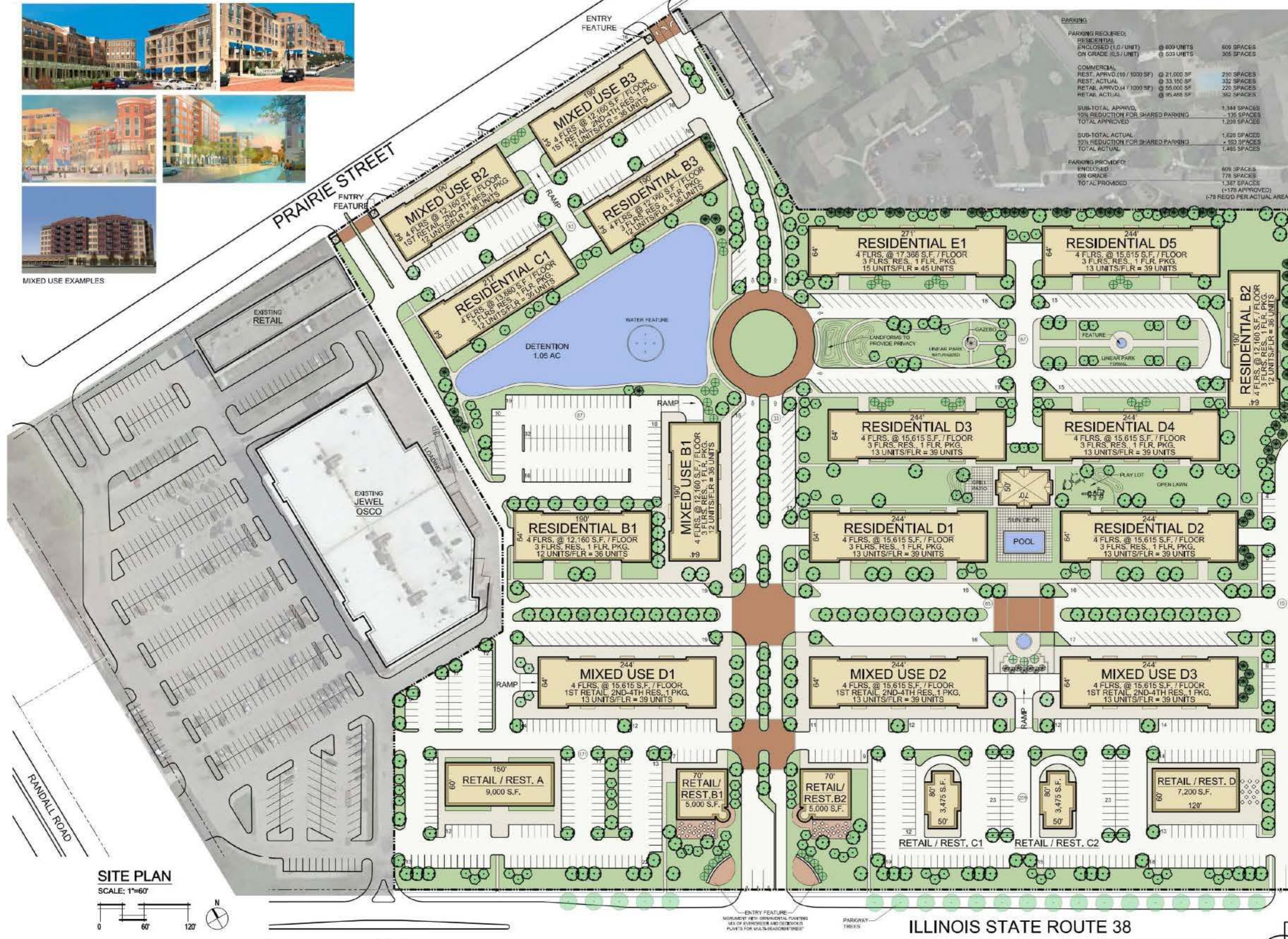
[www.hlrengineering.com](http://www.hlrengineering.com)

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MIXED USE EXAMPLES

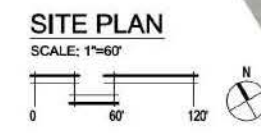


**PARKING**

PARKING REQUIRED:			
RESIDENTIAL ENCLOSED (1.0/UNIT)	@ 600 UNITS	600 SPACES	
ON GRADE (0.5/UNIT)	@ 503 UNITS	305 SPACES	
COMMERCIAL			
REST. APPROX (10 / 1000 SF)	@ 21,000 SF	210 SPACES	
REST. ACTUAL	@ 33,150 SF	332 SPACES	
RETAIL APPROX (4 / 1000 SF)	@ 55,000 SF	220 SPACES	
RETAIL ACTUAL	@ 95,488 SF	382 SPACES	
SUB-TOTAL APPROX.		1,344 SPACES	
10% REDUCTION FOR SHARED PARKING		-135 SPACES	
TOTAL APPROVED		1,209 SPACES	
SUB-TOTAL ACTUAL		1,630 SPACES	
10% REDUCTION FOR SHARED PARKING		-183 SPACES	
TOTAL ACTUAL		1,445 SPACES	
PARKING PROVIDED:			
ENCLOSED		600 SPACES	
ON GRADE		778 SPACES	
TOTAL PROVIDED		1,378 SPACES	
		(+78 REQ'D PER ACTUAL AREA)	

**SITE AREA** 28.48 AC

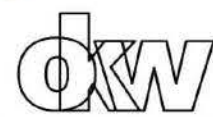
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RESIDENTIAL C (1 BLDGS.)	13,860 SF / FLR (3 FLRS ABOVE 1 PRKG)	12 UNITS / FLR
RESIDENTIAL D (9 BLDGS.)	15,615 SF / FLR (3 FLRS ABOVE 1 PRKG)	13 UNITS / FLR
RESIDENTIAL E (1 BLDGS.)	17,348 SF / FLR (3 FLRS ABOVE 1 PRKG)	15 UNITS / FLR
MIXED USE		
MIXED USE B (3 BLDGS.)	12,160 SF / FLR (3 FLRS ABOVE 1 RETAIL)	12 UNITS / FLR
MIXED USE D (3 BLDGS.)	15,615 SF / FLR (3 FLRS ABOVE 1 RETAIL)	13 UNITS / FLR
TOTAL		600 UNITS
COMMERCIAL		
COMMERCIAL APPROVED:		
RETAIL	55,000 SF	
RESTAURANT	21,000 SF	
TOTAL	76,000 SF	
COMMERCIAL ACTUAL:		
RETAIL	83,328 SF	
RESTAURANT	33,150 SF	
TOTAL	116,478 SF (440,478 SF)	



**PRAIRIE CENTRE**  
**ST. CHARLES, ILLINOIS**

**SHODEEN**

**ILLINOIS STATE ROUTE 38**



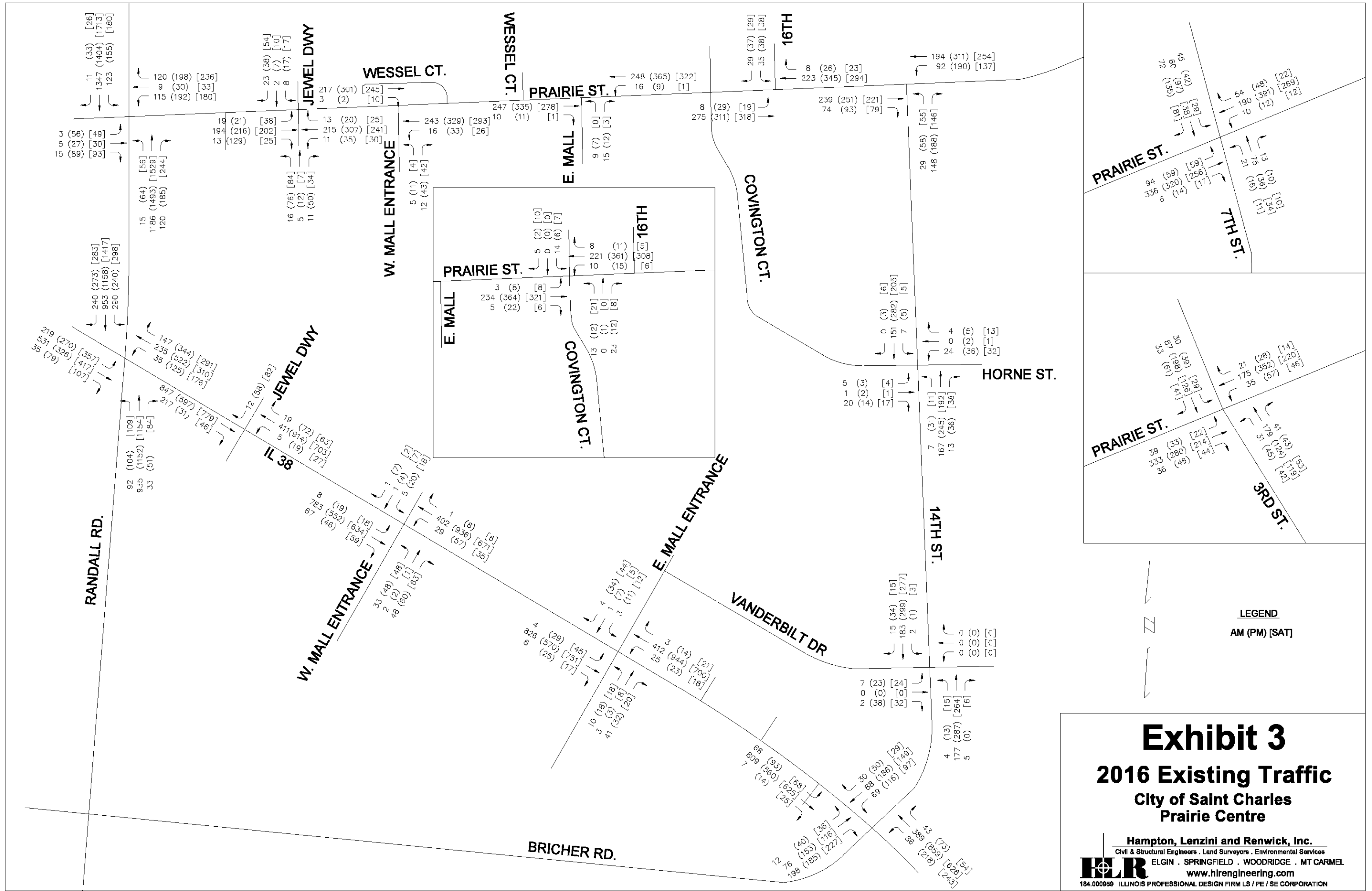
**OKW Architects**

DATE: APRIL 16, 2016

PROJECT NUMBER: 06090

**Exhibit 2**  
**Site Plan**  
**City of Saint Charles**  
**Prairie Centre**

Hampton, Lanzini and Ramotnik, Inc.  
Civil & Mechanical Engineers, Land Surveyors, Environmental Scientists  
1140 S. SPRINGFIELD, WOODBRIDGE, NY 08095  
www.hlr.com



**LEGEND**  
 AM (PM) (SAT)

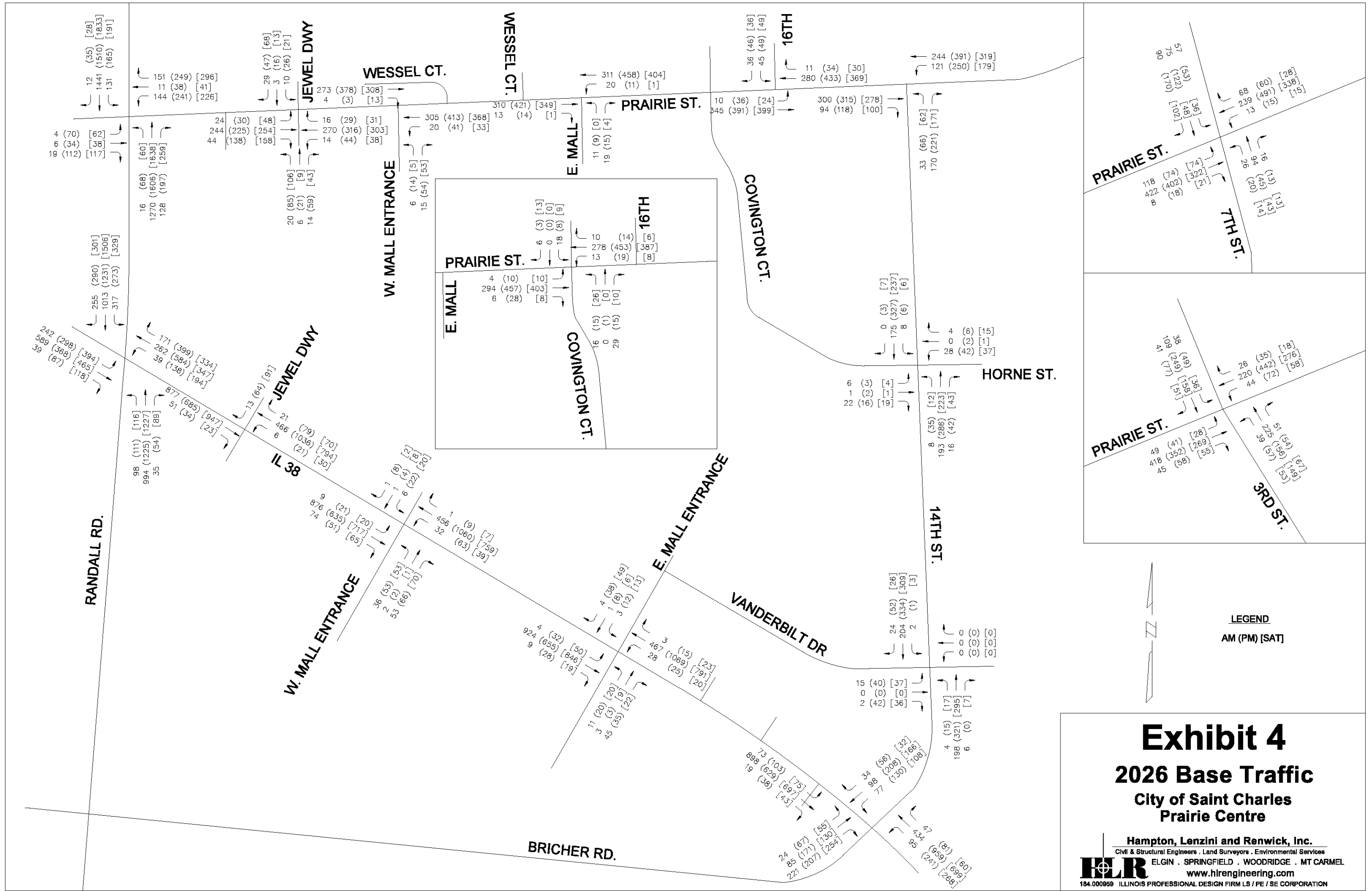
# Exhibit 3

## 2016 Existing Traffic

### City of Saint Charles

### Prairie Centre

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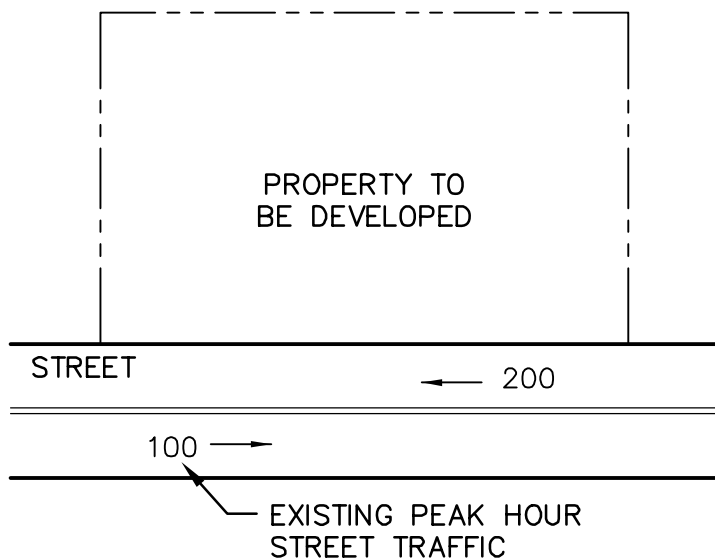
# Exhibit 4

## 2026 Base Traffic

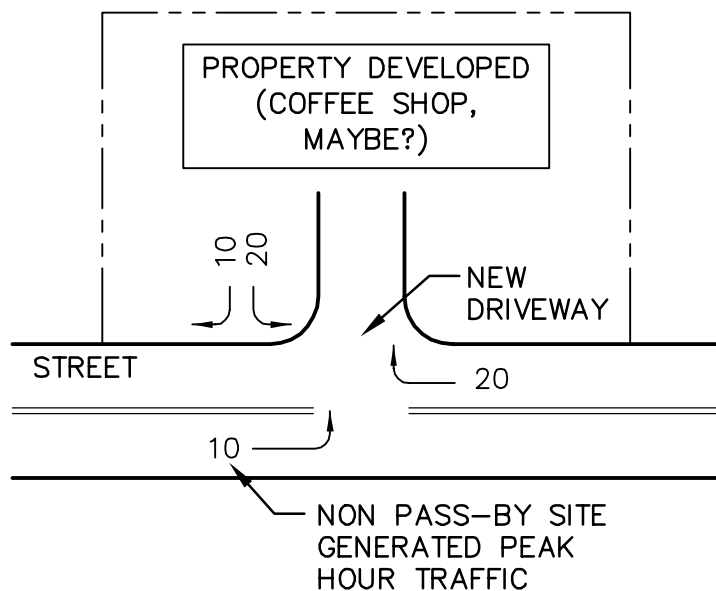
### City of Saint Charles Prairie Centre

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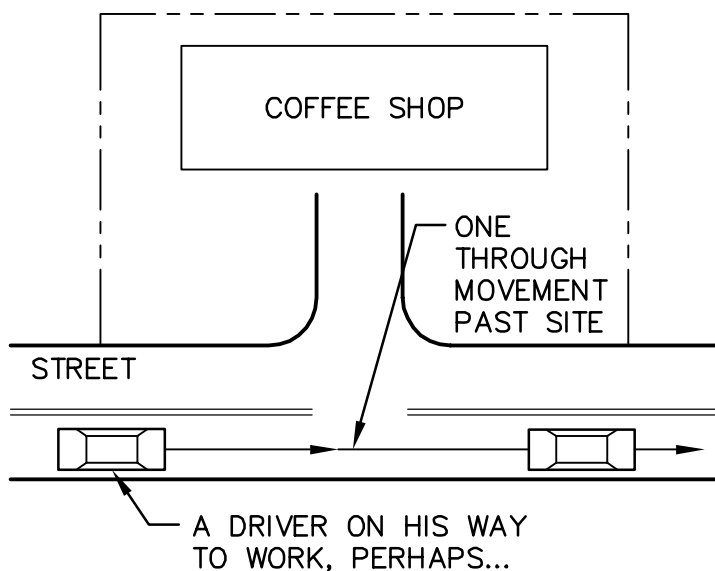
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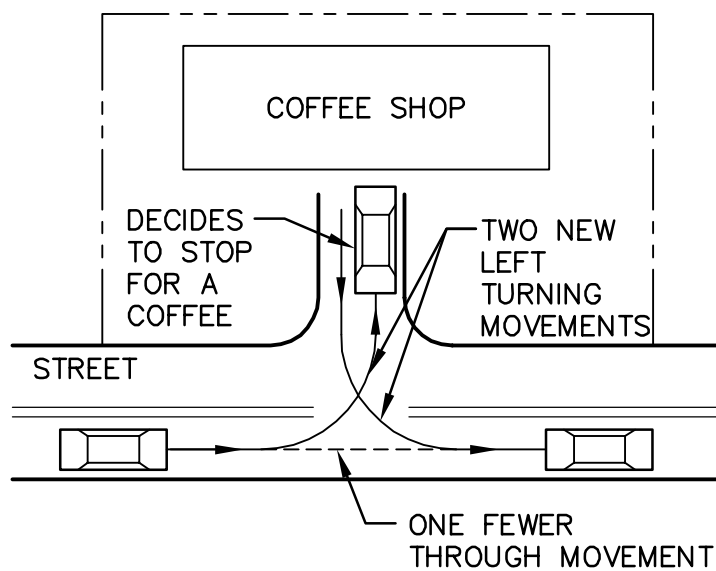
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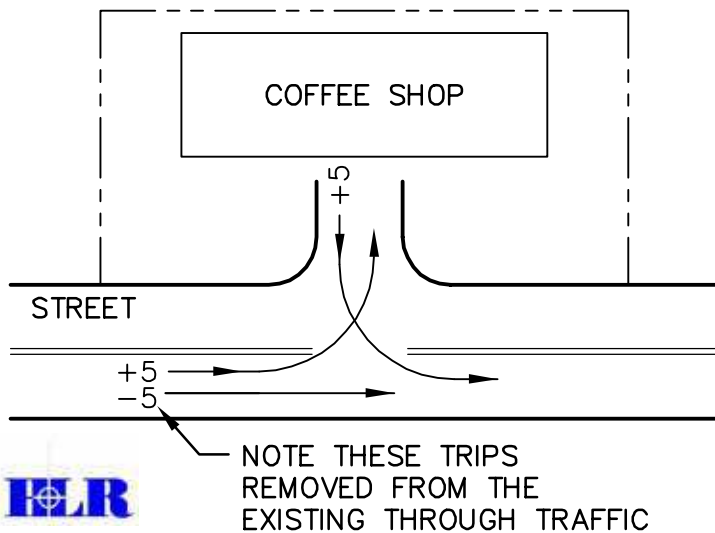
③ A PASS-BY TRIP...



④ LOOKS LIKE THIS...



⑤ PASS-BY TRAFFIC IS ADDED TO THE INTERSECTION LIKE THIS (WE'LL JUST DO EAST BOUND IN THIS EXAMPLE)



⑥ SO YOUR NEW TOTAL VOLUME IS... (EXISTING + NON-PASS-BY + PASS-BY)

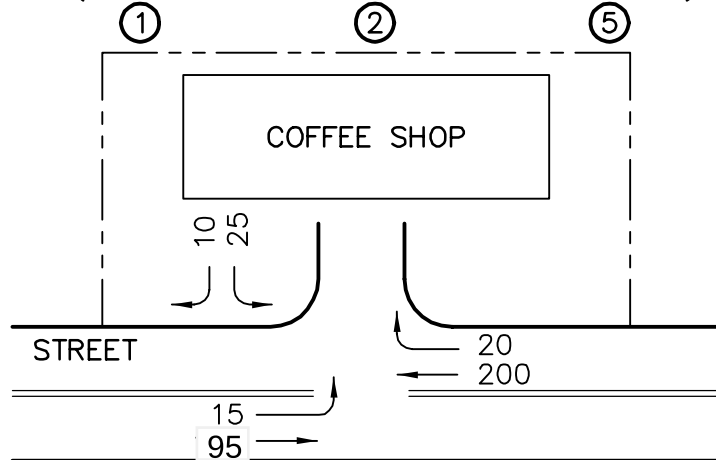
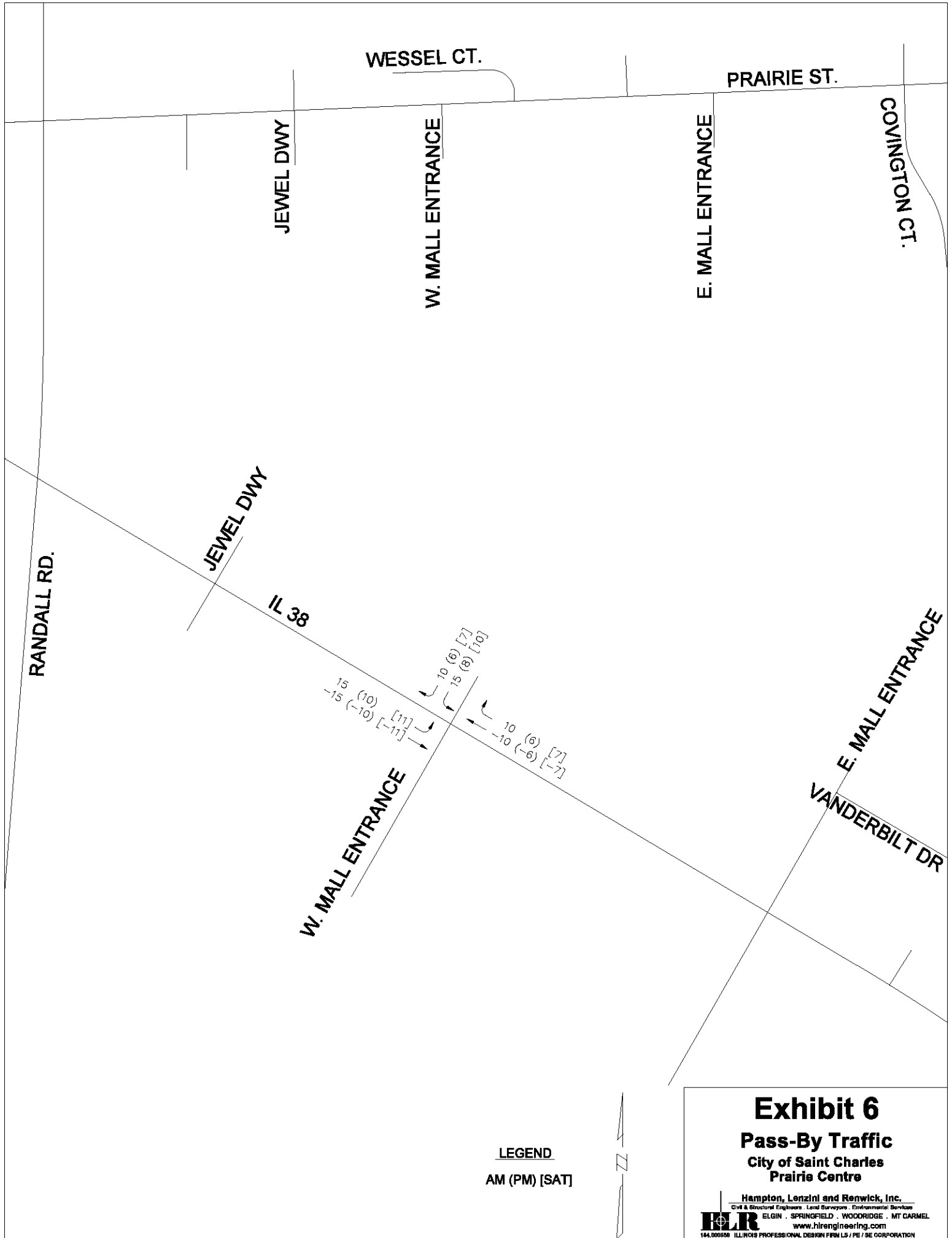



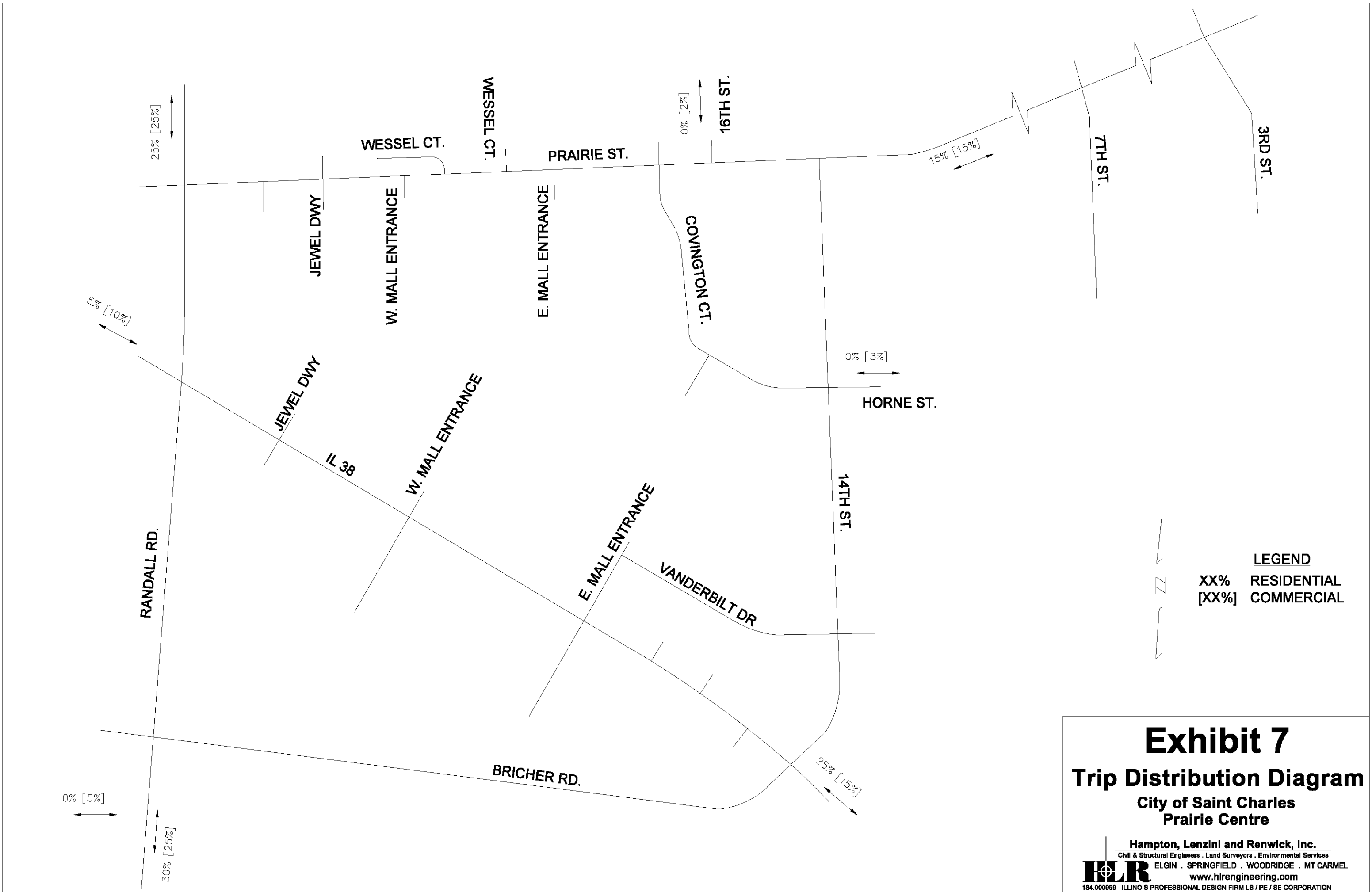
EXHIBIT 5 - How Pass-by Traffic Works



**Exhibit 6**  
**Pass-By Traffic**  
 City of Saint Charles  
 Prairie Centre

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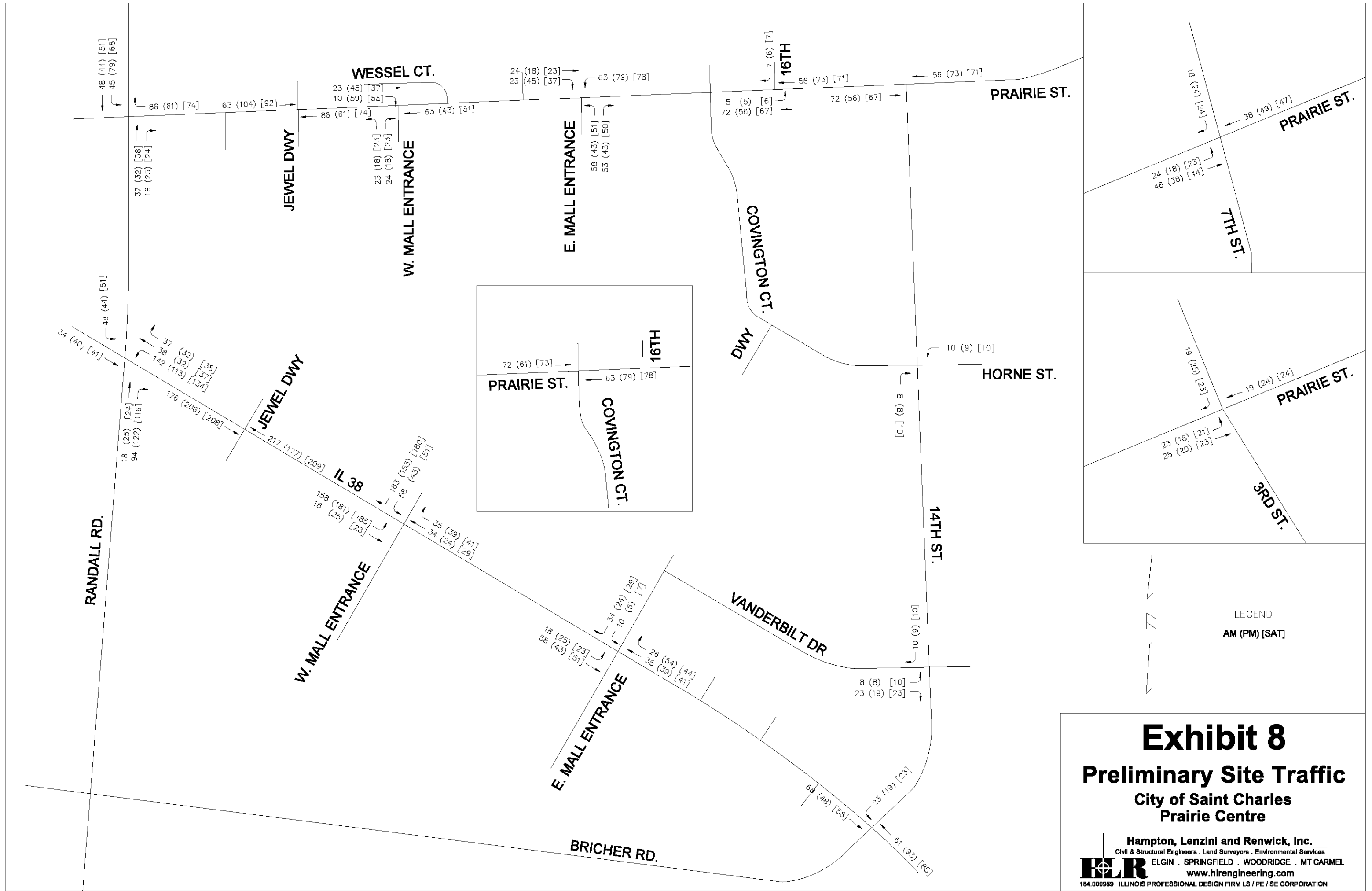

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**LEGEND**  
 XX% RESIDENTIAL  
 [XX%] COMMERCIAL

**Exhibit 7**  
**Trip Distribution Diagram**  
 City of Saint Charles  
 Prairie Centre

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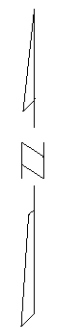
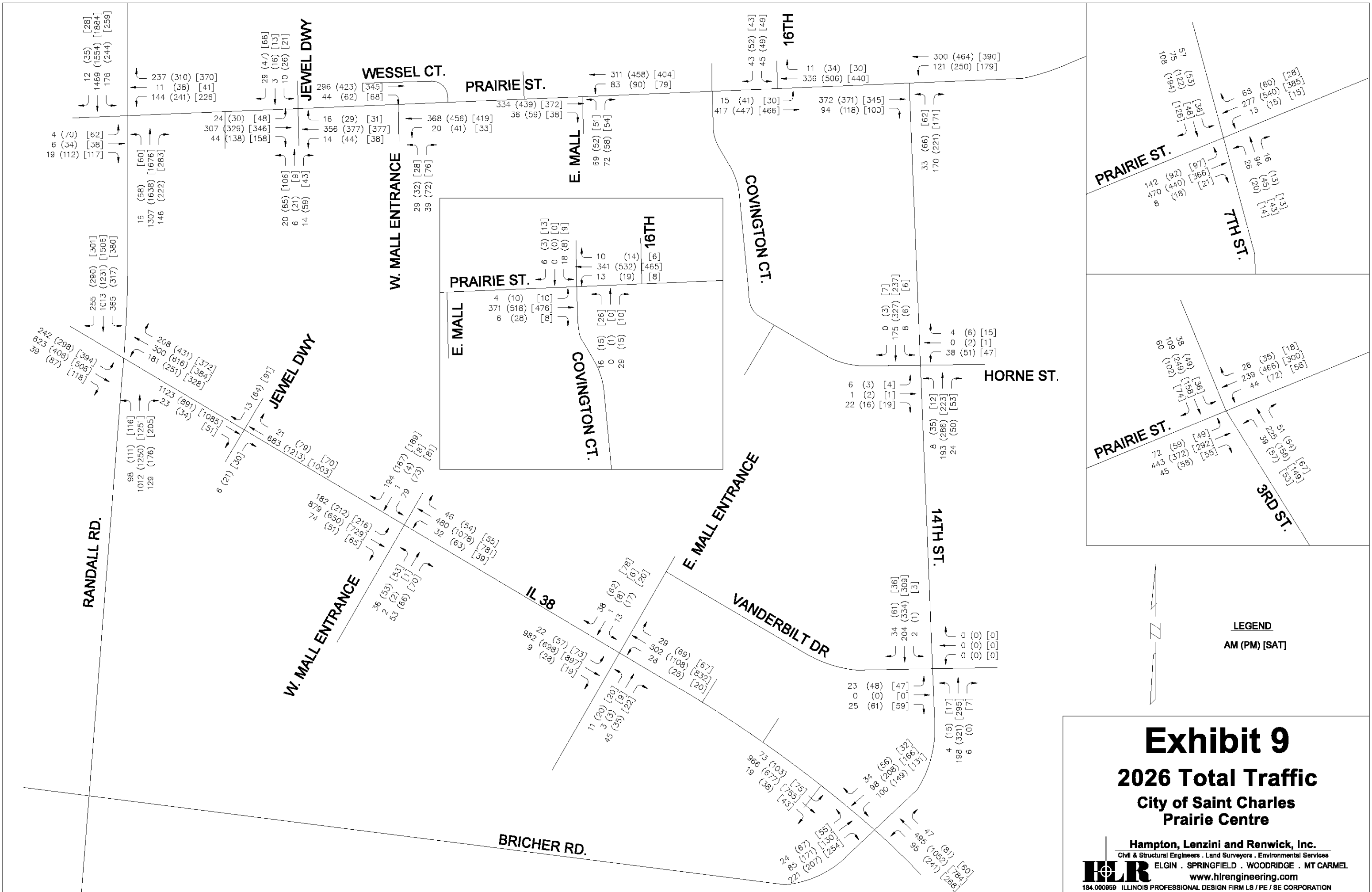


# Exhibit 8

## Preliminary Site Traffic

### City of Saint Charles Prairie Centre

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**LEGEND**  
 AM (PM) [SAT]

# Exhibit 9

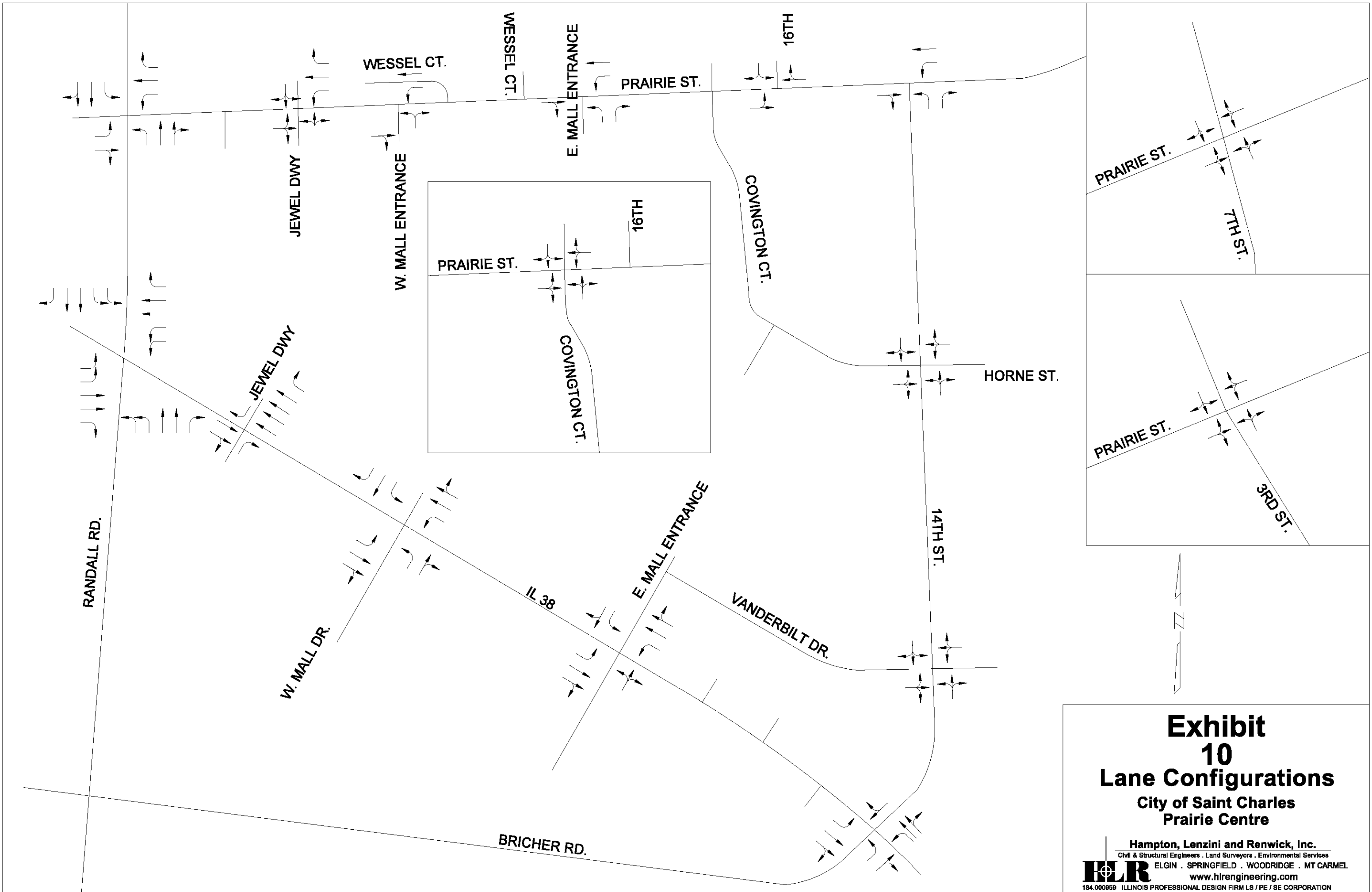
## 2026 Total Traffic

### City of Saint Charles

### Prairie Centre

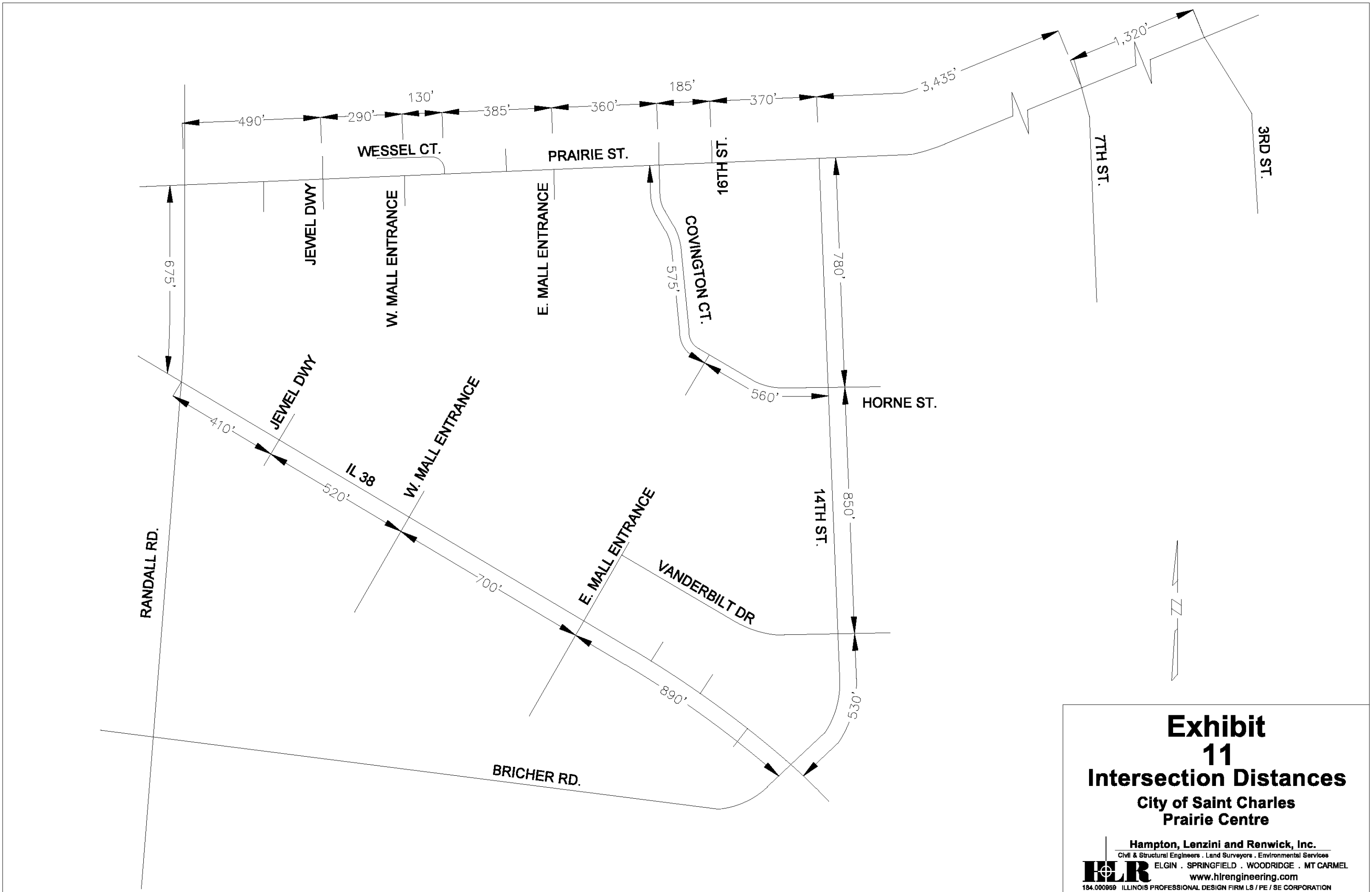
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**Exhibit  
10  
Lane Configurations  
City of Saint Charles  
Prairie Centre**

**Hampton, Lenzini and Renwick, Inc.**  
Civil & Structural Engineers · Land Surveyors · Environmental Services  
 ELGIN · SPRINGFIELD · WOODRIDGE · MT CARMEL  
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**Exhibit**  
**11**  
**Intersection Distances**  
 City of Saint Charles  
 Prairie Centre

**Hampton, Lenzini and Renwick, Inc.**  
Civil & Structural Engineers · Land Surveyors · Environmental Services  
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## APPENDIX B

### HCS Analysis Reports

#### 2016 Existing Traffic

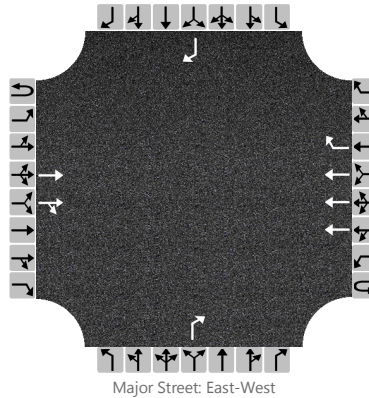
##### Weekday AM, Weekday PM, & Saturday Peak Hours

1. IL Route 38 & Jewel Driveway
2. IL Route 38 & East Mall Entrance/Vanderbilt Drive
3. Prairie Street & Jewel Driveway
4. Prairie Street & West Mall Entrance
5. Prairie Street & East Mall Entrance
6. Prairie Street & Covington Court/Wessel Court
7. Prairie Street & 16<sup>th</sup> Street
8. Prairie Street & 14<sup>th</sup> Street
9. Prairie Street & 7<sup>th</sup> Street
10. Prairie Street & 3<sup>rd</sup> Street
11. 14<sup>th</sup> Street & Vanderbilt Drive
12. 14<sup>th</sup> Street & Covington Court/Horne Street

# HCS 2010 Two-Way Stop Control Summary Report

General Information		Site Information	
Analyst	HLR-SM	Intersection	Jewel Dwy and IL 38
Agency/Co.		Jurisdiction	
Date Performed	6/3/2016	East/West Street	IL 38
Analysis Year	2016	North/South Street	Jewel Dwy
Time Analyzed	7:15-8:15 am	Peak Hour Factor	0.94
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Prairie Centre TIS Existing		

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	2	0	0	0	3	1		0	0	1		0	0	1
Configuration			T	TR			T	R				R				R
Volume (veh/h)			847	21			411	19				5				12
Percent Heavy Vehicles												0				8
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

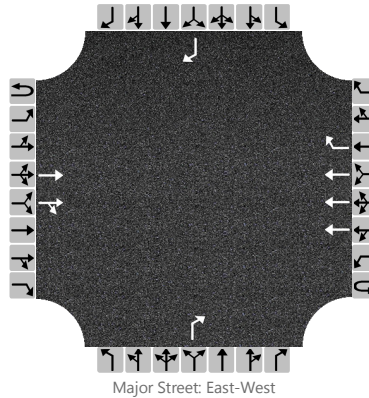
## Delay, Queue Length, and Level of Service

Flow Rate (veh/h)													5				13
Capacity													552				653
v/c Ratio													0.01				0.02
95% Queue Length													0.0				0.1
Control Delay (s/veh)													11.6				10.6
Level of Service (LOS)													B				B
Approach Delay (s/veh)									11.6				10.6				
Approach LOS									B				B				

# HCS 2010 Two-Way Stop Control Summary Report

General Information				Site Information			
Analyst	HLR_SM			Intersection	Jewel Dwy and IL 38		
Agency/Co.				Jurisdiction			
Date Performed	6/3/2016			East/West Street	IL 38		
Analysis Year	2016			North/South Street	Jewel Dwy		
Time Analyzed	4:30-5:30 pm			Peak Hour Factor	1.00		
Intersection Orientation	East-West			Analysis Time Period (hrs)	0.25		
Project Description	Prairie Centre Existing						

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	2	0	0	0	3	1		0	0	1		0	0	1
Configuration			T	TR			T	R				R				R
Volume (veh/h)			597	31			914	72				19				58
Percent Heavy Vehicles												0				0
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

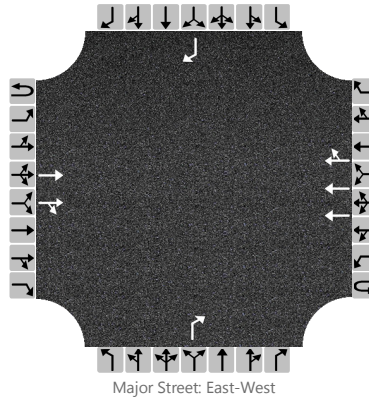
## Delay, Queue Length, and Level of Service

Flow Rate (veh/h)													19				58
Capacity													686				472
v/c Ratio													0.03				0.12
95% Queue Length													0.1				0.4
Control Delay (s/veh)													10.4				13.7
Level of Service (LOS)													B				B
Approach Delay (s/veh)									10.4				13.7				
Approach LOS									B				B				

# HCS 2010 Two-Way Stop Control Summary Report

General Information		Site Information	
Analyst	HLR-SM	Intersection	Jewel Dwy and IL 38
Agency/Co.		Jurisdiction	
Date Performed	6/3/2016	East/West Street	IL 38
Analysis Year	2016	North/South Street	Jewel Dwy
Time Analyzed	11:15am-12:15pm	Peak Hour Factor	0.96
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Prairie Centre TIS Existing		

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Priority																
Number of Lanes	0	0	2	0	0	0	3	0		0	0	1		0	0	1
Configuration			T	TR			T	TR				R				R
Volume (veh/h)			779	46			703	63				27				82
Percent Heavy Vehicles												0				1
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

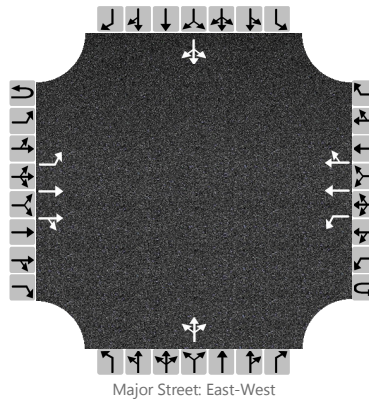
## Delay, Queue Length, and Level of Service

Flow Rate (veh/h)												28				85
Capacity												577				510
v/c Ratio												0.05				0.17
95% Queue Length												0.2				0.6
Control Delay (s/veh)												11.6				13.5
Level of Service (LOS)												B				B
Approach Delay (s/veh)									11.6				13.5			
Approach LOS									B				B			

# HCS 2010 Two-Way Stop Control Summary Report

General Information		Site Information	
Analyst	HLR-SM	Intersection	East Mall Ent/Vand & IL 38
Agency/Co.		Jurisdiction	
Date Performed	6/3/2016	East/West Street	IL 38
Analysis Year	2016	North/South Street	East Mall Ent
Time Analyzed	7:15-8:15 am	Peak Hour Factor	0.92
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Prairie Centre TIS Existing		

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	1	2	0	0	1	2	0		0	1	0		0	1	0
Configuration		L	T	TR		L	T	TR			LTR				LTR	
Volume (veh/h)		4	826	8		25	412	3		10	3	41		3	1	4
Percent Heavy Vehicles		0				4				10	0	2		33	100	0
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

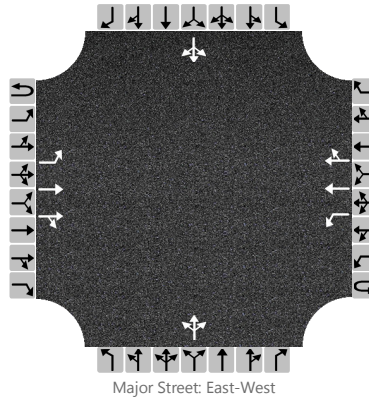
## Delay, Queue Length, and Level of Service

Flow Rate (veh/h)		4				27					59					8	
Capacity		1118				734					311					184	
v/c Ratio		0.00				0.04					0.19					0.04	
95% Queue Length		0.0				0.1					0.7					0.1	
Control Delay (s/veh)		8.2				10.1					19.3					25.4	
Level of Service (LOS)		A				B					C					D	
Approach Delay (s/veh)		0.0				0.6				19.3				25.4			
Approach LOS										C				D			

# HCS 2010 Two-Way Stop Control Summary Report

General Information		Site Information	
Analyst	HLR-SM	Intersection	East Mall Ent/Vand & IL 38
Agency/Co.		Jurisdiction	
Date Performed	6/3/2016	East/West Street	IL 38
Analysis Year	2016	North/South Street	East Mall Ent
Time Analyzed	4:30-5:30 pm	Peak Hour Factor	1.00
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Praire Centre TIS Existing		

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Priority																
Number of Lanes	0	1	2	0	0	1	2	0		0	1	0		0	1	0
Configuration		L	T	TR		L	T	TR			LTR				LTR	
Volume (veh/h)		29	570	25		23	944	14		18	3	32		11	7	34
Percent Heavy Vehicles		3				0				0	0	3		0	0	0
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

## Delay, Queue Length, and Level of Service

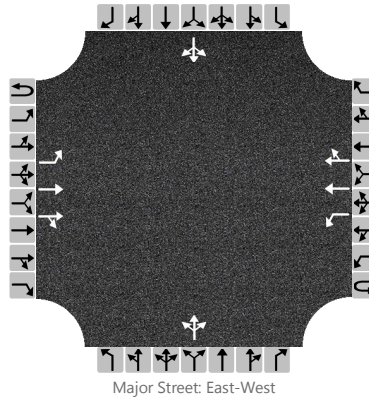
Flow Rate (veh/h)		29				23					53					52		
Capacity		705				991					242					208		
v/c Ratio		0.04				0.02					0.22					0.25		
95% Queue Length		0.1				0.1					0.8					1.0		
Control Delay (s/veh)		10.3				8.7					24.0					28.0		
Level of Service (LOS)		B				A					C					D		
Approach Delay (s/veh)		0.5				0.2					24.0				28.0			
Approach LOS											C				D			



# HCS 2010 Two-Way Stop Control Summary Report

General Information		Site Information	
Analyst	HLR-SM	Intersection	East Mall Ent/Vand& IL 38
Agency/Co.		Jurisdiction	
Date Performed	6/3/2016	East/West Street	IL 38
Analysis Year	2016	North/South Street	East Mall Ent/Vand
Time Analyzed	11:15am-12:15pm	Peak Hour Factor	0.92
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Prairie Center TIS Existing		

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Priority																
Number of Lanes	0	1	2	0	0	1	2	0		0	1	0		0	1	0
Configuration		L	T	TR		L	T	TR			LTR				LTR	
Volume (veh/h)		45	751	17		18	700	21		18	8	20		12	5	44
Percent Heavy Vehicles		0				0				0	0	0		0	0	0
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

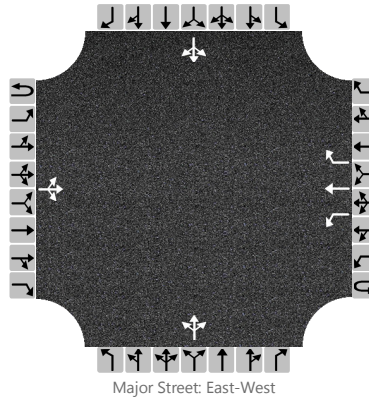
## Delay, Queue Length, and Level of Service

Flow Rate (veh/h)		49				20					51					66	
Capacity		843				808					139					239	
v/c Ratio		0.06				0.02					0.37					0.28	
95% Queue Length		0.2				0.1					1.5					1.1	
Control Delay (s/veh)		9.5				9.6					45.2					25.7	
Level of Service (LOS)		A				A					E					D	
Approach Delay (s/veh)		0.5				0.2				45.2				25.7			
Approach LOS		A				A				E				D			

# HCS 2010 Two-Way Stop Control Summary Report

General Information				Site Information			
Analyst	HLR-SM			Intersection	Jewel Ent and Prairie St		
Agency/Co.				Jurisdiction			
Date Performed	6/3/2016			East/West Street	Prairie St		
Analysis Year	2016			North/South Street	Jewel Ent		
Time Analyzed	7:15-8:15 am			Peak Hour Factor	0.97		
Intersection Orientation	East-West			Analysis Time Period (hrs)	0.25		
Project Description	Prairie Centre TIS Existing						

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	1	1	1		0	1	0		0	1	0
Configuration			LTR			L	T	R			LTR				LTR	
Volume (veh/h)		19	194	13		11	215	13		16	5	11		8	2	23
Percent Heavy Vehicles		8				0				6	0	0		0	0	0
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

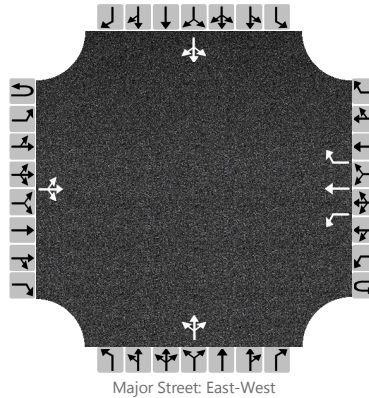
## Delay, Queue Length, and Level of Service

Flow Rate (veh/h)		20				11					32					34		
Capacity		1297				1367					537					669		
v/c Ratio		0.02				0.01					0.06					0.05		
95% Queue Length		0.0				0.0					0.2					0.2		
Control Delay (s/veh)		7.8				7.7					12.1					10.7		
Level of Service (LOS)		A				A					B					B		
Approach Delay (s/veh)		0.8				0.3					12.1				10.7			
Approach LOS											B				B			

# HCS 2010 Two-Way Stop Control Summary Report

General Information		Site Information	
Analyst	HLR-SM	Intersection	Jewel Ent and Prairie St
Agency/Co.		Jurisdiction	
Date Performed	6/3/2016	East/West Street	Prairie St
Analysis Year	2016	North/South Street	Jewel Ent
Time Analyzed	4:30-5:30 pm	Peak Hour Factor	0.93
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Prairie Centre TIS Existing		

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Priority	0	0	1	0	0	1	1	1		0	1	0		0	1	0
Configuration			LTR			L	T	R			LTR				LTR	
Volume (veh/h)		21	216	129		35	307	20		76	12	50		17	7	38
Percent Heavy Vehicles		0				0				0	8	0		0	0	0
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

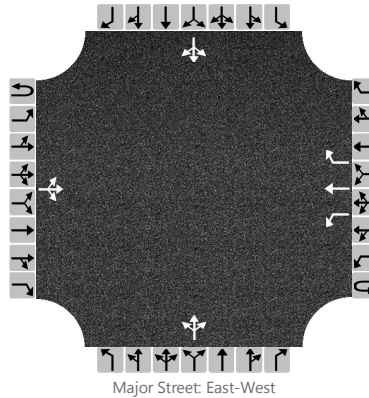
## Delay, Queue Length, and Level of Service

Flow Rate (veh/h)		23				38					149					67	
Capacity		1218				1194					364					441	
v/c Ratio		0.02				0.03					0.41					0.15	
95% Queue Length		0.1				0.1					1.9					0.5	
Control Delay (s/veh)		8.0				8.1					21.6					14.6	
Level of Service (LOS)		A				A					C					B	
Approach Delay (s/veh)		0.7				0.8				21.6				14.6			
Approach LOS										C				B			

# HCS 2010 Two-Way Stop Control Summary Report

General Information		Site Information	
Analyst	HLR-SM	Intersection	Jewel Ent and Prairie St
Agency/Co.		Jurisdiction	
Date Performed	6/3/2016	East/West Street	Prairie St
Analysis Year	2016	North/South Street	Jewel Ent
Time Analyzed	11:15am-12:15pm	Peak Hour Factor	1.00
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Prairie Centre TIS Existing		

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	1	1	1		0	1	0		0	1	0
Configuration			LTR			L	T	R			LTR				LTR	
Volume (veh/h)		38	202	126		30	241	25		84	7	34		17	10	54
Percent Heavy Vehicles		0				0				0	0	0		0	0	0
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

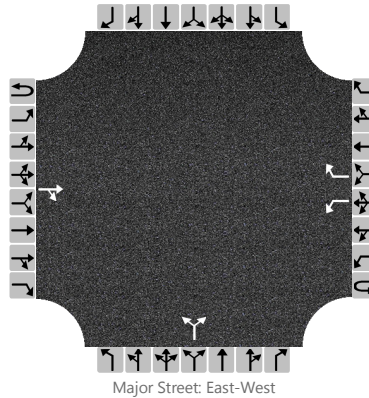
## Delay, Queue Length, and Level of Service

Flow Rate (veh/h)		38				30					125					81	
Capacity		1305				1241					386					549	
v/c Ratio		0.03				0.02					0.32					0.15	
95% Queue Length		0.1				0.1					1.4					0.5	
Control Delay (s/veh)		7.8				8.0					18.7					12.7	
Level of Service (LOS)		A				A					C					B	
Approach Delay (s/veh)		1.1				0.8				18.7				12.7			
Approach LOS										C				B			

# HCS 2010 Two-Way Stop Control Summary Report

General Information		Site Information	
Analyst	HLR-SM	Intersection	West Mall Ent& Prairie St
Agency/Co.		Jurisdiction	
Date Performed	6/3/2016	East/West Street	Prairie St
Analysis Year	2016	North/South Street	West Mall Ent
Time Analyzed	7:15-8:15 am	Peak Hour Factor	1.00
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Prairie Centre TIS Existing		

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	1	0	1		0	0	0		0	0	0
Configuration				TR		L		R			LR					
Volume (veh/h)			217	3		16		243		5		12				
Percent Heavy Vehicles						6				40		0				
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

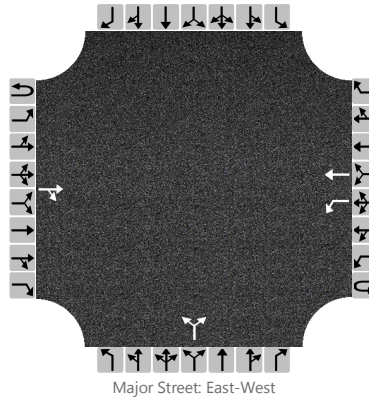
## Delay, Queue Length, and Level of Service

Flow Rate (veh/h)					16					17						
Capacity					1326					850						
v/c Ratio					0.01					0.02						
95% Queue Length					0.0					0.1						
Control Delay (s/veh)					7.7					9.3						
Level of Service (LOS)					A					A						
Approach Delay (s/veh)					0.5				9.3							
Approach LOS									A							

# HCS 2010 Two-Way Stop Control Summary Report

General Information		Site Information	
Analyst	HLR-SM	Intersection	West Mall Ent& Prairie St
Agency/Co.		Jurisdiction	
Date Performed	6/3/2016	East/West Street	Prairie St
Analysis Year	2016	North/South Street	West Mall Ent
Time Analyzed	4:30-5:30 pm	Peak Hour Factor	0.95
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Prairie Centre TIS Existing		

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	1	1	0		0	0	0		0	0	0
Configuration				TR		L	T				LR					
Volume (veh/h)			301	2		33	329			11		43				
Percent Heavy Vehicles						3				0		0				
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

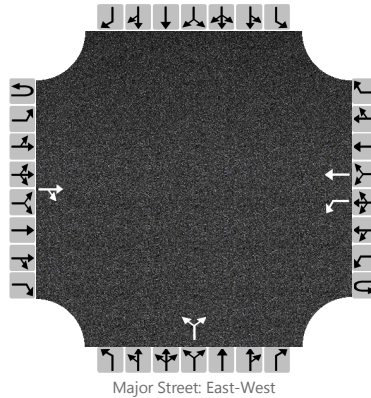
## Delay, Queue Length, and Level of Service

Flow Rate (veh/h)						35						57				
Capacity						1232						608				
v/c Ratio						0.03						0.09				
95% Queue Length						0.1						0.3				
Control Delay (s/veh)						8.0						11.5				
Level of Service (LOS)						A						B				
Approach Delay (s/veh)					0.7				11.5							
Approach LOS									B							

# HCS 2010 Two-Way Stop Control Summary Report

General Information		Site Information	
Analyst	HLR-SM	Intersection	West Mall Ent& Prairie St
Agency/Co.		Jurisdiction	
Date Performed	6/3/2016	East/West Street	Prairie St
Analysis Year	2016	North/South Street	East Mall Ent
Time Analyzed	11:15am-12:15pm	Peak Hour Factor	1.00
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Prairie Centre TIS Existing		

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	1	1	0		0	0	0		0	0	0
Configuration				TR		L	T				LR					
Volume (veh/h)			245	10		26	293			4		42				
Percent Heavy Vehicles						0				25		2				
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

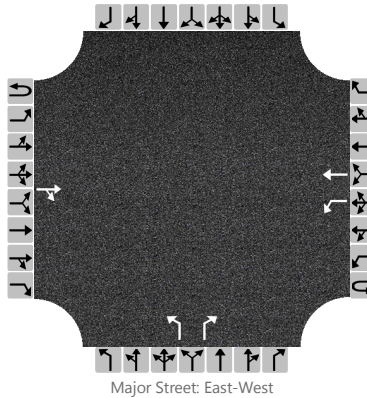
## Delay, Queue Length, and Level of Service

Flow Rate (veh/h)						26						46				
Capacity						1317						727				
v/c Ratio						0.02						0.06				
95% Queue Length						0.1						0.2				
Control Delay (s/veh)						7.8						10.3				
Level of Service (LOS)						A						B				
Approach Delay (s/veh)					0.6				10.3							
Approach LOS									B							

# HCS 2010 Two-Way Stop Control Summary Report

General Information				Site Information			
Analyst	HLR-SM			Intersection	East Mall Ent& Prairie St		
Agency/Co.				Jurisdiction			
Date Performed	6/3/2016			East/West Street	Prairie St		
Analysis Year	2016			North/South Street	East Mall Ent		
Time Analyzed	7:15-8:15 am			Peak Hour Factor	1.00		
Intersection Orientation	East-West			Analysis Time Period (hrs)	0.25		
Project Description	Prairie Centre Existing						

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	1	1	0		1	0	1		0	0	0
Configuration				TR		L	T			L		R				
Volume (veh/h)			247	10		16	248			9		15				
Percent Heavy Vehicles						5				22		7				
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

## Delay, Queue Length, and Level of Service

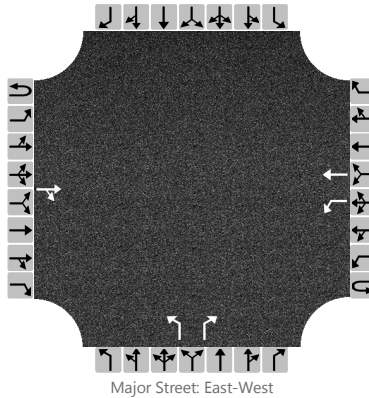
Flow Rate (veh/h)						16					9		15			
Capacity						1284					463		768			
v/c Ratio						0.01					0.02		0.02			
95% Queue Length						0.0					0.1		0.1			
Control Delay (s/veh)						7.8					12.9		9.8			
Level of Service (LOS)						A					B		A			
Approach Delay (s/veh)					0.5				11.0							
Approach LOS									B							



# HCS 2010 Two-Way Stop Control Summary Report

General Information		Site Information	
Analyst	HLR-SM	Intersection	East Mall Ent& Prairie St
Agency/Co.		Jurisdiction	
Date Performed	6/3/2016	East/West Street	Prairie St
Analysis Year	2016	North/South Street	East Mall Ent
Time Analyzed	4:30-5:30 pm	Peak Hour Factor	0.95
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Prairie Centre TIS Existing		

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	1	1	0		1	0	1		0	0	0
Configuration				TR		L	T			L		R				
Volume (veh/h)			335	11		9	365			7		12				
Percent Heavy Vehicles						0				0		8				
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

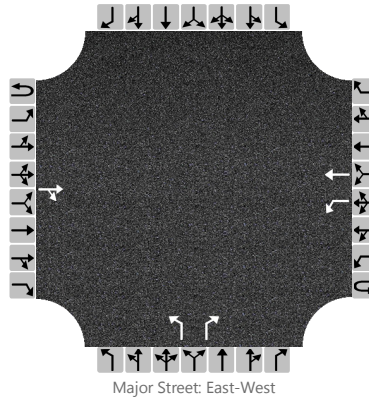
## Delay, Queue Length, and Level of Service

Flow Rate (veh/h)					9					7		13				
Capacity					1188					364		657				
v/c Ratio					0.01					0.02		0.02				
95% Queue Length					0.0					0.1		0.1				
Control Delay (s/veh)					8.1					15.1		10.6				
Level of Service (LOS)					A					C		B				
Approach Delay (s/veh)					0.2				12.2							
Approach LOS									B							

# HCS 2010 Two-Way Stop Control Summary Report

General Information		Site Information	
Analyst	HLR-SM	Intersection	East Mall Ent& Prairie St
Agency/Co.		Jurisdiction	
Date Performed	6/3/2016	East/West Street	Prairie St
Analysis Year	2016	North/South Street	East Mall Ent
Time Analyzed	11:15am-12:15pm	Peak Hour Factor	0.98
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Prairie Centre TIS Existing		

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	1	1	0		1	0	1		0	0	0
Configuration				TR		L	T			L		R				
Volume (veh/h)			278	1		1	322			0		3				
Percent Heavy Vehicles						0				0		0				
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

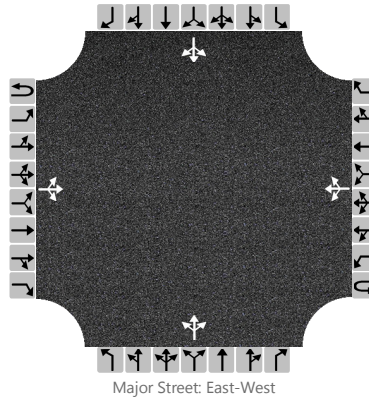
## Delay, Queue Length, and Level of Service

Flow Rate (veh/h)					1								3			
Capacity					1284					455			756			
v/c Ratio					0.00								0.00			
95% Queue Length					0.0								0.0			
Control Delay (s/veh)					7.8					12.9			9.8			
Level of Service (LOS)					A					B			A			
Approach Delay (s/veh)					0.0				9.8							
Approach LOS									A							

# HCS 2010 Two-Way Stop Control Summary Report

General Information		Site Information	
Analyst	HLR-SM	Intersection	Covington Ct & Prairie St
Agency/Co.		Jurisdiction	
Date Performed	6/3/2016	East/West Street	Prairie St
Analysis Year	2016	North/South Street	Covington Ct
Time Analyzed	7:15-8:15 am	Peak Hour Factor	0.89
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Prairie Centre TIS Existing		

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Priority	0	0	1	0	0	0	1	0		0	1	0		0	1	0
Configuration			LTR				LTR				LTR				LTR	
Volume (veh/h)		3	234	5		10	221	8		13	0	23		14	0	5
Percent Heavy Vehicles		3				10				0	0	0		14	0	0
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

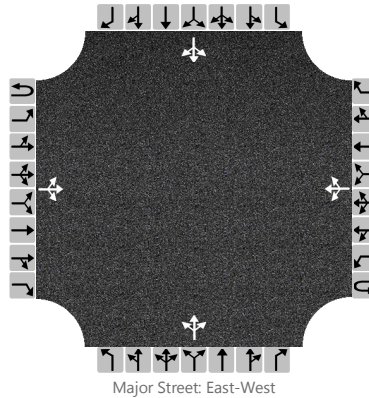
## Delay, Queue Length, and Level of Service

Flow Rate (veh/h)		3				11					41					22	
Capacity		1298				1248					606					463	
v/c Ratio		0.00				0.01					0.07					0.05	
95% Queue Length		0.0				0.0					0.2					0.1	
Control Delay (s/veh)		7.8				7.9					11.4					13.2	
Level of Service (LOS)		A				A					B					B	
Approach Delay (s/veh)		0.1				0.4				11.4				13.2			
Approach LOS										B				B			

# HCS 2010 Two-Way Stop Control Summary Report

General Information		Site Information	
Analyst	HLR-SM	Intersection	Covington Ct & Prairie St
Agency/Co.		Jurisdiction	
Date Performed	6/3/2016	East/West Street	Prairie St
Analysis Year	2016	North/South Street	Covington Ct
Time Analyzed	4:30-5:30 pm	Peak Hour Factor	0.92
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Prairie Centre TIS Existing		

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Priority																
Number of Lanes	0	0	1	0	0	0	1	0		0	1	0		0	1	0
Configuration			LTR				LTR				LTR				LTR	
Volume (veh/h)		8	364	22		15	361	11		12	1	12		6	0	2
Percent Heavy Vehicles		0				0				0	0	0		0	0	0
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

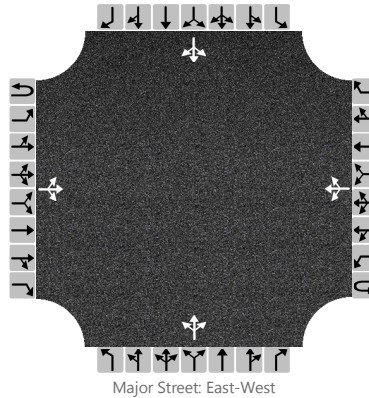
## Delay, Queue Length, and Level of Service

Flow Rate (veh/h)		9			16					27					9		
Capacity		1163			1144					374					303		
v/c Ratio		0.01			0.01					0.07					0.03		
95% Queue Length		0.0			0.0					0.2					0.1		
Control Delay (s/veh)		8.1			8.2					15.4					17.3		
Level of Service (LOS)		A			A					C					C		
Approach Delay (s/veh)		0.3				0.5				15.4				17.3			
Approach LOS										C				C			

# HCS 2010 Two-Way Stop Control Summary Report

General Information		Site Information	
Analyst	HLR-SM	Intersection	Covington Ct & Prairie St
Agency/Co.		Jurisdiction	
Date Performed	6/3/2016	East/West Street	Prairie St
Analysis Year	2016	North/South Street	Covington Ct
Time Analyzed	11:15am-12:15pm	Peak Hour Factor	1.00
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Prairie Centre TIS Existing		

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Priority																
Number of Lanes	0	0	1	0	0	0	1	0		0	1	0		0	1	0
Configuration			LTR				LTR				LTR				LTR	
Volume (veh/h)		8	321	6		6	308	5		21	0	8		7	0	10
Percent Heavy Vehicles		0				0				5	0	0		0	0	0
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

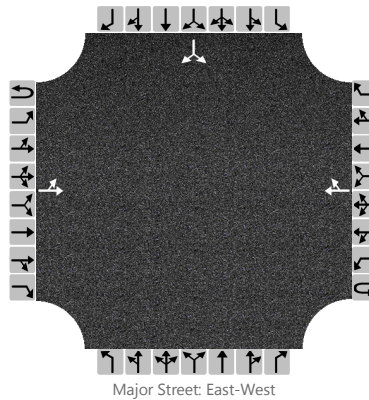
## Delay, Queue Length, and Level of Service

Flow Rate (veh/h)		8			6					29						17	
Capacity		1257			1237					415						519	
v/c Ratio		0.01			0.00					0.07						0.03	
95% Queue Length		0.0			0.0					0.2						0.1	
Control Delay (s/veh)		7.9			7.9					14.3						12.2	
Level of Service (LOS)		A			A					B						B	
Approach Delay (s/veh)		0.2				0.2				14.3				12.2			
Approach LOS										B				B			

# HCS 2010 Two-Way Stop Control Summary Report

General Information		Site Information	
Analyst	HLR-SM	Intersection	16th St and Prairie St
Agency/Co.		Jurisdiction	
Date Performed	6/3/2016	East/West Street	Prairie St
Analysis Year	2016	North/South Street	16th St
Time Analyzed	7:15-8:15 am	Peak Hour Factor	0.93
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Prairie Centre TIS Existing		

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		0	0	0		0	0	0
Configuration		LT						TR								LR
Volume (veh/h)		8	275				223	8						35		29
Percent Heavy Vehicles		13												3		3
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

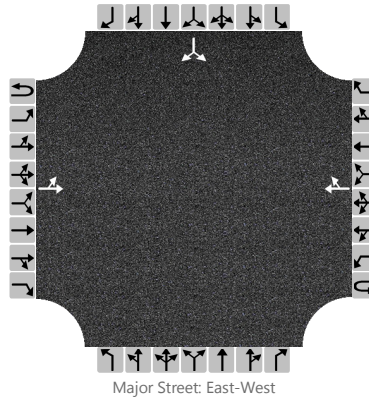
## Delay, Queue Length, and Level of Service

Flow Rate (veh/h)		305														69
Capacity		1247														582
v/c Ratio		0.24														0.12
95% Queue Length		0.0														0.4
Control Delay (s/veh)		7.9														12.0
Level of Service (LOS)		A														B
Approach Delay (s/veh)	0.3												12.0			
Approach LOS													B			

# HCS 2010 Two-Way Stop Control Summary Report

General Information		Site Information	
Analyst	HLR-SM	Intersection	16th St and Prairie St
Agency/Co.		Jurisdiction	
Date Performed	6/3/2016	East/West Street	Prairie St
Analysis Year	2016	North/South Street	16th St
Time Analyzed	4:30-5:30 pm	Peak Hour Factor	0.93
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Prairie Centre TIS Existing		

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		0	0	0		0	0	0
Configuration		LT						TR							LR	
Volume (veh/h)		29	311				345	26						38		37
Percent Heavy Vehicles		0												0		0
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

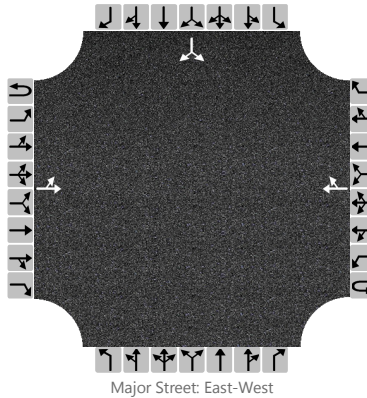
## Delay, Queue Length, and Level of Service

Flow Rate (veh/h)		365														81	
Capacity		1158														454	
v/c Ratio		0.32														0.18	
95% Queue Length		0.1														0.6	
Control Delay (s/veh)		8.2														14.6	
Level of Service (LOS)		A														B	
Approach Delay (s/veh)		0.9												14.6			
Approach LOS														B			

# HCS 2010 Two-Way Stop Control Summary Report

General Information		Site Information	
Analyst	HLR-SM	Intersection	16th St and Prairie St
Agency/Co.		Jurisdiction	
Date Performed	6/3/2016	East/West Street	Prairie St
Analysis Year	2016	North/South Street	16th St
Time Analyzed	11:15am-12:15pm	Peak Hour Factor	1.00
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Prairie Centre TIS Existing		

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		0	0	0		0	0	0
Configuration		LT						TR								LR
Volume (veh/h)		19	318				294	23						38		29
Percent Heavy Vehicles		0												0		0
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

## Delay, Queue Length, and Level of Service

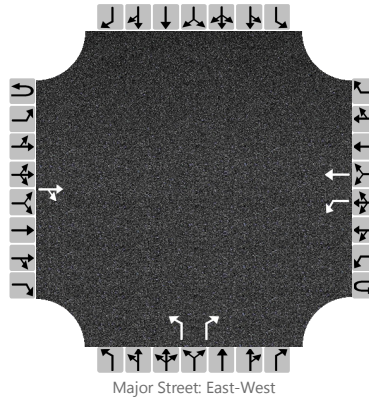
Flow Rate (veh/h)		337														67
Capacity		1241														511
v/c Ratio		0.27														0.13
95% Queue Length		0.0														0.4
Control Delay (s/veh)		7.9														13.1
Level of Service (LOS)		A														B
Approach Delay (s/veh)	0.6												13.1			
Approach LOS													B			



# HCS 2010 Two-Way Stop Control Summary Report

General Information				Site Information			
Analyst	HLR-SM			Intersection	14th St and Prairie St		
Agency/Co.				Jurisdiction			
Date Performed	6/3/2016			East/West Street	Prairie St		
Analysis Year	2016			North/South Street	14th St		
Time Analyzed	7:15-8:15 am			Peak Hour Factor	0.91		
Intersection Orientation	East-West			Analysis Time Period (hrs)	0.25		
Project Description	Prairie Centre TIS Existing						

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	1	1	0		1	0	1		0	0	0
Configuration				TR		L	T			L		R				
Volume (veh/h)			239	74		92	194			29		148				
Percent Heavy Vehicles						0				7		0				
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

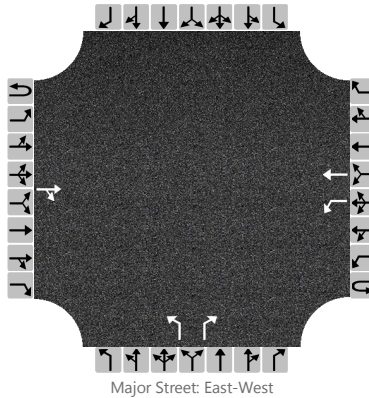
## Delay, Queue Length, and Level of Service

Flow Rate (veh/h)					101					32		163				
Capacity					1220					353		737				
v/c Ratio					0.08					0.09		0.22				
95% Queue Length					0.3					0.3		0.8				
Control Delay (s/veh)					8.2					16.2		11.3				
Level of Service (LOS)					A					C		B				
Approach Delay (s/veh)					2.6				12.1							
Approach LOS									B							

# HCS 2010 Two-Way Stop Control Summary Report

General Information		Site Information	
Analyst	HLR-SM	Intersection	14th St and Prairie St
Agency/Co.		Jurisdiction	
Date Performed	6/3/2016	East/West Street	Prairie St
Analysis Year	2016	North/South Street	14th St
Time Analyzed	4:30-5:30 pm	Peak Hour Factor	0.93
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Prairie Centre TIS Existing		

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	1	1	0		1	0	1		0	0	0
Configuration				TR		L	T			L		R				
Volume (veh/h)			251	93		190	311			58		188				
Percent Heavy Vehicles						1				2		0				
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

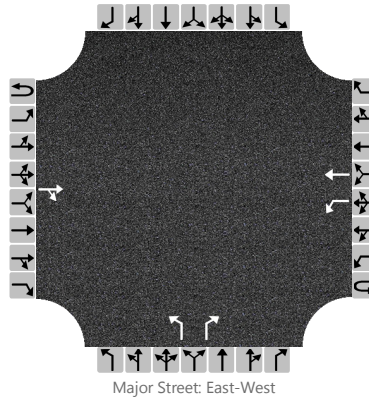
## Delay, Queue Length, and Level of Service

Flow Rate (veh/h)					204					62		202				
Capacity					1183					201		717				
v/c Ratio					0.17					0.31		0.28				
95% Queue Length					0.6					1.2		1.2				
Control Delay (s/veh)					8.7					30.6		12.0				
Level of Service (LOS)					A					D		B				
Approach Delay (s/veh)					3.3				16.4							
Approach LOS									C							

# HCS 2010 Two-Way Stop Control Summary Report

General Information				Site Information			
Analyst	HLR-SM			Intersection	14th St and Prairie St		
Agency/Co.				Jurisdiction			
Date Performed	6/3/2016			East/West Street	Prairie St		
Analysis Year	2016			North/South Street	14th St		
Time Analyzed	11:15am-12:15pm			Peak Hour Factor	1.00		
Intersection Orientation	East-West			Analysis Time Period (hrs)	0.25		
Project Description	Prairie Centre TIS Existing						

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	1	1	0		1	0	1		0	0	0
Configuration				TR		L	T			L		R				
Volume (veh/h)			221	79		137	254			55		146				
Percent Heavy Vehicles						1				0		1				
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

## Delay, Queue Length, and Level of Service

Flow Rate (veh/h)						137					55		146			
Capacity						1260					320		775			
v/c Ratio						0.11					0.17		0.19			
95% Queue Length						0.4					0.6		0.7			
Control Delay (s/veh)						8.2					18.6		10.7			
Level of Service (LOS)						A					C		B			
Approach Delay (s/veh)					2.9				12.9							
Approach LOS									B							

ALL-WAY STOP CONTROL ANALYSIS								
General Information				Site Information				
Analyst	HLR-SM			Intersection	7th St and Prairie St			
Agency/Co.				Jurisdiction				
Date Performed	6/3/2016			Analysis Year	2016 Existing			
Analysis Time Period	7:15-8:15 am							
Project ID <i>Prairie Centre TIS</i>								
East/West Street: <i>Prairie St</i>				North/South Street: <i>7th St</i>				
Volume Adjustments and Site Characteristics								
Approach	Eastbound			Westbound				
Movement	L	T	R	L	T	R		
Volume (veh/h)	94	336	6	10	190	54		
%Thrus Left Lane								
Approach	Northbound			Southbound				
Movement	L	T	R	L	T	R		
Volume (veh/h)	21	75	13	45	60	72		
%Thrus Left Lane								
	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		LTR		LTR	
PHF	0.88		0.88		0.88		0.88	
Flow Rate (veh/h)	493		287		122		200	
% Heavy Vehicles	5		12		28		12	
No. Lanes	1		1		1		1	
Geometry Group	1		1		1		1	
Duration, T	0.25							
Saturation Headway Adjustment Worksheet								
Prop. Left-Turns	0.2		0.0		0.2		0.3	
Prop. Right-Turns	0.0		0.2		0.1		0.4	
Prop. Heavy Vehicle	0.0		0.1		0.3		0.1	
hLT-adj	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
hRT-adj	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6
hHV-adj	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
hadj, computed	0.1		0.1		0.4		0.0	
Departure Headway and Service Time								
hd, initial value (s)	3.20		3.20		3.20		3.20	
x, initial	0.44		0.26		0.11		0.18	
hd, final value (s)	5.71		6.03		7.19		6.54	
x, final value	0.78		0.48		0.24		0.36	
Move-up time, m (s)	2.0		2.0		2.0		2.0	
Service Time, t <sub>s</sub> (s)	3.7		4.0		5.2		4.5	
Capacity and Level of Service								
	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Capacity (veh/h)	617		537		372		450	
Delay (s/veh)	26.09		14.48		12.50		13.22	
LOS	D		B		B		B	
Approach: Delay (s/veh)	26.09		14.48		12.50		13.22	
LOS	D		B		B		B	
Intersection Delay (s/veh)	19.23							
Intersection LOS	C							

ALL-WAY STOP CONTROL ANALYSIS								
General Information				Site Information				
Analyst	HLR-SM			Intersection	7th St and Prairie St			
Agency/Co.				Jurisdiction				
Date Performed	6/3/2016			Analysis Year	2016 Existing			
Analysis Time Period	4:30-5:30 pm							
Project ID <i>Prairie Centre TIS</i>								
East/West Street: <i>Prairie St</i>				North/South Street: <i>7th St</i>				
Volume Adjustments and Site Characteristics								
Approach	Eastbound				Westbound			
Movement	L	T	R	L	T	R		
Volume (veh/h)	59	320	14	12	391	48		
%Thrus Left Lane								
Approach	Northbound				Southbound			
Movement	L	T	R	L	T	R		
Volume (veh/h)	16	36	10	42	97	135		
%Thrus Left Lane								
	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	<i>LTR</i>		<i>LTR</i>		<i>LTR</i>		<i>LTR</i>	
PHF	<i>0.94</i>		<i>0.94</i>		<i>0.94</i>		<i>0.94</i>	
Flow Rate (veh/h)	<i>416</i>		<i>478</i>		<i>65</i>		<i>290</i>	
% Heavy Vehicles	<i>1</i>		<i>2</i>		<i>0</i>		<i>1</i>	
No. Lanes	<i>1</i>		<i>1</i>		<i>1</i>		<i>1</i>	
Geometry Group	<i>1</i>		<i>1</i>		<i>1</i>		<i>1</i>	
Duration, T	<i>0.25</i>							
Saturation Headway Adjustment Worksheet								
Prop. Left-Turns	<i>0.1</i>		<i>0.0</i>		<i>0.3</i>		<i>0.2</i>	
Prop. Right-Turns	<i>0.0</i>		<i>0.1</i>		<i>0.2</i>		<i>0.5</i>	
Prop. Heavy Vehicle	<i>0.0</i>		<i>0.0</i>		<i>0.0</i>		<i>0.0</i>	
hLT-adj	<i>0.2</i>	<i>0.2</i>	<i>0.2</i>	<i>0.2</i>	<i>0.2</i>	<i>0.2</i>	<i>0.2</i>	<i>0.2</i>
hRT-adj	<i>-0.6</i>	<i>-0.6</i>	<i>-0.6</i>	<i>-0.6</i>	<i>-0.6</i>	<i>-0.6</i>	<i>-0.6</i>	<i>-0.6</i>
hHV-adj	<i>1.7</i>	<i>1.7</i>	<i>1.7</i>	<i>1.7</i>	<i>1.7</i>	<i>1.7</i>	<i>1.7</i>	<i>1.7</i>
hadj, computed	<i>0.0</i>		<i>-0.0</i>		<i>-0.0</i>		<i>-0.2</i>	
Departure Headway and Service Time								
hd, initial value (s)	<i>3.20</i>		<i>3.20</i>		<i>3.20</i>		<i>3.20</i>	
x, initial	<i>0.37</i>		<i>0.42</i>		<i>0.06</i>		<i>0.26</i>	
hd, final value (s)	<i>6.08</i>		<i>5.93</i>		<i>7.44</i>		<i>6.44</i>	
x, final value	<i>0.70</i>		<i>0.79</i>		<i>0.13</i>		<i>0.52</i>	
Move-up time, m (s)	<i>2.0</i>		<i>2.0</i>		<i>2.0</i>		<i>2.0</i>	
Service Time, t <sub>s</sub> (s)	<i>4.1</i>		<i>3.9</i>		<i>5.4</i>		<i>4.4</i>	
Capacity and Level of Service								
	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Capacity (veh/h)	<i>570</i>		<i>592</i>		<i>315</i>		<i>508</i>	
Delay (s/veh)	<i>22.18</i>		<i>27.33</i>		<i>11.59</i>		<i>16.18</i>	
LOS	<i>C</i>		<i>D</i>		<i>B</i>		<i>C</i>	
Approach: Delay (s/veh)	<i>22.18</i>		<i>27.33</i>		<i>11.59</i>		<i>16.18</i>	
LOS	<i>C</i>		<i>D</i>		<i>B</i>		<i>C</i>	
Intersection Delay (s/veh)	<i>22.21</i>							
Intersection LOS	<i>C</i>							

ALL-WAY STOP CONTROL ANALYSIS								
General Information				Site Information				
Analyst	HLR-SM			Intersection	7th St and Prairie St			
Agency/Co.				Jurisdiction				
Date Performed	6/3/2016			Analysis Year	2016 Existing			
Analysis Time Period	11:15am-12:15pm							
Project ID <i>Prairie Centre TIS</i>								
East/West Street: <i>Prairie St</i>				North/South Street: <i>7th St</i>				
Volume Adjustments and Site Characteristics								
Approach	Eastbound				Westbound			
Movement	L	T	R	L	T	R		
Volume (veh/h)	59	256	17	12	269	22		
%Thrus Left Lane								
Approach	Northbound				Southbound			
Movement	L	T	R	L	T	R		
Volume (veh/h)	11	34	10	29	38	81		
%Thrus Left Lane								
	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	<i>LTR</i>		<i>LTR</i>		<i>LTR</i>		<i>LTR</i>	
PHF	<i>1.00</i>		<i>1.00</i>		<i>1.00</i>		<i>1.00</i>	
Flow Rate (veh/h)	<i>332</i>		<i>303</i>		<i>55</i>		<i>148</i>	
% Heavy Vehicles	<i>12</i>		<i>1</i>		<i>3</i>		<i>3</i>	
No. Lanes	<i>1</i>		<i>1</i>		<i>1</i>		<i>1</i>	
Geometry Group	<i>1</i>		<i>1</i>		<i>1</i>		<i>1</i>	
Duration, T	<i>0.25</i>							
Saturation Headway Adjustment Worksheet								
Prop. Left-Turns	<i>0.2</i>		<i>0.0</i>		<i>0.2</i>		<i>0.2</i>	
Prop. Right-Turns	<i>0.1</i>		<i>0.1</i>		<i>0.2</i>		<i>0.5</i>	
Prop. Heavy Vehicle	<i>0.1</i>		<i>0.0</i>		<i>0.0</i>		<i>0.0</i>	
hLT-adj	<i>0.2</i>	<i>0.2</i>	<i>0.2</i>	<i>0.2</i>	<i>0.2</i>	<i>0.2</i>	<i>0.2</i>	<i>0.2</i>
hRT-adj	<i>-0.6</i>	<i>-0.6</i>	<i>-0.6</i>	<i>-0.6</i>	<i>-0.6</i>	<i>-0.6</i>	<i>-0.6</i>	<i>-0.6</i>
hHV-adj	<i>1.7</i>	<i>1.7</i>	<i>1.7</i>	<i>1.7</i>	<i>1.7</i>	<i>1.7</i>	<i>1.7</i>	<i>1.7</i>
hadj, computed	<i>0.2</i>		<i>-0.0</i>		<i>-0.0</i>		<i>-0.2</i>	
Departure Headway and Service Time								
hd, initial value (s)	<i>3.20</i>		<i>3.20</i>		<i>3.20</i>		<i>3.20</i>	
x, initial	<i>0.30</i>		<i>0.27</i>		<i>0.05</i>		<i>0.13</i>	
hd, final value (s)	<i>5.10</i>		<i>4.93</i>		<i>5.78</i>		<i>5.37</i>	
x, final value	<i>0.47</i>		<i>0.41</i>		<i>0.09</i>		<i>0.22</i>	
Move-up time, m (s)	<i>2.0</i>		<i>2.0</i>		<i>2.0</i>		<i>2.0</i>	
Service Time, t <sub>s</sub> (s)	<i>3.1</i>		<i>2.9</i>		<i>3.8</i>		<i>3.4</i>	
Capacity and Level of Service								
	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Capacity (veh/h)	<i>582</i>		<i>553</i>		<i>305</i>		<i>398</i>	
Delay (s/veh)	<i>12.56</i>		<i>11.38</i>		<i>9.34</i>		<i>9.88</i>	
LOS	<i>B</i>		<i>B</i>		<i>A</i>		<i>A</i>	
Approach: Delay (s/veh)	<i>12.56</i>		<i>11.38</i>		<i>9.34</i>		<i>9.88</i>	
LOS	<i>B</i>		<i>B</i>		<i>A</i>		<i>A</i>	
Intersection Delay (s/veh)	<i>11.45</i>							
Intersection LOS	<i>B</i>							

ALL-WAY STOP CONTROL ANALYSIS								
General Information				Site Information				
Analyst	HLR-SM			Intersection	3rd St and Prairie St			
Agency/Co.				Jurisdiction				
Date Performed	6/3/2016			Analysis Year	2016 Existing			
Analysis Time Period	7:15-8:15 am							
Project ID <i>Prairie Centre TIS</i>								
East/West Street: <i>Prairie St</i>				North/South Street: <i>3rd St</i>				
Volume Adjustments and Site Characteristics								
Approach	Eastbound				Westbound			
Movement	L	T	R	L	T	R		
Volume (veh/h)	39	333	36	35	175	21		
%Thrus Left Lane								
Approach	Northbound				Southbound			
Movement	L	T	R	L	T	R		
Volume (veh/h)	31	179	41	30	87	33		
%Thrus Left Lane								
	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		LTR		LTR	
PHF	0.92		0.92		0.92		0.92	
Flow Rate (veh/h)	442		250		271		161	
% Heavy Vehicles	14		32		13		21	
No. Lanes	1		1		1		1	
Geometry Group	1		1		1		1	
Duration, T	0.25							
Saturation Headway Adjustment Worksheet								
Prop. Left-Turns	0.1		0.2		0.1		0.2	
Prop. Right-Turns	0.1		0.1		0.2		0.2	
Prop. Heavy Vehicle	0.1		0.3		0.1		0.2	
hLT-adj	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
hRT-adj	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6
hHV-adj	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
hadj, computed	0.2		0.5		0.1		0.3	
Departure Headway and Service Time								
hd, initial value (s)	3.20		3.20		3.20		3.20	
x, initial	0.39		0.22		0.24		0.14	
hd, final value (s)	6.28		7.00		6.81		7.26	
x, final value	0.77		0.49		0.51		0.32	
Move-up time, m (s)	2.0		2.0		2.0		2.0	
Service Time, t <sub>s</sub> (s)	4.3		5.0		4.8		5.3	
Capacity and Level of Service								
	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Capacity (veh/h)	556		473		482		411	
Delay (s/veh)	27.34		16.44		16.76		13.72	
LOS	D		C		C		B	
Approach: Delay (s/veh)	27.34		16.44		16.76		13.72	
LOS	D		C		C		B	
Intersection Delay (s/veh)	20.42							
Intersection LOS	C							

ALL-WAY STOP CONTROL ANALYSIS									
<b>General Information</b>					<b>Site Information</b>				
Analyst	HLR_SM				Intersection	3rd St and Prairie St			
Agency/Co.					Jurisdiction				
Date Performed	6/3/2016				Analysis Year	2016 Existing			
Analysis Time Period	4:30-5:30 pm								
Project ID <i>Prairie Centre TIS</i>									
East/West Street: <i>Prairie St</i>					North/South Street: <i>3rd St</i>				
<b>Volume Adjustments and Site Characteristics</b>									
Approach	Eastbound				Westbound				
Movement	L	T	R		L	T	R		
Volume (veh/h)	33	280	46		57	352	28		
%Thrus Left Lane									
Approach	Northbound				Southbound				
Movement	L	T	R		L	T	R		
Volume (veh/h)	45	124	43		39	198	61		
%Thrus Left Lane									
	Eastbound		Westbound		Northbound		Southbound		
	L1	L2	L1	L2	L1	L2	L1	L2	
Configuration	LTR		LTR		LTR		LTR		
PHF	1.00		1.00		1.00		1.00		
Flow Rate (veh/h)	359		437		212		298		
% Heavy Vehicles	3		0		2		3		
No. Lanes	1		1		1		1		
Geometry Group	1		1		1		1		
Duration, T	0.25								
<b>Saturation Headway Adjustment Worksheet</b>									
Prop. Left-Turns	0.1		0.1		0.2		0.1		
Prop. Right-Turns	0.1		0.1		0.2		0.2		
Prop. Heavy Vehicle	0.0		0.0		0.0		0.0		
hLT-adj	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	
hRT-adj	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	
hHV-adj	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	
hadj, computed	-0.0		-0.0		-0.0		-0.0		
<b>Departure Headway and Service Time</b>									
hd, initial value (s)	3.20		3.20		3.20		3.20		
x, initial	0.32		0.39		0.19		0.26		
hd, final value (s)	7.10		6.89		7.74		7.41		
x, final value	0.71		0.84		0.46		0.61		
Move-up time, m (s)	2.0		2.0		2.0		2.0		
Service Time, t <sub>s</sub> (s)	5.1		4.9		5.7		5.4		
<b>Capacity and Level of Service</b>									
	Eastbound		Westbound		Northbound		Southbound		
	L1	L2	L1	L2	L1	L2	L1	L2	
Capacity (veh/h)	474		506		400		436		
Delay (s/veh)	25.51		35.94		17.06		21.46		
LOS	D		E		C		C		
Approach: Delay (s/veh)	25.51		35.94		17.06		21.46		
LOS	D		E		C		C		
Intersection Delay (s/veh)	26.70								
Intersection LOS	D								

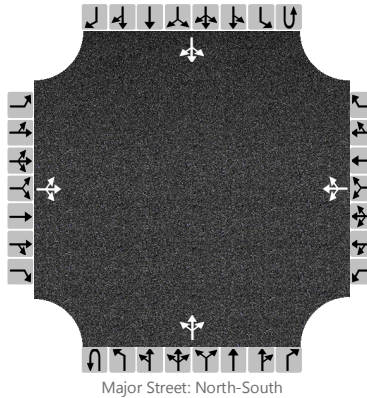


ALL-WAY STOP CONTROL ANALYSIS								
<b>General Information</b>					<b>Site Information</b>			
Analyst	HLR-SM				Intersection	3rd St and Prairie St		
Agency/Co.					Jurisdiction			
Date Performed	6/3/2016				Analysis Year	2016 Existing		
Analysis Time Period	11:15am-12:15pm							
Project ID <i>Prairie Centre TIS</i>								
East/West Street: <i>Prairie St</i>					North/South Street: <i>3rd St</i>			
<b>Volume Adjustments and Site Characteristics</b>								
Approach	Eastbound				Westbound			
Movement	L	T	R		L	T	R	
Volume (veh/h)	22	214	44		46	220	14	
%Thrus Left Lane								
Approach	Northbound				Southbound			
Movement	L	T	R		L	T	R	
Volume (veh/h)	42	119	53		29	126	41	
%Thrus Left Lane								
	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		LTR		LTR	
PHF	0.97		0.97		0.97		0.97	
Flow Rate (veh/h)	287		287		219		200	
% Heavy Vehicles	1		5		7		2	
No. Lanes	1		1		1		1	
Geometry Group	1		1		1		1	
Duration, T	0.25							
<b>Saturation Headway Adjustment Worksheet</b>								
Prop. Left-Turns	0.1		0.2		0.2		0.1	
Prop. Right-Turns	0.2		0.0		0.2		0.2	
Prop. Heavy Vehicle	0.0		0.0		0.1		0.0	
hLT-adj	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
hRT-adj	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6
hHV-adj	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
hadj, computed	-0.1		0.1		0.0		-0.1	
<b>Departure Headway and Service Time</b>								
hd, initial value (s)	3.20		3.20		3.20		3.20	
x, initial	0.26		0.26		0.19		0.18	
hd, final value (s)	5.70		5.84		6.04		6.01	
x, final value	0.45		0.47		0.37		0.33	
Move-up time, m (s)	2.0		2.0		2.0		2.0	
Service Time, t <sub>s</sub> (s)	3.7		3.8		4.0		4.0	
<b>Capacity and Level of Service</b>								
	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Capacity (veh/h)	537		537		469		450	
Delay (s/veh)	13.36		13.82		12.50		11.99	
LOS	B		B		B		B	
Approach: Delay (s/veh)	13.36		13.82		12.50		11.99	
LOS	B		B		B		B	
Intersection Delay (s/veh)	13.03							
Intersection LOS	B							

# HCS 2010 Two-Way Stop Control Summary Report

General Information		Site Information	
Analyst	HLR-SM	Intersection	14th st and Vanderbilt Dr
Agency/Co.		Jurisdiction	
Date Performed	6/3/2016	East/West Street	Vanderbilt Dr
Analysis Year	2016	North/South Street	14th St
Time Analyzed	7:15-8:15am	Peak Hour Factor	0.91
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	Prairie Centre TIS Existing		

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound				
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R	
Movement																	
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6	
Number of Lanes		0	1	0		0	1	0	0	0	1	0	0	0	1	0	
Configuration			LTR				LTR				LTR				LTR		
Volume (veh/h)		7	0	2		0	0	0		4	177	5		2	183	15	
Percent Heavy Vehicles		0	0	50		0	0	0		25				0			
Proportion Time Blocked																	
Right Turn Channelized	No				No				No				No				
Median Type	Undivided																
Median Storage																	

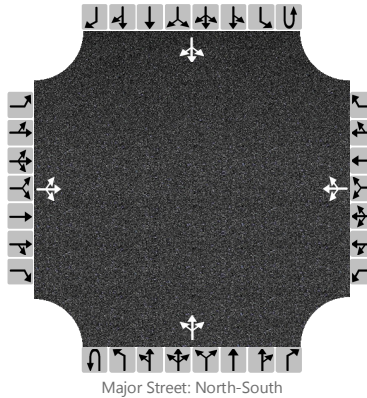
## Delay, Queue Length, and Level of Service

Flow Rate (veh/h)			10							4					2		
Capacity			616							1225					1384		
v/c Ratio			0.02							0.00					0.00		
95% Queue Length			0.0							0.0					0.0		
Control Delay (s/veh)			10.9					5.0		7.9					7.6		
Level of Service (LOS)			B					A		A					A		
Approach Delay (s/veh)	10.9				5.0				0.2				0.1				
Approach LOS	B				A												

# HCS 2010 Two-Way Stop Control Summary Report

General Information		Site Information	
Analyst	HLR-SM	Intersection	14th St and Vanderbilt Dr
Agency/Co.		Jurisdiction	
Date Performed	6/3/2016	East/West Street	Vanderbilt Dr
Analysis Year	2016	North/South Street	14th St
Time Analyzed	4:30-5:30 pm	Peak Hour Factor	0.92
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	Prairie Centre TIS Existing		

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement																
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	0	1	0	0	0	1	0
Configuration			LTR				LTR				LTR				LTR	
Volume (veh/h)		23	0	38		0	0	0		13	287	0		1	299	34
Percent Heavy Vehicles		0	0	0		0	0	0		0				0		
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

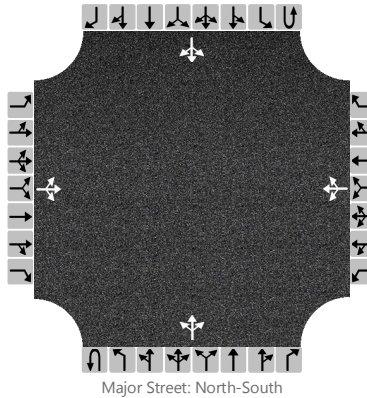
## Delay, Queue Length, and Level of Service

Flow Rate (veh/h)			66							14					1		
Capacity			554							1208					1260		
v/c Ratio			0.12							0.01					0.00		
95% Queue Length			0.4							0.0					0.0		
Control Delay (s/veh)			12.4				5.0			8.0					7.9		
Level of Service (LOS)			B				A			A					A		
Approach Delay (s/veh)	12.4				5.0				0.5				0.0				
Approach LOS	B				A												

# HCS 2010 Two-Way Stop Control Summary Report

General Information		Site Information	
Analyst	HLR-SM	Intersection	14th St and Vanderbilt Dr
Agency/Co.		Jurisdiction	
Date Performed	6/3/2016	East/West Street	Vanderbilt Dr
Analysis Year	2016	North/South Street	14th St
Time Analyzed	11:15am-12:15pm	Peak Hour Factor	1.00
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	Prairie Centre TIS Existing		

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement																
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	0	1	0	0	0	1	0
Configuration			LTR				LTR				LTR				LTR	
Volume (veh/h)		24	0	32		0	0	0		15	264	6		3	277	15
Percent Heavy Vehicles		0	0	0		0	0	0		0				33		
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

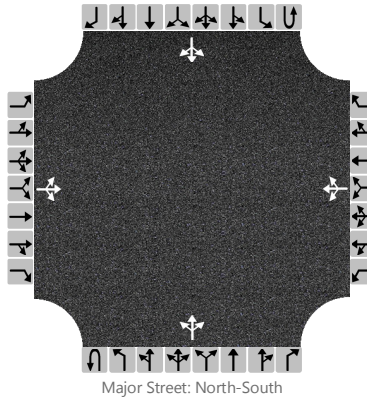
## Delay, Queue Length, and Level of Service

Flow Rate (veh/h)			56							15					3		
Capacity			597							1277					1133		
v/c Ratio			0.09							0.01					0.00		
95% Queue Length			0.3							0.0					0.0		
Control Delay (s/veh)			11.6							7.9					8.2		
Level of Service (LOS)			B							A					A		
Approach Delay (s/veh)	11.6				5.0				0.5				0.1				
Approach LOS	B				A												

# HCS 2010 Two-Way Stop Control Summary Report

General Information		Site Information	
Analyst	HLR-SM	Intersection	14th St and Covington Ct
Agency/Co.		Jurisdiction	
Date Performed	6/3/2016	East/West Street	Covington Ct
Analysis Year	2016	North/South Street	14th St
Time Analyzed	7:15-8:15 am	Peak Hour Factor	0.94
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	Praire Centre TIS Existing		

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound				
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R	
Movement																	
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6	
Number of Lanes		0	1	0		0	1	0	0	0	1	0	0	0	1	0	
Configuration			LTR				LTR				LTR				LTR		
Volume (veh/h)		5	1	20		24	0	4		7	167	13		7	151	0	
Percent Heavy Vehicles		0	0	5		4	0	50		0				29			
Proportion Time Blocked																	
Right Turn Channelized	No				No				No				No				
Median Type	Undivided																
Median Storage																	

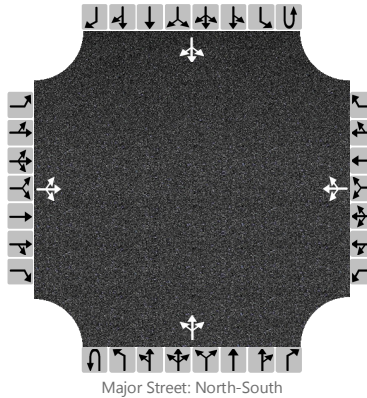
## Delay, Queue Length, and Level of Service

Flow Rate (veh/h)			27			30			7					7			
Capacity			770			559			1420					1227			
v/c Ratio			0.04			0.05			0.00					0.01			
95% Queue Length			0.1			0.2			0.0					0.0			
Control Delay (s/veh)			9.8			11.8			7.5					8.0			
Level of Service (LOS)			A			B			A					A			
Approach Delay (s/veh)	9.8				11.8				0.3				0.4				
Approach LOS	A				B												

# HCS 2010 Two-Way Stop Control Summary Report

General Information		Site Information	
Analyst	HLR-SM	Intersection	14th St and Covington Ct
Agency/Co.		Jurisdiction	
Date Performed	6/3/2016	East/West Street	Covington Ct
Analysis Year	2016	North/South Street	14th St
Time Analyzed	4:30-5:30 pm	Peak Hour Factor	0.89
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	Praire Centre T Existing		

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement																
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	0	1	0	0	0	1	0
Configuration			LTR				LTR				LTR				LTR	
Volume (veh/h)		3	2	14		36	2	5		31	245	36		5	282	3
Percent Heavy Vehicles		0	0	0		0	0	20		0				0		
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

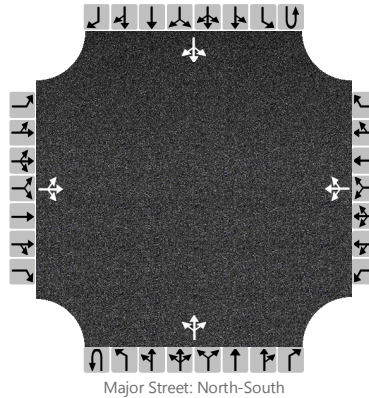
## Delay, Queue Length, and Level of Service

Flow Rate (veh/h)			21			48				35				6		
Capacity			565			352				1246				1251		
v/c Ratio			0.04			0.14				0.03				0.00		
95% Queue Length			0.1			0.5				0.1				0.0		
Control Delay (s/veh)			11.6			16.8				8.0				7.9		
Level of Service (LOS)			B			C				A				A		
Approach Delay (s/veh)	11.6				16.8				1.0				0.2			
Approach LOS	B				C											

# HCS 2010 Two-Way Stop Control Summary Report

General Information		Site Information	
Analyst	HLR-SM	Intersection	14th St and Covington Ct
Agency/Co.		Jurisdiction	
Date Performed	6/3/2016	East/West Street	Covington Ct
Analysis Year	2016	North/South Street	14th St
Time Analyzed	11:15am-12:15pm	Peak Hour Factor	1.00
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	Prairie Centre TIS Existing		

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound				
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R	
Movement																	
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6	
Number of Lanes		0	1	0		0	1	0	0	0	1	0	0	0	1	0	
Configuration			LTR				LTR				LTR				LTR		
Volume (veh/h)		4	1	17		32	1	13		11	192	38		5	205	6	
Percent Heavy Vehicles		0	100	0		3	0	0		0				0			
Proportion Time Blocked																	
Right Turn Channelized	No				No				No				No				
Median Type	Undivided																
Median Storage																	

## Delay, Queue Length, and Level of Service

Flow Rate (veh/h)			22				46				11				5		
Capacity			707				553				1370				1345		
v/c Ratio			0.03				0.08				0.01				0.00		
95% Queue Length			0.1				0.3				0.0				0.0		
Control Delay (s/veh)			10.3				12.1				7.6				7.7		
Level of Service (LOS)			B				B				A				A		
Approach Delay (s/veh)	10.3				12.1				0.4				0.2				
Approach LOS	B				B				A				A				

## APPENDIX C

### HCS Analysis Reports

#### 2026 Base Traffic

#### Weekday AM, Weekday PM, & Saturday Peak Hours

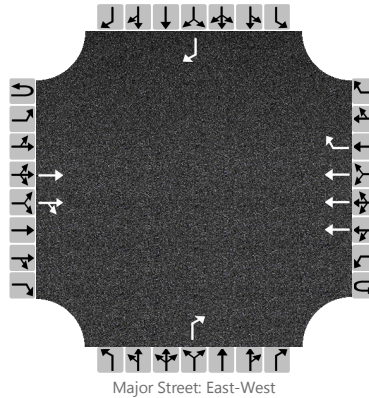
1. IL Route 38 & Jewel Driveway
2. IL Route 38 & East Mall Entrance/Vanderbilt Drive
3. Prairie Street & Jewel Driveway
4. Prairie Street & West Mall Entrance
5. Prairie Street & East Mall Entrance
6. Prairie Street & Covington Court/Wessel Court
7. Prairie Street & 16<sup>th</sup> Street
8. Prairie Street & 14<sup>th</sup> Street
9. Prairie Street & 7<sup>th</sup> Street
10. Prairie Street & 3<sup>rd</sup> Street
11. 14<sup>th</sup> Street & Vanderbilt Drive
12. 14<sup>th</sup> Street & Covington Court/Horne Street



# HCS 2010 Two-Way Stop Control Summary Report

General Information				Site Information			
Analyst	HLR-SM			Intersection	Jewel Dwy and IL 38		
Agency/Co.				Jurisdiction			
Date Performed	6/6/2016			East/West Street	IL 38		
Analysis Year	2026			North/South Street	Jewel Dwy		
Time Analyzed	7:15am-8:15am			Peak Hour Factor	0.92		
Intersection Orientation	East-West			Analysis Time Period (hrs)	0.25		
Project Description	Prairie Centre TIS Projected						

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	2	0	0	0	3	1		0	0	1		0	0	1
Configuration			T	TR			T	R				R				R
Volume (veh/h)			947	23			466	21				6				13
Percent Heavy Vehicles												3				3
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

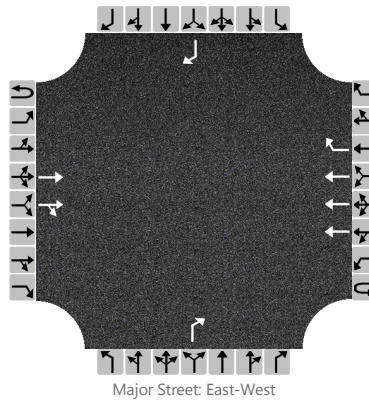
## Delay, Queue Length, and Level of Service

Flow Rate (veh/h)												7				14
Capacity												493				633
v/c Ratio												0.01				0.02
95% Queue Length												0.0				0.1
Control Delay (s/veh)												12.4				10.8
Level of Service (LOS)												B				B
Approach Delay (s/veh)									12.4				10.8			
Approach LOS									B				B			

# HCS 2010 Two-Way Stop Control Summary Report

General Information		Site Information	
Analyst	HLR-SM	Intersection	Jewel Dwy and IL 38
Agency/Co.		Jurisdiction	
Date Performed	6/6/2016	East/West Street	IL 38
Analysis Year	2026	North/South Street	Jewel Dwy
Time Analyzed	4:30pm-5:30pm	Peak Hour Factor	0.92
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Prairie Centre TIS Projected		

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	2	0	0	0	3	1		0	0	1		0	0	1
Configuration			T	TR			T	R				R				R
Volume (veh/h)			685	34			1036	79				21				64
Percent Heavy Vehicles												3				3
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

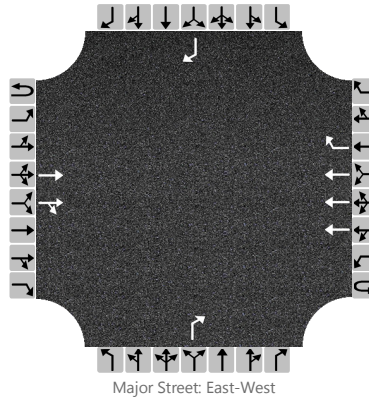
## Delay, Queue Length, and Level of Service

Flow Rate (veh/h)													23				70
Capacity													605				400
v/c Ratio													0.04				0.17
95% Queue Length													0.1				0.6
Control Delay (s/veh)													11.2				15.9
Level of Service (LOS)													B				C
Approach Delay (s/veh)									11.2				15.9				
Approach LOS									B				C				

# HCS 2010 Two-Way Stop Control Summary Report

General Information		Site Information	
Analyst	HLR-SM	Intersection	Jewel Dwy and IL 38
Agency/Co.		Jurisdiction	
Date Performed	6/6/2016	East/West Street	IL 38
Analysis Year	2026	North/South Street	Jewel Dwy
Time Analyzed	11:15am-12:15pm	Peak Hour Factor	0.92
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Prairie Centre TIS Projected		

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Priority																
Number of Lanes	0	0	2	0	0	0	3	1		0	0	1		0	0	1
Configuration			T	TR			T	R				R				R
Volume (veh/h)			877	51			794	70				30				91
Percent Heavy Vehicles												3				3
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

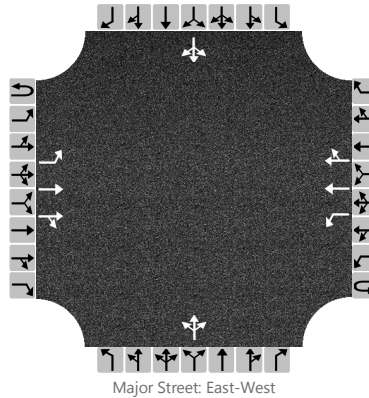
## Delay, Queue Length, and Level of Service

Flow Rate (veh/h)													33				99
Capacity													511				487
v/c Ratio													0.06				0.20
95% Queue Length													0.2				0.8
Control Delay (s/veh)													12.5				14.3
Level of Service (LOS)													B				B
Approach Delay (s/veh)									12.5				14.3				
Approach LOS									B				B				

# HCS 2010 Two-Way Stop Control Summary Report

General Information		Site Information	
Analyst	HLR-SM	Intersection	East Mall Ent/Vand&IL 38
Agency/Co.		Jurisdiction	
Date Performed	6/6/2016	East/West Street	IL 38
Analysis Year	2026	North/South Street	East Mall Ent/Vand
Time Analyzed	7:15am-8:15am	Peak Hour Factor	0.92
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Prairie Centre TIS Projected		

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	1	2	0	0	1	2	0		0	1	0		0	1	0
Configuration		L	T	TR		L	T	TR			LTR				LTR	
Volume (veh/h)		4	924	9		28	467	3		11	3	45		3	1	4
Percent Heavy Vehicles		3				3				3	3	3		3	3	3
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

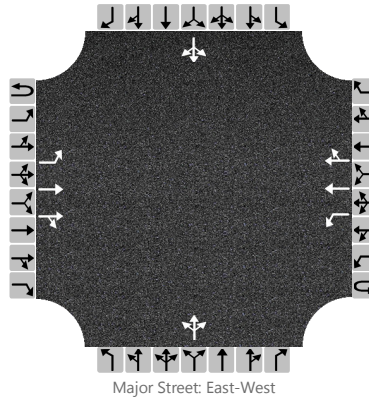
## Delay, Queue Length, and Level of Service

Flow Rate (veh/h)		4			30					64					8		
Capacity		1044			674					267					222		
v/c Ratio		0.00			0.04					0.24					0.04		
95% Queue Length		0.0			0.1					0.9					0.1		
Control Delay (s/veh)		8.5			10.6					22.7					21.8		
Level of Service (LOS)		A			B					C					C		
Approach Delay (s/veh)		0.0				0.6				22.7				21.8			
Approach LOS										C				C			

# HCS 2010 Two-Way Stop Control Summary Report

General Information		Site Information	
Analyst	HLR-SM	Intersection	East Mall Ent/Vand&IL 38
Agency/Co.		Jurisdiction	
Date Performed	6/6/2016	East/West Street	IL 38
Analysis Year	2026	North/South Street	East Mall Ent/Vand
Time Analyzed	4:30pm-5:30pm	Peak Hour Factor	0.92
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Prairie Centre TIS Projected		

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Priority																
Number of Lanes	0	1	2	0	0	1	2	0		0	1	0		0	1	0
Configuration		L	T	TR		L	T	TR			LTR				LTR	
Volume (veh/h)		32	655	28		25	1069	15		20	3	35		12	8	38
Percent Heavy Vehicles		3				3				3	3	3		3	3	3
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

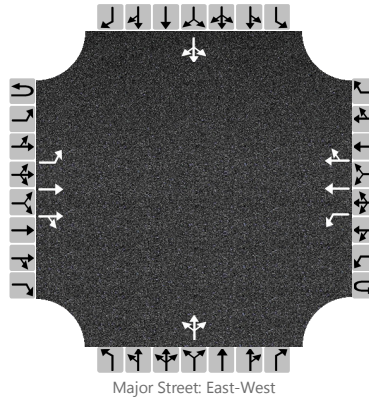
## Delay, Queue Length, and Level of Service

Flow Rate (veh/h)		35				27					63					63	
Capacity		583				854					143					123	
v/c Ratio		0.06				0.03					0.44					0.51	
95% Queue Length		0.2				0.1					2.0					2.4	
Control Delay (s/veh)		11.6				9.4					48.9					61.5	
Level of Service (LOS)		B				A					E					F	
Approach Delay (s/veh)		0.5				0.2				48.9				61.5			
Approach LOS										E				F			

# HCS 2010 Two-Way Stop Control Summary Report

General Information		Site Information	
Analyst	HLR-SM	Intersection	East Mall Ent/Vand&IL 38
Agency/Co.		Jurisdiction	
Date Performed	6/6/2016	East/West Street	IL 38
Analysis Year	2026	North/South Street	East Mall Ent/Vand
Time Analyzed	11:15am-12:15pm	Peak Hour Factor	0.92
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Prairie Centre Projected		

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Priority																
Number of Lanes	0	1	2	0	0	1	2	0		0	1	0		0	1	0
Configuration		L	T	TR		L	T	TR			LTR				LTR	
Volume (veh/h)		50	846	19		20	791	23		20	9	22		13	6	49
Percent Heavy Vehicles		3				3				3	3	3		3	3	3
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

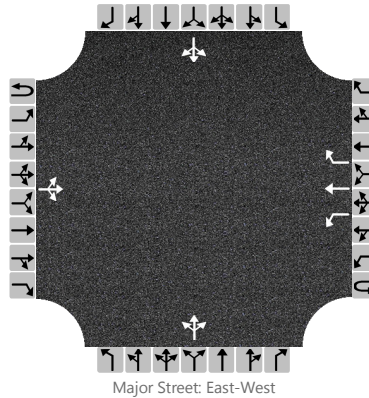
## Delay, Queue Length, and Level of Service

Flow Rate (veh/h)		54				22					56					74	
Capacity		754				718					96					169	
v/c Ratio		0.07				0.03					0.58					0.44	
95% Queue Length		0.2				0.1					2.7					2.0	
Control Delay (s/veh)		10.1				10.2					85.4					41.9	
Level of Service (LOS)		B				B					F					E	
Approach Delay (s/veh)		0.6				0.2				85.4				41.9			
Approach LOS										F				E			

# HCS 2010 Two-Way Stop Control Summary Report

General Information		Site Information	
Analyst	HLR-SM	Intersection	Jewel Ent and Prairie St
Agency/Co.		Jurisdiction	
Date Performed	6/6/2016	East/West Street	Prairie St
Analysis Year	2026	North/South Street	Jewel Ent
Time Analyzed	7:15am-8:15am	Peak Hour Factor	0.92
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Prairie Centre TIS Projected		

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Priority																
Number of Lanes	0	0	1	0	0	1	1	1		0	1	0		0	1	0
Configuration			LTR			L	T	R			LTR				LTR	
Volume (veh/h)		24	244	44		14	270	16		20	6	14		10	3	29
Percent Heavy Vehicles		3				3				3	3	3		3	3	3
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

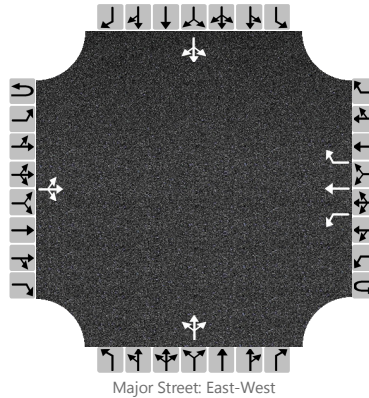
## Delay, Queue Length, and Level of Service

Flow Rate (veh/h)		26				15					44					46	
Capacity		1243				1240					419					551	
v/c Ratio		0.02				0.01					0.10					0.08	
95% Queue Length		0.1				0.0					0.3					0.3	
Control Delay (s/veh)		8.0				7.9					14.6					12.1	
Level of Service (LOS)		A				A					B					B	
Approach Delay (s/veh)		0.8				0.4				14.6				12.1			
Approach LOS										B				B			

# HCS 2010 Two-Way Stop Control Summary Report

General Information		Site Information	
Analyst	HLR-SM	Intersection	Jewel Ent and Prairie St
Agency/Co.		Jurisdiction	
Date Performed	6/6/2016	East/West Street	Prairie St
Analysis Year	2026	North/South Street	Jewel Ent
Time Analyzed	4:30pm-5:30pm	Peak Hour Factor	0.92
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Prairie Centre TIS Projected		

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Priority																
Number of Lanes	0	0	1	0	0	1	1	1		0	1	0		0	1	0
Configuration			LTR			L	T	R			LTR				LTR	
Volume (veh/h)		30	225	138		44	316	29		85	21	59		26	16	47
Percent Heavy Vehicles		3				3				3	3	3		3	3	3
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

## Delay, Queue Length, and Level of Service

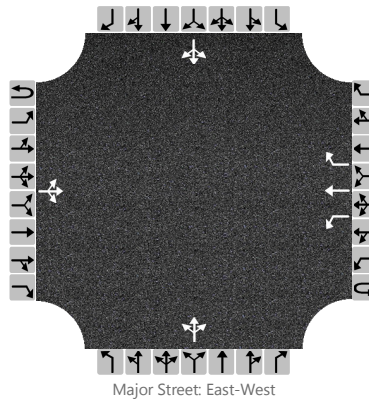
Flow Rate (veh/h)		33				48					179					96	
Capacity		1177				1157					312					359	
v/c Ratio		0.03				0.04					0.57					0.27	
95% Queue Length		0.1				0.1					3.4					1.1	
Control Delay (s/veh)		8.1				8.2					31.0					18.7	
Level of Service (LOS)		A				A					D					C	
Approach Delay (s/veh)		0.9				0.9				31.0				18.7			
Approach LOS										D				C			



# HCS 2010 Two-Way Stop Control Summary Report

General Information		Site Information	
Analyst	HLR-SM	Intersection	Jewel Ent and Prairie St
Agency/Co.		Jurisdiction	
Date Performed	6/6/2016	East/West Street	Prairie St
Analysis Year	2026	North/South Street	Jewel Ent
Time Analyzed	11:15am-12:15pm	Peak Hour Factor	0.92
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Prairie Centre TIS Projected		

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Priority																
Number of Lanes	0	0	1	0	0	1	1	1		0	1	0		0	1	0
Configuration			LTR			L	T	R			LTR				LTR	
Volume (veh/h)		48	254	158		38	303	31		106	9	43		21	13	68
Percent Heavy Vehicles		3				3				3	3	3		3	3	3
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

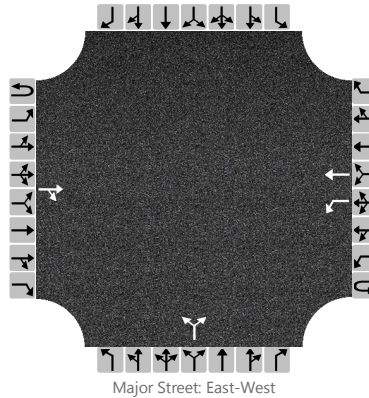
## Delay, Queue Length, and Level of Service

Flow Rate (veh/h)		52				41					172					111		
Capacity		1189				1106					250					408		
v/c Ratio		0.04				0.04					0.69					0.27		
95% Queue Length		0.1				0.1					4.5					1.1		
Control Delay (s/veh)		8.2				8.4					46.1					17.1		
Level of Service (LOS)		A				A					E					C		
Approach Delay (s/veh)		1.3				0.9					46.1				17.1			
Approach LOS											E				C			

# HCS 2010 Two-Way Stop Control Summary Report

General Information		Site Information	
Analyst	HLR-SM	Intersection	West Mall Ent& Prairie St
Agency/Co.		Jurisdiction	
Date Performed	6/6/2016	East/West Street	Prairie St
Analysis Year	2026	North/South Street	West Mall Ent
Time Analyzed	7:15am-8:15am	Peak Hour Factor	0.92
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Prairie Centre TIS Projected		

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	1	1	0		0	0	0		0	0	0
Configuration				TR		L	T				LR					
Volume (veh/h)			273	4		20	305			6		15				
Percent Heavy Vehicles						3				3		3				
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

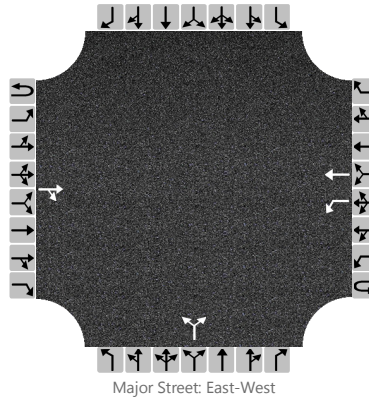
## Delay, Queue Length, and Level of Service

Flow Rate (veh/h)						22						23				
Capacity						1253						594				
v/c Ratio						0.02						0.04				
95% Queue Length						0.1						0.1				
Control Delay (s/veh)						7.9						11.3				
Level of Service (LOS)						A						B				
Approach Delay (s/veh)					0.5				11.3							
Approach LOS									B							

# HCS 2010 Two-Way Stop Control Summary Report

General Information		Site Information	
Analyst	HLR-SM	Intersection	West Mall Ent&Prairie St
Agency/Co.		Jurisdiction	
Date Performed	6/6/2016	East/West Street	Prairie St
Analysis Year	2026	North/South Street	West Mall Ent
Time Analyzed	4:30pm-5:30pm	Peak Hour Factor	0.92
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Prairie Centre Projected		

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	1	1	0		0	0	0		0	0	0
Configuration				TR		L	T				LR					
Volume (veh/h)			378	3		41	413			14		54				
Percent Heavy Vehicles						3				3		3				
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

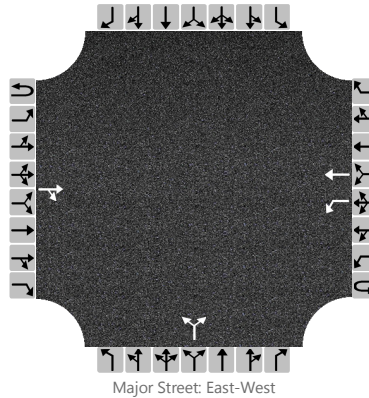
## Delay, Queue Length, and Level of Service

Flow Rate (veh/h)					45					74						
Capacity					1138					503						
v/c Ratio					0.04					0.15						
95% Queue Length					0.1					0.5						
Control Delay (s/veh)					8.3					13.4						
Level of Service (LOS)					A					B						
Approach Delay (s/veh)					0.8				13.4							
Approach LOS									B							

# HCS 2010 Two-Way Stop Control Summary Report

General Information		Site Information	
Analyst	HLR-SM	Intersection	West Mall Ent&Prairie St
Agency/Co.		Jurisdiction	
Date Performed	6/6/2016	East/West Street	Prairie St
Analysis Year	2026	North/South Street	West Mall Ent
Time Analyzed	11:15am-12:15pm	Peak Hour Factor	0.92
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Prairie Centre TIS Projected		

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	1	1	0		0	0	0		0	0	0
Configuration				TR		L	T				LR					
Volume (veh/h)			308	13		33	368			5		53				
Percent Heavy Vehicles						3				3		3				
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

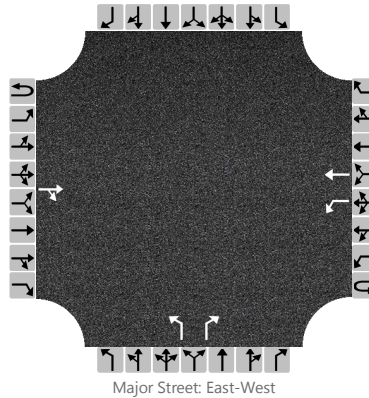
## Delay, Queue Length, and Level of Service

Flow Rate (veh/h)						36						63				
Capacity						1203						643				
v/c Ratio						0.03						0.10				
95% Queue Length						0.1						0.3				
Control Delay (s/veh)						8.1						11.2				
Level of Service (LOS)						A						B				
Approach Delay (s/veh)					0.7				11.2							
Approach LOS									B							

# HCS 2010 Two-Way Stop Control Summary Report

General Information		Site Information	
Analyst	HLR-SM	Intersection	East Mall Ent&Prairie St
Agency/Co.		Jurisdiction	
Date Performed	6/6/2016	East/West Street	Prairie St
Analysis Year	2026	North/South Street	East Mall Ent
Time Analyzed	7:15am-8:15am	Peak Hour Factor	0.92
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Prairie Centre TIS Projected		

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	1	1	0		1	0	1		0	0	0
Configuration				TR		L	T			L		R				
Volume (veh/h)			310	13		20	311			11		19				
Percent Heavy Vehicles						3				3		3				
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

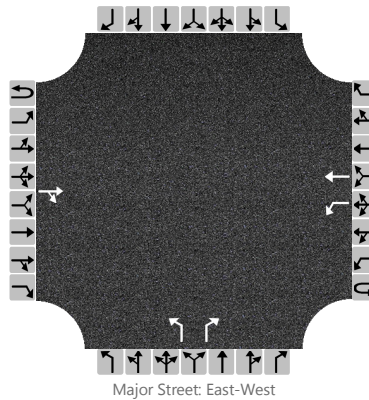
## Delay, Queue Length, and Level of Service

Flow Rate (veh/h)					22					12		21				
Capacity					1201					383		696				
v/c Ratio					0.02					0.03		0.03				
95% Queue Length					0.1					0.1		0.1				
Control Delay (s/veh)					8.1					14.7		10.3				
Level of Service (LOS)					A					B		B				
Approach Delay (s/veh)					0.5				11.9							
Approach LOS									B							

# HCS 2010 Two-Way Stop Control Summary Report

General Information		Site Information	
Analyst	HLR-SM	Intersection	East Mall Ent&Prairie St
Agency/Co.		Jurisdiction	
Date Performed	6/6/2016	East/West Street	Prairie St
Analysis Year	2026	North/South Street	East Mall Ent
Time Analyzed	4:30pm-5:30pm	Peak Hour Factor	0.92
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Prairie Centre TIS Projected		

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	1	1	0		1	0	1		0	0	0
Configuration				TR		L	T			L		R				
Volume (veh/h)			421	14		11	458			9		15				
Percent Heavy Vehicles						3				3		3				
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

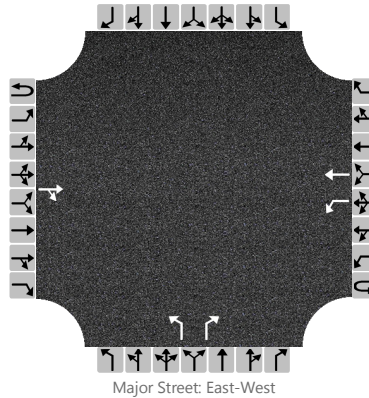
## Delay, Queue Length, and Level of Service

Flow Rate (veh/h)					12					10		16				
Capacity					1083					270		594				
v/c Ratio					0.01					0.04		0.03				
95% Queue Length					0.0					0.1		0.1				
Control Delay (s/veh)					8.4					18.9		11.2				
Level of Service (LOS)					A					C		B				
Approach Delay (s/veh)					0.2				14.2							
Approach LOS									B							

# HCS 2010 Two-Way Stop Control Summary Report

General Information		Site Information	
Analyst	HLR-SM	Intersection	East Mall Ent&Prairie St
Agency/Co.		Jurisdiction	
Date Performed	6/6/2016	East/West Street	Prairie St
Analysis Year	2026	North/South Street	East Mall Ent
Time Analyzed	11:15am-12:15pm	Peak Hour Factor	0.92
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Prairie Centre TIS Projected		

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	1	1	0		1	0	1		0	0	0
Configuration				TR		L	T			L		R				
Volume (veh/h)			349	1		1	404			0		4				
Percent Heavy Vehicles						3				3		3				
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

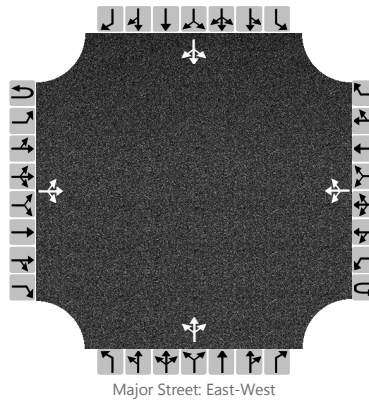
## Delay, Queue Length, and Level of Service

Flow Rate (veh/h)					1							4				
Capacity					1172					343		664				
v/c Ratio					0.00							0.01				
95% Queue Length					0.0							0.0				
Control Delay (s/veh)					8.1					15.5		10.5				
Level of Service (LOS)					A					C		B				
Approach Delay (s/veh)					0.0				10.5							
Approach LOS									B							

# HCS 2010 Two-Way Stop Control Summary Report

General Information		Site Information	
Analyst	HLR-SM	Intersection	Covington Ct & Prairie St
Agency/Co.		Jurisdiction	
Date Performed	6/6/2016	East/West Street	Prairie St
Analysis Year	2026	North/South Street	Covington Ct
Time Analyzed	7:15am-8:15am	Peak Hour Factor	0.92
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Prairie Centre TIS Projected		

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Priority	0	0	1	0	0	0	1	0		0	1	0		0	1	0
Configuration			LTR				LTR				LTR				LTR	
Volume (veh/h)		4	294	6		13	278	10		16	0	29		18	0	6
Percent Heavy Vehicles		3				3				3	3	3		3	3	3
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

## Delay, Queue Length, and Level of Service

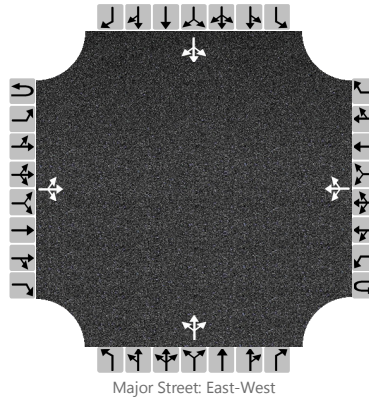
Flow Rate (veh/h)		4			14					49						27	
Capacity		1240			1226					533						396	
v/c Ratio		0.00			0.01					0.09						0.07	
95% Queue Length		0.0			0.0					0.3						0.2	
Control Delay (s/veh)		7.9			8.0					12.4						14.8	
Level of Service (LOS)		A			A					B						B	
Approach Delay (s/veh)		0.1				0.4				12.4				14.8			
Approach LOS										B				B			



# HCS 2010 Two-Way Stop Control Summary Report

General Information		Site Information	
Analyst	HLR-SM	Intersection	Covington Ct & Prairie St
Agency/Co.		Jurisdiction	
Date Performed	6/6/2016	East/West Street	Prairie St
Analysis Year	2026	North/South Street	Covington Ct
Time Analyzed	4:30pm-5:30pm	Peak Hour Factor	0.92
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Prairie Centre TIS Projected		

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Priority																
Number of Lanes	0	0	1	0	0	0	1	0		0	1	0		0	1	0
Configuration			LTR				LTR				LTR				LTR	
Volume (veh/h)		10	457	28		19	453	14		15	1	15		8	0	3
Percent Heavy Vehicles		3				3				3	3	3		3	3	3
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

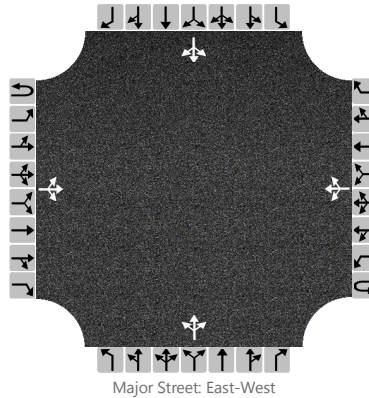
## Delay, Queue Length, and Level of Service

Flow Rate (veh/h)		11			21					33					12		
Capacity		1052			1034					279					218		
v/c Ratio		0.01			0.02					0.12					0.05		
95% Queue Length		0.0			0.1					0.4					0.2		
Control Delay (s/veh)		8.5			8.6					19.6					22.4		
Level of Service (LOS)		A			A					C					C		
Approach Delay (s/veh)		0.3				0.6				19.6				22.4			
Approach LOS										C				C			

# HCS 2010 Two-Way Stop Control Summary Report

General Information		Site Information	
Analyst	HLR-SM	Intersection	Covington Ct & Prairie St
Agency/Co.		Jurisdiction	
Date Performed	6/6/2016	East/West Street	Prairie St
Analysis Year	2026	North/South Street	Covington Ct
Time Analyzed	11:15am-12:15pm	Peak Hour Factor	0.92
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Prairie Centre Projected		

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Priority																
Number of Lanes	0	0	1	0	0	0	1	0		0	1	0		0	1	0
Configuration			LTR				LTR				LTR				LTR	
Volume (veh/h)		10	403	8		8	387	6		26	0	10		9	0	13
Percent Heavy Vehicles		3				3				3	3	3		3	3	3
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

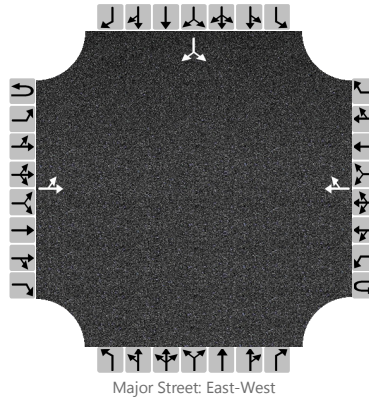
## Delay, Queue Length, and Level of Service

Flow Rate (veh/h)		11				9					39					24	
Capacity		1125				1107					292					380	
v/c Ratio		0.01				0.01					0.13					0.06	
95% Queue Length		0.0				0.0					0.5					0.2	
Control Delay (s/veh)		8.2				8.3					19.2					15.1	
Level of Service (LOS)		A				A					C					C	
Approach Delay (s/veh)		0.3				0.3				19.2				15.1			
Approach LOS										C				C			

# HCS 2010 Two-Way Stop Control Summary Report

General Information		Site Information	
Analyst	HLR-SM	Intersection	16th St and Prairie St
Agency/Co.		Jurisdiction	
Date Performed	6/6/2016	East/West Street	Prairie St
Analysis Year	2026	North/South Street	16th St
Time Analyzed	7:15am-8:15am	Peak Hour Factor	0.92
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Prairie Centre Projected		

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		0	0	0		0	0	0
Configuration		LT						TR								LR
Volume (veh/h)		10	345				280	11						45		36
Percent Heavy Vehicles		3												3		3
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

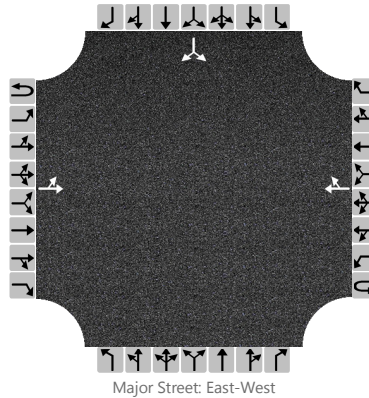
## Delay, Queue Length, and Level of Service

Flow Rate (veh/h)		386														88
Capacity		1237														497
v/c Ratio		0.31														0.18
95% Queue Length		0.0														0.6
Control Delay (s/veh)		7.9														13.8
Level of Service (LOS)		A														B
Approach Delay (s/veh)	0.3												13.8			
Approach LOS													B			

# HCS 2010 Two-Way Stop Control Summary Report

General Information		Site Information	
Analyst	HLR-SM	Intersection	16th St and Prairie St
Agency/Co.		Jurisdiction	
Date Performed	6/6/2016	East/West Street	Prairie St
Analysis Year	2026	North/South Street	16th St
Time Analyzed	4:30pm-5:30pm	Peak Hour Factor	0.92
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Prairie Centre Projected		

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Priority																
Number of Lanes	0	0	1	0	0	0	1	0		0	0	0		0	0	0
Configuration		LT						TR							LR	
Volume (veh/h)		36	391				433	34						49		46
Percent Heavy Vehicles		3												3		3
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

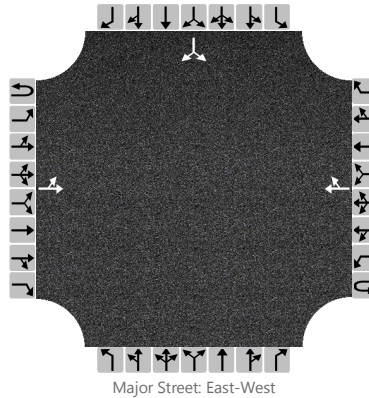
## Delay, Queue Length, and Level of Service

Flow Rate (veh/h)		464														103
Capacity		1051														355
v/c Ratio		0.44														0.29
95% Queue Length		0.1														1.2
Control Delay (s/veh)		8.6														19.2
Level of Service (LOS)		A														C
Approach Delay (s/veh)	1.1												19.2			
Approach LOS													C			

# HCS 2010 Two-Way Stop Control Summary Report

General Information		Site Information	
Analyst	HLR-SM	Intersection	16th St and Prairie St
Agency/Co.		Jurisdiction	
Date Performed	6/6/2016	East/West Street	Prairie St
Analysis Year	2026	North/South Street	16th St
Time Analyzed	11:15am-12:15pm	Peak Hour Factor	0.92
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Prairie Centre Projected		

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		0	0	0		0	0	0
Configuration		LT						TR								LR
Volume (veh/h)		24	399				369	30						49		36
Percent Heavy Vehicles		3												3		3
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

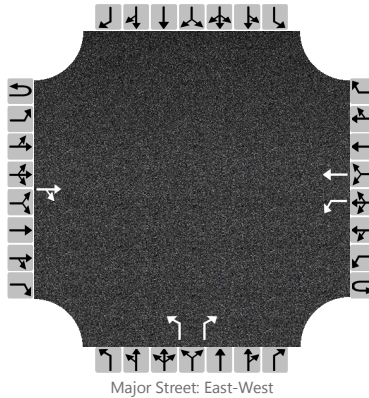
## Delay, Queue Length, and Level of Service

Flow Rate (veh/h)		460														92
Capacity		1119														385
v/c Ratio		0.41														0.24
95% Queue Length		0.1														0.9
Control Delay (s/veh)		8.3														17.3
Level of Service (LOS)		A														C
Approach Delay (s/veh)	0.7												17.3			
Approach LOS													C			

# HCS 2010 Two-Way Stop Control Summary Report

General Information		Site Information	
Analyst	HLR-SM1	Intersection	14th St and Prairie St
Agency/Co.		Jurisdiction	
Date Performed	6/6/2016	East/West Street	Prairie St
Analysis Year	2026	North/South Street	14th St
Time Analyzed	7:15am-8:15am	Peak Hour Factor	0.92
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Prairie Centre TIS Projected		

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	1	1	0		1	0	1		0	0	0
Configuration				TR		L	T			L		R				
Volume (veh/h)			300	94		121	244			33		170				
Percent Heavy Vehicles						3				3		3				
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

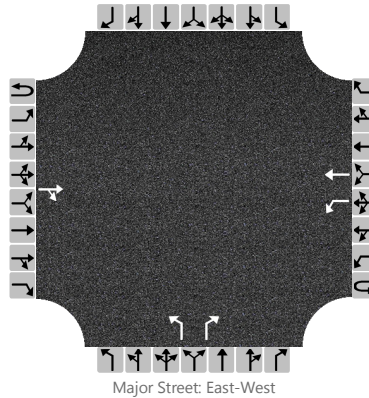
## Delay, Queue Length, and Level of Service

Flow Rate (veh/h)					132					36		185				
Capacity					1125					269		667				
v/c Ratio					0.12					0.13		0.28				
95% Queue Length					0.4					0.5		1.1				
Control Delay (s/veh)					8.6					20.4		12.5				
Level of Service (LOS)					A					C		B				
Approach Delay (s/veh)					2.9				13.8							
Approach LOS									B							

# HCS 2010 Two-Way Stop Control Summary Report

General Information		Site Information	
Analyst	HLR-SM	Intersection	14th St and Prairie St
Agency/Co.		Jurisdiction	
Date Performed	6/6/2016	East/West Street	Prairie St
Analysis Year	2026	North/South Street	14th St
Time Analyzed	4:30pm-5:30pm	Peak Hour Factor	0.92
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Prairie Centre TIS Projected		

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	1	1	0		1	0	1		0	0	0
Configuration				TR		L	T			L		R				
Volume (veh/h)			315	118		250	391			66		221				
Percent Heavy Vehicles						3				3		3				
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

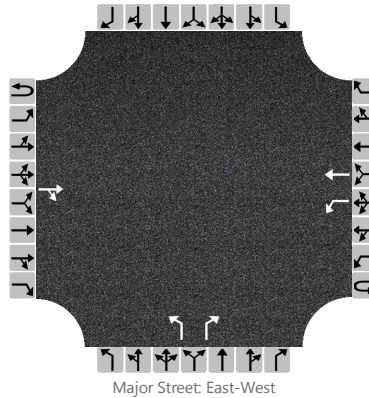
## Delay, Queue Length, and Level of Service

Flow Rate (veh/h)					272					72		240				
Capacity					1085					119		642				
v/c Ratio					0.25					0.60		0.37				
95% Queue Length					1.0					3.0		1.7				
Control Delay (s/veh)					9.4					72.9		13.9				
Level of Service (LOS)					A					F		B				
Approach Delay (s/veh)					3.7				27.5							
Approach LOS									D							

# HCS 2010 Two-Way Stop Control Summary Report

General Information		Site Information	
Analyst	HLR-SM	Intersection	14th St and Prairie St
Agency/Co.		Jurisdiction	
Date Performed	6/6/2016	East/West Street	Prairie St
Analysis Year	2026	North/South Street	14th St
Time Analyzed	11:15am-12:15pm	Peak Hour Factor	0.92
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Prairie Centre TIS Projected		

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	1	1	0		1	0	1		0	0	0
Configuration				TR		L	T			L		R				
Volume (veh/h)			278	100		179	319			62		171				
Percent Heavy Vehicles						3				3		3				
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

## Delay, Queue Length, and Level of Service

Flow Rate (veh/h)					195					67		186				
Capacity					1141					195		685				
v/c Ratio					0.17					0.34		0.27				
95% Queue Length					0.6					1.4		1.1				
Control Delay (s/veh)					8.8					32.7		12.2				
Level of Service (LOS)					A					D		B				
Approach Delay (s/veh)					3.2				17.6							
Approach LOS									C							



ALL-WAY STOP CONTROL ANALYSIS								
General Information				Site Information				
Analyst	HLR-SM			Intersection	7th St and Prairie St			
Agency/Co.				Jurisdiction				
Date Performed	6/6/2016			Analysis Year	2026 Projected			
Analysis Time Period	7:15am-8:15am							
Project ID <i>Prairie Centre TIS</i>								
East/West Street: <i>Prairie St</i>				North/South Street: <i>7th St</i>				
Volume Adjustments and Site Characteristics								
Approach	Eastbound				Westbound			
Movement	L	T	R	L	T	R		
Volume (veh/h)	118	422	8	13	239	68		
%Thrus Left Lane								
Approach	Northbound				Southbound			
Movement	L	T	R	L	T	R		
Volume (veh/h)	26	94	16	57	75	90		
%Thrus Left Lane								
	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		LTR		LTR	
PHF	1.00		1.00		1.00		1.00	
Flow Rate (veh/h)	548		320		136		222	
% Heavy Vehicles	0		0		0		0	
No. Lanes	1		1		1		1	
Geometry Group	1		1		1		1	
Duration, T	0.25							
Saturation Headway Adjustment Worksheet								
Prop. Left-Turns	0.2		0.0		0.2		0.3	
Prop. Right-Turns	0.0		0.2		0.1		0.4	
Prop. Heavy Vehicle	0.0		0.0		0.0		0.0	
hLT-adj	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
hRT-adj	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6
hHV-adj	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
hadj, computed	0.0		-0.1		-0.0		-0.2	
Departure Headway and Service Time								
hd, initial value (s)	3.20		3.20		3.20		3.20	
x, initial	0.49		0.28		0.12		0.20	
hd, final value (s)	5.86		6.13		7.13		6.69	
x, final value	0.89		0.55		0.27		0.41	
Move-up time, m (s)	2.0		2.0		2.0		2.0	
Service Time, $t_s$ (s)	3.9		4.1		5.1		4.7	
Capacity and Level of Service								
	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Capacity (veh/h)	607		550		386		472	
Delay (s/veh)	38.79		16.24		12.74		14.31	
LOS	E		C		B		B	
Approach: Delay (s/veh)	38.79		16.24		12.74		14.31	
LOS	E		C		B		B	
Intersection Delay (s/veh)	25.58							
Intersection LOS	D							

ALL-WAY STOP CONTROL ANALYSIS								
General Information				Site Information				
Analyst	HLR-SM			Intersection	7th St and Prairie St			
Agency/Co.				Jurisdiction				
Date Performed	6/6/2016			Analysis Year	2026 Projected			
Analysis Time Period	4:30pm-5:30pm							
Project ID <i>Prairie Centre TIS</i>								
East/West Street: <i>Prairie St</i>				North/South Street: <i>7th St</i>				
Volume Adjustments and Site Characteristics								
Approach	Eastbound				Westbound			
Movement	L	T	R	L	T	R		
Volume (veh/h)	74	402	18	15	491	60		
%Thrus Left Lane								
Approach	Northbound				Southbound			
Movement	L	T	R	L	T	R		
Volume (veh/h)	20	45	13	53	122	170		
%Thrus Left Lane								
	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		LTR		LTR	
PHF	1.00		1.00		1.00		1.00	
Flow Rate (veh/h)	494		566		78		345	
% Heavy Vehicles	0		0		0		0	
No. Lanes	1		1		1		1	
Geometry Group	1		1		1		1	
Duration, T	0.25							
Saturation Headway Adjustment Worksheet								
Prop. Left-Turns	0.1		0.0		0.3		0.2	
Prop. Right-Turns	0.0		0.1		0.2		0.5	
Prop. Heavy Vehicle	0.0		0.0		0.0		0.0	
hLT-adj	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
hRT-adj	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6
hHV-adj	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
hadj, computed	0.0		-0.1		-0.0		-0.3	
Departure Headway and Service Time								
hd, initial value (s)	3.20		3.20		3.20		3.20	
x, initial	0.44		0.50		0.07		0.31	
hd, final value (s)	6.90		6.76		8.83		7.28	
x, final value	0.95		1.06		0.19		0.70	
Move-up time, m (s)	2.0		2.0		2.0		2.0	
Service Time, t <sub>s</sub> (s)	4.9		4.8		6.8		5.3	
Capacity and Level of Service								
	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Capacity (veh/h)	520		566		328		486	
Delay (s/veh)	53.50		82.49		13.90		25.38	
LOS	F		F		B		D	
Approach: Delay (s/veh)	53.50		82.49		13.90		25.38	
LOS	F		F		B		D	
Intersection Delay (s/veh)	55.94							
Intersection LOS	F							

ALL-WAY STOP CONTROL ANALYSIS								
General Information				Site Information				
Analyst	HLR-SM			Intersection	7th St and Prairie Centre			
Agency/Co.				Jurisdiction				
Date Performed	6/6/2016			Analysis Year	2026 Projected			
Analysis Time Period	11:15am-12:15pm							
Project ID <i>Prairie Centre TIS</i>								
East/West Street: <i>Prairie St</i>				North/South Street: <i>7th St</i>				
Volume Adjustments and Site Characteristics								
Approach	Eastbound				Westbound			
Movement	L	T	R	L	T	R		
Volume (veh/h)	74	322	21	15	338	28		
%Thrus Left Lane								
Approach	Northbound				Southbound			
Movement	L	T	R	L	T	R		
Volume (veh/h)	14	43	13	36	48	102		
%Thrus Left Lane								
	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		LTR		LTR	
PHF	1.00		1.00		1.00		1.00	
Flow Rate (veh/h)	417		381		70		186	
% Heavy Vehicles	0		0		0		0	
No. Lanes	1		1		1		1	
Geometry Group	1		1		1		1	
Duration, T	0.25							
Saturation Headway Adjustment Worksheet								
Prop. Left-Turns	0.2		0.0		0.2		0.2	
Prop. Right-Turns	0.1		0.1		0.2		0.5	
Prop. Heavy Vehicle	0.0		0.0		0.0		0.0	
hLT-adj	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
hRT-adj	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6
hHV-adj	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
hadj, computed	0.0		-0.0		-0.1		-0.3	
Departure Headway and Service Time								
hd, initial value (s)	3.20		3.20		3.20		3.20	
x, initial	0.37		0.34		0.06		0.17	
hd, final value (s)	5.30		5.31		6.39		5.86	
x, final value	0.61		0.56		0.12		0.30	
Move-up time, m (s)	2.0		2.0		2.0		2.0	
Service Time, t <sub>s</sub> (s)	3.3		3.3		4.4		3.9	
Capacity and Level of Service								
	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Capacity (veh/h)	656		631		320		436	
Delay (s/veh)	16.35		14.91		10.29		11.39	
LOS	C		B		B		B	
Approach: Delay (s/veh)	16.35		14.91		10.29		11.39	
LOS	C		B		B		B	
Intersection Delay (s/veh)	14.56							
Intersection LOS	B							

ALL-WAY STOP CONTROL ANALYSIS								
General Information				Site Information				
Analyst	HLR-SM			Intersection	3rd St and Prairie St			
Agency/Co.				Jurisdiction				
Date Performed	6/6/2016			Analysis Year	2026 Projected			
Analysis Time Period	7:15am-8:15am							
Project ID <i>Prairie Centre TIS</i>								
East/West Street: <i>Prairie St</i>				North/South Street: <i>3rd St</i>				
Volume Adjustments and Site Characteristics								
Approach	Eastbound				Westbound			
Movement	L	T	R	L	T	R		
Volume (veh/h)	49	418	45	44	220	26		
%Thrus Left Lane								
Approach	Northbound				Southbound			
Movement	L	T	R	L	T	R		
Volume (veh/h)	39	225	51	38	109	41		
%Thrus Left Lane								
	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		LTR		LTR	
PHF	1.00		1.00		1.00		1.00	
Flow Rate (veh/h)	512		290		315		188	
% Heavy Vehicles	0		0		0		0	
No. Lanes	1		1		1		1	
Geometry Group	1		1		1		1	
Duration, T	0.25							
Saturation Headway Adjustment Worksheet								
Prop. Left-Turns	0.1		0.2		0.1		0.2	
Prop. Right-Turns	0.1		0.1		0.2		0.2	
Prop. Heavy Vehicle	0.0		0.0		0.0		0.0	
hLT-adj	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
hRT-adj	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6
hHV-adj	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
hadj, computed	-0.0		-0.0		-0.1		-0.1	
Departure Headway and Service Time								
hd, initial value (s)	3.20		3.20		3.20		3.20	
x, initial	0.46		0.26		0.28		0.17	
hd, final value (s)	6.58		7.14		7.21		7.66	
x, final value	0.94		0.58		0.63		0.40	
Move-up time, m (s)	2.0		2.0		2.0		2.0	
Service Time, t <sub>s</sub> (s)	4.6		5.1		5.2		5.7	
Capacity and Level of Service								
	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Capacity (veh/h)	541		470		471		422	
Delay (s/veh)	49.72		19.38		21.74		15.67	
LOS	E		C		C		C	
Approach: Delay (s/veh)	49.72		19.38		21.74		15.67	
LOS	E		C		C		C	
Intersection Delay (s/veh)	31.32							
Intersection LOS	D							

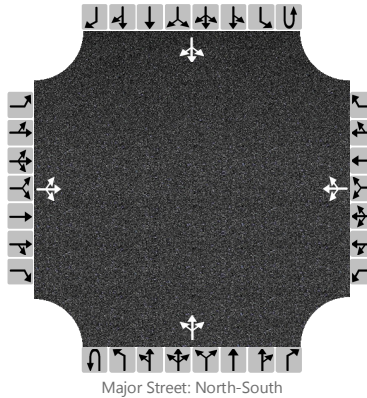
ALL-WAY STOP CONTROL ANALYSIS								
General Information				Site Information				
Analyst	HLR-SM			Intersection	3rd St and Prairie St			
Agency/Co.				Jurisdiction				
Date Performed	6/6/2016			Analysis Year	2026 Projected			
Analysis Time Period	4:30pm-5:30pm							
Project ID <i>Prairie Centre TIS</i>								
East/West Street: <i>Prairie St</i>				North/South Street: <i>3rd St</i>				
Volume Adjustments and Site Characteristics								
Approach	Eastbound				Westbound			
Movement	L	T	R	L	T	R		
Volume (veh/h)	41	352	58	72	442	35		
%Thrus Left Lane								
Approach	Northbound				Southbound			
Movement	L	T	R	L	T	R		
Volume (veh/h)	57	156	54	49	249	77		
%Thrus Left Lane								
	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		LTR		LTR	
PHF	1.00		1.00		1.00		1.00	
Flow Rate (veh/h)	451		549		267		375	
% Heavy Vehicles	0		0		0		0	
No. Lanes	1		1		1		1	
Geometry Group	1		1		1		1	
Duration, T	0.25							
Saturation Headway Adjustment Worksheet								
Prop. Left-Turns	0.1		0.1		0.2		0.1	
Prop. Right-Turns	0.1		0.1		0.2		0.2	
Prop. Heavy Vehicle	0.0		0.0		0.0		0.0	
hLT-adj	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
hRT-adj	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6
hHV-adj	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
hadj, computed	-0.1		-0.0		-0.1		-0.1	
Departure Headway and Service Time								
hd, initial value (s)	3.20		3.20		3.20		3.20	
x, initial	0.40		0.49		0.24		0.33	
hd, final value (s)	8.78		8.83		9.54		8.92	
x, final value	1.10		1.35		0.71		0.93	
Move-up time, m (s)	2.0		2.0		2.0		2.0	
Service Time, t <sub>s</sub> (s)	6.8		6.8		7.5		6.9	
Capacity and Level of Service								
	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Capacity (veh/h)	451		549		370		402	
Delay (s/veh)	103.95		196.71		32.58		59.21	
LOS	F		F		D		F	
Approach: Delay (s/veh)	103.95		196.71		32.58		59.21	
LOS	F		F		D		F	
Intersection Delay (s/veh)	113.14							
Intersection LOS	F							

ALL-WAY STOP CONTROL ANALYSIS								
General Information				Site Information				
Analyst	HLR_SM			Intersection	3rd St and Prairie St			
Agency/Co.				Jurisdiction				
Date Performed	6/6/2016			Analysis Year	2026 Projected			
Analysis Time Period	11:15am-12:15pm							
Project ID <i>Prairie Centre</i>								
East/West Street: <i>Prairie St</i>				North/South Street: <i>3rd St</i>				
Volume Adjustments and Site Characteristics								
Approach	Eastbound				Westbound			
Movement	L	T	R	L	T	R		
Volume (veh/h)	28	269	55	58	276	18		
%Thrus Left Lane								
Approach	Northbound				Southbound			
Movement	L	T	R	L	T	R		
Volume (veh/h)	53	149	67	36	158	51		
%Thrus Left Lane								
	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		LTR		LTR	
PHF	1.00		1.00		1.00		1.00	
Flow Rate (veh/h)	352		352		269		245	
% Heavy Vehicles	0		0		0		0	
No. Lanes	1		1		1		1	
Geometry Group	1		1		1		1	
Duration, T	0.25							
Saturation Headway Adjustment Worksheet								
Prop. Left-Turns	0.1		0.2		0.2		0.1	
Prop. Right-Turns	0.2		0.1		0.2		0.2	
Prop. Heavy Vehicle	0.0		0.0		0.0		0.0	
hLT-adj	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
hRT-adj	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6
hHV-adj	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
hadj, computed	-0.1		0.0		-0.1		-0.1	
Departure Headway and Service Time								
hd, initial value (s)	3.20		3.20		3.20		3.20	
x, initial	0.31		0.31		0.24		0.22	
hd, final value (s)	6.54		6.61		6.86		6.95	
x, final value	0.64		0.65		0.51		0.47	
Move-up time, m (s)	2.0		2.0		2.0		2.0	
Service Time, $t_s$ (s)	4.5		4.6		4.9		4.9	
Capacity and Level of Service								
	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Capacity (veh/h)	512		507		463		450	
Delay (s/veh)	20.43		20.92		16.85		16.02	
LOS	C		C		C		C	
Approach: Delay (s/veh)	20.43		20.92		16.85		16.02	
LOS	C		C		C		C	
Intersection Delay (s/veh)	18.89							
Intersection LOS	C							

# HCS 2010 Two-Way Stop Control Summary Report

General Information		Site Information	
Analyst	HLR-SM	Intersection	14th St and Vanderbilt Dr
Agency/Co.		Jurisdiction	
Date Performed	6/6/2016	East/West Street	Vanderbilt Dr
Analysis Year	2026	North/South Street	14th St
Time Analyzed	7:15am-8:15am	Peak Hour Factor	0.92
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	Prairie Centre TIS Projected		

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement																
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	0	1	0	0	0	1	0
Configuration			LTR				LTR				LTR				LTR	
Volume (veh/h)		15	0	2		0	0	0		4	198	6		2	204	24
Percent Heavy Vehicles		3	3	3		3	3	3		3				3		
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

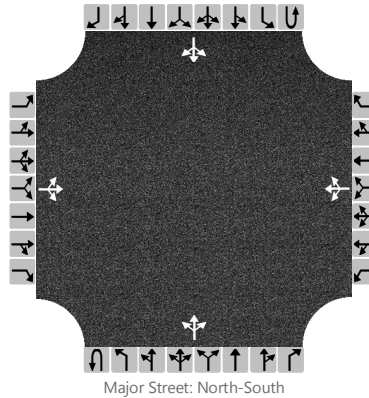
## Delay, Queue Length, and Level of Service

Flow Rate (veh/h)			18							4					2		
Capacity			571							1310					1340		
v/c Ratio			0.03							0.00					0.00		
95% Queue Length			0.1							0.0					0.0		
Control Delay (s/veh)			11.5				5.0			7.8					7.7		
Level of Service (LOS)			B				A			A					A		
Approach Delay (s/veh)	11.5				5.0				0.2				0.1				
Approach LOS	B				A												

# HCS 2010 Two-Way Stop Control Summary Report

General Information		Site Information	
Analyst	HLR-SM	Intersection	14th St and Vanderbilt
Agency/Co.		Jurisdiction	
Date Performed	6/6/2016	East/West Street	Vanderbilt
Analysis Year	2026	North/South Street	14th St
Time Analyzed	4:30pm-5:30pm	Peak Hour Factor	0.92
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	Prairie Centre TIS Projected		

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement																
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	0	1	0	0	0	1	0
Configuration			LTR				LTR				LTR				LTR	
Volume (veh/h)		40	0	42		0	0	0		15	321	0		1	334	52
Percent Heavy Vehicles		3	3	3		3	3	3		3				3		
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

## Delay, Queue Length, and Level of Service

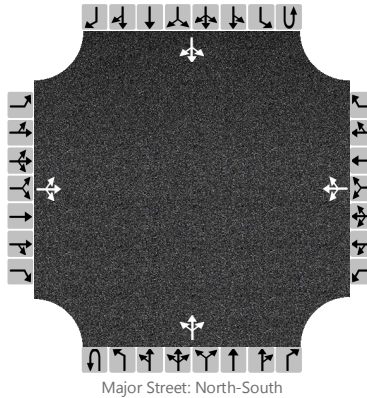
Flow Rate (veh/h)			89							16					1		
Capacity			469							1133					1203		
v/c Ratio			0.19							0.01					0.00		
95% Queue Length			0.7							0.0					0.0		
Control Delay (s/veh)			14.5				5.0			8.2					8.0		
Level of Service (LOS)			B				A			A					A		
Approach Delay (s/veh)	14.5				5.0				0.5				0.0				
Approach LOS	B				A												



# HCS 2010 Two-Way Stop Control Summary Report

General Information		Site Information	
Analyst	HLR-SM	Intersection	14th St and Vanderbilt
Agency/Co.		Jurisdiction	
Date Performed	6/6/2016	East/West Street	Vanderbilt
Analysis Year	2026	North/South Street	14th St
Time Analyzed	11:15am-12:15pm	Peak Hour Factor	0.92
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	Prairie Centre TIS Projected		

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement																
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	0	1	0	0	0	1	0
Configuration			LTR				LTR				LTR				LTR	
Volume (veh/h)		37	0	36		0	0	0		17	295	7		3	309	26
Percent Heavy Vehicles		3	3	3		3	3	3		3				3		
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

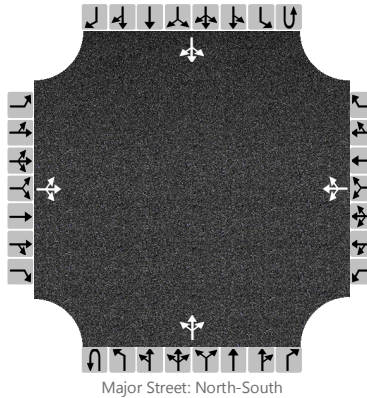
## Delay, Queue Length, and Level of Service

Flow Rate (veh/h)			79							18					3		
Capacity			496							1188					1224		
v/c Ratio			0.16							0.02					0.00		
95% Queue Length			0.6							0.0					0.0		
Control Delay (s/veh)			13.6					5.0		8.1					7.9		
Level of Service (LOS)			B					A		A					A		
Approach Delay (s/veh)	13.6				5.0				0.6				0.1				
Approach LOS	B				A												

# HCS 2010 Two-Way Stop Control Summary Report

General Information		Site Information	
Analyst	HLR-SM	Intersection	14th St and Covington Ct
Agency/Co.		Jurisdiction	
Date Performed	6/6/2016	East/West Street	Covington Ct
Analysis Year	2026	North/South Street	14th St
Time Analyzed	7:15am-8:15am	Peak Hour Factor	0.92
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	Prairie Centre TIS Projected		

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement																
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	0	1	0	0	0	1	0
Configuration			LTR				LTR				LTR				LTR	
Volume (veh/h)		6	1	22		28	0	4		8	193	16		8	175	0
Percent Heavy Vehicles		3	3	3		3	3	3		3				3		
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

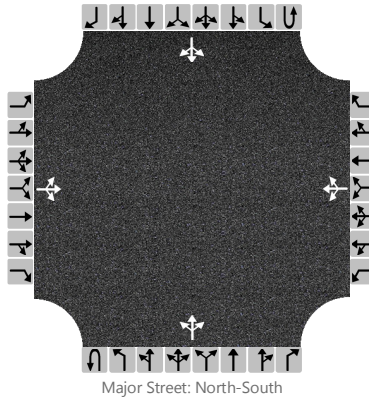
## Delay, Queue Length, and Level of Service

Flow Rate (veh/h)			32				34					9				9		
Capacity			728				515					1376				1334		
v/c Ratio			0.04				0.07					0.01				0.01		
95% Queue Length			0.1				0.2					0.0				0.0		
Control Delay (s/veh)			10.2				12.5					7.6				7.7		
Level of Service (LOS)			B				B					A				A		
Approach Delay (s/veh)	10.2				12.5				0.3				0.4					
Approach LOS	B				B				A				A					

# HCS 2010 Two-Way Stop Control Summary Report

General Information		Site Information	
Analyst	HLR-SM	Intersection	14th St and Covington Ct
Agency/Co.		Jurisdiction	
Date Performed	6/6/2016	East/West Street	Covington Ct
Analysis Year	2026	North/South Street	14th St
Time Analyzed	4:30pm-5:30pm	Peak Hour Factor	0.92
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	Prairie Centre TIS Projected		

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement																
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	0	1	0	0	0	1	0
Configuration			LTR				LTR				LTR				LTR	
Volume (veh/h)		3	2	16		42	2	6		35	286	42		6	327	3
Percent Heavy Vehicles		3	3	3		3	3	3		3				3		
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

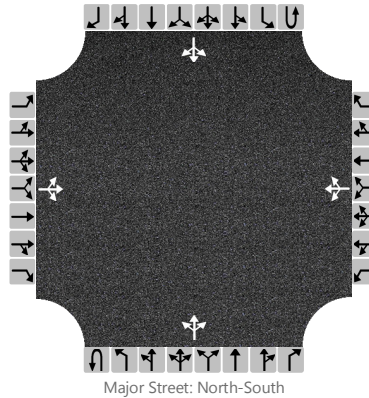
## Delay, Queue Length, and Level of Service

Flow Rate (veh/h)			22				55					38				7		
Capacity			528				311					1194				1195		
v/c Ratio			0.04				0.18					0.03				0.01		
95% Queue Length			0.1				0.6					0.1				0.0		
Control Delay (s/veh)			12.1				19.0					8.1				8.0		
Level of Service (LOS)			B				C					A				A		
Approach Delay (s/veh)	12.1				19.0				1.1				0.2					
Approach LOS	B				C													

# HCS 2010 Two-Way Stop Control Summary Report

General Information		Site Information	
Analyst	HLR-SM	Intersection	14th St and Covington Ct
Agency/Co.		Jurisdiction	
Date Performed	6/6/2016	East/West Street	Covington Ct
Analysis Year	2026	North/South Street	14th St
Time Analyzed	11:15am-12:15pm	Peak Hour Factor	0.92
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	Prairie Centre Projected		

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement																
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	0	1	0	0	0	1	0
Configuration			LTR				LTR				LTR				LTR	
Volume (veh/h)		4	1	19		37	1	15		12	223	43		6	237	7
Percent Heavy Vehicles		3	3	3		3	3	3		3				3		
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

## Delay, Queue Length, and Level of Service

Flow Rate (veh/h)			26				57				13					7		
Capacity			661				470				1291					1266		
v/c Ratio			0.04				0.12				0.01					0.01		
95% Queue Length			0.1				0.4				0.0					0.0		
Control Delay (s/veh)			10.7				13.7				7.8					7.9		
Level of Service (LOS)			B				B				A					A		
Approach Delay (s/veh)	10.7				13.7				0.4				0.3					
Approach LOS	B				B				A				A					

## APPENDIX D

### HCS Analysis Reports

#### 2026 Total Traffic

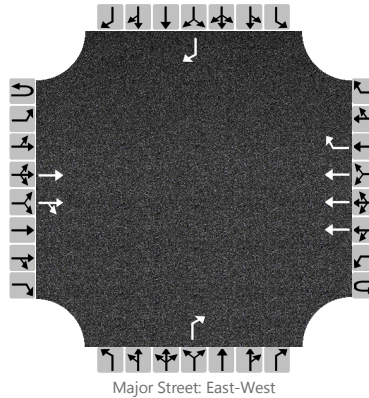
#### Weekday AM, Weekday PM, & Saturday Peak Hours

1. IL Route 38 & Jewel Driveway
2. IL Route 38 & East Mall Entrance/Vanderbilt Drive
3. Prairie Street & Jewel Driveway
4. Prairie Street & West Mall Entrance
5. Prairie Street & East Mall Entrance
6. Prairie Street & Covington Court/Wessel Court
7. Prairie Street & 16<sup>th</sup> Street
8. Prairie Street & 14<sup>th</sup> Street
9. Prairie Street & 7<sup>th</sup> Street
10. Prairie Street & 3<sup>rd</sup> Street
11. 14<sup>th</sup> Street & Vanderbilt Drive
12. 14<sup>th</sup> Street & Covington Court/Horne Street

# HCS 2010 Two-Way Stop Control Summary Report

General Information		Site Information	
Analyst	HLR-SM	Intersection	Jewel Dwy and IL 38
Agency/Co.		Jurisdiction	
Date Performed	6/10/2016	East/West Street	IL 38
Analysis Year	2026	North/South Street	Jewel Dwy
Time Analyzed	7:15am-8:15am	Peak Hour Factor	0.92
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Prairie Centre TIS Total No Improvements		

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Priority																
Number of Lanes	0	0	2	0	0	0	3	1		0	0	1		0	0	1
Configuration			T	TR			T	R				R				R
Volume (veh/h)			1123	23			683	21				6				13
Percent Heavy Vehicles												3				3
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

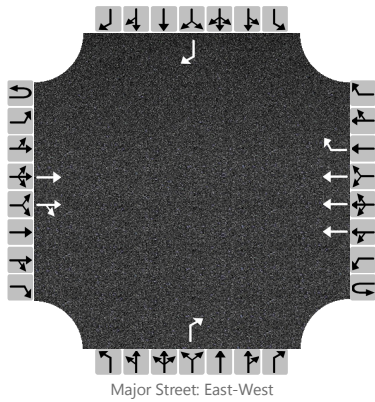
## Delay, Queue Length, and Level of Service

Flow Rate (veh/h)												7				14
Capacity												427				533
v/c Ratio												0.02				0.03
95% Queue Length												0.1				0.1
Control Delay (s/veh)												13.6				11.9
Level of Service (LOS)												B				B
Approach Delay (s/veh)									13.6				11.9			
Approach LOS									B				B			

# HCS 2010 Two-Way Stop Control Summary Report

General Information		Site Information	
Analyst	HLR-SM	Intersection	Jewel Dwy and IL 38
Agency/Co.		Jurisdiction	
Date Performed	6/10/2016	East/West Street	IL 38
Analysis Year	2026	North/South Street	Jewel Dwy
Time Analyzed	4:30pm-5:30pm	Peak Hour Factor	0.92
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Prairie Centre TIS Total No Improvements		

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	2	0	0	0	3	1		0	0	1		0	0	1
Configuration			T	TR			T	R				R				R
Volume (veh/h)			891	34			1213	79				21				64
Percent Heavy Vehicles												3				3
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

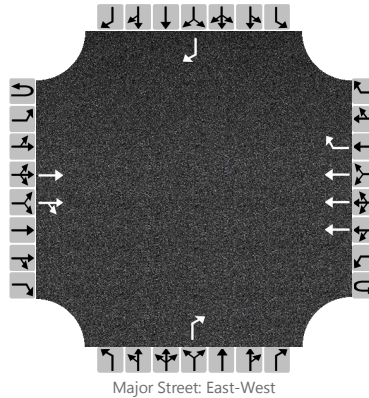
## Delay, Queue Length, and Level of Service

Flow Rate (veh/h)												23				70
Capacity												512				346
v/c Ratio												0.04				0.20
95% Queue Length												0.1				0.7
Control Delay (s/veh)												12.4				18.0
Level of Service (LOS)												B				C
Approach Delay (s/veh)									12.4				18.0			
Approach LOS									B				C			

# HCS 2010 Two-Way Stop Control Summary Report

General Information		Site Information	
Analyst	HLR-SM	Intersection	Jewel Dwy and IL 38
Agency/Co.		Jurisdiction	
Date Performed	6/10/2016	East/West Street	IL 38
Analysis Year	2026	North/South Street	Jewel Dwy
Time Analyzed	11:15am-12:15pm	Peak Hour Factor	0.92
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Prairie Centre Total No Improvements		

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	2	0	0	0	3	1		0	0	1		0	0	1
Configuration			T	TR			T	R				R				R
Volume (veh/h)			1085	51			1003	70				30				91
Percent Heavy Vehicles												3				3
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

## Delay, Queue Length, and Level of Service

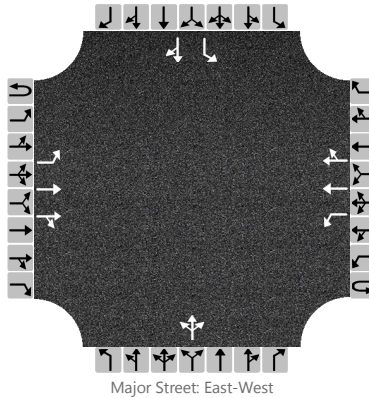
Flow Rate (veh/h)													33				99
Capacity													430				411
v/c Ratio													0.08				0.24
95% Queue Length													0.2				0.9
Control Delay (s/veh)													14.1				16.5
Level of Service (LOS)													B				C
Approach Delay (s/veh)									14.1				16.5				
Approach LOS									B				C				



# HCS 2010 Two-Way Stop Control Summary Report

General Information		Site Information	
Analyst	HLR-SM	Intersection	East Mall Ent/Vand&IL 38
Agency/Co.		Jurisdiction	
Date Performed	6/10/2016	East/West Street	IL 38
Analysis Year	2026	North/South Street	East Mall Ent/Vand
Time Analyzed	7:15-8:15am	Peak Hour Factor	0.92
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Prairie Centre Total No Improvements		

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	1	2	0	0	1	2	0		0	1	0		1	1	0
Configuration		L	T	TR		L	T	TR			LTR			L		TR
Volume (veh/h)		22	982	9		28	502	29		11	3	45		13	1	38
Percent Heavy Vehicles		3				3				3	3	3		3	3	3
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

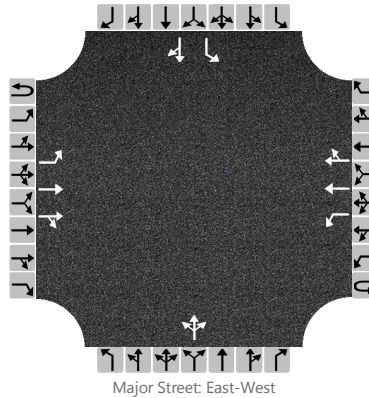
## Delay, Queue Length, and Level of Service

Flow Rate (veh/h)		24				30					64				14		42
Capacity		985				637					220				114		592
v/c Ratio		0.02				0.05					0.29				0.12		0.07
95% Queue Length		0.1				0.1					1.2				0.4		0.2
Control Delay (s/veh)		8.7				10.9					27.9				40.8		11.5
Level of Service (LOS)		A				B					D				E		B
Approach Delay (s/veh)		0.2				0.5				27.9				18.9			
Approach LOS										D				C			

# HCS 2010 Two-Way Stop Control Summary Report

General Information		Site Information	
Analyst	HLR-SM	Intersection	East Mall Ent/Vand& IL 38
Agency/Co.		Jurisdiction	
Date Performed	6/10/2016	East/West Street	IL 38
Analysis Year	2026	North/South Street	East Mall Ent/Vand
Time Analyzed	4:30pm-5:30pm	Peak Hour Factor	0.92
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Prairie Centre TIS Total No Improvements		

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Priority																
Number of Lanes	0	1	2	0	0	1	2	0		0	1	0		1	1	0
Configuration		L	T	TR		L	T	TR			LTR			L		TR
Volume (veh/h)		57	698	28		25	1108	69		20	3	35		17	8	62
Percent Heavy Vehicles		3				3				3	3	3		3	3	3
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

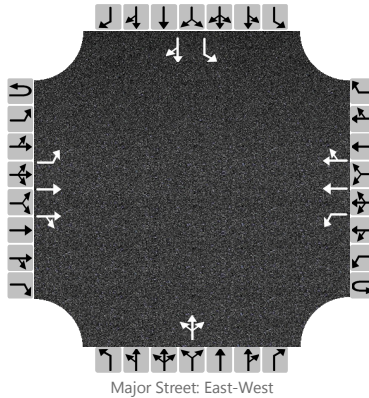
## Delay, Queue Length, and Level of Service

Flow Rate (veh/h)		62				27					63				18		76
Capacity		533				820					101				39		188
v/c Ratio		0.12				0.03					0.63				0.47		0.41
95% Queue Length		0.4				0.1					3.0				1.6		1.8
Control Delay (s/veh)		12.6				9.5					87.7				162.0		36.7
Level of Service (LOS)		B				A					F				F		E
Approach Delay (s/veh)		0.9				0.2				87.7				60.7			
Approach LOS		B				A				F				F			

# HCS 2010 Two-Way Stop Control Summary Report

General Information		Site Information	
Analyst	HLR-SM	Intersection	East Mall Ent/Vand& IL 38
Agency/Co.		Jurisdiction	
Date Performed	6/10/2016	East/West Street	IL 38
Analysis Year	2026	North/South Street	East Mall Ent/Vand
Time Analyzed	11:15am-12:15pm	Peak Hour Factor	0.92
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Prairie Centre TIS Total No Improvements		

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Priority																
Number of Lanes	0	1	2	0	0	1	2	0	0	1	0		1	1	0	
Configuration		L	T	TR		L	T	TR			LTR			L		TR
Volume (veh/h)		73	897	19		20	832	67		20	9	22		20	6	78
Percent Heavy Vehicles		3				3				3	3	3		3	3	3
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

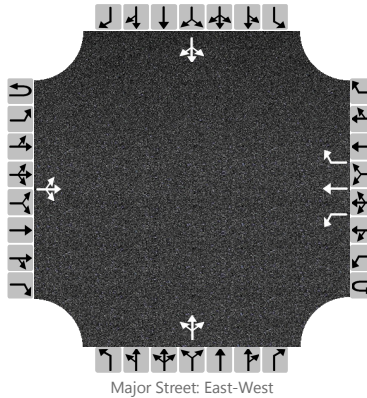
## Delay, Queue Length, and Level of Service

Flow Rate (veh/h)		79				22					56				22		92
Capacity		696				684					68				45		276
v/c Ratio		0.11				0.03					0.82				0.48		0.33
95% Queue Length		0.4				0.1					3.9				1.8		1.4
Control Delay (s/veh)		10.8				10.4					161.8				143.6		24.4
Level of Service (LOS)		B				B					F				F		C
Approach Delay (s/veh)	0.8				0.2				161.8				47.4				
Approach LOS									F				E				

# HCS 2010 Two-Way Stop Control Summary Report

General Information				Site Information			
Analyst	HLR-SM			Intersection	Jewel Ent and Prairie St		
Agency/Co.				Jurisdiction			
Date Performed	6/10/2016			East/West Street	Prairie St		
Analysis Year	2026			North/South Street	Jewel Ent		
Time Analyzed	7:15am-8:15am			Peak Hour Factor	0.92		
Intersection Orientation	East-West			Analysis Time Period (hrs)	0.25		
Project Description	Prairie Centre TIS Total No Improvements						

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Priority																
Number of Lanes	0	0	1	0	0	1	1	1		0	1	0		0	1	0
Configuration			LTR			L	T	R			LTR				LTR	
Volume (veh/h)		24	307	44		14	356	16		20	6	14		10	3	29
Percent Heavy Vehicles		3				3				3	3	3		3	3	3
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

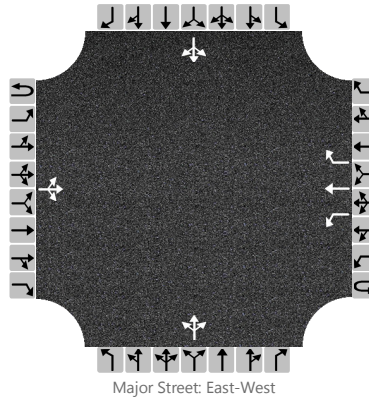
## Delay, Queue Length, and Level of Service

Flow Rate (veh/h)		26				15					44					46	
Capacity		1148				1170					335					457	
v/c Ratio		0.02				0.01					0.13					0.10	
95% Queue Length		0.1				0.0					0.4					0.3	
Control Delay (s/veh)		8.2				8.1					17.4					13.8	
Level of Service (LOS)		A				A					C					B	
Approach Delay (s/veh)		0.7				0.3				17.4				13.8			
Approach LOS										C				B			

# HCS 2010 Two-Way Stop Control Summary Report

General Information				Site Information			
Analyst	HLR-SM			Intersection	Jewel Ent and Prairie St		
Agency/Co.				Jurisdiction			
Date Performed	6/10/2016			East/West Street	Prairie St		
Analysis Year	2026			North/South Street	Jewel Ent		
Time Analyzed	4:30pm-5:30pm			Peak Hour Factor	0.92		
Intersection Orientation	East-West			Analysis Time Period (hrs)	0.25		
Project Description	Prairie Centre TIS Total No Improvements						

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	1	1	1		0	1	0		0	1	0
Configuration			LTR			L	T	R			LTR				LTR	
Volume (veh/h)		30	329	138		44	377	29		85	21	59		26	16	47
Percent Heavy Vehicles		3				3				3	3	3		3	3	3
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

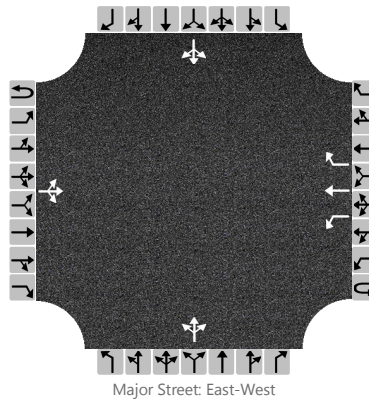
## Delay, Queue Length, and Level of Service

Flow Rate (veh/h)		33				48					179					96
Capacity		1112				1051					236					280
v/c Ratio		0.03				0.05					0.76					0.34
95% Queue Length		0.1				0.1					5.4					1.5
Control Delay (s/veh)		8.3				8.6					56.3					24.4
Level of Service (LOS)		A				A					F					C
Approach Delay (s/veh)	0.8				0.8				56.3				24.4			
Approach LOS									F				C			

# HCS 2010 Two-Way Stop Control Summary Report

General Information				Site Information			
Analyst	HLR-SM			Intersection	Jewel Ent and Prairie St		
Agency/Co.				Jurisdiction			
Date Performed	6/10/2016			East/West Street	Prairie St		
Analysis Year	2026			North/South Street	Jewel Ent		
Time Analyzed	11:15am-12:15pm			Peak Hour Factor	0.92		
Intersection Orientation	East-West			Analysis Time Period (hrs)	0.25		
Project Description	Prairie Centre TIS Total No Improvements						

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	1	1	1		0	1	0		0	1	0
Configuration			LTR			L	T	R			LTR				LTR	
Volume (veh/h)		48	346	158		38	377	31		106	9	43		21	13	68
Percent Heavy Vehicles		3				3				3	3	3		3	3	3
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

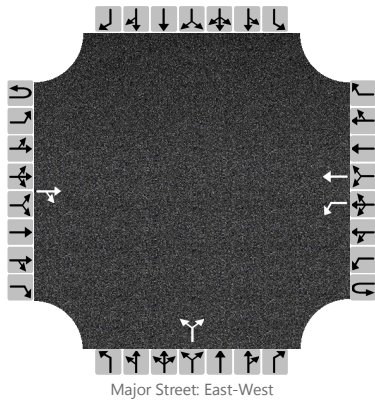
## Delay, Queue Length, and Level of Service

Flow Rate (veh/h)		52				41					172					111	
Capacity		1110				1015					185					326	
v/c Ratio		0.05				0.04					0.93					0.34	
95% Queue Length		0.1				0.1					7.3					1.5	
Control Delay (s/veh)		8.4				8.7					100.0					21.7	
Level of Service (LOS)		A				A					F					C	
Approach Delay (s/veh)		1.3				0.7				100.0				21.7			
Approach LOS										F				C			

# HCS 2010 Two-Way Stop Control Summary Report

General Information				Site Information			
Analyst	HLR-SM			Intersection	West Mall Ent& Prairie St		
Agency/Co.				Jurisdiction			
Date Performed	6/10/2016			East/West Street	Prairie St		
Analysis Year	2026			North/South Street	West Mall Ent		
Time Analyzed	7:15am-8:15am			Peak Hour Factor	0.92		
Intersection Orientation	East-West			Analysis Time Period (hrs)	0.25		
Project Description	Prairie Centre TIS Total No Improvements						

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	1	1	0		0	0	0		0	0	0
Configuration				TR		L	T				LR					
Volume (veh/h)			296	44		20	368			29		39				
Percent Heavy Vehicles						3				3		3				
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

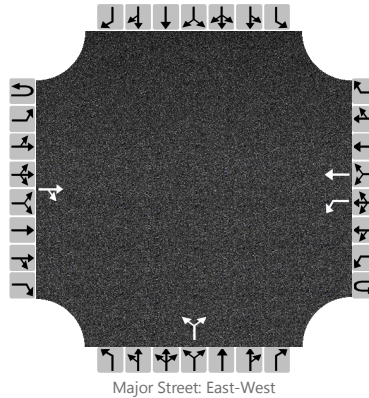
## Delay, Queue Length, and Level of Service

Flow Rate (veh/h)						22						74				
Capacity						1182						488				
v/c Ratio						0.02						0.15				
95% Queue Length						0.1						0.5				
Control Delay (s/veh)						8.1						13.7				
Level of Service (LOS)						A						B				
Approach Delay (s/veh)					0.4				13.7							
Approach LOS									B							

# HCS 2010 Two-Way Stop Control Summary Report

General Information		Site Information	
Analyst	HLR-SM	Intersection	West Mall Ent& Prairie St
Agency/Co.		Jurisdiction	
Date Performed	6/10/2016	East/West Street	Prairie St
Analysis Year	2026	North/South Street	West Mall Ent
Time Analyzed	4:30pm-5:30pm	Peak Hour Factor	0.92
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Prairie Centre TIS Total No Improvements		

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	1	1	0		0	0	0		0	0	0
Configuration				TR		L	T				LR					
Volume (veh/h)			423	62		41	456			32		72				
Percent Heavy Vehicles						3				3		3				
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

## Delay, Queue Length, and Level of Service

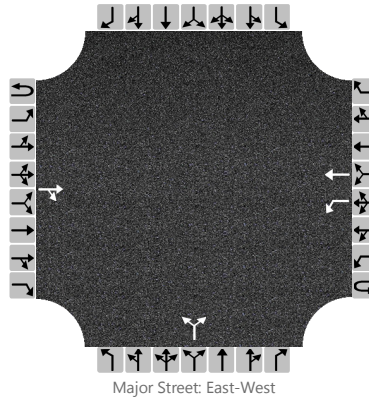
Flow Rate (veh/h)					45					113						
Capacity					1034					392						
v/c Ratio					0.04					0.29						
95% Queue Length					0.1					1.2						
Control Delay (s/veh)					8.6					17.9						
Level of Service (LOS)					A					C						
Approach Delay (s/veh)					0.7				17.9							
Approach LOS									C							



# HCS 2010 Two-Way Stop Control Summary Report

General Information		Site Information	
Analyst	HLR-SM	Intersection	West Mall Ent& Prairie St
Agency/Co.		Jurisdiction	
Date Performed	6/10/2016	East/West Street	Prairie St
Analysis Year	2026	North/South Street	West Mall Ent
Time Analyzed	11:15am-12:15pm	Peak Hour Factor	0.92
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Prairie Centre TIS Total No Improvements		

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	1	1	0		0	0	0		0	0	0
Configuration				TR		L	T				LR					
Volume (veh/h)			345	68		33	419			28		76				
Percent Heavy Vehicles						3				3		3				
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

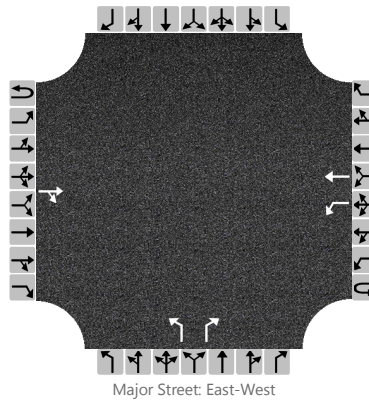
## Delay, Queue Length, and Level of Service

Flow Rate (veh/h)						36						113				
Capacity						1105						478				
v/c Ratio						0.03						0.24				
95% Queue Length						0.1						0.9				
Control Delay (s/veh)						8.4						14.9				
Level of Service (LOS)						A						B				
Approach Delay (s/veh)					0.6				14.9							
Approach LOS									B							

# HCS 2010 Two-Way Stop Control Summary Report

General Information		Site Information	
Analyst	HLR-SM	Intersection	East Mall Ent& Prairie St
Agency/Co.		Jurisdiction	
Date Performed	6/10/2016	East/West Street	Prairie St
Analysis Year	2026	North/South Street	East Mall Ent
Time Analyzed	7:15am-8:15am	Peak Hour Factor	0.92
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Prairie Centre TIS No Improvements		

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	1	1	0		1	0	1		0	0	0
Configuration				TR		L	T			L		R				
Volume (veh/h)			334	46		83	311			69		72				
Percent Heavy Vehicles						3				3		3				
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

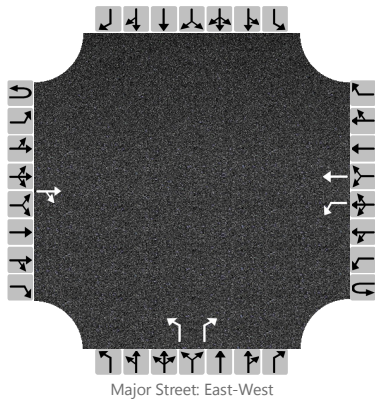
## Delay, Queue Length, and Level of Service

Flow Rate (veh/h)					90					75		78				
Capacity					1139					281		658				
v/c Ratio					0.08					0.27		0.12				
95% Queue Length					0.3					1.0		0.4				
Control Delay (s/veh)					8.4					22.4		11.2				
Level of Service (LOS)					A					C		B				
Approach Delay (s/veh)					1.8				16.7							
Approach LOS									C							

# HCS 2010 Two-Way Stop Control Summary Report

General Information				Site Information			
Analyst	HLR-SM			Intersection	East Mall Ent& Prairie St		
Agency/Co.				Jurisdiction			
Date Performed	6/10/2016			East/West Street	Prairie St		
Analysis Year	2026			North/South Street	East Mall Ent		
Time Analyzed	4:30pm-5:30pm			Peak Hour Factor	0.92		
Intersection Orientation	East-West			Analysis Time Period (hrs)	0.25		
Project Description	Prairie Centre TIS Total No Improvements						

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	1	1	0		1	0	1		0	0	0
Configuration				TR		L	T			L		R				
Volume (veh/h)			439	59		90	458			52		58				
Percent Heavy Vehicles						3				3		3				
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

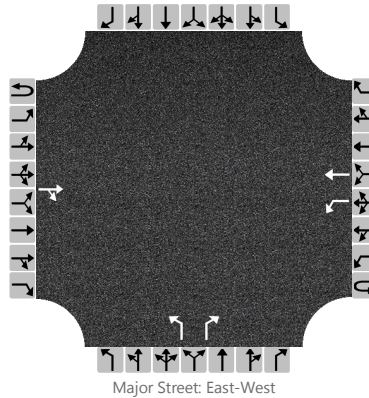
## Delay, Queue Length, and Level of Service

Flow Rate (veh/h)						98					57		63			
Capacity						1022					183		562			
v/c Ratio						0.10					0.31		0.11			
95% Queue Length						0.3					1.3		0.4			
Control Delay (s/veh)						8.9					33.3		12.2			
Level of Service (LOS)						A					D		B			
Approach Delay (s/veh)					1.5				22.2							
Approach LOS									C							

# HCS 2010 Two-Way Stop Control Summary Report

General Information				Site Information			
Analyst	HLR-SM			Intersection	East Mall Ent& Prairie St		
Agency/Co.				Jurisdiction			
Date Performed	6/10/2016			East/West Street	Prairie St		
Analysis Year	2026			North/South Street	East Mall Ent		
Time Analyzed	11:15am-12:15pm			Peak Hour Factor	0.92		
Intersection Orientation	East-West			Analysis Time Period (hrs)	0.25		
Project Description	Prairie Centre TIS Total No Improvements						

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	1	1	0		1	0	1		0	0	0
Configuration				TR		L	T			L		R				
Volume (veh/h)			372	38		79	404			51		54				
Percent Heavy Vehicles						3				3		3				
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

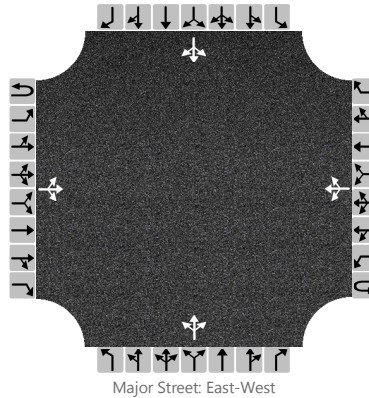
## Delay, Queue Length, and Level of Service

Flow Rate (veh/h)					86					55		59				
Capacity					1109					236		628				
v/c Ratio					0.08					0.23		0.09				
95% Queue Length					0.3					0.9		0.3				
Control Delay (s/veh)					8.5					24.9		11.3				
Level of Service (LOS)					A					C		B				
Approach Delay (s/veh)					1.4				17.9							
Approach LOS									C							

# HCS 2010 Two-Way Stop Control Summary Report

General Information		Site Information	
Analyst	HLR-SM	Intersection	Covington Ct& Prairie St
Agency/Co.		Jurisdiction	
Date Performed	6/10/2016	East/West Street	Prairie St
Analysis Year	2026	North/South Street	Covington Ct
Time Analyzed	7:15am-8:15am	Peak Hour Factor	0.92
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Prairie Centre Total No Improvements		

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Priority																
Number of Lanes	0	0	1	0	0	0	1	0		0	1	0		0	1	0
Configuration			LTR				LTR				LTR				LTR	
Volume (veh/h)		4	371	6		13	341	10		16	0	29		18	0	6
Percent Heavy Vehicles		3				3				3	3	3		3	3	3
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

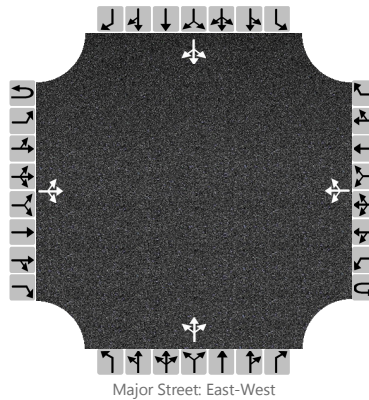
## Delay, Queue Length, and Level of Service

Flow Rate (veh/h)		4				14					49					27	
Capacity		1170				1142					447					317	
v/c Ratio		0.00				0.01					0.11					0.09	
95% Queue Length		0.0				0.0					0.4					0.3	
Control Delay (s/veh)		8.1				8.2					14.0					17.4	
Level of Service (LOS)		A				A					B					C	
Approach Delay (s/veh)		0.1				0.4				14.0				17.4			
Approach LOS										B				C			

# HCS 2010 Two-Way Stop Control Summary Report

General Information				Site Information			
Analyst	HLR-SM			Intersection	Covington Ct& Prairie St		
Agency/Co.				Jurisdiction			
Date Performed	6/10/2016			East/West Street	Prairie St		
Analysis Year	2026			North/South Street	Covington Ct		
Time Analyzed	4:30pm-5:30pm			Peak Hour Factor	0.92		
Intersection Orientation	East-West			Analysis Time Period (hrs)	0.25		
Project Description	Prairie Centre TIS Total No Improvements						

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		0	1	0		0	1	0
Configuration			LTR				LTR				LTR				LTR	
Volume (veh/h)		10	518	28		19	532	14		15	1	15		8	0	3
Percent Heavy Vehicles		3				3				3	3	3		3	3	3
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

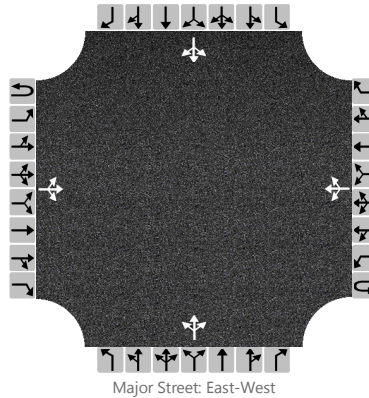
## Delay, Queue Length, and Level of Service

Flow Rate (veh/h)		11			21					33						12	
Capacity		977			977					226						172	
v/c Ratio		0.01			0.02					0.15						0.07	
95% Queue Length		0.0			0.1					0.5						0.2	
Control Delay (s/veh)		8.7			8.8					23.6						27.4	
Level of Service (LOS)		A			A					C						D	
Approach Delay (s/veh)		0.3				0.6				23.6				27.4			
Approach LOS		A				A				C				D			

# HCS 2010 Two-Way Stop Control Summary Report

General Information				Site Information			
Analyst	HLR-SM			Intersection	Covington Ct& Prairie St		
Agency/Co.				Jurisdiction			
Date Performed	6/10/2016			East/West Street	Prairie St		
Analysis Year	2026			North/South Street	Covington Ct		
Time Analyzed	11:15am-12:15pm			Peak Hour Factor	0.92		
Intersection Orientation	East-West			Analysis Time Period (hrs)	0.25		
Project Description	Prairie Centre TIS Total No Improvements						

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		0	1	0		0	1	0
Configuration			LTR				LTR				LTR				LTR	
Volume (veh/h)		10	476	8		8	465	6		26	0	10		9	0	13
Percent Heavy Vehicles		3				3				3	3	3		3	3	3
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

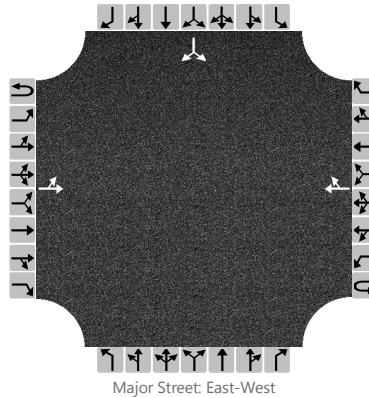
## Delay, Queue Length, and Level of Service

Flow Rate (veh/h)		11				9					39					24	
Capacity		1047				1035					230					308	
v/c Ratio		0.01				0.01					0.17					0.08	
95% Queue Length		0.0				0.0					0.6					0.3	
Control Delay (s/veh)		8.5				8.5					23.8					17.7	
Level of Service (LOS)		A				A					C					C	
Approach Delay (s/veh)		0.3				0.2				23.8				17.7			
Approach LOS										C				C			

# HCS 2010 Two-Way Stop Control Summary Report

General Information		Site Information	
Analyst	HLR-SM	Intersection	16th St and Prairie St
Agency/Co.		Jurisdiction	
Date Performed	6/10/2016	East/West Street	Prairie St
Analysis Year	2026	North/South Street	16th St
Time Analyzed	4:30pm-5:30pm	Peak Hour Factor	0.92
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Prairie Centre TIS Total No Improvements		

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		0	0	0		0	0	0
Configuration		LT						TR								LR
Volume (veh/h)		15	417				336	11						45		43
Percent Heavy Vehicles		3												3		3
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

## Delay, Queue Length, and Level of Service

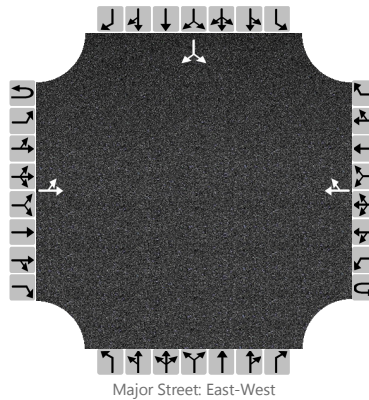
Flow Rate (veh/h)		469														96
Capacity		1175														433
v/c Ratio		0.40														0.22
95% Queue Length		0.0														0.8
Control Delay (s/veh)		8.1														15.7
Level of Service (LOS)		A														C
Approach Delay (s/veh)	0.4												15.7			
Approach LOS													C			



# HCS 2010 Two-Way Stop Control Summary Report

General Information		Site Information	
Analyst	HLR-SM	Intersection	16th St and Prairie St
Agency/Co.		Jurisdiction	
Date Performed	6/10/2016	East/West Street	Prairie St
Analysis Year	2026	North/South Street	16th St
Time Analyzed	4:30pm-5:30pm	Peak Hour Factor	0.92
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Prairie Centre Total No Improvements		

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		0	0	0		0	0	0
Configuration		LT						TR								LR
Volume (veh/h)		41	447				506	34						49		52
Percent Heavy Vehicles		3												3		3
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

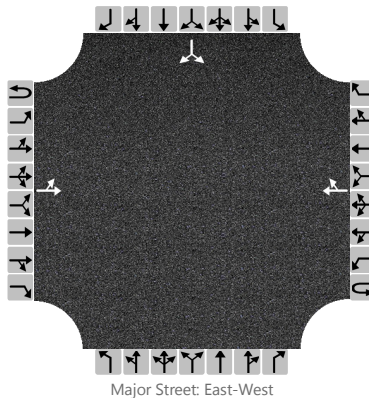
## Delay, Queue Length, and Level of Service

Flow Rate (veh/h)		531														110
Capacity		982														304
v/c Ratio		0.54														0.36
95% Queue Length		0.1														1.6
Control Delay (s/veh)		8.8														23.4
Level of Service (LOS)		A														C
Approach Delay (s/veh)	1.3												23.4			
Approach LOS													C			

# HCS 2010 Two-Way Stop Control Summary Report

General Information		Site Information	
Analyst	HLR-SM	Intersection	16th St and Prairie St
Agency/Co.		Jurisdiction	
Date Performed	6/10/2016	East/West Street	Prairie St
Analysis Year	2026	North/South Street	16th St
Time Analyzed	11:15am-12:15pm	Peak Hour Factor	0.92
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Prairie Centre TIS Total No Improvements		

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		0	0	0		0	0	0
Configuration		LT						TR								LR
Volume (veh/h)		30	466				440	30							49	43
Percent Heavy Vehicles		3													3	3
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

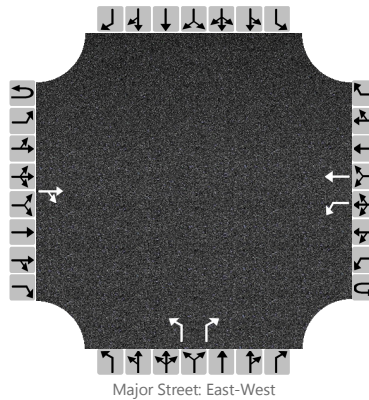
## Delay, Queue Length, and Level of Service

Flow Rate (veh/h)		540														100
Capacity		1048														327
v/c Ratio		0.52														0.31
95% Queue Length		0.1														1.3
Control Delay (s/veh)		8.5														20.8
Level of Service (LOS)		A														C
Approach Delay (s/veh)	0.9												20.8			
Approach LOS													C			

# HCS 2010 Two-Way Stop Control Summary Report

General Information		Site Information	
Analyst	HLR-SM	Intersection	14th St and Prairie St
Agency/Co.		Jurisdiction	
Date Performed	6/10/2016	East/West Street	Prairie St
Analysis Year	2026	North/South Street	14th St
Time Analyzed	7:15am-8:15am	Peak Hour Factor	0.92
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Prairie Centre TIS No Improvements		

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	1	1	0		1	0	1		0	0	0
Configuration				TR		L	T			L		R				
Volume (veh/h)			372	94		121	300			33		170				
Percent Heavy Vehicles						3				3		3				
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

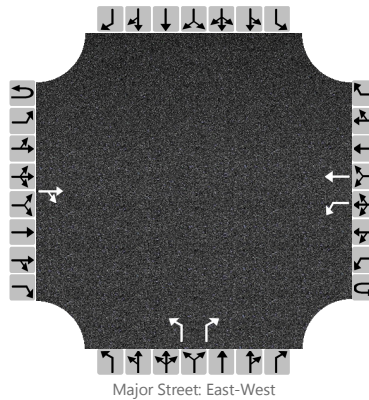
## Delay, Queue Length, and Level of Service

Flow Rate (veh/h)						132					36		185			
Capacity						1053					221		603			
v/c Ratio						0.13					0.16		0.31			
95% Queue Length						0.4					0.6		1.3			
Control Delay (s/veh)						8.9					24.5		13.6			
Level of Service (LOS)						A					C		B			
Approach Delay (s/veh)					2.6				15.4							
Approach LOS									C							

# HCS 2010 Two-Way Stop Control Summary Report

General Information		Site Information	
Analyst	HLR-SM	Intersection	14th St and Prairie St
Agency/Co.		Jurisdiction	
Date Performed	6/10/2016	East/West Street	Prairie St
Analysis Year	2026	North/South Street	14th St
Time Analyzed	4:30pm-5:30pm	Peak Hour Factor	0.92
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Prairie Centre TIS Total No Improvements		

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	1	1	0		1	0	1		0	0	0
Configuration				TR		L	T			L		R				
Volume (veh/h)			371	118		250	464			66		221				
Percent Heavy Vehicles						3				3		3				
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

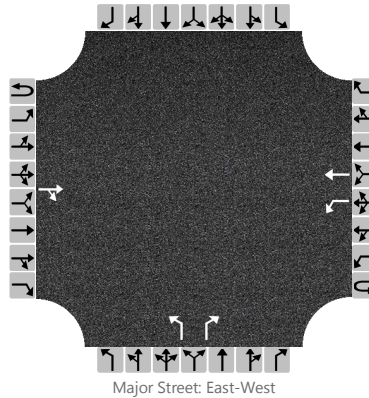
## Delay, Queue Length, and Level of Service

Flow Rate (veh/h)					272					72		240				
Capacity					1030					96		593				
v/c Ratio					0.26					0.75		0.40				
95% Queue Length					1.1					3.9		2.0				
Control Delay (s/veh)					9.7					111.3		15.1				
Level of Service (LOS)					A					F		C				
Approach Delay (s/veh)					3.4				37.3							
Approach LOS									E							

# HCS 2010 Two-Way Stop Control Summary Report

General Information		Site Information	
Analyst	HLR_SM	Intersection	14th St and Prairie St
Agency/Co.		Jurisdiction	
Date Performed	6/10/2016	East/West Street	Prairie St
Analysis Year	2026	North/South Street	14th St
Time Analyzed	11:15am-12:15pm	Peak Hour Factor	0.92
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Prairie Centre TIS Total No Improvements		

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	1	1	0		1	0	1		0	0	0
Configuration				TR		L	T			L		R				
Volume (veh/h)			345	100		179	390			62		171				
Percent Heavy Vehicles						3				3		3				
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

## Delay, Queue Length, and Level of Service

Flow Rate (veh/h)					195					67		186				
Capacity					1072					157		623				
v/c Ratio					0.18					0.43		0.30				
95% Queue Length					0.7					1.9		1.2				
Control Delay (s/veh)					9.1					44.2		13.2				
Level of Service (LOS)					A					E		B				
Approach Delay (s/veh)					2.9				21.4							
Approach LOS									C							

ALL-WAY STOP CONTROL ANALYSIS								
<b>General Information</b>					<b>Site Information</b>			
Analyst	HLR-SM				Intersection	7th St and Prairie St		
Agency/Co.					Jurisdiction			
Date Performed	6/10/2016				Analysis Year	2026		
Analysis Time Period	7:15am-8:15am							
Project ID <i>Prairie Centre TIS Total No Improvements</i>								
East/West Street: <i>Prairie St</i>					North/South Street: <i>7th St</i>			
<b>Volume Adjustments and Site Characteristics</b>								
Approach	Eastbound				Westbound			
Movement	L	T	R		L	T	R	
Volume (veh/h)	142	470	8		13	277	68	
%Thrus Left Lane								
Approach	Northbound				Southbound			
Movement	L	T	R		L	T	R	
Volume (veh/h)	26	94	16		57	75	108	
%Thrus Left Lane								
	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		LTR		LTR	
PHF	1.00		1.00		1.00		1.00	
Flow Rate (veh/h)	620		358		136		240	
% Heavy Vehicles	0		0		0		0	
No. Lanes	1		1		1		1	
Geometry Group	1		1		1		1	
Duration, T	0.25							
<b>Saturation Headway Adjustment Worksheet</b>								
Prop. Left-Turns	0.2		0.0		0.2		0.2	
Prop. Right-Turns	0.0		0.2		0.1		0.4	
Prop. Heavy Vehicle	0.0		0.0		0.0		0.0	
hLT-adj	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
hRT-adj	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6
hHV-adj	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
hadj, computed	0.0		-0.1		-0.0		-0.2	
<b>Departure Headway and Service Time</b>								
hd, initial value (s)	3.20		3.20		3.20		3.20	
x, initial	0.55		0.32		0.12		0.21	
hd, final value (s)	6.16		6.48		7.66		7.07	
x, final value	1.06		0.64		0.29		0.47	
Move-up time, m (s)	2.0		2.0		2.0		2.0	
Service Time, t <sub>s</sub> (s)	4.2		4.5		5.7		5.1	
<b>Capacity and Level of Service</b>								
	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Capacity (veh/h)	620		540		386		484	
Delay (s/veh)	78.83		20.45		13.75		16.21	
LOS	F		C		B		C	
Approach: Delay (s/veh)	78.83		20.45		13.75		16.21	
LOS	F		C		B		C	
Intersection Delay (s/veh)	45.76							
Intersection LOS	E							

ALL-WAY STOP CONTROL ANALYSIS								
General Information				Site Information				
Analyst	HLR-SM			Intersection	7th St and Prairie St			
Agency/Co.				Jurisdiction				
Date Performed	6/10/2016			Analysis Year	2026			
Analysis Time Period	4:30pm-5:30pm							
Project ID <i>Prairie Centre TIS Total No Improvements</i>								
East/West Street: <i>Prairie St</i>				North/South Street: <i>7th St</i>				
Volume Adjustments and Site Characteristics								
Approach	Eastbound				Westbound			
Movement	L	T	R	L	T	R		
Volume (veh/h)	92	440	18	15	540	60		
%Thrus Left Lane								
Approach	Northbound				Southbound			
Movement	L	T	R	L	T	R		
Volume (veh/h)	20	45	13	53	122	194		
%Thrus Left Lane								
	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		LTR		LTR	
PHF	1.00		1.00		1.00		1.00	
Flow Rate (veh/h)	550		615		78		369	
% Heavy Vehicles	0		0		0		0	
No. Lanes	1		1		1		1	
Geometry Group	1		1		1		1	
Duration, T	0.25							
Saturation Headway Adjustment Worksheet								
Prop. Left-Turns	0.2		0.0		0.3		0.1	
Prop. Right-Turns	0.0		0.1		0.2		0.5	
Prop. Heavy Vehicle	0.0		0.0		0.0		0.0	
hLT-adj	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
hRT-adj	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6
hHV-adj	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
hadj, computed	0.0		-0.1		-0.0		-0.3	
Departure Headway and Service Time								
hd, initial value (s)	3.20		3.20		3.20		3.20	
x, initial	0.49		0.55		0.07		0.33	
hd, final value (s)	7.06		6.99		9.10		7.35	
x, final value	1.08		1.19		0.20		0.75	
Move-up time, m (s)	2.0		2.0		2.0		2.0	
Service Time, t <sub>s</sub> (s)	5.1		5.0		7.1		5.4	
Capacity and Level of Service								
	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Capacity (veh/h)	550		615		328		487	
Delay (s/veh)	88.95		129.02		14.32		29.55	
LOS	F		F		B		D	
Approach: Delay (s/veh)	88.95		129.02		14.32		29.55	
LOS	F		F		B		D	
Intersection Delay (s/veh)	87.03							
Intersection LOS	F							

ALL-WAY STOP CONTROL ANALYSIS								
General Information				Site Information				
Analyst	HLR-SM			Intersection	7th St and Prairie St			
Agency/Co.				Jurisdiction				
Date Performed	6/10/2016			Analysis Year	2026			
Analysis Time Period	11:15am-12:15pm							
Project ID <i>Prairie Centre TIS Total No Improvements</i>								
East/West Street: <i>Prairie St</i>				North/South Street: <i>7th St</i>				
Volume Adjustments and Site Characteristics								
Approach	Eastbound				Westbound			
Movement	L	T	R	L	T	R		
Volume (veh/h)	97	366	21	15	385	28		
%Thrus Left Lane								
Approach	Northbound				Southbound			
Movement	L	T	R	L	T	R		
Volume (veh/h)	14	43	13	36	48	126		
%Thrus Left Lane								
	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		LTR		LTR	
PHF	1.00		1.00		1.00		1.00	
Flow Rate (veh/h)	484		428		70		210	
% Heavy Vehicles	0		0		0		0	
No. Lanes	1		1		1		1	
Geometry Group	1		1		1		1	
Duration, T	0.25							
Saturation Headway Adjustment Worksheet								
Prop. Left-Turns	0.2		0.0		0.2		0.2	
Prop. Right-Turns	0.0		0.1		0.2		0.6	
Prop. Heavy Vehicle	0.0		0.0		0.0		0.0	
hLT-adj	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
hRT-adj	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6
hHV-adj	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
hadj, computed	0.0		-0.0		-0.1		-0.3	
Departure Headway and Service Time								
hd, initial value (s)	3.20		3.20		3.20		3.20	
x, initial	0.43		0.38		0.06		0.19	
hd, final value (s)	5.58		5.63		6.96		6.25	
x, final value	0.75		0.67		0.14		0.36	
Move-up time, m (s)	2.0		2.0		2.0		2.0	
Service Time, t <sub>s</sub> (s)	3.6		3.6		5.0		4.3	
Capacity and Level of Service								
	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Capacity (veh/h)	629		618		320		460	
Delay (s/veh)	23.45		19.25		11.04		12.79	
LOS	C		C		B		B	
Approach: Delay (s/veh)	23.45		19.25		11.04		12.79	
LOS	C		C		B		B	
Intersection Delay (s/veh)	19.34							
Intersection LOS	C							



ALL-WAY STOP CONTROL ANALYSIS								
General Information				Site Information				
Analyst	HLR-SM			Intersection	3rd St and Prairie St			
Agency/Co.				Jurisdiction				
Date Performed	6/10/2016			Analysis Year	2026			
Analysis Time Period	7:15am-8:15am							
Project ID <i>Prairie Centre TIS Total No Improvements</i>								
East/West Street: <i>Prairie St</i>				North/South Street: <i>3rd St</i>				
Volume Adjustments and Site Characteristics								
Approach	Eastbound				Westbound			
Movement	L	T	R	L	T	R		
Volume (veh/h)	72	443	45	44	239	26		
%Thrus Left Lane								
Approach	Northbound				Southbound			
Movement	L	T	R	L	T	R		
Volume (veh/h)	39	225	51	38	109	60		
%Thrus Left Lane								
	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		LTR		LTR	
PHF	1.00		1.00		1.00		1.00	
Flow Rate (veh/h)	560		309		315		207	
% Heavy Vehicles	0		0		0		0	
No. Lanes	1		1		1		1	
Geometry Group	1		1		1		1	
Duration, T	0.25							
Saturation Headway Adjustment Worksheet								
Prop. Left-Turns	0.1		0.1		0.1		0.2	
Prop. Right-Turns	0.1		0.1		0.2		0.3	
Prop. Heavy Vehicle	0.0		0.0		0.0		0.0	
hLT-adj	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
hRT-adj	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6
hHV-adj	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
hadj, computed	-0.0		-0.0		-0.1		-0.1	
Departure Headway and Service Time								
hd, initial value (s)	3.20		3.20		3.20		3.20	
x, initial	0.50		0.27		0.28		0.18	
hd, final value (s)	6.89		7.48		7.59		7.97	
x, final value	1.07		0.64		0.66		0.46	
Move-up time, m (s)	2.0		2.0		2.0		2.0	
Service Time, t <sub>s</sub> (s)	4.9		5.5		5.6		6.0	
Capacity and Level of Service								
	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Capacity (veh/h)	560		461		457		417	
Delay (s/veh)	86.17		22.93		24.33		17.53	
LOS	F		C		C		C	
Approach: Delay (s/veh)	86.17		22.93		24.33		17.53	
LOS	F		C		C		C	
Intersection Delay (s/veh)	47.90							
Intersection LOS	E							

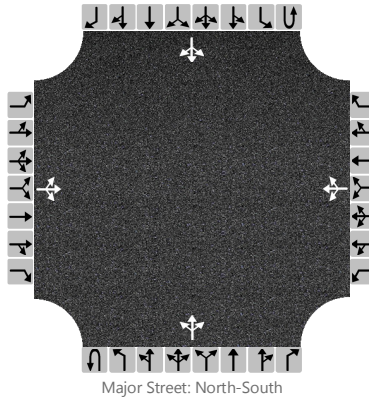
ALL-WAY STOP CONTROL ANALYSIS								
General Information				Site Information				
Analyst	HLR-SM			Intersection	3rd St and Prairie St			
Agency/Co.				Jurisdiction				
Date Performed	6/10/2016			Analysis Year	2026			
Analysis Time Period	4:30pm-5:30pm							
Project ID <i>Prairie Centre TIS Total No Improvements</i>								
East/West Street: <i>Prairie St</i>				North/South Street: <i>3rd St</i>				
Volume Adjustments and Site Characteristics								
Approach	Eastbound				Westbound			
Movement	L	T	R	L	T	R		
Volume (veh/h)	59	372	58	72	466	35		
%Thrus Left Lane								
Approach	Northbound				Southbound			
Movement	L	T	R	L	T	R		
Volume (veh/h)	57	156	54	49	249	102		
%Thrus Left Lane								
	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		LTR		LTR	
PHF	1.00		1.00		1.00		1.00	
Flow Rate (veh/h)	489		573		267		400	
% Heavy Vehicles	0		0		0		0	
No. Lanes	1		1		1		1	
Geometry Group	1		1		1		1	
Duration, T	0.25							
Saturation Headway Adjustment Worksheet								
Prop. Left-Turns	0.1		0.1		0.2		0.1	
Prop. Right-Turns	0.1		0.1		0.2		0.3	
Prop. Heavy Vehicle	0.0		0.0		0.0		0.0	
hLT-adj	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
hRT-adj	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6
hHV-adj	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
hadj, computed	-0.0		-0.0		-0.1		-0.1	
Departure Headway and Service Time								
hd, initial value (s)	3.20		3.20		3.20		3.20	
x, initial	0.43		0.51		0.24		0.36	
hd, final value (s)	8.99		9.02		9.71		8.92	
x, final value	1.22		1.44		0.72		0.99	
Move-up time, m (s)	2.0		2.0		2.0		2.0	
Service Time, $t_s$ (s)	7.0		7.0		7.7		6.9	
Capacity and Level of Service								
	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Capacity (veh/h)	489		573		370		404	
Delay (s/veh)	147.64		234.52		34.05		73.15	
LOS	F		F		D		F	
Approach: Delay (s/veh)	147.64		234.52		34.05		73.15	
LOS	F		F		D		F	
Intersection Delay (s/veh)	141.66							
Intersection LOS	F							

ALL-WAY STOP CONTROL ANALYSIS								
General Information				Site Information				
Analyst	HLR-SM			Intersection	3rd St and Prairie St			
Agency/Co.				Jurisdiction				
Date Performed	6/10/2016			Analysis Year	2026			
Analysis Time Period	11:15am-12:15pm							
Project ID <i>Prairie Centre TIS Total No Improvements</i>								
East/West Street: <i>Prairie St</i>				North/South Street: <i>3rd St</i>				
Volume Adjustments and Site Characteristics								
Approach	Eastbound				Westbound			
Movement	L	T	R	L	T	R		
Volume (veh/h)	49	292	55	58	300	18		
%Thrus Left Lane								
Approach	Northbound				Southbound			
Movement	L	T	R	L	T	R		
Volume (veh/h)	53	149	67	36	158	74		
%Thrus Left Lane								
	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		LTR		LTR	
PHF	1.00		1.00		1.00		1.00	
Flow Rate (veh/h)	396		376		269		268	
% Heavy Vehicles	0		0		0		0	
No. Lanes	1		1		1		1	
Geometry Group	1		1		1		1	
Duration, T	0.25							
Saturation Headway Adjustment Worksheet								
Prop. Left-Turns	0.1		0.2		0.2		0.1	
Prop. Right-Turns	0.1		0.0		0.2		0.3	
Prop. Heavy Vehicle	0.0		0.0		0.0		0.0	
hLT-adj	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
hRT-adj	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6
hHV-adj	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
hadj, computed	-0.1		0.0		-0.1		-0.1	
Departure Headway and Service Time								
hd, initial value (s)	3.20		3.20		3.20		3.20	
x, initial	0.35		0.33		0.24		0.24	
hd, final value (s)	7.00		7.11		7.48		7.46	
x, final value	0.77		0.74		0.56		0.56	
Move-up time, m (s)	2.0		2.0		2.0		2.0	
Service Time, t <sub>s</sub> (s)	5.0		5.1		5.5		5.5	
Capacity and Level of Service								
	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Capacity (veh/h)	488		477		417		417	
Delay (s/veh)	29.74		27.91		19.57		19.39	
LOS	D		D		C		C	
Approach: Delay (s/veh)	29.74		27.91		19.57		19.39	
LOS	D		D		C		C	
Intersection Delay (s/veh)	25.01							
Intersection LOS	D							

# HCS 2010 Two-Way Stop Control Summary Report

General Information		Site Information	
Analyst	HLR-SM	Intersection	14th St and Vanderbilt Dr
Agency/Co.		Jurisdiction	
Date Performed	6/10/2016	East/West Street	Vanderbilt Dr
Analysis Year	2026	North/South Street	14th St
Time Analyzed	7:15am-8:15am	Peak Hour Factor	0.92
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	Prairie Centre TIS Total No Improvements		

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement																
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	0	1	0	0	0	1	0
Configuration			LTR				LTR				LTR				LTR	
Volume (veh/h)		23	0	25		0	0	0		4	198	6		2	204	34
Percent Heavy Vehicles		3	3	3		3	3	3		3				3		
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

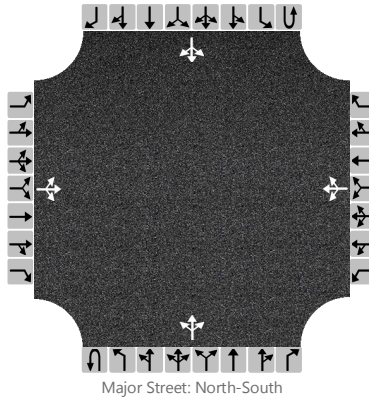
## Delay, Queue Length, and Level of Service

Flow Rate (veh/h)			52							4					2		
Capacity			653							1298					1340		
v/c Ratio			0.08							0.00					0.00		
95% Queue Length			0.3							0.0					0.0		
Control Delay (s/veh)			11.0				5.0			7.8					7.7		
Level of Service (LOS)			B				A			A					A		
Approach Delay (s/veh)	11.0				5.0				0.2				0.1				
Approach LOS	B				A												

# HCS 2010 Two-Way Stop Control Summary Report

General Information		Site Information	
Analyst	HLR-SM	Intersection	14th St and Vanderbilt Dr
Agency/Co.		Jurisdiction	
Date Performed	6/10/2016	East/West Street	Vanderbilt Dr
Analysis Year	2026	North/South Street	14th St
Time Analyzed	4:30pm-5:30pm	Peak Hour Factor	0.92
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	Prairie Centre TIS Total No Improvements		

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement																
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	0	1	0	0	0	1	0
Configuration			LTR				LTR				LTR				LTR	
Volume (veh/h)		48	0	61		0	0	0		15	321	0		1	334	61
Percent Heavy Vehicles		3	3	3		3	3	3		3				3		
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

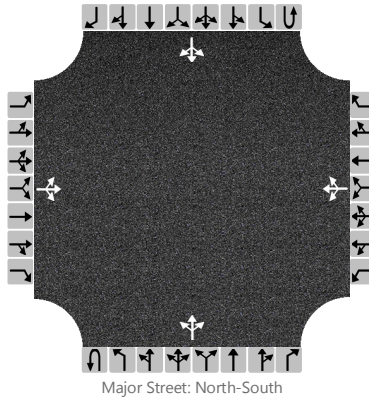
## Delay, Queue Length, and Level of Service

Flow Rate (veh/h)			118							16					1		
Capacity			478							1124					1203		
v/c Ratio			0.25							0.01					0.00		
95% Queue Length			1.0							0.0					0.0		
Control Delay (s/veh)			15.0					5.0		8.2					8.0		
Level of Service (LOS)			B					A		A					A		
Approach Delay (s/veh)	15.0				5.0				0.5				0.0				
Approach LOS	B				A												

# HCS 2010 Two-Way Stop Control Summary Report

General Information		Site Information	
Analyst	HLR-SM	Intersection	14th St and Vanderbilt Dr
Agency/Co.		Jurisdiction	
Date Performed	6/10/2016	East/West Street	Vanderbilt Dr
Analysis Year	2026	North/South Street	14th St
Time Analyzed	11:15am-12:15pm	Peak Hour Factor	0.92
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	Prairie Centre TIS Total No Improvements		

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement																
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	0	1	0	0	0	1	0
Configuration			LTR				LTR				LTR				LTR	
Volume (veh/h)		47	0	59		0	0	0		17	295	7		3	309	36
Percent Heavy Vehicles		3	3	3		3	3	3		3				3		
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

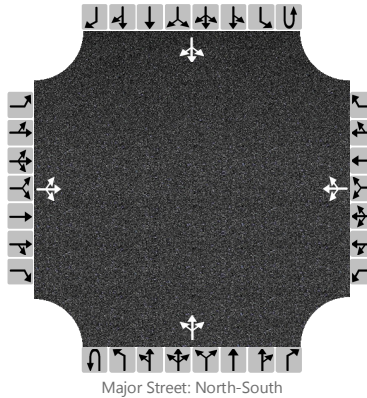
## Delay, Queue Length, and Level of Service

Flow Rate (veh/h)			115							18					3		
Capacity			510							1177					1224		
v/c Ratio			0.23							0.02					0.00		
95% Queue Length			0.9							0.0					0.0		
Control Delay (s/veh)			14.1					5.0		8.1					7.9		
Level of Service (LOS)			B					A		A					A		
Approach Delay (s/veh)	14.1				5.0				0.6				0.1				
Approach LOS	B				A												

# HCS 2010 Two-Way Stop Control Summary Report

General Information		Site Information	
Analyst	HLR-SM	Intersection	14th St and Covington Ct
Agency/Co.		Jurisdiction	
Date Performed	6/10/2016	East/West Street	Covington Ct
Analysis Year	2026	North/South Street	14th St
Time Analyzed	7:15am-8:15am	Peak Hour Factor	0.92
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	Prairie Centre TIS Total No Improvements		

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement																
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	0	1	0	0	0	1	0
Configuration			LTR				LTR				LTR				LTR	
Volume (veh/h)		6	1	22		38	0	4		8	193	24		8	175	0
Percent Heavy Vehicles		3	3	3		3	3	3		3				3		
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

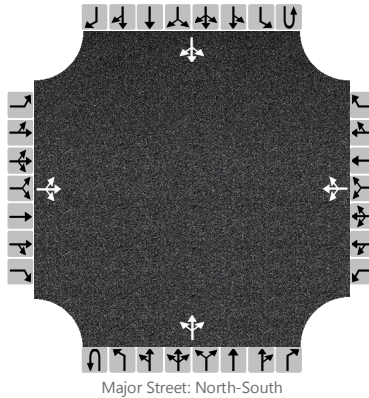
## Delay, Queue Length, and Level of Service

Flow Rate (veh/h)			32				45				9					9	
Capacity			726				505				1376					1324	
v/c Ratio			0.04				0.09				0.01					0.01	
95% Queue Length			0.1				0.3				0.0					0.0	
Control Delay (s/veh)			10.2				12.8				7.6					7.7	
Level of Service (LOS)			B				B				A					A	
Approach Delay (s/veh)	10.2				12.8				0.3				0.4				
Approach LOS	B				B				A				A				

# HCS 2010 Two-Way Stop Control Summary Report

General Information		Site Information	
Analyst	HLR-SM	Intersection	14th St and Covington Ct
Agency/Co.		Jurisdiction	
Date Performed	6/10/2016	East/West Street	Covington Ct
Analysis Year	2026	North/South Street	14th St
Time Analyzed	4:30pm-5:30pm	Peak Hour Factor	0.92
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	Prairie Centre TIS Total No Improvements		

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement																
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	0	1	0	0	0	1	0
Configuration			LTR				LTR				LTR				LTR	
Volume (veh/h)		3	2	16		51	2	6		35	286	50		6	327	3
Percent Heavy Vehicles		3	3	3		3	3	3		3				3		
Proportion Time Blocked																
Right Turn Channelized	No				No				No				No			
Median Type	Undivided															
Median Storage																

## Delay, Queue Length, and Level of Service

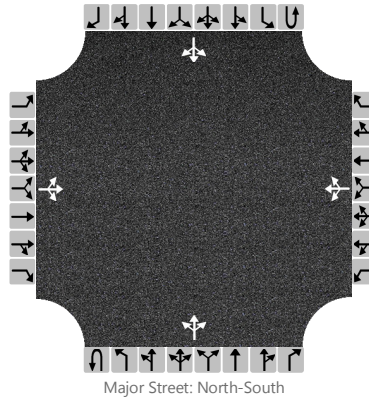
Flow Rate (veh/h)			22				64					38				7		
Capacity			526				305					1194				1187		
v/c Ratio			0.04				0.21					0.03				0.01		
95% Queue Length			0.1				0.8					0.1				0.0		
Control Delay (s/veh)			12.1				19.9					8.1				8.1		
Level of Service (LOS)			B				C					A				A		
Approach Delay (s/veh)	12.1				19.9				1.1				0.2					
Approach LOS	B				C													



# HCS 2010 Two-Way Stop Control Summary Report

General Information		Site Information	
Analyst	HLR-SM	Intersection	14th St and Covington Ct
Agency/Co.		Jurisdiction	
Date Performed	6/10/2016	East/West Street	Covington Ct
Analysis Year	2026	North/South Street	14th St
Time Analyzed	11:15am-12:15pm	Peak Hour Factor	0.92
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	Prairie Centre TIS Total No Improvements		

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound				
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R	
Movement																	
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6	
Number of Lanes		0	1	0		0	1	0	0	0	1	0	0	0	1	0	
Configuration			LTR				LTR				LTR				LTR		
Volume (veh/h)		4	1	19		47	1	15		12	223	53		6	237	7	
Percent Heavy Vehicles		3	3	3		3	3	3		3				3			
Proportion Time Blocked																	
Right Turn Channelized	No				No				No				No				
Median Type	Undivided																
Median Storage																	

## Delay, Queue Length, and Level of Service

Flow Rate (veh/h)			26				68				13					7	
Capacity			659				454				1291					1254	
v/c Ratio			0.04				0.15				0.01					0.01	
95% Queue Length			0.1				0.5				0.0					0.0	
Control Delay (s/veh)			10.7				14.3				7.8					7.9	
Level of Service (LOS)			B				B				A					A	
Approach Delay (s/veh)	10.7				14.3				0.4				0.3				
Approach LOS	B				B				A				A				

## APPENDIX E

### Synchro Analysis Reports 2016 Existing Traffic

1. Weekday AM Peak Hour
  - a. Randall Road & IL Route 38
  - b. IL Route 38 & West Mall Entrance
  - c. IL Route 38 & 14<sup>th</sup> Street/Bricher Road
  - d. Randall Road & Prairie Street
2. Weekday PM Peak Hour
  - a. Randall Road & IL Route 38
  - b. IL Route 38 & West Mall Entrance
  - c. IL Route 38 & 14<sup>th</sup> Street/Bricher Road
  - d. Randall Road & Prairie Street
3. Saturday Peak Hour
  - a. Randall Road & IL Route 38
  - b. IL Route 38 & West Mall Entrance
  - c. IL Route 38 & 14<sup>th</sup> Street/Bricher Road
  - d. Randall Road & Prairie Street

# Timings

## 1: Randall Rd & IL Route 38

HLR  
7/27/2016

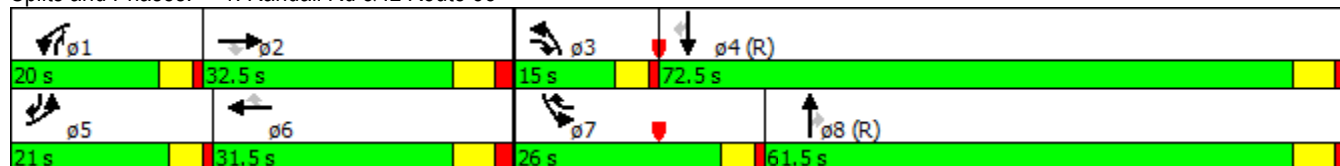


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↖	↕↕	↗	↖↖	↕↕	↗	↖↖	↕↕	↗	↖↖	↕↕	↗
Volume (vph)	219	531	35	35	235	147	92	935	33	290	953	240
Satd. Flow (prot)	3155	3471	1380	3213	3343	1538	3335	3438	1442	3335	3406	1495
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3155	3471	1363	3210	3343	1538	3334	3438	1423	3333	3406	1476
Satd. Flow (RTOR)			97			62			97			174
Lane Group Flow (vph)	238	577	38	38	255	160	100	1016	36	315	1036	261
Turn Type	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	5	2	3	1	6	7	3	8	1	7	4	5
Permitted Phases			2			6			8			4
Total Split (s)	21.0	32.5	15.0	20.0	31.5	26.0	15.0	61.5	20.0	26.0	72.5	21.0
Total Lost Time (s)	4.5	6.5	4.5	4.5	6.5	4.5	4.5	6.5	4.5	4.5	6.5	4.5
Act Effct Green (s)	14.9	33.5	44.7	7.1	23.8	48.4	9.2	61.3	70.4	18.1	70.2	87.0
Actuated g/C Ratio	0.11	0.24	0.32	0.05	0.17	0.35	0.07	0.44	0.50	0.13	0.50	0.62
v/c Ratio	0.71	0.70	0.08	0.23	0.45	0.28	0.46	0.68	0.05	0.73	0.61	0.26
Control Delay	72.5	53.7	0.3	66.7	54.6	20.1	69.6	35.5	0.1	78.5	21.9	1.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0
Total Delay	72.5	53.7	0.3	66.7	54.6	20.1	69.6	35.5	0.1	78.5	22.1	1.5
LOS	E	D	A	E	D	C	E	D	A	E	C	A
Approach Delay		56.6			43.4			37.4			29.8	
Approach LOS		E			D			D			C	
Queue Length 50th (ft)	108	252	0	17	109	61	45	400	0	128	383	7
Queue Length 95th (ft)	155	324	0	36	155	115	76	501	0	m200	287	m4
Internal Link Dist (ft)		670			319			781			597	
Turn Bay Length (ft)	425		490				235		460	240		220
Base Capacity (vph)	371	830	514	355	608	607	250	1504	845	512	1706	1001
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	152	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.64	0.70	0.07	0.11	0.42	0.26	0.40	0.68	0.04	0.62	0.67	0.26

### Intersection Summary

Cycle Length: 140  
 Actuated Cycle Length: 140  
 Offset: 94 (67%), Referenced to phase 4:SBT and 8:NBT, Start of 1st Green  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.73  
 Intersection Signal Delay: 39.1      Intersection LOS: D  
 Intersection Capacity Utilization 77.1%      ICU Level of Service D  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

### Splits and Phases: 1: Randall Rd & IL Route 38



# Timings

## 2: IL Route 38 & W Mall Entrance

HLR  
7/27/2016

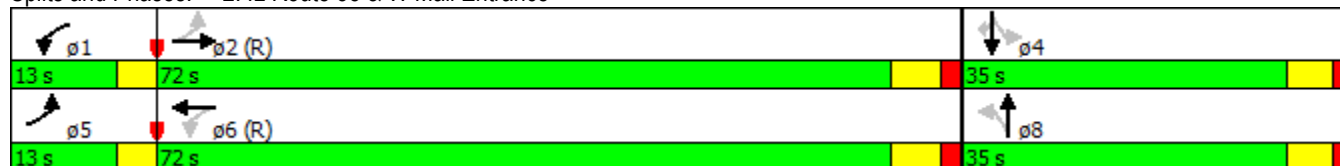


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↗		↖	↗	↖
Volume (vph)	8	783	67	29	402	1	33	2	48	5	1	1
Satd. Flow (prot)	1444	3410	0	1805	3367	0	1752	1596	0	1805	1900	1615
Flt Permitted	0.505			0.298			0.757			0.722		
Satd. Flow (perm)	768	3410	0	566	3367	0	1396	1596	0	1372	1900	1615
Satd. Flow (RTOR)		12						51				64
Lane Group Flow (vph)	8	895	0	31	424	0	35	53	0	5	1	1
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		Perm	NA	Perm
Protected Phases	5	2		1	6			8			4	
Permitted Phases	2			6			8			4		4
Total Split (s)	13.0	72.0		13.0	72.0		35.0	35.0		35.0	35.0	35.0
Total Lost Time (s)	3.5	6.5		3.5	6.5		6.0	6.0		6.0	6.0	6.0
Act Effct Green (s)	100.4	95.3		102.1	99.2		10.6	10.6		10.6	10.6	10.6
Actuated g/C Ratio	0.84	0.79		0.85	0.83		0.09	0.09		0.09	0.09	0.09
v/c Ratio	0.01	0.33		0.06	0.15		0.29	0.28		0.04	0.01	0.01
Control Delay	2.1	5.3		0.8	1.5		56.3	18.2		49.2	48.0	0.0
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	2.1	5.3		0.8	1.5		56.3	18.2		49.2	48.0	0.0
LOS	A	A		A	A		E	B		D	D	A
Approach Delay		5.3			1.4			33.4			42.0	
Approach LOS		A			A			C			D	
Queue Length 50th (ft)	1	113		1	5		26	1		4	1	0
Queue Length 95th (ft)	4	165		2	71		58	40		16	6	0
Internal Link Dist (ft)		440			624			190			310	
Turn Bay Length (ft)	170			215			65			100		100
Base Capacity (vph)	710	2710		582	2782		337	424		331	459	438
Starvation Cap Reductn	0	0		0	0		0	0		0	0	0
Spillback Cap Reductn	0	0		0	0		0	0		0	0	0
Storage Cap Reductn	0	0		0	0		0	0		0	0	0
Reduced v/c Ratio	0.01	0.33		0.05	0.15		0.10	0.13		0.02	0.00	0.00

### Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 95 (79%), Referenced to phase 2:EBTL and 6:WBTL, Start of 1st Green  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.33  
 Intersection Signal Delay: 6.0  
 Intersection LOS: A  
 Intersection Capacity Utilization 43.0%  
 ICU Level of Service A  
 Analysis Period (min) 15

### Splits and Phases: 2: IL Route 38 & W Mall Entrance





# Timings 11: Randall Rd & Prairie St

HLR  
7/27/2016

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	3	5	15	115	9	120	15	1186	120	123	1347	11
Satd. Flow (prot)	1805	1582	0	1687	1900	1524	1805	3347	0	1703	3399	0
Flt Permitted	0.751			0.431			0.153			0.143		
Satd. Flow (perm)	1410	1582	0	764	1900	1487	291	3347	0	256	3399	0
Satd. Flow (RTOR)		16				128		13			1	
Lane Group Flow (vph)	3	21	0	122	10	128	16	1390	0	131	1445	0
Turn Type	pm+pt	NA		pm+pt	NA	pm+ov	pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8	1	5	2		1	6	
Permitted Phases	4			8		8	2			6		
Total Split (s)	13.0	26.5		13.0	26.5	13.0	13.0	87.5		13.0	87.5	
Total Lost Time (s)	4.0	6.5		4.0	6.5	4.0	4.0	6.5		4.0	6.5	
Act Effct Green (s)	11.6	7.5		17.6	13.3	23.1	108.2	100.5		113.8	107.9	
Actuated g/C Ratio	0.08	0.05		0.13	0.10	0.16	0.77	0.72		0.81	0.77	
v/c Ratio	0.02	0.21		0.79	0.06	0.36	0.06	0.58		0.46	0.55	
Control Delay	48.7	36.1		88.5	56.1	10.2	3.2	6.6		8.7	9.0	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.1		0.0	0.0	
Total Delay	48.7	36.1		88.5	56.1	10.2	3.2	6.7		8.7	9.0	
LOS	D	D		F	E	B	A	A		A	A	
Approach Delay		37.7			48.7			6.6			9.0	
Approach LOS		D			D			A			A	
Queue Length 50th (ft)	2	4		102	8	0	2	112		24	247	
Queue Length 95th (ft)	12	33		#167	27	56	m4	152		43	426	
Internal Link Dist (ft)		187			212			597			526	
Turn Bay Length (ft)	70			100		100	145			170		
Base Capacity (vph)	180	239		155	273	371	329	2406		301	2619	
Starvation Cap Reductn	0	0		0	0	0	0	170		0	0	
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	
Reduced v/c Ratio	0.02	0.09		0.79	0.04	0.35	0.05	0.62		0.44	0.55	

### Intersection Summary

Cycle Length: 140  
 Actuated Cycle Length: 140  
 Offset: 101 (72%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.79  
 Intersection Signal Delay: 11.3 Intersection LOS: B  
 Intersection Capacity Utilization 73.1% ICU Level of Service D  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

### Splits and Phases: 11: Randall Rd & Prairie St



Timings  
1: Randall Rd & IL Route 38

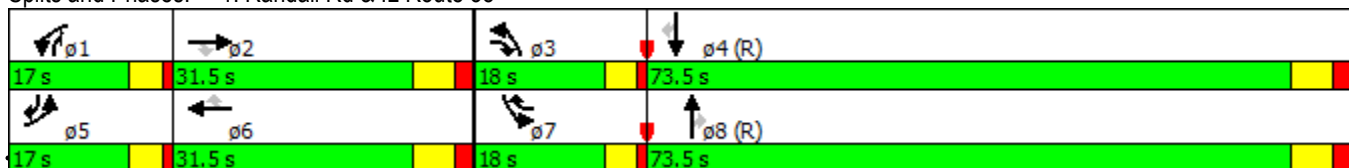


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑↑	↖	↖↗	↑↑	↖	↖↗	↑↑	↖	↖↗	↑↑	↖
Volume (vph)	270	326	79	125	522	344	104	1152	51	240	1158	273
Satd. Flow (prot)	3367	3539	1583	3467	3539	1568	3367	3539	1583	3433	3505	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3365	3539	1583	3467	3539	1548	3367	3539	1583	3433	3505	1583
Satd. Flow (RTOR)			62			62			62			100
Lane Group Flow (vph)	281	340	82	130	544	358	108	1200	53	250	1206	284
Turn Type	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	5	2	3	1	6	7	3	8	1	7	4	5
Permitted Phases			2			6			8			4
Total Split (s)	17.0	31.5	18.0	17.0	31.5	18.0	18.0	73.5	17.0	18.0	73.5	17.0
Total Lost Time (s)	4.5	6.5	4.5	4.5	6.5	4.5	4.5	6.5	4.5	4.5	6.5	4.5
Act Effct Green (s)	12.5	27.1	43.5	10.4	25.0	40.1	9.9	67.4	84.3	13.1	70.6	89.6
Actuated g/C Ratio	0.09	0.19	0.31	0.07	0.18	0.29	0.07	0.48	0.60	0.09	0.50	0.64
v/c Ratio	0.94	0.50	0.15	0.51	0.86	0.73	0.46	0.70	0.05	0.78	0.68	0.27
Control Delay	100.8	53.7	12.6	69.0	70.4	44.0	68.3	31.4	2.0	87.1	22.1	4.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0
Total Delay	100.8	53.7	12.6	69.0	70.4	44.0	68.3	31.4	2.0	87.1	22.5	4.4
LOS	F	D	B	E	E	D	E	C	A	F	C	A
Approach Delay		67.7			61.1			33.2			28.8	
Approach LOS		E			E			C			C	
Queue Length 50th (ft)	133	147	13	59	255	234	49	444	0	106	460	35
Queue Length 95th (ft)	#222	203	53	93	#347	350	80	528	14	m#164	m455	m31
Internal Link Dist (ft)		670			319			781			597	
Turn Bay Length (ft)	425		490				235		460	240		220
Base Capacity (vph)	300	684	573	309	631	493	324	1703	1000	331	1768	1049
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	173	0
Spillback Cap Reductn	0	0	0	0	0	0	0	22	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.94	0.50	0.14	0.42	0.86	0.73	0.33	0.71	0.05	0.76	0.76	0.27

Intersection Summary

Cycle Length: 140  
 Actuated Cycle Length: 140  
 Offset: 12 (9%), Referenced to phase 4:SBT and 8:NBT, Start of 1st Green  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.94  
 Intersection Signal Delay: 42.6  
 Intersection LOS: D  
 Intersection Capacity Utilization 79.9%  
 ICU Level of Service D  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Randall Rd & IL Route 38



Timings  
2: IL Route 38 & W Mall Entrance

HLR  
7/27/2016

	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	19	552	46	57	936	8	48	2	60	20	4	7
Satd. Flow (prot)	1805	3506	0	1805	3536	0	1805	1623	0	1719	1900	1417
Flt Permitted	0.274			0.392			0.755			0.713		
Satd. Flow (perm)	520	3506	0	745	3536	0	1433	1623	0	1290	1900	1398
Satd. Flow (RTOR)		11			1			65				64
Lane Group Flow (vph)	20	643	0	61	1015	0	52	67	0	22	4	8
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		Perm	NA	Perm
Protected Phases	5	2		1	6			8				4
Permitted Phases	2			6			8			4		4
Total Split (s)	13.0	72.0		13.0	72.0		35.0	35.0		35.0	35.0	35.0
Total Lost Time (s)	3.5	6.5		3.5	6.5		6.0	6.0		6.0	6.0	6.0
Act Effct Green (s)	98.2	91.9		100.5	96.0		11.7	11.7		11.7	11.7	11.7
Actuated g/C Ratio	0.82	0.77		0.84	0.80		0.10	0.10		0.10	0.10	0.10
v/c Ratio	0.04	0.24		0.09	0.36		0.37	0.31		0.17	0.02	0.04
Control Delay	2.6	5.8		1.0	2.3		57.2	16.0		51.4	46.8	0.4
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	2.6	5.8		1.0	2.3		57.2	16.0		51.4	46.8	0.4
LOS	A	A		A	A		E	B		D	D	A
Approach Delay		5.7			2.2			34.0				38.8
Approach LOS		A			A			C				D
Queue Length 50th (ft)	2	78		2	21		38	1		16	3	0
Queue Length 95th (ft)	7	120		m5	39		77	44		41	14	0
Internal Link Dist (ft)		440			624			190			310	
Turn Bay Length (ft)	170			215			65			100		100
Base Capacity (vph)	539	2687		714	2830		346	441		311	459	386
Starvation Cap Reductn	0	0		0	0		0	0		0	0	0
Spillback Cap Reductn	0	0		0	0		0	0		0	0	0
Storage Cap Reductn	0	0		0	0		0	0		0	0	0
Reduced v/c Ratio	0.04	0.24		0.09	0.36		0.15	0.15		0.07	0.01	0.02

**Intersection Summary**

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 93 (78%), Referenced to phase 2:EBTL and 6:WBTL, Start of 1st Green  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.37  
 Intersection Signal Delay: 6.1    Intersection LOS: A  
 Intersection Capacity Utilization 55.5%    ICU Level of Service B  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 2: IL Route 38 & W Mall Entrance**





Timings  
3: 14th St & IL Route 38

HLR  
7/27/2016

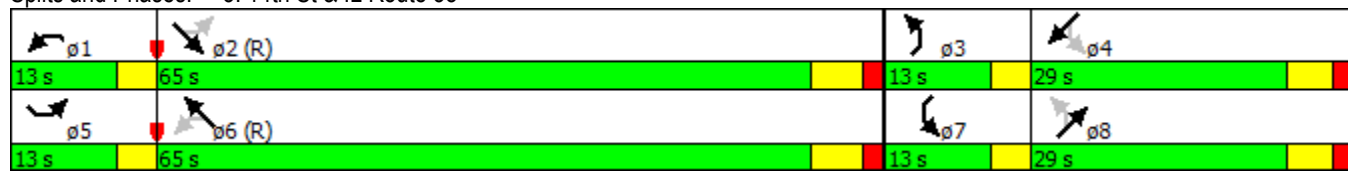


Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations	↖	↖↗		↖	↖↗		↖	↗		↖	↗	
Volume (vph)	93	560	14	218	859	73	40	153	185	116	186	50
Satd. Flow (prot)	1805	3527	0	1805	3520	0	1805	1744	0	1805	1826	0
Flt Permitted	0.218			0.373			0.461			0.150		
Satd. Flow (perm)	414	3527	0	709	3520	0	875	1744	0	285	1826	0
Satd. Flow (RTOR)		3			10			45			10	
Lane Group Flow (vph)	96	591	0	225	961	0	41	349	0	120	244	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		
Total Split (s)	13.0	65.0		13.0	65.0		13.0	29.0		13.0	29.0	
Total Lost Time (s)	3.5	6.5		3.5	6.5		3.5	6.0		3.5	6.0	
Act Effct Green (s)	69.8	58.9		72.6	60.3		33.0	23.1		36.8	26.7	
Actuated g/C Ratio	0.58	0.49		0.60	0.50		0.28	0.19		0.31	0.22	
v/c Ratio	0.29	0.34		0.44	0.54		0.14	0.94		0.59	0.59	
Control Delay	15.3	25.3		12.8	21.8		29.7	75.8		42.3	47.9	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	15.3	25.3		12.8	21.8		29.7	75.8		42.3	47.9	
LOS	B	C		B	C		C	E		D	D	
Approach Delay		23.9			20.1			71.0			46.1	
Approach LOS		C			C			E			D	
Queue Length 50th (ft)	27	149		71	257		22	238		67	166	
Queue Length 95th (ft)	76	258		109	328		49	#423		116	263	
Internal Link Dist (ft)		799			397			204			454	
Turn Bay Length (ft)	150			215			45			200		
Base Capacity (vph)	356	1731		516	1773		329	371		207	414	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.27	0.34		0.44	0.54		0.12	0.94		0.58	0.59	

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 47 (39%), Referenced to phase 2:SETL and 6:NWTL, Start of 1st Green  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.94  
 Intersection Signal Delay: 32.3  
 Intersection LOS: C  
 Intersection Capacity Utilization 74.1%  
 ICU Level of Service D  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Splits and Phases: 3: 14th St & IL Route 38



# Timings

## 11: Randall Rd & Prairie St

HLR  
7/27/2016



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	56	27	89	192	30	198	64	1493	185	155	1404	33
Satd. Flow (prot)	1805	1662	0	1805	1900	1599	1805	3456	0	1770	3497	0
Flt Permitted	0.687			0.565			0.126			0.064		
Satd. Flow (perm)	1305	1662	0	1071	1900	1599	239	3456	0	119	3497	0
Satd. Flow (RTOR)		92				99		16			3	
Lane Group Flow (vph)	58	120	0	198	31	204	66	1730	0	160	1481	0
Turn Type	pm+pt	NA		pm+pt	NA	pm+ov	pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8	1	5	2		1	6	
Permitted Phases	4			8		8	2			6		
Total Split (s)	13.0	26.5		13.0	26.5	13.0	13.0	87.5		13.0	87.5	
Total Lost Time (s)	4.0	6.5		4.0	6.5	4.0	4.0	6.5		4.0	6.5	
Act Effct Green (s)	21.2	9.7		20.2	12.5	25.2	100.1	91.3		105.6	95.9	
Actuated g/C Ratio	0.15	0.07		0.14	0.09	0.18	0.72	0.65		0.75	0.68	
v/c Ratio	0.25	0.60		0.99	0.18	0.55	0.27	0.77		0.82	0.62	
Control Delay	50.2	31.2		115.3	62.3	32.4	5.8	13.3		54.1	14.4	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.1		0.0	0.0	
Total Delay	50.2	31.2		115.3	62.3	32.4	5.8	13.3		54.1	14.5	
LOS	D	C		F	E	C	A	B		D	B	
Approach Delay		37.4			72.5			13.1			18.3	
Approach LOS		D			E			B			B	
Queue Length 50th (ft)	46	25		169	27	87	12	310		64	366	
Queue Length 95th (ft)	84	87		#278	59	164	m18	m351		#199	516	
Internal Link Dist (ft)		187			212			597			526	
Turn Bay Length (ft)	70			100		100	145			170		
Base Capacity (vph)	246	316		201	271	369	276	2260		196	2395	
Starvation Cap Reductn	0	0		0	0	0	0	29		0	0	
Spillback Cap Reductn	0	1		0	0	0	0	0		0	39	
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	
Reduced v/c Ratio	0.24	0.38		0.99	0.11	0.55	0.24	0.78		0.82	0.63	

### Intersection Summary

Cycle Length: 140  
 Actuated Cycle Length: 140  
 Offset: 1 (1%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.99  
 Intersection Signal Delay: 22.6  
 Intersection LOS: C  
 Intersection Capacity Utilization 87.2%  
 ICU Level of Service E  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

### Splits and Phases: 11: Randall Rd & Prairie St



# Timings

## 1: Randall Rd & IL Route 38

HLR  
8/1/2016



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↖	↑↑	↗	↖↖	↑↑	↗	↖↖	↑↑	↗	↖↖	↑↑	↗
Volume (vph)	357	417	107	176	310	291	109	1154	84	298	1417	283
Satd. Flow (prot)	3467	3539	1568	3502	3539	1583	3467	3539	1599	3502	3539	1599
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3467	3539	1548	3499	3539	1583	3466	3539	1599	3502	3539	1579
Satd. Flow (RTOR)			73			73			73			199
Lane Group Flow (vph)	368	430	110	181	320	300	112	1190	87	307	1461	292
Turn Type	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	5	2	3	1	6	7	3	8	1	7	4	5
Permitted Phases			2			6			8			4
Total Split (s)	17.0	31.5	18.0	17.0	31.5	18.0	18.0	53.5	17.0	18.0	53.5	17.0
Total Lost Time (s)	4.5	6.5	4.5	4.5	6.5	4.5	4.5	6.5	4.5	4.5	6.5	4.5
Act Effct Green (s)	12.5	24.1	35.4	11.0	22.7	42.5	9.2	49.5	67.0	13.4	53.6	68.1
Actuated g/C Ratio	0.10	0.20	0.30	0.09	0.19	0.35	0.08	0.41	0.56	0.11	0.45	0.57
v/c Ratio	1.02	0.60	0.22	0.56	0.48	0.49	0.42	0.82	0.09	0.79	0.92	0.30
Control Delay	105.4	47.4	11.7	59.0	45.5	25.0	57.3	37.4	4.1	76.1	32.0	1.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.1	0.0	0.0	1.0	0.0
Total Delay	105.4	47.4	11.7	59.0	45.5	25.0	57.3	41.6	4.1	76.1	33.0	1.3
LOS	F	D	B	E	D	C	E	D	A	E	C	A
Approach Delay		66.6			40.9			40.5			35.0	
Approach LOS		E			D			D			C	
Queue Length 50th (ft)	~155	157	19	70	114	130	43	438	5	131	438	1
Queue Length 95th (ft)	#254	214	59	107	160	214	72	535	28	m163	#756	m5
Internal Link Dist (ft)		670			319			781			597	
Turn Bay Length (ft)	425		490				235		460	240		220
Base Capacity (vph)	361	743	562	364	737	612	390	1459	943	398	1581	984
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	30	0
Spillback Cap Reductn	0	0	0	0	0	3	0	196	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.02	0.58	0.20	0.50	0.43	0.49	0.29	0.94	0.09	0.77	0.94	0.30

### Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 4:SBT and 8:NBT, Start of 1st Green

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.02

Intersection Signal Delay: 42.9

Intersection LOS: D

Intersection Capacity Utilization 83.5%

ICU Level of Service E

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

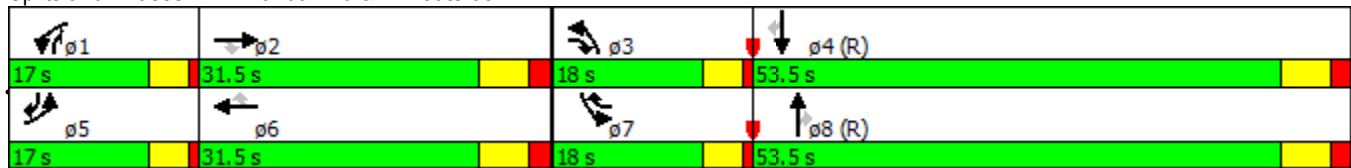
Queue shown is maximum after two cycles.

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

### Splits and Phases: 1: Randall Rd & IL Route 38



# Timings

## 2: IL Route 38 & W Mall Entrance

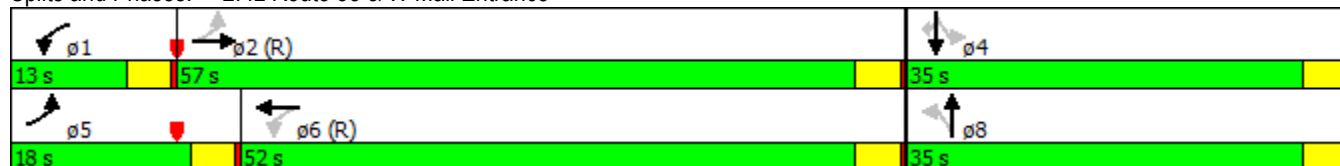
HLR  
8/1/2016

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	18	634	59	35	671	6	48	1	63	18	7	2
Satd. Flow (prot)	1805	3499	0	1805	3531	0	1770	1619	0	1805	1900	1615
Flt Permitted	0.375			0.354			0.753			0.713		
Satd. Flow (perm)	712	3499	0	673	3531	0	1403	1619	0	1355	1900	1615
Satd. Flow (RTOR)		13			1			67				94
Lane Group Flow (vph)	19	737	0	37	720	0	51	68	0	19	7	2
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		Perm	NA	Perm
Protected Phases	5	2		1	6			8				4
Permitted Phases	2			6			8			4		4
Total Split (s)	18.0	57.0		13.0	52.0		35.0	35.0		35.0	35.0	35.0
Total Lost Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Act Effct Green (s)	87.1	84.4		88.2	86.5		9.3	9.3		9.3	9.3	9.3
Actuated g/C Ratio	0.83	0.80		0.84	0.82		0.09	0.09		0.09	0.09	0.09
v/c Ratio	0.03	0.26		0.06	0.25		0.41	0.33		0.16	0.04	0.01
Control Delay	2.1	4.1		0.9	1.1		54.4	15.5		45.7	42.1	0.0
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	2.1	4.1		0.9	1.1		54.4	15.5		45.7	42.1	0.0
LOS	A	A		A	A		D	B		D	D	A
Approach Delay		4.1			1.1			32.2			41.5	
Approach LOS		A			A			C			D	
Queue Length 50th (ft)	2	70		1	10		33	1		12	4	0
Queue Length 95th (ft)	6	111		m3	26		70	40		34	18	0
Internal Link Dist (ft)		440			624			190			310	
Turn Bay Length (ft)	170			215			65			100		100
Base Capacity (vph)	753	2813		669	2907		414	525		400	560	543
Starvation Cap Reductn	0	0		0	0		0	0		0	0	0
Spillback Cap Reductn	0	0		0	0		0	0		0	0	0
Storage Cap Reductn	0	0		0	0		0	0		0	0	0
Reduced v/c Ratio	0.03	0.26		0.06	0.25		0.12	0.13		0.05	0.01	0.00

### Intersection Summary

Cycle Length: 105  
 Actuated Cycle Length: 105  
 Offset: 87 (83%), Referenced to phase 2:EBTL and 6:WBTL, Start of 1st Green  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.41  
 Intersection Signal Delay: 5.3      Intersection LOS: A  
 Intersection Capacity Utilization 42.1%      ICU Level of Service A  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

### Splits and Phases: 2: IL Route 38 & W Mall Entrance



Timings  
3: 14th St & IL Route 38

HLR  
8/1/2016

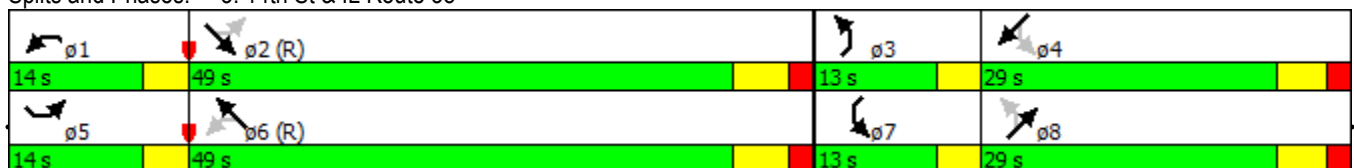


Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations	↖	↗		↖	↗		↖	↗		↖	↗	
Volume (vph)	68	625	25	243	626	54	36	116	227	97	149	29
Satd. Flow (prot)	1770	3518	0	1770	3496	0	1805	1377	0	1805	1820	0
Flt Permitted	0.322			0.271			0.637			0.197		
Satd. Flow (perm)	599	3518	0	505	3496	0	1209	1377	0	330	1820	0
Satd. Flow (RTOR)		5			10			86			9	
Lane Group Flow (vph)	73	699	0	261	731	0	39	369	0	104	191	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		
Total Split (s)	14.0	49.0		14.0	49.0		13.0	29.0		13.0	29.0	
Total Lost Time (s)	3.5	6.5		3.5	6.5		3.5	6.0		3.5	6.0	
Act Effct Green (s)	53.2	42.7		58.7	47.4		33.1	23.6		37.4	29.2	
Actuated g/C Ratio	0.51	0.41		0.56	0.45		0.32	0.22		0.36	0.28	
v/c Ratio	0.19	0.49		0.64	0.46		0.09	0.98		0.43	0.37	
Control Delay	17.2	32.7		19.9	21.6		22.4	75.1		28.2	33.3	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	17.2	32.7		19.9	21.6		22.4	75.1		28.2	33.3	
LOS	B	C		B	C		C	E		C	C	
Approach Delay		31.3			21.1			70.0			31.5	
Approach LOS		C			C			E			C	
Queue Length 50th (ft)	24	223		84	177		17	~200		46	103	
Queue Length 95th (ft)	63	292		131	238		39	#396		85	176	
Internal Link Dist (ft)		799			397			204			454	
Turn Bay Length (ft)	150			215			45			200		
Base Capacity (vph)	437	1433		408	1583		463	375		251	512	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.17	0.49		0.64	0.46		0.08	0.98		0.41	0.37	

Intersection Summary

Cycle Length: 105  
 Actuated Cycle Length: 105  
 Offset: 48 (46%), Referenced to phase 2:SETL and 6:NWTL, Start of 1st Green  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.98  
 Intersection Signal Delay: 33.6  
 Intersection LOS: C  
 Intersection Capacity Utilization 79.5%  
 ICU Level of Service D  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Splits and Phases: 3: 14th St & IL Route 38



Timing Plan: Saturday

Timings  
11: Randall Rd & Prairie St

HLR  
8/1/2016

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	49	30	93	180	33	236	56	1529	244	180	1713	26
Satd. Flow (prot)	1805	1668	0	1770	1845	1599	1805	3459	0	1787	3532	0
Flt Permitted	0.735			0.454			0.057			0.054		
Satd. Flow (perm)	1395	1668	0	845	1845	1578	108	3459	0	102	3532	0
Satd. Flow (RTOR)		96				229		22			2	
Lane Group Flow (vph)	51	127	0	186	34	243	58	1828	0	186	1793	0
Turn Type	pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8		8	2			6		
Total Split (s)	13.0	26.5		13.0	26.5	26.5	13.0	67.5		13.0	67.5	
Total Lost Time (s)	4.0	6.5		4.0	6.5	6.5	4.0	6.5		4.0	6.5	
Act Effct Green (s)	19.9	10.0		23.1	13.4	13.4	79.6	71.0		85.3	75.6	
Actuated g/C Ratio	0.17	0.08		0.19	0.11	0.11	0.66	0.59		0.71	0.63	
v/c Ratio	0.20	0.56		0.80	0.17	0.64	0.37	0.89		0.94	0.81	
Control Delay	38.6	25.5		67.8	50.6	16.0	19.7	22.7		79.3	21.9	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	3.8		0.0	0.6	
Total Delay	38.6	25.5		67.8	50.6	16.0	19.7	26.4		79.3	22.5	
LOS	D	C		E	D	B	B	C		E	C	
Approach Delay		29.3			39.4			26.2			27.8	
Approach LOS		C			D			C			C	
Queue Length 50th (ft)	33	23		130	25	10	13	272		90	515	
Queue Length 95th (ft)	62	80		#193	55	88	m19	m#896		#248	#845	
Internal Link Dist (ft)		187			212			597			526	
Turn Bay Length (ft)	70			100		100	145			170		
Base Capacity (vph)	281	358		232	307	453	201	2054		198	2226	
Starvation Cap Reductn	0	0		0	0	0	0	161		0	0	
Spillback Cap Reductn	0	3		0	0	0	0	0		0	144	
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	
Reduced v/c Ratio	0.18	0.36		0.80	0.11	0.54	0.29	0.97		0.94	0.86	

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 2 (2%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.94

Intersection Signal Delay: 28.4

Intersection LOS: C

Intersection Capacity Utilization 95.4%

ICU Level of Service F

Analysis Period (min) 15

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 11: Randall Rd & Prairie St



Prairie Centre 11:15 am 4/16/2016 Existing 2016  
Timing Plan: Saturday

Synchro 8 Report  
Page 4

## APPENDIX F

### Synchro Analysis Reports 2026 Base Traffic

1. Weekday AM Peak Hour
  - a. Randall Road & IL Route 38
  - b. IL Route 38 & West Mall Entrance
  - c. IL Route 38 & 14<sup>th</sup> Street/Bricher Road
  - d. Randall Road & Prairie Street
2. Weekday PM Peak Hour
  - a. Randall Road & IL Route 38
  - b. IL Route 38 & West Mall Entrance
  - c. IL Route 38 & 14<sup>th</sup> Street/Bricher Road
  - d. Randall Road & Prairie Street
3. Saturday Peak Hour
  - a. Randall Road & IL Route 38
  - b. IL Route 38 & West Mall Entrance
  - c. IL Route 38 & 14<sup>th</sup> Street/Bricher Road
  - d. Randall Road & Prairie Street

Timings  
1: Randall Rd & IL Route 38

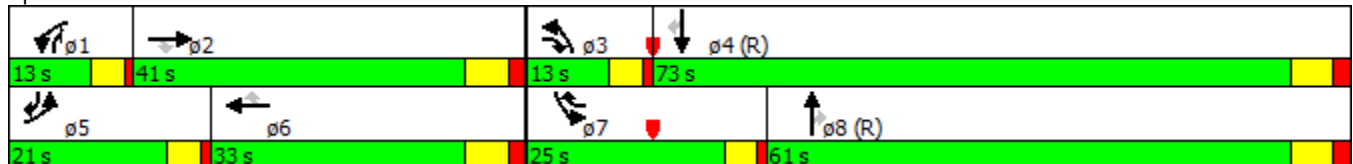
HLR  
7/27/2016

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	242	589	39	39	262	171	98	994	35	317	1013	255
Satd. Flow (prot)	3433	3539	1583	3433	3539	1583	3433	3539	1583	3433	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3539	1583	3433	3539	1583	3433	3539	1583	3433	3539	1583
Satd. Flow (RTOR)			97			97			132			139
Lane Group Flow (vph)	263	640	42	42	285	186	107	1080	38	345	1101	277
Turn Type	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	5	2	3	1	6	7	3	8	1	7	4	5
Permitted Phases			2			6			8			4
Total Split (s)	21.0	41.0	13.0	13.0	33.0	25.0	13.0	61.0	13.0	25.0	73.0	21.0
Total Lost Time (s)	4.5	6.5	4.5	4.5	6.5	4.5	4.5	6.5	4.5	4.5	6.5	4.5
Act Effct Green (s)	15.0	35.0	49.7	7.1	25.0	49.9	8.2	59.6	73.2	18.4	69.8	91.3
Actuated g/C Ratio	0.11	0.25	0.36	0.05	0.18	0.36	0.06	0.43	0.52	0.13	0.50	0.65
v/c Ratio	0.72	0.72	0.07	0.24	0.45	0.30	0.53	0.72	0.04	0.77	0.62	0.26
Control Delay	71.7	53.6	0.2	66.9	53.4	15.4	73.9	37.7	0.1	81.3	21.7	2.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.3	0.0
Total Delay	71.7	53.6	0.2	66.9	53.4	15.4	73.9	37.8	0.1	81.3	21.9	2.9
LOS	E	D	A	E	D	B	E	D	A	F	C	A
Approach Delay		56.3			40.7			39.8			30.8	
Approach LOS		E			D			D			C	
Queue Length 50th (ft)	120	280	0	19	121	53	49	444	0	171	261	12
Queue Length 95th (ft)	168	355	0	39	168	112	82	540	0	224	261	25
Internal Link Dist (ft)		670			319			781			597	
Turn Bay Length (ft)	425		490				235		460	240		220
Base Capacity (vph)	404	884	627	208	672	648	208	1506	905	502	1763	1095
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	181	0
Spillback Cap Reductn	0	0	0	0	0	0	0	19	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.65	0.72	0.07	0.20	0.42	0.29	0.51	0.73	0.04	0.69	0.70	0.25

Intersection Summary

Cycle Length: 140  
 Actuated Cycle Length: 140  
 Offset: 128 (91%), Referenced to phase 4:SBT and 8:NBT, Start of 1st Green  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.77  
 Intersection Signal Delay: 39.9  
 Intersection LOS: D  
 Intersection Capacity Utilization 77.2%  
 ICU Level of Service D  
 Analysis Period (min) 15

Splits and Phases: 1: Randall Rd & IL Route 38









# Timings

## 11: Randall Rd & Prairie St

HLR  
7/27/2016



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↖	↖	↖	↕		↖	↗	
Volume (vph)	4	6	19	144	11	151	16	1270	128	131	1432	12
Satd. Flow (prot)	1770	1652	0	1770	1863	1583	1770	3490	0	1770	3536	0
Flt Permitted	0.755			0.430			0.121			0.103		
Satd. Flow (perm)	1406	1652	0	801	1863	1583	225	3490	0	192	3536	0
Satd. Flow (RTOR)		21				144		13			1	
Lane Group Flow (vph)	4	28	0	157	12	164	17	1519	0	142	1570	0
Turn Type	pm+pt	NA		pm+pt	NA	pm+ov	pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8	1	5	2		1	6	
Permitted Phases	4			8		8	2			6		
Total Split (s)	13.0	15.0		19.0	21.0	19.0	13.0	87.0		19.0	93.0	
Total Lost Time (s)	4.0	6.5		4.0	6.5	4.0	4.0	6.5		4.0	6.5	
Act Effct Green (s)	11.6	7.3		22.7	18.2	34.0	101.4	93.5		109.3	102.9	
Actuated g/C Ratio	0.08	0.05		0.16	0.13	0.24	0.72	0.67		0.78	0.74	
v/c Ratio	0.03	0.26		0.69	0.05	0.33	0.08	0.65		0.56	0.60	
Control Delay	44.8	35.8		68.3	51.3	9.9	2.4	4.4		15.3	12.1	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.2		0.0	0.0	
Total Delay	44.8	35.8		68.3	51.3	9.9	2.4	4.6		15.3	12.1	
LOS	D	D		E	D	A	A	A		B	B	
Approach Delay		37.0			38.9			4.5			12.4	
Approach LOS		D			D			A			B	
Queue Length 50th (ft)	3	6		126	9	13	1	60		33	341	
Queue Length 95th (ft)	14	39		197	31	71	m2	82		72	538	
Internal Link Dist (ft)		187			212			597			526	
Turn Bay Length (ft)	70			100		100	145			170		
Base Capacity (vph)	176	120		238	264	552	267	2335		319	2599	
Starvation Cap Reductn	0	0		0	0	0	0	185		0	0	
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	
Reduced v/c Ratio	0.02	0.23		0.66	0.05	0.30	0.06	0.71		0.45	0.60	

### Intersection Summary

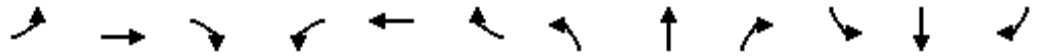
Cycle Length: 140  
 Actuated Cycle Length: 140  
 Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.69  
 Intersection Signal Delay: 11.7  
 Intersection LOS: B  
 Intersection Capacity Utilization 75.3%  
 ICU Level of Service D  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

### Splits and Phases: 11: Randall Rd & Prairie St



Timings  
1: Randall Rd & IL Route 38

HLR  
7/27/2016



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↕↕	↗	↔↔	↕↕	↗	↔↔	↕↕	↗	↔↔	↕↕	↗
Volume (vph)	298	368	87	138	584	399	111	1225	54	273	1231	290
Satd. Flow (prot)	3433	3539	1583	3433	3539	1583	3433	3539	1583	3433	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3539	1583	3433	3539	1583	3433	3539	1583	3433	3539	1583
Satd. Flow (RTOR)			97			97			132			62
Lane Group Flow (vph)	324	400	95	150	635	434	121	1332	59	297	1338	315
Turn Type	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	5	2	3	1	6	7	3	8	1	7	4	5
Permitted Phases			2			6			8			4
Total Split (s)	20.0	39.0	13.0	15.0	34.0	19.0	13.0	67.0	15.0	19.0	73.0	20.0
Total Lost Time (s)	4.5	6.5	4.5	4.5	6.5	4.5	4.5	6.5	4.5	4.5	6.5	4.5
Act Effct Green (s)	15.3	33.0	47.8	10.0	27.7	48.5	8.3	60.7	77.2	14.3	66.7	88.5
Actuated g/C Ratio	0.11	0.24	0.34	0.07	0.20	0.35	0.06	0.43	0.55	0.10	0.48	0.63
v/c Ratio	0.86	0.48	0.16	0.61	0.91	0.71	0.60	0.87	0.06	0.85	0.79	0.31
Control Delay	83.7	48.5	6.2	74.4	72.5	37.7	76.8	43.4	0.1	86.8	26.2	6.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.1	0.0	13.4	0.0	0.0	1.3	0.0
Total Delay	83.7	48.5	6.2	74.4	72.5	37.8	76.8	56.8	0.1	86.8	27.5	6.6
LOS	F	D	A	E	E	D	E	E	A	F	C	A
Approach Delay		57.5			60.4			56.2			33.2	
Approach LOS		E			E			E			C	
Queue Length 50th (ft)	151	167	0	69	301	270	56	573	0	130	565	62
Queue Length 95th (ft)	#230	221	38	107	#411	402	91	677	0	m#195	m399	m49
Internal Link Dist (ft)		670			319			781			597	
Turn Bay Length (ft)	425		490				235		460	240		220
Base Capacity (vph)	380	835	607	257	700	613	208	1535	937	355	1686	1025
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	168	0
Spillback Cap Reductn	0	0	0	0	0	5	0	214	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.85	0.48	0.16	0.58	0.91	0.71	0.58	1.01	0.06	0.84	0.88	0.31

Intersection Summary

Cycle Length: 140

Actuated Cycle Length: 140

Offset: 0 (0%), Referenced to phase 4:SBT and 8:NBT, Start of 1st Green

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.91

Intersection Signal Delay: 49.2

Intersection LOS: D

Intersection Capacity Utilization 84.6%

ICU Level of Service E

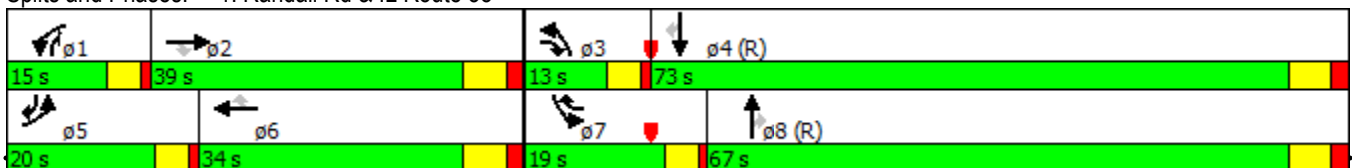
Analysis Period (min) 15

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Randall Rd & IL Route 38



Timings  
2: IL Route 38 & W Mall Entrance

HLR  
7/27/2016



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↕		↖	↕		↖	↕		↖	↕	↖
Volume (vph)	21	635	51	63	1060	9	53	2	66	22	4	8
Satd. Flow (prot)	1770	3500	0	1770	3536	0	1770	1591	0	1770	1863	1583
Flt Permitted	0.224			0.352			0.755			0.709		
Satd. Flow (perm)	417	3500	0	656	3536	0	1406	1591	0	1321	1863	1583
Satd. Flow (RTOR)		13			1			72				64
Lane Group Flow (vph)	23	745	0	68	1162	0	58	74	0	24	4	9
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		Perm	NA	Perm
Protected Phases	5	2		1	6			8				4
Permitted Phases	2			6			8			4		4
Total Split (s)	14.0	81.0		15.0	82.0		24.0	24.0		24.0	24.0	24.0
Total Lost Time (s)	3.5	6.5		3.5	6.5		6.0	6.0		6.0	6.0	6.0
Act Effct Green (s)	97.7	91.3		99.5	93.7		12.2	12.2		12.1	12.1	12.1
Actuated g/C Ratio	0.81	0.76		0.83	0.78		0.10	0.10		0.10	0.10	0.10
v/c Ratio	0.06	0.28		0.11	0.42		0.41	0.33		0.18	0.02	0.04
Control Delay	2.8	6.3		0.7	5.3		58.0	15.4		50.8	46.2	0.4
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	2.8	6.3		0.7	5.3		58.0	15.4		50.8	46.2	0.4
LOS	A	A		A	A		E	B		D	D	A
Approach Delay		6.2			5.1			34.1			38.1	
Approach LOS		A			A			C			D	
Queue Length 50th (ft)	3	96		1	223		43	1		17	3	0
Queue Length 95th (ft)	8	145		m2	435		84	46		43	14	0
Internal Link Dist (ft)		440			624			190			310	
Turn Bay Length (ft)	170			215			65			100		100
Base Capacity (vph)	469	2666		659	2760		210	299		198	279	291
Starvation Cap Reductn	0	0		0	0		0	0		0	0	0
Spillback Cap Reductn	0	0		0	0		0	0		0	0	0
Storage Cap Reductn	0	0		0	0		0	0		0	0	0
Reduced v/c Ratio	0.05	0.28		0.10	0.42		0.28	0.25		0.12	0.01	0.03

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of 1st Green  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.42  
 Intersection Signal Delay: 7.8  
 Intersection LOS: A  
 Intersection Capacity Utilization 56.7%  
 ICU Level of Service B  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: IL Route 38 & W Mall Entrance

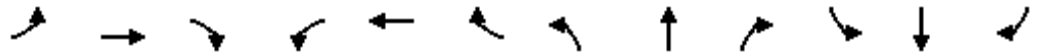




# Timings

## 11: Randall Rd & Prairie St

HLR  
7/27/2016



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗	↗	↖	↕		↖	↕	↖
Volume (vph)	70	34	112	241	38	249	68	1606	197	165	1510	35
Satd. Flow (prot)	1770	1649	0	1770	1863	1583	1770	3483	0	1770	3529	0
Flt Permitted	0.730			0.303			0.092			0.048		
Satd. Flow (perm)	1360	1649	0	564	1863	1583	171	3483	0	89	3529	0
Satd. Flow (RTOR)		106				89		14			2	
Lane Group Flow (vph)	76	159	0	262	41	271	74	1960	0	179	1679	0
Turn Type	pm+pt	NA		pm+pt	NA	pm+ov	pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8	1	5	2		1	6	
Permitted Phases	4			8		8	2			6		
Total Split (s)	13.0	35.0		13.0	35.0	14.0	13.0	78.0		14.0	79.0	
Total Lost Time (s)	4.0	6.5		4.0	6.5	4.0	4.0	6.5		4.0	6.5	
Act Effct Green (s)	22.5	11.7		24.1	14.4	38.2	90.7	81.0		104.8	93.0	
Actuated g/C Ratio	0.16	0.08		0.17	0.10	0.27	0.65	0.58		0.75	0.66	
v/c Ratio	0.31	0.68		1.51	0.22	0.55	0.38	0.97		0.65	0.72	
Control Delay	49.7	36.8		291.5	60.6	32.7	10.5	28.6		43.3	19.0	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	1.4		0.0	0.0	
Total Delay	49.7	36.8		291.5	60.6	32.7	10.5	30.0		43.3	19.0	
LOS	D	D		F	E	C	B	C		D	B	
Approach Delay		40.9			152.8			29.3			21.3	
Approach LOS		D			F			C			C	
Queue Length 50th (ft)	59	47		~283	36	146	13	361		101	486	
Queue Length 95th (ft)	101	119		#405	72	219	m19	#1183		187	727	
Internal Link Dist (ft)		187			212			597			526	
Turn Bay Length (ft)	70			100		100	145			170		
Base Capacity (vph)	251	420		174	379	496	220	2020		275	2343	
Starvation Cap Reductn	0	0		0	0	0	0	21		0	0	
Spillback Cap Reductn	0	0		0	0	0	0	0		0	31	
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	
Reduced v/c Ratio	0.30	0.38		1.51	0.11	0.55	0.34	0.98		0.65	0.73	

### Intersection Summary

Cycle Length: 140

Actuated Cycle Length: 140

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.51

Intersection Signal Delay: 41.8

Intersection LOS: D

Intersection Capacity Utilization 99.3%

ICU Level of Service F

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

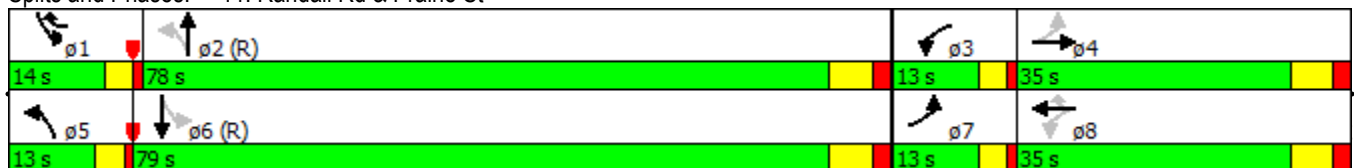
Queue shown is maximum after two cycles.

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

### Splits and Phases: 11: Randall Rd & Prairie St



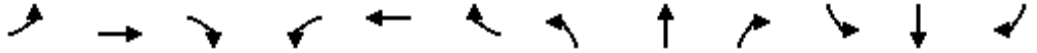








Timings  
 11: Randall Rd & Prairie St



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗	↗	↖	↗↖		↖	↗↖	
Volume (vph)	62	38	117	226	41	296	60	1625	259	191	1821	28
Satd. Flow (prot)	1770	1652	0	1770	1863	1583	1770	3465	0	1770	3532	0
Flt Permitted	0.728			0.305			0.060			0.056		
Satd. Flow (perm)	1356	1652	0	568	1863	1583	112	3465	0	104	3532	0
Satd. Flow (RTOR)		100				84		24			2	
Lane Group Flow (vph)	67	168	0	246	45	322	65	2048	0	208	2009	0
Turn Type	pm+pt	NA		pm+pt	NA	pm+ov	pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8	1	5	2		1	6	
Permitted Phases	4			8		8	2			6		
Total Split (s)	13.0	15.0		16.0	18.0	15.0	13.0	74.0		15.0	76.0	
Total Lost Time (s)	4.0	6.5		4.0	6.5	4.0	4.0	6.5		4.0	6.5	
Act Effct Green (s)	18.7	8.3		26.3	14.3	31.7	76.8	67.8		84.8	74.0	
Actuated g/C Ratio	0.16	0.07		0.22	0.12	0.26	0.64	0.56		0.71	0.62	
v/c Ratio	0.28	0.81		1.01	0.20	0.67	0.40	1.04		0.93	0.92	
Control Delay	41.2	52.3		103.3	52.7	37.6	15.6	46.4		74.6	29.9	
Queue Delay	0.0	0.5		0.0	0.0	0.0	0.0	0.6		0.0	2.4	
Total Delay	41.2	52.8		103.3	52.7	37.6	15.6	47.0		74.6	32.3	
LOS	D	D		F	D	D	B	D		E	C	
Approach Delay		49.5			65.1			46.1			36.3	
Approach LOS		D			E			D			D	
Queue Length 50th (ft)	42	52		~173	33	171	13	~883		108	711	
Queue Length 95th (ft)	83	#169		#310	71	282	m22	m#1014		#259	#972	
Internal Link Dist (ft)		187			212			597			526	
Turn Bay Length (ft)	70			100		100	145			170		
Base Capacity (vph)	255	209		244	222	481	198	1967		226	2177	
Starvation Cap Reductn	0	0		0	0	0	0	3		0	0	
Spillback Cap Reductn	0	2		0	0	0	0	0		0	91	
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	
Reduced v/c Ratio	0.26	0.81		1.01	0.20	0.67	0.33	1.04		0.92	0.96	

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.04  
 Intersection Signal Delay: 44.3  
 Intersection LOS: D  
 Intersection Capacity Utilization 103.0%  
 ICU Level of Service G  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 11: Randall Rd & Prairie St



## APPENDIX G

### Synchro Analysis Reports

#### 2026 Total Traffic

#### No Improvements

1. Weekday AM Peak Hour
  - a. Randall Road & IL Route 38
  - b. IL Route 38 & West Mall Entrance
  - c. IL Route 38 & 14<sup>th</sup> Street/Bricher Road
  - d. Randall Road & Prairie Street
2. Weekday PM Peak Hour
  - a. Randall Road & IL Route 38
  - b. IL Route 38 & West Mall Entrance
  - c. IL Route 38 & 14<sup>th</sup> Street/Bricher Road
  - d. Randall Road & Prairie Street
3. Saturday Peak Hour
  - a. Randall Road & IL Route 38
  - b. IL Route 38 & West Mall Entrance
  - c. IL Route 38 & 14<sup>th</sup> Street/Bricher Road
  - d. Randall Road & Prairie Street

Timings  
1: Randall Rd & IL Route 38

HLR  
7/29/2016

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	242	623	39	181	300	208	98	1012	129	365	1013	255
Satd. Flow (prot)	3433	3539	1583	3433	3539	1583	3433	3539	1583	3433	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3539	1583	3433	3539	1583	3433	3539	1583	3433	3539	1583
Satd. Flow (RTOR)			132			226			132			131
Lane Group Flow (vph)	263	677	42	197	326	226	107	1100	140	397	1101	277
Turn Type	Prot	NA	Prot	Prot	NA	Prot	Prot	NA	pt+ov	Prot	NA	pt+ov
Protected Phases	5	2	2	1	6	6	3	8	8 1	7	4	4 5
Permitted Phases												
Total Split (s)	21.0	39.0	39.0	16.0	34.0	34.0	13.0	59.0		26.0	72.0	
Total Lost Time (s)	4.5	6.5	6.5	4.5	6.5	6.5	4.5	6.5		4.5	6.5	
Act Effct Green (s)	15.0	32.6	32.6	11.2	28.8	28.8	8.2	54.3	70.0	19.9	66.0	85.5
Actuated g/C Ratio	0.11	0.23	0.23	0.08	0.21	0.21	0.06	0.39	0.50	0.14	0.47	0.61
v/c Ratio	0.72	0.82	0.09	0.72	0.45	0.45	0.53	0.80	0.16	0.81	0.66	0.27
Control Delay	71.7	60.3	0.4	78.3	51.3	8.7	74.0	43.9	4.0	80.4	24.1	3.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.4	0.0
Total Delay	71.7	60.3	0.4	78.3	51.3	8.7	74.0	44.1	4.0	80.4	24.5	3.6
LOS	E	E	A	E	D	A	E	D	A	F	C	A
Approach Delay		60.8			45.6			42.3			33.8	
Approach LOS		E			D			D			C	
Queue Length 50th (ft)	120	310	0	91	138	0	49	474	4	183	345	14
Queue Length 95th (ft)	168	386	0	#136	190	71	82	567	40	254	253	m24
Internal Link Dist (ft)		670			319			781			597	
Turn Bay Length (ft)	425		490				235		460	240		220
Base Capacity (vph)	404	824	469	281	727	504	208	1372	860	527	1668	1033
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	182	0
Spillback Cap Reductn	0	0	0	0	0	1	0	30	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.65	0.82	0.09	0.70	0.45	0.45	0.51	0.82	0.16	0.75	0.74	0.27

Intersection Summary

Cycle Length: 140

Actuated Cycle Length: 140

Offset: 130 (93%), Referenced to phase 4:SBT and 8:NBT, Start of 1st Green

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.82

Intersection Signal Delay: 43.4

Intersection LOS: D

Intersection Capacity Utilization 79.1%

ICU Level of Service D

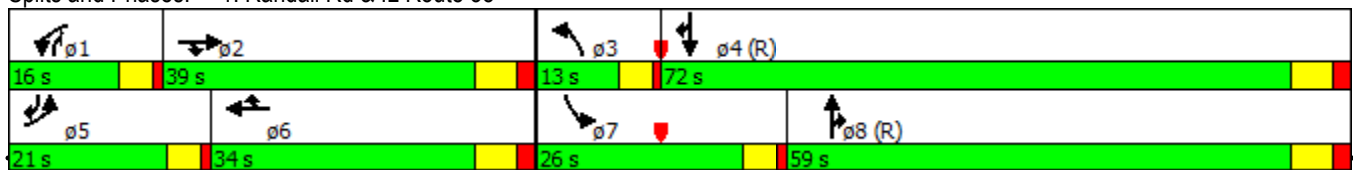
Analysis Period (min) 15

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Randall Rd & IL Route 38



Timings  
2: IL Route 38 & W Mall Entrance

HLR  
7/29/2016

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	182	879	74	32	480	46	36	2	53	79	1	194
Satd. Flow (prot)	1770	3497	0	1770	3493	0	1770	1593	0	1770	1863	1583
Flt Permitted	0.410			0.264			0.757			0.718		
Satd. Flow (perm)	764	3497	0	492	3493	0	1410	1593	0	1337	1863	1583
Satd. Flow (RTOR)		11			12			58				211
Lane Group Flow (vph)	198	1035	0	35	572	0	39	60	0	86	1	211
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		Perm	NA	Perm
Protected Phases	5	2		1	6			8				4
Permitted Phases	2			6			8			4		4
Total Split (s)	20.0	71.0		15.0	66.0		34.0	34.0		34.0	34.0	34.0
Total Lost Time (s)	3.5	6.5		3.5	6.5		6.0	6.0		6.0	6.0	6.0
Act Effct Green (s)	94.9	86.1		88.7	79.7		15.5	15.5		15.5	15.5	15.5
Actuated g/C Ratio	0.79	0.72		0.74	0.66		0.13	0.13		0.13	0.13	0.13
v/c Ratio	0.29	0.41		0.08	0.25		0.22	0.24		0.50	0.00	0.55
Control Delay	4.6	8.5		2.8	5.5		47.4	13.7		57.4	41.0	11.3
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	4.6	8.5		2.8	5.5		47.4	13.7		57.4	41.0	11.3
LOS	A	A		A	A		D	B		E	D	B
Approach Delay		7.9			5.3			27.0				24.7
Approach LOS		A			A			C				C
Queue Length 50th (ft)	29	163		3	47		28	1		63	1	0
Queue Length 95th (ft)	63	256		8	64		58	39		110	6	66
Internal Link Dist (ft)		440			624			190			310	
Turn Bay Length (ft)	170			215			65			100		100
Base Capacity (vph)	743	2512		507	2322		329	416		311	434	531
Starvation Cap Reductn	0	0		0	0		0	0		0	0	0
Spillback Cap Reductn	0	0		0	0		0	0		0	0	0
Storage Cap Reductn	0	0		0	0		0	0		0	0	0
Reduced v/c Ratio	0.27	0.41		0.07	0.25		0.12	0.14		0.28	0.00	0.40

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 8 (7%), Referenced to phase 2:EBTL and 6:WBTL, Start of 1st Green

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.55

Intersection Signal Delay: 10.3

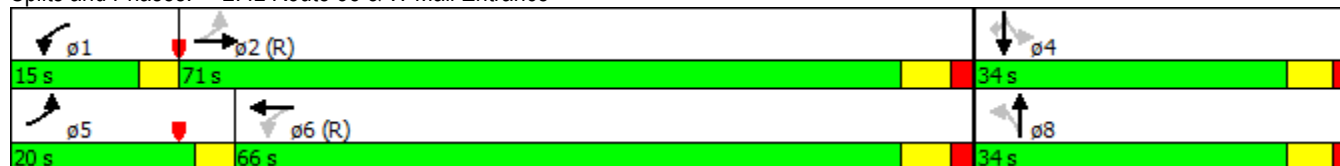
Intersection LOS: B

Intersection Capacity Utilization 54.8%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 2: IL Route 38 & W Mall Entrance



Timings  
3: 14th St & IL Route 38

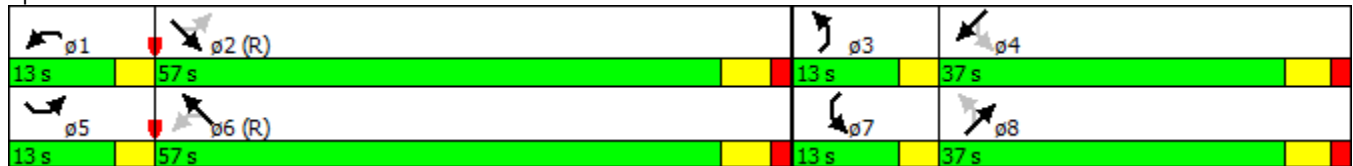
HLR  
7/29/2016

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	73	966	19	95	495	47	24	85	221	100	98	34
Satd. Flow (prot)	1770	3529	0	1770	3493	0	1770	1662	0	1770	1790	0
Flt Permitted	0.397			0.162			0.665			0.192		
Satd. Flow (perm)	740	3529	0	302	3493	0	1239	1662	0	358	1790	0
Satd. Flow (RTOR)		2			10			106			14	
Lane Group Flow (vph)	79	1071	0	103	589	0	26	332	0	109	144	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		
Total Split (s)	13.0	57.0		13.0	57.0		13.0	37.0		13.0	37.0	
Total Lost Time (s)	3.5	6.5		3.5	6.5		3.5	6.0		3.5	6.0	
Act Effct Green (s)	70.0	59.3		71.6	61.6		33.1	23.9		38.2	30.0	
Actuated g/C Ratio	0.58	0.49		0.60	0.51		0.28	0.20		0.32	0.25	
v/c Ratio	0.16	0.61		0.37	0.33		0.07	0.80		0.49	0.31	
Control Delay	10.3	19.5		14.7	19.3		25.3	44.8		35.1	34.7	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	10.3	19.5		14.7	19.3		25.3	44.8		35.1	34.7	
LOS	B	B		B	B		C	D		D	C	
Approach Delay		18.9			18.6			43.4			34.9	
Approach LOS		B			B			D			C	
Queue Length 50th (ft)	20	198		31	140		14	170		60	85	
Queue Length 95th (ft)	42	237		64	210		32	262		96	138	
Internal Link Dist (ft)		799			397			204			454	
Turn Bay Length (ft)	150			215			45			200		
Base Capacity (vph)	524	1744		298	1798		412	507		225	484	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.15	0.61		0.35	0.33		0.06	0.65		0.48	0.30	

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 8 (7%), Referenced to phase 2:SETL and 6:NWTL, Start of 1st Green  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.80  
 Intersection Signal Delay: 24.0  
 Intersection LOS: C  
 Intersection Capacity Utilization 73.3%  
 ICU Level of Service D  
 Analysis Period (min) 15

Splits and Phases: 3: 14th St & IL Route 38



**Timings**  
**11: Randall Rd & Prairie St**

HLR  
 7/29/2016

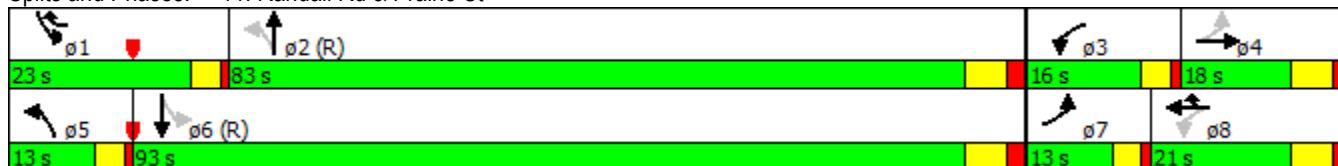


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↗	↘		↗	↑	↖	↗	↑↘		↗	↑↘	
Volume (vph)	4	6	19	144	11	237	16	1307	146	176	1489	12
Satd. Flow (prot)	1770	1652	0	1770	1863	1583	1770	3486	0	1770	3536	0
Flt Permitted	0.750			0.431			0.118			0.084		
Satd. Flow (perm)	1397	1652	0	803	1863	1583	220	3486	0	156	3536	0
Satd. Flow (RTOR)		21				140		13			1	
Lane Group Flow (vph)	4	28	0	157	12	258	17	1580	0	191	1631	0
Turn Type	pm+pt	NA		pm+pt	NA	pt+ov	pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8	8 1	5	2		1	6	
Permitted Phases	4			8			2			6		
Total Split (s)	13.0	18.0		16.0	21.0		13.0	83.0		23.0	93.0	
Total Lost Time (s)	4.0	6.5		4.0	6.5		4.0	6.5		4.0	6.5	
Act Effct Green (s)	11.9	7.6		21.3	16.8	34.8	98.0	90.2		110.7	104.3	
Actuated g/C Ratio	0.08	0.05		0.15	0.12	0.25	0.70	0.64		0.79	0.74	
v/c Ratio	0.03	0.26		0.75	0.05	0.52	0.08	0.70		0.67	0.62	
Control Delay	46.2	35.1		76.5	53.2	22.4	1.8	4.7		29.3	11.5	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.2		0.0	0.0	
Total Delay	46.2	35.1		76.5	53.2	22.4	1.8	5.0		29.3	11.5	
LOS	D	D		E	D	C	A	A		C	B	
Approach Delay		36.5			43.2			5.0			13.4	
Approach LOS		D			D			A			B	
Queue Length 50th (ft)	3	6		130	9	84	0	43		66	332	
Queue Length 95th (ft)	14	39		200	31	174	m1	83		152	555	
Internal Link Dist (ft)		187			212			597			526	
Turn Bay Length (ft)	70			100		100	145			170		
Base Capacity (vph)	178	154		211	245	540	259	2249		342	2634	
Starvation Cap Reductn	0	0		0	0	0	0	169		0	0	
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	
Reduced v/c Ratio	0.02	0.18		0.74	0.05	0.48	0.07	0.76		0.56	0.62	

**Intersection Summary**

Cycle Length: 140  
 Actuated Cycle Length: 140  
 Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.75  
 Intersection Signal Delay: 13.4  
 Intersection LOS: B  
 Intersection Capacity Utilization 79.3%  
 ICU Level of Service D  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 11: Randall Rd & Prairie St**





Timings  
1: Randall Rd & IL Route 38

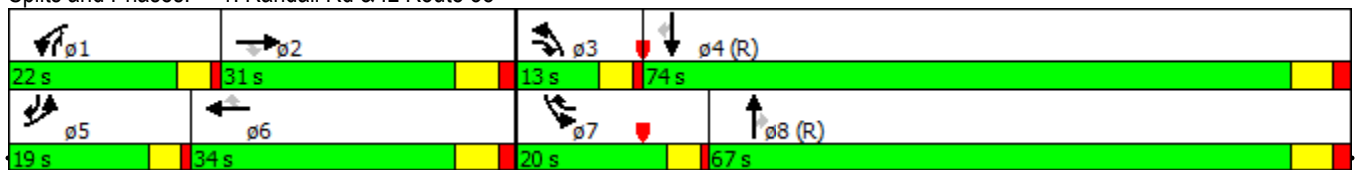
HLR  
7/29/2016

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	298	408	87	251	616	431	111	1250	176	317	1231	290
Satd. Flow (prot)	3433	3539	1583	3433	3539	1583	3433	3539	1583	3433	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3539	1583	3433	3539	1583	3433	3539	1583	3433	3539	1583
Satd. Flow (RTOR)			97			62			97			62
Lane Group Flow (vph)	324	443	95	273	670	468	121	1359	191	345	1338	315
Turn Type	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	5	2	3	1	6	7	3	8	1	7	4	5
Permitted Phases			2			6			8			4
Total Split (s)	19.0	31.0	13.0	22.0	34.0	20.0	13.0	67.0	22.0	20.0	74.0	19.0
Total Lost Time (s)	4.5	6.5	4.5	4.5	6.5	4.5	4.5	6.5	4.5	4.5	6.5	4.5
Act Effct Green (s)	14.5	26.4	41.2	15.6	27.5	49.5	8.3	60.5	82.6	15.5	67.7	88.7
Actuated g/C Ratio	0.10	0.19	0.29	0.11	0.20	0.35	0.06	0.43	0.59	0.11	0.48	0.63
v/c Ratio	0.91	0.67	0.18	0.71	0.96	0.78	0.60	0.89	0.20	0.91	0.78	0.31
Control Delay	91.8	58.7	7.4	70.7	81.9	45.3	76.8	45.1	6.5	89.2	23.2	5.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.1	0.0	19.3	0.0	0.0	1.3	0.0
Total Delay	91.8	58.7	7.4	70.7	81.9	45.4	76.8	64.4	6.5	89.2	24.5	5.4
LOS	F	E	A	E	F	D	E	E	A	F	C	A
Approach Delay		65.5			67.6			58.7			32.6	
Approach LOS		E			E			E			C	
Queue Length 50th (ft)	153	200	0	124	321	335	56	592	35	154	542	52
Queue Length 95th (ft)	#242	264	42	172	#446	480	91	700	69	m#237	m482	m64
Internal Link Dist (ft)		670			319			781			597	
Turn Bay Length (ft)	425		490				235		460	240		220
Base Capacity (vph)	355	666	536	429	695	599	208	1529	993	380	1712	1025
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	185	0
Spillback Cap Reductn	0	0	0	0	0	3	0	209	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.91	0.67	0.18	0.64	0.96	0.79	0.58	1.03	0.19	0.91	0.88	0.31

Intersection Summary

Cycle Length: 140  
 Actuated Cycle Length: 140  
 Offset: 19 (14%), Referenced to phase 4:SBT and 8:NBT, Start of 1st Green  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.96  
 Intersection Signal Delay: 53.0  
 Intersection LOS: D  
 Intersection Capacity Utilization 87.5%  
 ICU Level of Service E  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Randall Rd & IL Route 38



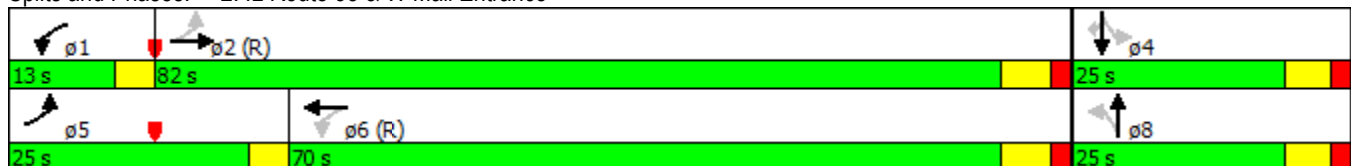
Timings  
2: IL Route 38 & W Mall Entrance

HLR  
7/29/2016

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↖		↖	↖		↖	↖		↖	↖	↖
Volume (vph)	212	650	51	63	1078	54	53	2	66	73	4	167
Satd. Flow (prot)	1770	3500	0	1770	3514	0	1770	1591	0	1770	1863	1583
Flt Permitted	0.173			0.363			0.755			0.709		
Satd. Flow (perm)	322	3500	0	676	3514	0	1406	1591	0	1321	1863	1583
Satd. Flow (RTOR)		13			6			72				182
Lane Group Flow (vph)	230	762	0	68	1231	0	58	74	0	79	4	182
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		Perm	NA	Perm
Protected Phases	5	2		1	6			8				4
Permitted Phases	2			6			8			4		4
Total Split (s)	25.0	82.0		13.0	70.0		25.0	25.0		25.0	25.0	25.0
Total Lost Time (s)	3.5	6.5		3.5	6.5		6.0	6.0		6.0	6.0	6.0
Act Effct Green (s)	95.8	85.1		88.7	79.2		14.2	14.2		14.2	14.2	14.2
Actuated g/C Ratio	0.80	0.71		0.74	0.66		0.12	0.12		0.12	0.12	0.12
v/c Ratio	0.60	0.31		0.12	0.53		0.35	0.29		0.51	0.02	0.52
Control Delay	10.3	7.5		1.6	3.6		53.2	13.9		60.0	44.0	12.3
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	10.3	7.5		1.6	3.6		53.2	13.9		60.0	44.0	12.3
LOS	B	A		A	A		D	B		E	D	B
Approach Delay		8.2			3.5			31.2				27.0
Approach LOS		A			A			C				C
Queue Length 50th (ft)	33	107		3	61		42	1		58	3	0
Queue Length 95th (ft)	69	161		m5	82		82	45		106	13	64
Internal Link Dist (ft)		440			624			190			310	
Turn Bay Length (ft)	170			215			65			100		100
Base Capacity (vph)	517	2486		602	2320		222	312		209	294	403
Starvation Cap Reductn	0	0		0	0		0	0		0	0	0
Spillback Cap Reductn	0	0		0	0		0	0		0	0	0
Storage Cap Reductn	0	0		0	0		0	0		0	0	0
Reduced v/c Ratio	0.44	0.31		0.11	0.53		0.26	0.24		0.38	0.01	0.45

**Intersection Summary**  
 Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 13 (11%), Referenced to phase 2:EBTL and 6:WBTL, Start of 1st Green  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.60  
 Intersection Signal Delay: 8.9  
 Intersection LOS: A  
 Intersection Capacity Utilization 67.7%  
 ICU Level of Service C  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: IL Route 38 & W Mall Entrance



Timings  
3: 14th St & IL Route 38

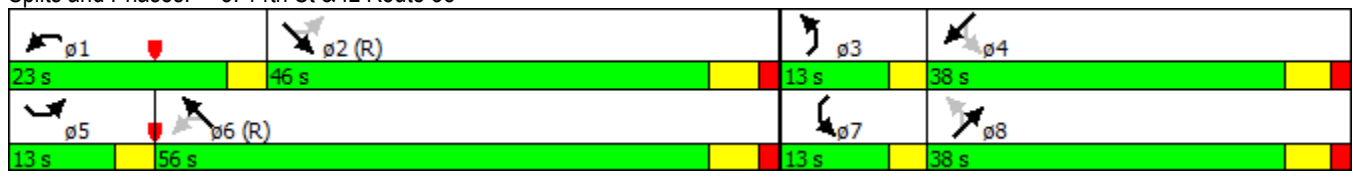
HLR  
7/29/2016

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	103	677	38	241	1052	81	67	171	207	149	208	56
Satd. Flow (prot)	1770	3511	0	1770	3500	0	1770	1710	0	1770	1803	0
Flt Permitted	0.099			0.219			0.433			0.163		
Satd. Flow (perm)	184	3511	0	408	3500	0	807	1710	0	304	1803	0
Satd. Flow (RTOR)		5			8			49			11	
Lane Group Flow (vph)	112	777	0	262	1231	0	73	411	0	162	287	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		
Total Split (s)	13.0	46.0		23.0	56.0		13.0	38.0		13.0	38.0	
Total Lost Time (s)	3.5	6.5		3.5	6.5		3.5	6.0		3.5	6.0	
Act Effct Green (s)	57.6	46.1		67.3	52.4		40.8	30.1		43.4	33.3	
Actuated g/C Ratio	0.48	0.38		0.56	0.44		0.34	0.25		0.36	0.28	
v/c Ratio	0.56	0.57		0.66	0.80		0.21	0.88		0.72	0.57	
Control Delay	32.5	26.9		22.7	34.9		25.0	59.1		44.5	41.2	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	32.5	26.9		22.7	34.9		25.0	59.1		44.5	41.2	
LOS	C	C		C	C		C	E		D	D	
Approach Delay		27.6			32.7			54.0			42.4	
Approach LOS		C			C			D			D	
Queue Length 50th (ft)	38	187		104	441		35	269		82	184	
Queue Length 95th (ft)	94	231		156	541		67	#437		#145	280	
Internal Link Dist (ft)		799			397			204			454	
Turn Bay Length (ft)	150			215			45			200		
Base Capacity (vph)	215	1352		450	1532		359	491		225	507	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.52	0.57		0.58	0.80		0.20	0.84		0.72	0.57	

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 12 (10%), Referenced to phase 2:SETL and 6:NWTL, Start of 1st Green  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.88  
 Intersection Signal Delay: 35.8  
 Intersection LOS: D  
 Intersection Capacity Utilization 84.4%  
 ICU Level of Service E  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Splits and Phases: 3: 14th St & IL Route 38



Timings  
11: Randall Rd & Prairie St

HLR  
7/29/2016

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	70	34	112	241	38	310	68	1638	222	244	1554	35
Satd. Flow (prot)	1770	1649	0	1770	1863	1583	1770	3476	0	1770	3529	0
Flt Permitted	0.730			0.301			0.074			0.050		
Satd. Flow (perm)	1360	1649	0	561	1863	1583	138	3476	0	93	3529	0
Satd. Flow (RTOR)		90				64		17			3	
Lane Group Flow (vph)	76	159	0	262	41	337	74	2021	0	265	1727	0
Turn Type	pm+pt	NA		pm+pt	NA	pm+ov	pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8	1	5	2		1	6	
Permitted Phases	4			8		8	2			6		
Total Split (s)	13.0	15.0		20.0	22.0	21.0	13.0	84.0		21.0	92.0	
Total Lost Time (s)	4.0	6.5		4.0	6.5	4.0	4.0	6.5		4.0	6.5	
Act Effct Green (s)	19.3	8.5		31.0	18.2	41.7	86.9	77.5		101.0	89.5	
Actuated g/C Ratio	0.14	0.06		0.22	0.13	0.30	0.62	0.55		0.72	0.64	
v/c Ratio	0.36	0.86		1.00	0.17	0.65	0.45	1.05		0.98	0.77	
Control Delay	50.1	67.3		106.5	58.7	42.2	14.8	49.5		92.2	21.4	
Queue Delay	0.0	0.5		0.0	0.0	0.0	0.0	5.6		0.0	0.1	
Total Delay	50.1	67.8		106.5	58.7	42.2	14.8	55.1		92.2	21.5	
LOS	D	E		F	E	D	B	E		F	C	
Approach Delay		62.1			69.6			53.7			30.9	
Approach LOS		E			E			D			C	
Queue Length 50th (ft)	57	63		220	35	226	14	~1027		190	570	
Queue Length 95th (ft)	104	#195		#369	73	341	m21	#1170		#375	702	
Internal Link Dist (ft)		187			212			597			526	
Turn Bay Length (ft)	70			100		100	145			170		
Base Capacity (vph)	220	184		262	242	516	192	1932		270	2257	
Starvation Cap Reductn	0	0		0	0	0	0	26		0	0	
Spillback Cap Reductn	0	1		0	0	0	0	0		0	45	
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	
Reduced v/c Ratio	0.35	0.87		1.00	0.17	0.65	0.39	1.06		0.98	0.78	

Intersection Summary

Cycle Length: 140  
 Actuated Cycle Length: 140  
 Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.05  
 Intersection Signal Delay: 47.0 Intersection LOS: D  
 Intersection Capacity Utilization 105.4% ICU Level of Service G  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 11: Randall Rd & Prairie St



Timings  
1: Randall Rd & IL Route 38

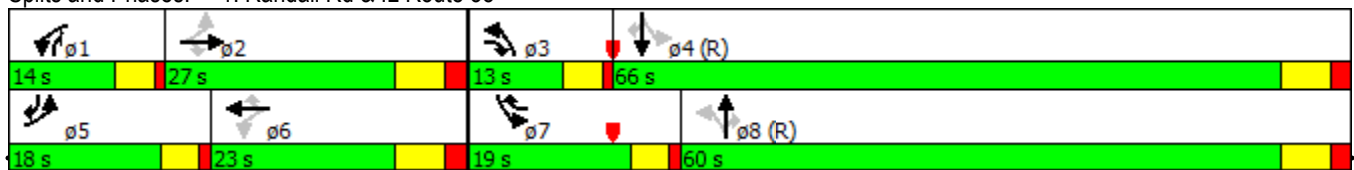
HLR  
8/1/2016

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	394	506	118	328	384	372	116	1251	205	380	1506	301
Satd. Flow (prot)	3433	3539	1583	3433	3539	1583	3433	3539	1583	3433	3539	1583
Flt Permitted	0.214			0.242			0.073			0.068		
Satd. Flow (perm)	773	3539	1583	875	3539	1583	264	3539	1583	246	3539	1583
Satd. Flow (RTOR)			114			73			114			90
Lane Group Flow (vph)	428	550	128	357	417	404	126	1360	223	413	1637	327
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov
Protected Phases	5	2	3	1	6	7	3	8	1	7	4	5
Permitted Phases	2		2	6		6	8		8	4		4
Total Split (s)	18.0	27.0	13.0	14.0	23.0	19.0	13.0	60.0	14.0	19.0	66.0	18.0
Total Lost Time (s)	4.5	6.5	4.5	4.5	6.5	4.5	4.5	6.5	4.5	4.5	6.5	4.5
Act Effct Green (s)	36.0	20.5	34.2	28.0	16.5	36.4	63.8	54.6	70.6	74.4	60.8	80.8
Actuated g/C Ratio	0.30	0.17	0.28	0.23	0.14	0.30	0.53	0.46	0.59	0.62	0.51	0.67
v/c Ratio	0.81	0.91	0.24	0.88	0.86	0.76	0.38	0.84	0.23	0.81	0.91	0.30
Control Delay	46.5	69.4	8.7	58.0	68.4	41.1	13.7	35.3	6.3	45.2	20.1	1.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.2	0.0	34.3	0.0	0.0	5.7	0.0
Total Delay	46.5	69.4	8.7	58.0	68.4	41.2	13.7	69.5	6.3	45.2	25.8	1.7
LOS	D	E	A	E	E	D	B	E	A	D	C	A
Approach Delay		53.5			55.9			57.2			25.9	
Approach LOS		D			E			E			C	
Queue Length 50th (ft)	135	222	8	110	168	232	18	488	36	109	411	7
Queue Length 95th (ft)	#193	#324	54	#167	#252	357	30	591	75	m124	m532	m9
Internal Link Dist (ft)		670			319			781			597	
Turn Bay Length (ft)	425		490				235		460	240		220
Base Capacity (vph)	531	604	548	406	487	544	367	1611	978	537	1793	1095
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	127	0
Spillback Cap Reductn	0	0	0	0	0	6	0	337	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.81	0.91	0.23	0.88	0.86	0.75	0.34	1.07	0.23	0.77	0.98	0.30

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 13 (11%), Referenced to phase 4:SBTL and 8:NBTL, Start of 1st Green  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.91  
 Intersection Signal Delay: 44.6  
 Intersection LOS: D  
 Intersection Capacity Utilization 87.5%  
 ICU Level of Service E  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Randall Rd & IL Route 38



Timings  
2: IL Route 38 & W Mall Entrance

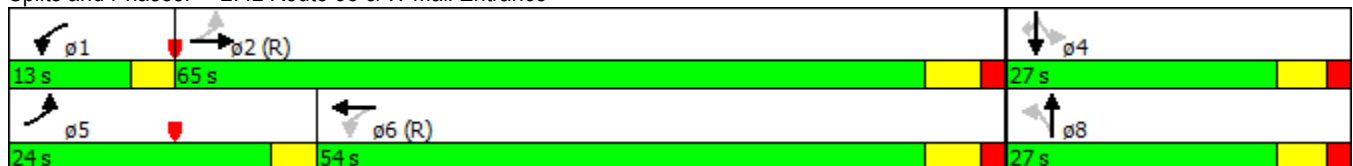
HLR  
8/1/2016

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	216	729	65	39	781	55	53	1	70	81	8	189
Satd. Flow (prot)	1770	3497	0	1770	3504	0	1770	1587	0	1770	1863	1583
Flt Permitted	0.261			0.328			0.752			0.707		
Satd. Flow (perm)	486	3497	0	611	3504	0	1401	1587	0	1317	1863	1583
Satd. Flow (RTOR)		14			9			76				205
Lane Group Flow (vph)	235	863	0	42	909	0	58	77	0	88	9	205
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		Perm	NA	Perm
Protected Phases	5	2		1	6			8				4
Permitted Phases	2			6			8			4		4
Total Split (s)	24.0	65.0		13.0	54.0		27.0	27.0		27.0	27.0	27.0
Total Lost Time (s)	3.5	6.5		3.5	6.5		6.0	6.0		6.0	6.0	6.0
Act Effct Green (s)	80.8	71.8		74.0	64.9		14.7	14.7		14.7	14.7	14.7
Actuated g/C Ratio	0.77	0.68		0.70	0.62		0.14	0.14		0.14	0.14	0.14
v/c Ratio	0.48	0.36		0.08	0.42		0.30	0.27		0.48	0.03	0.52
Control Delay	7.2	8.6		2.3	5.6		42.6	11.2		49.1	36.1	10.2
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	7.2	8.6		2.3	5.6		42.6	11.2		49.1	36.1	10.2
LOS	A	A		A	A		D	B		D	D	B
Approach Delay		8.3			5.4			24.7			22.3	
Approach LOS		A			A			C			C	
Queue Length 50th (ft)	33	124		3	61		36	1		56	5	0
Queue Length 95th (ft)	73	200		m6	87		70	40		99	19	60
Internal Link Dist (ft)		440			624			190			310	
Turn Bay Length (ft)	170			215			65			100		100
Base Capacity (vph)	624	2397		554	2167		280	378		263	372	480
Starvation Cap Reductn	0	0		0	0		0	0		0	0	0
Spillback Cap Reductn	0	0		0	0		0	0		0	0	0
Storage Cap Reductn	0	0		0	0		0	0		0	0	0
Reduced v/c Ratio	0.38	0.36		0.08	0.42		0.21	0.20		0.33	0.02	0.43

Intersection Summary

Cycle Length: 105  
 Actuated Cycle Length: 105  
 Offset: 60 (57%), Referenced to phase 2:EBTL and 6:WBTL, Start of 1st Green  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.52  
 Intersection Signal Delay: 9.8  
 Intersection LOS: A  
 Intersection Capacity Utilization 60.2%  
 ICU Level of Service B  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: IL Route 38 & W Mall Entrance





# Timings

## 11: Randall Rd & Prairie St

HLR  
8/1/2016



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	62	38	117	226	41	370	60	1676	283	259	1884	28
Satd. Flow (prot)	1770	1652	0	1770	1863	1583	1770	3461	0	1770	3532	0
Flt Permitted	0.728			0.384			0.062			0.058		
Satd. Flow (perm)	1356	1652	0	715	1863	1583	115	3461	0	108	3532	0
Satd. Flow (RTOR)		100				83		25			2	
Lane Group Flow (vph)	67	168	0	246	45	402	65	2130	0	282	2078	0
Turn Type	pm+pt	NA		pm+pt	NA	pm+ov	pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8	1	5	2		1	6	
Permitted Phases	4			8		8	2			6		
Total Split (s)	13.0	15.0		15.0	17.0	18.0	13.0	72.0		18.0	77.0	
Total Lost Time (s)	4.0	6.5		4.0	6.5	4.0	4.0	6.5		4.0	6.5	
Act Effct Green (s)	18.8	8.3		23.5	12.2	29.5	74.7	65.7		86.2	75.0	
Actuated g/C Ratio	0.16	0.07		0.20	0.10	0.25	0.62	0.55		0.72	0.62	
v/c Ratio	0.28	0.81		1.04	0.24	0.89	0.40	1.12		1.04	0.94	
Control Delay	42.8	52.3		118.6	55.3	53.4	14.7	78.8		99.9	31.5	
Queue Delay	0.0	0.5		0.0	0.0	0.0	0.0	0.0		0.0	4.6	
Total Delay	42.8	52.8		118.6	55.3	53.4	14.7	78.8		99.9	36.0	
LOS	D	D		F	E	D	B	E		F	D	
Approach Delay		49.9			76.7			76.9			43.6	
Approach LOS		D			E			E			D	
Queue Length 50th (ft)	43	52		~187	34	203	12	~981		~182	750	
Queue Length 95th (ft)	84	#169		#368	72	#447	m17	#1127		#359	#1017	
Internal Link Dist (ft)		187			212			597			526	
Turn Bay Length (ft)	70			100		100	145			170		
Base Capacity (vph)	245	209		236	200	451	197	1905		271	2208	
Starvation Cap Reductn	0	0		0	0	0	0	3		0	0	
Spillback Cap Reductn	0	2		0	0	0	0	0		0	101	
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	
Reduced v/c Ratio	0.27	0.81		1.04	0.23	0.89	0.33	1.12		1.04	0.99	

### Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.12

Intersection Signal Delay: 61.4

Intersection LOS: E

Intersection Capacity Utilization 108.9%

ICU Level of Service G

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 11: Randall Rd & Prairie St





## APPENDIX H

### Synchro Analysis Reports 2026 Total Traffic With Improvements

1. Weekday AM Peak Hour
  - a. Randall Road & IL Route 38
  - b. IL Route 38 & West Mall Entrance
  - c. IL Route 38 & 14<sup>th</sup> Street/Bricher Road
  - d. Randall Road & Prairie Street
2. Weekday PM Peak Hour
  - a. Randall Road & IL Route 38
  - b. IL Route 38 & West Mall Entrance
  - c. IL Route 38 & 14<sup>th</sup> Street/Bricher Road
  - d. Randall Road & Prairie Street
3. Saturday Peak Hour
  - a. Randall Road & IL Route 38
  - b. IL Route 38 & West Mall Entrance
  - c. IL Route 38 & 14<sup>th</sup> Street/Bricher Road
  - d. Randall Road & Prairie Street





# Timings

## 3: 14th St & IL Route 38

HLR  
7/29/2016



Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	73	966	19	95	495	47	24	85	221	100	98	34
Satd. Flow (prot)	1770	3529	0	1770	3493	0	1770	1662	0	1770	1790	0
Flt Permitted	0.397			0.162			0.665			0.192		
Satd. Flow (perm)	740	3529	0	302	3493	0	1239	1662	0	358	1790	0
Satd. Flow (RTOR)		2			10			106			14	
Lane Group Flow (vph)	79	1071	0	103	589	0	26	332	0	109	144	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		
Total Split (s)	13.0	57.0		13.0	57.0		13.0	37.0		13.0	37.0	
Total Lost Time (s)	3.5	6.5		3.5	6.5		3.5	6.0		3.5	6.0	
Act Effect Green (s)	70.0	59.3		71.6	61.6		33.1	23.9		38.2	30.0	
Actuated g/C Ratio	0.58	0.49		0.60	0.51		0.28	0.20		0.32	0.25	
v/c Ratio	0.16	0.61		0.37	0.33		0.07	0.80		0.49	0.31	
Control Delay	4.3	7.8		14.7	19.3		25.3	44.8		35.1	34.7	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	4.3	7.8		14.7	19.3		25.3	44.8		35.1	34.7	
LOS	A	A		B	B		C	D		D	C	
Approach Delay		7.6			18.6			43.4			34.9	
Approach LOS		A			B			D			C	
Queue Length 50th (ft)	9	76		31	140		14	170		60	85	
Queue Length 95th (ft)	20	105		64	210		32	262		96	138	
Internal Link Dist (ft)		799			397			204			454	
Turn Bay Length (ft)	150			215			45			200		
Base Capacity (vph)	524	1744		298	1798		412	507		225	484	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.15	0.61		0.35	0.33		0.06	0.65		0.48	0.30	

### Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 6 (5%), Referenced to phase 2:SETL and 6:NWTL, Start of 1st Green  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.80  
 Intersection Signal Delay: 18.7  
 Intersection LOS: B  
 Intersection Capacity Utilization 73.3%  
 ICU Level of Service D  
 Analysis Period (min) 15

### Splits and Phases: 3: 14th St & IL Route 38




























# Timings

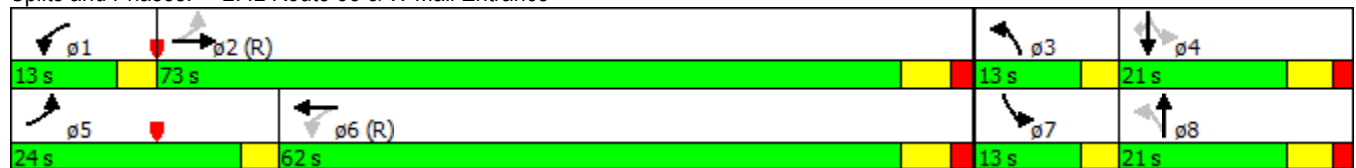
## 2: IL Route 38 & W Mall Entrance

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	212	650	51	63	1078	54	53	2	66	73	4	167
Satd. Flow (prot)	1770	3500	0	1770	3514	0	1770	1591	0	1770	1863	1583
Flt Permitted	0.150			0.363			0.755			0.681		
Satd. Flow (perm)	279	3500	0	676	3514	0	1406	1591	0	1269	1863	1583
Satd. Flow (RTOR)		11			6			72				182
Lane Group Flow (vph)	230	762	0	68	1231	0	58	74	0	79	4	182
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		4
Total Split (s)	24.0	73.0		13.0	62.0		13.0	21.0		13.0	21.0	21.0
Total Lost Time (s)	3.5	6.5		3.5	6.5		3.5	6.0		3.5	6.0	6.0
Act Effct Green (s)	90.3	78.9		80.7	70.9		19.5	9.9		20.2	10.3	10.3
Actuated g/C Ratio	0.75	0.66		0.67	0.59		0.16	0.08		0.17	0.09	0.09
v/c Ratio	0.62	0.33		0.13	0.59		0.23	0.38		0.32	0.03	0.60
Control Delay	14.9	14.8		2.4	6.9		40.3	17.4		42.4	48.5	16.0
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	14.9	14.8		2.4	6.9		40.3	17.4		42.4	48.5	16.0
LOS	B	B		A	A		D	B		D	D	B
Approach Delay		14.8			6.7			27.4			24.4	
Approach LOS		B			A			C			C	
Queue Length 50th (ft)	85	214		4	83		38	2		52	3	0
Queue Length 95th (ft)	m119	m340		m8	130		71	47		90	14	67
Internal Link Dist (ft)		440			624			190			310	
Turn Bay Length (ft)	170			215			65			100		100
Base Capacity (vph)	464	2303		556	2077		263	261		255	232	357
Starvation Cap Reductn	0	0		0	0		0	0		0	0	0
Spillback Cap Reductn	0	0		0	0		0	0		0	0	0
Storage Cap Reductn	0	0		0	0		0	0		0	0	0
Reduced v/c Ratio	0.50	0.33		0.12	0.59		0.22	0.28		0.31	0.02	0.51

### Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 19 (16%), Referenced to phase 2:EBTL and 6:WBTL, Start of 1st Green  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.62  
 Intersection Signal Delay: 12.4 Intersection LOS: B  
 Intersection Capacity Utilization 67.7% ICU Level of Service C  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

### Splits and Phases: 2: IL Route 38 & W Mall Entrance



Timings  
3: 14th St & IL Route 38

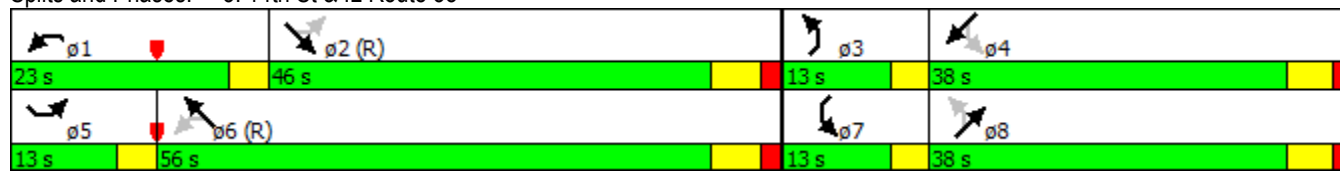
HLR  
7/29/2016

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	103	677	38	241	1052	81	67	171	207	149	208	56
Satd. Flow (prot)	1770	3511	0	1770	3500	0	1770	1710	0	1770	1803	0
Flt Permitted	0.099			0.219			0.433			0.163		
Satd. Flow (perm)	184	3511	0	408	3500	0	807	1710	0	304	1803	0
Satd. Flow (RTOR)		5			8			49			11	
Lane Group Flow (vph)	112	777	0	262	1231	0	73	411	0	162	287	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		
Total Split (s)	13.0	46.0		23.0	56.0		13.0	38.0		13.0	38.0	
Total Lost Time (s)	3.5	6.5		3.5	6.5		3.5	6.0		3.5	6.0	
Act Effct Green (s)	57.6	46.1		67.3	52.4		40.8	30.1		43.4	33.3	
Actuated g/C Ratio	0.48	0.38		0.56	0.44		0.34	0.25		0.36	0.28	
v/c Ratio	0.56	0.57		0.66	0.80		0.21	0.88		0.72	0.57	
Control Delay	39.6	19.3		22.7	34.9		25.0	59.1		44.5	41.2	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	39.6	19.3		22.7	34.9		25.0	59.1		44.5	41.2	
LOS	D	B		C	C		C	E		D	D	
Approach Delay		21.8			32.7			54.0			42.4	
Approach LOS		C			C			D			D	
Queue Length 50th (ft)	42	98		104	441		35	269		82	184	
Queue Length 95th (ft)	105	232		156	541		67	#437		#145	280	
Internal Link Dist (ft)		799			397			204			454	
Turn Bay Length (ft)	150			215			45			200		
Base Capacity (vph)	215	1352		450	1532		359	491		225	507	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.52	0.57		0.58	0.80		0.20	0.84		0.72	0.57	

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 13 (11%), Referenced to phase 2:SETL and 6:NWTL, Start of 1st Green  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.88  
 Intersection Signal Delay: 34.2  
 Intersection LOS: C  
 Intersection Capacity Utilization 84.4%  
 ICU Level of Service E  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Splits and Phases: 3: 14th St & IL Route 38





Timings  
11: Randall Rd & Prairie St

HLR  
7/29/2016

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	70	34	112	241	38	310	68	1638	222	244	1554	35
Satd. Flow (prot)	1770	1649	0	1770	1863	1583	1770	3476	0	1770	3529	0
Flt Permitted	0.730			0.417			0.081			0.069		
Satd. Flow (perm)	1360	1649	0	777	1863	1583	151	3476	0	129	3529	0
Satd. Flow (RTOR)		106				127		19			3	
Lane Group Flow (vph)	76	159	0	262	41	337	74	2021	0	265	1727	0
Turn Type	pm+pt	NA		pm+pt	NA	pm+ov	pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8	1	5	2		1	6	
Permitted Phases	4			8		8	2			6		
Total Split (s)	13.0	15.0		15.0	17.0	18.0	13.0	72.0		18.0	77.0	
Total Lost Time (s)	4.0	6.5		4.0	6.5	4.0	4.0	6.5		4.0	6.5	
Act Effct Green (s)	18.8	8.2		23.2	11.9	29.2	68.3	65.8		75.9	73.4	
Actuated g/C Ratio	0.16	0.07		0.19	0.10	0.24	0.57	0.55		0.63	0.61	
v/c Ratio	0.31	0.75		1.09	0.22	0.70	0.38	1.06		0.97	0.80	
Control Delay	43.7	42.7		130.3	55.1	29.3	21.9	50.5		80.8	22.2	
Queue Delay	0.0	0.1		0.0	0.0	0.0	0.0	4.0		0.0	0.2	
Total Delay	43.7	42.8		130.3	55.1	29.3	21.9	54.5		80.8	22.4	
LOS	D	D		F	E	C	C	D		F	C	
Approach Delay		43.1			72.3			53.4			30.2	
Approach LOS		D			E			D			C	
Queue Length 50th (ft)	49	40		~211	31	123	19	~886		154	536	
Queue Length 95th (ft)	93	#142		#393	67	214	m22	m#1011		#330	646	
Internal Link Dist (ft)		187			212			597			526	
Turn Bay Length (ft)	70			100		100	145			170		
Base Capacity (vph)	246	215		241	199	481	207	1914		272	2159	
Starvation Cap Reductn	0	0		0	0	0	0	18		0	0	
Spillback Cap Reductn	0	1		0	0	0	0	0		0	51	
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	
Reduced v/c Ratio	0.31	0.74		1.09	0.21	0.70	0.36	1.07		0.97	0.82	

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 106 (88%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.09

Intersection Signal Delay: 46.0

Intersection LOS: D

Intersection Capacity Utilization 105.4%

ICU Level of Service G

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

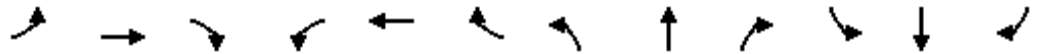
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 11: Randall Rd & Prairie St



Timings  
1: Randall Rd & IL Route 38

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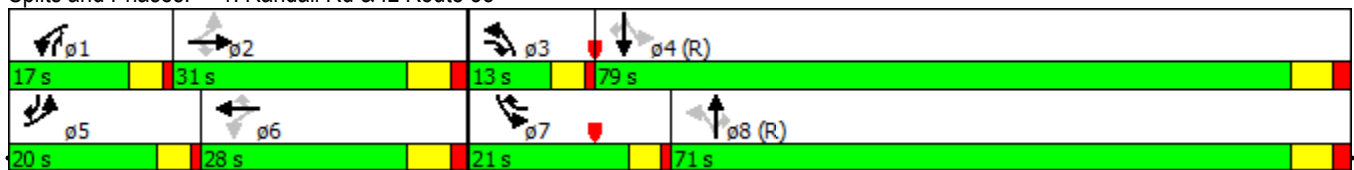


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑↑	↖	↖↗	↑↑	↖	↖↗	↑↑	↖	↖↗	↑↑	↖
Volume (vph)	394	506	118	328	384	372	116	1251	205	380	1506	301
Satd. Flow (prot)	3433	3539	1583	3433	3539	1583	3433	3539	1583	3433	3539	1583
Flt Permitted	0.244			0.184			0.061			0.066		
Satd. Flow (perm)	882	3539	1583	665	3539	1583	220	3539	1583	239	3539	1583
Satd. Flow (RTOR)			97			62			97			70
Lane Group Flow (vph)	428	550	128	357	417	404	126	1360	223	413	1637	327
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov
Protected Phases	5	2	3	1	6	7	3	8	1	7	4	5
Permitted Phases	2		2	6		6	8		8	4		4
Total Split (s)	20.0	31.0	13.0	17.0	28.0	21.0	13.0	71.0	17.0	21.0	79.0	20.0
Total Lost Time (s)	4.5	6.5	4.5	4.5	6.5	4.5	4.5	6.5	4.5	4.5	6.5	4.5
Act Effct Green (s)	41.8	24.5	38.4	36.2	21.7	43.5	75.1	65.6	84.6	87.5	73.6	95.4
Actuated g/C Ratio	0.30	0.18	0.27	0.26	0.16	0.31	0.54	0.47	0.60	0.62	0.53	0.68
v/c Ratio	0.79	0.89	0.25	0.85	0.76	0.76	0.44	0.82	0.22	0.83	0.88	0.30
Control Delay	49.8	73.7	13.1	47.5	55.2	43.2	18.3	37.5	7.7	50.3	19.4	3.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	4.3	0.0	2.0	0.0	0.0	8.8	0.0
Total Delay	49.8	73.7	13.1	47.5	55.2	47.5	18.3	39.5	7.7	50.3	28.1	3.6
LOS	D	E	B	D	E	D	B	D	A	D	C	A
Approach Delay		57.5			50.2			33.8			28.6	
Approach LOS		E			D			C			C	
Queue Length 50th (ft)	158	260	21	128	196	317	21	561	48	120	524	28
Queue Length 95th (ft)	208	#359	73	#187	257	436	38	662	89	m138	m648	m43
Internal Link Dist (ft)		670			319			781			597	
Turn Bay Length (ft)	425		490				235		460	240		220
Base Capacity (vph)	547	619	516	419	547	547	314	1658	995	525	1859	1102
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	212	0
Spillback Cap Reductn	0	0	0	0	0	83	0	169	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.78	0.89	0.25	0.85	0.76	0.87	0.40	0.91	0.22	0.79	0.99	0.30

Intersection Summary

Cycle Length: 140  
 Actuated Cycle Length: 140  
 Offset: 19 (14%), Referenced to phase 4:SBTL and 8:NBTL, Start of 1st Green  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.89  
 Intersection Signal Delay: 39.0  
 Intersection LOS: D  
 Intersection Capacity Utilization 87.5%  
 ICU Level of Service E  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Randall Rd & IL Route 38



Timings  
2: IL Route 38 & W Mall Entrance

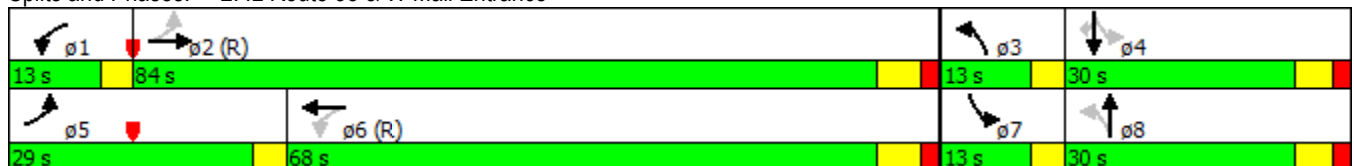
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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	216	729	65	39	781	55	53	1	70	81	8	189
Satd. Flow (prot)	1770	3497	0	1770	3504	0	1770	1587	0	1770	1863	1583
Flt Permitted	0.262			0.317			0.752			0.608		
Satd. Flow (perm)	488	3497	0	590	3504	0	1401	1587	0	1133	1863	1583
Satd. Flow (RTOR)		11			7			76				205
Lane Group Flow (vph)	235	863	0	42	909	0	58	77	0	88	9	205
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		4
Total Split (s)	29.0	84.0		13.0	68.0		13.0	30.0		13.0	30.0	30.0
Total Lost Time (s)	3.5	6.5		3.5	6.5		3.5	6.0		3.5	6.0	6.0
Act Effct Green (s)	107.5	96.5		99.7	90.4		21.4	10.4		23.0	12.9	12.9
Actuated g/C Ratio	0.77	0.69		0.71	0.65		0.15	0.07		0.16	0.09	0.09
v/c Ratio	0.50	0.36		0.09	0.40		0.25	0.41		0.39	0.05	0.62
Control Delay	15.8	22.9		2.5	5.6		49.8	19.0		53.5	58.5	15.9
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	15.8	22.9		2.5	5.6		49.8	19.0		53.5	58.5	15.9
LOS	B	C		A	A		D	B		D	E	B
Approach Delay		21.4			5.5			32.2			28.2	
Approach LOS		C			A			C			C	
Queue Length 50th (ft)	107	346		3	67		46	1		71	8	0
Queue Length 95th (ft)	m193	m426		m8	90		83	50		115	26	77
Internal Link Dist (ft)		440			624			190			310	
Turn Bay Length (ft)	170			215			65			100		100
Base Capacity (vph)	608	2414		513	2263		249	335		229	319	441
Starvation Cap Reductn	0	0		0	0		0	0		0	0	0
Spillback Cap Reductn	0	0		0	0		0	0		0	0	0
Storage Cap Reductn	0	0		0	0		0	0		0	0	0
Reduced v/c Ratio	0.39	0.36		0.08	0.40		0.23	0.23		0.38	0.03	0.46

Intersection Summary

Cycle Length: 140  
 Actuated Cycle Length: 140  
 Offset: 46 (33%), Referenced to phase 2:EBTL and 6:WBTL, Start of 1st Green  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.62  
 Intersection Signal Delay: 16.7  
 Intersection LOS: B  
 Intersection Capacity Utilization 60.2%  
 ICU Level of Service B  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: IL Route 38 & W Mall Entrance





# Timings

## 11: Randall Rd & Prairie St

HLR  
8/1/2016



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↖	↗	↖	↖↗		↖	↖↗	
Volume (vph)	62	38	117	226	41	370	60	1676	283	259	1884	28
Satd. Flow (prot)	1770	1652	0	1770	1863	1583	1770	3461	0	1770	3532	0
Flt Permitted	0.728			0.301			0.051			0.047		
Satd. Flow (perm)	1356	1652	0	561	1863	1583	95	3461	0	88	3532	0
Satd. Flow (RTOR)		85				68		23			2	
Lane Group Flow (vph)	67	168	0	246	45	402	65	2130	0	282	2078	0
Turn Type	pm+pt	NA		pm+pt	NA	pm+ov	pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8	1	5	2		1	6	
Permitted Phases	4			8		8	2			6		
Total Split (s)	13.0	15.0		17.0	19.0	21.0	13.0	87.0		21.0	95.0	
Total Lost Time (s)	4.0	6.5		4.0	6.5	4.0	4.0	6.5		4.0	6.5	
Act Effct Green (s)	19.1	8.5		28.0	15.3	35.6	91.2	80.5		104.0	91.1	
Actuated g/C Ratio	0.14	0.06		0.20	0.11	0.25	0.65	0.58		0.74	0.65	
v/c Ratio	0.32	0.93		1.10	0.22	0.89	0.41	1.07		1.05	0.90	
Control Delay	51.4	83.2		137.1	62.5	58.4	24.2	58.9		116.5	28.5	
Queue Delay	0.0	2.9		0.0	0.0	0.0	0.0	1.3		0.0	3.8	
Total Delay	51.4	86.1		137.1	62.5	58.4	24.2	60.2		116.5	32.3	
LOS	D	F		F	E	E	C	E		F	C	
Approach Delay		76.2			86.6			59.1			42.3	
Approach LOS		E			F			E			D	
Queue Length 50th (ft)	51	77		~234	39	261	14	~1101		~225	839	
Queue Length 95th (ft)	96	#223		#370	81	#363	m16	#1244		#413	984	
Internal Link Dist (ft)		187			212			597			526	
Turn Bay Length (ft)	70			100		100	145			170		
Base Capacity (vph)	220	180		224	203	453	170	1999		269	2299	
Starvation Cap Reductn	0	0		0	0	0	0	6		0	0	
Spillback Cap Reductn	0	3		0	0	0	0	0		0	160	
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	
Reduced v/c Ratio	0.30	0.95		1.10	0.22	0.89	0.38	1.07		1.05	0.97	

### Intersection Summary

Cycle Length: 140

Actuated Cycle Length: 140

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.10

Intersection Signal Delay: 56.1

Intersection LOS: E

Intersection Capacity Utilization 108.9%

ICU Level of Service G

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

### Splits and Phases: 11: Randall Rd & Prairie St



## APPENDIX I

### Synchro Analysis Reports

#### 2026 Total Traffic

#### With Improvements and Randall Road Widening

1. Weekday AM Peak Hour
  - a. Randall Road & IL Route 38
  - b. IL Route 38 & West Mall Entrance
  - c. IL Route 38 & 14<sup>th</sup> Street/Bricher Road
  - d. Randall Road & Prairie Street
2. Weekday PM Peak Hour
  - a. Randall Road & IL Route 38
  - b. IL Route 38 & West Mall Entrance
  - c. IL Route 38 & 14<sup>th</sup> Street/Bricher Road
  - d. Randall Road & Prairie Street
3. Saturday Peak Hour
  - a. Randall Road & IL Route 38
  - b. IL Route 38 & West Mall Entrance
  - c. IL Route 38 & 14<sup>th</sup> Street/Bricher Road
  - d. Randall Road & Prairie Street

Timings  
1: Randall Rd & IL Route 38

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	242	623	39	181	300	208	98	1012	129	365	1013	255
Satd. Flow (prot)	3433	3539	1583	3433	3539	1583	3433	5085	1583	3433	5085	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3539	1583	3433	3539	1583	3433	5085	1583	3433	5085	1583
Satd. Flow (RTOR)			185			226			136			156
Lane Group Flow (vph)	263	677	42	197	326	226	107	1100	140	397	1101	277
Turn Type	Prot	NA	Prot	Prot	NA	Prot	Prot	NA	pt+ov	Prot	NA	pt+ov
Protected Phases	5	2	2	1	6	6	3	8	8 1	7	4	4 5
Permitted Phases												
Total Split (s)	17.0	31.0	31.0	13.0	27.0	27.0	13.0	36.0		20.0	43.0	
Total Lost Time (s)	4.5	6.5	6.5	4.5	6.5	6.5	4.5	6.5		4.5	6.5	
Act Effct Green (s)	11.7	24.6	24.6	8.4	21.3	21.3	7.8	30.2	43.1	14.8	37.2	53.3
Actuated g/C Ratio	0.12	0.25	0.25	0.08	0.21	0.21	0.08	0.30	0.43	0.15	0.37	0.53
v/c Ratio	0.66	0.78	0.08	0.68	0.43	0.44	0.40	0.72	0.18	0.78	0.58	0.30
Control Delay	50.5	42.4	0.3	46.9	38.1	15.3	48.2	34.4	4.0	63.2	18.7	1.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	50.5	42.4	0.3	46.9	38.1	15.3	48.2	34.4	4.0	63.2	18.7	1.7
LOS	D	D	A	D	D	B	D	C	A	E	B	A
Approach Delay		42.8			33.5			32.3			26.0	
Approach LOS		D			C			C			C	
Queue Length 50th (ft)	82	212	0	43	112	33	34	230	1	134	164	9
Queue Length 95th (ft)	125	280	0	#94	145	108	60	282	36	#191	98	4
Internal Link Dist (ft)		670			319			781			597	
Turn Bay Length (ft)	425		490				235		460	240		220
Base Capacity (vph)	429	870	528	291	755	515	291	1535	760	532	1889	928
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.61	0.78	0.08	0.68	0.43	0.44	0.37	0.72	0.18	0.75	0.58	0.30

Intersection Summary

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 21 (21%), Referenced to phase 4:SBT and 8:NBT, Start of 1st Green

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.78

Intersection Signal Delay: 32.3

Intersection LOS: C

Intersection Capacity Utilization 72.0%

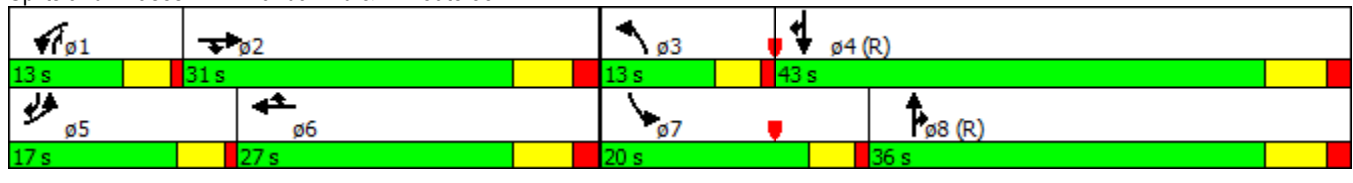
ICU Level of Service C

Analysis Period (min) 15

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 1: Randall Rd & IL Route 38



Timings  
 2: IL Route 38 & W Mall Entrance

HLR  
 8/5/2016



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	182	879	74	32	480	46	36	2	53	79	1	194
Satd. Flow (prot)	1770	3497	0	1770	3493	0	1770	1593	0	1770	1863	1583
Flt Permitted	0.388			0.247			0.757			0.578		
Satd. Flow (perm)	723	3497	0	460	3493	0	1410	1593	0	1077	1863	1583
Satd. Flow (RTOR)		11			12			58				211
Lane Group Flow (vph)	198	1035	0	35	572	0	39	60	0	86	1	211
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		4
Total Split (s)	14.0	50.0		13.0	49.0		13.0	24.0		13.0	24.0	24.0
Total Lost Time (s)	3.5	6.5		3.5	6.5		3.5	6.0		3.5	6.0	6.0
Act Effct Green (s)	70.7	61.7		63.9	54.7		18.2	9.6		21.0	12.8	12.8
Actuated g/C Ratio	0.71	0.62		0.64	0.55		0.18	0.10		0.21	0.13	0.13
v/c Ratio	0.32	0.48		0.09	0.30		0.14	0.29		0.30	0.00	0.55
Control Delay	2.0	6.4		10.4	18.8		29.1	15.3		32.2	38.0	11.4
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	2.0	6.4		10.4	18.8		29.1	15.3		32.2	38.0	11.4
LOS	A	A		B	B		C	B		C	D	B
Approach Delay		5.7			18.3			20.7			17.5	
Approach LOS		A			B			C			B	
Queue Length 50th (ft)	5	221		6	74		20	1		44	1	0
Queue Length 95th (ft)	m8	282		28	187		42	37		78	6	63
Internal Link Dist (ft)		440			624			190			310	
Turn Bay Length (ft)	170			215			65			100		100
Base Capacity (vph)	626	2161		433	1915		312	334		292	342	462
Starvation Cap Reductn	0	0		0	0		0	0		0	0	0
Spillback Cap Reductn	0	0		0	0		0	0		0	0	0
Storage Cap Reductn	0	0		0	0		0	0		0	0	0
Reduced v/c Ratio	0.32	0.48		0.08	0.30		0.13	0.18		0.29	0.00	0.46

Intersection Summary

Cycle Length: 100  
 Actuated Cycle Length: 100  
 Offset: 14 (14%), Referenced to phase 2:EBTL and 6:WBTL, Start of 1st Green  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.55  
 Intersection Signal Delay: 11.3  
 Intersection LOS: B  
 Intersection Capacity Utilization 54.8%  
 ICU Level of Service A  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: IL Route 38 & W Mall Entrance





Timings  
3: 14th St & IL Route 38

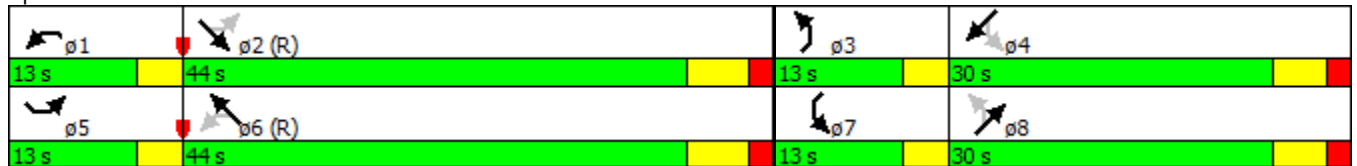


Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations	↵	↕	↶	↵	↕	↶	↵	↕	↶	↵	↕	↶
Volume (vph)	73	966	19	95	495	47	24	85	221	100	98	34
Satd. Flow (prot)	1770	3529	0	1770	3493	0	1770	1662	0	1770	1790	0
Flt Permitted	0.382			0.146			0.665			0.218		
Satd. Flow (perm)	712	3529	0	272	3493	0	1239	1662	0	406	1790	0
Satd. Flow (RTOR)		2			11			124			16	
Lane Group Flow (vph)	79	1071	0	103	589	0	26	332	0	109	144	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		
Total Split (s)	13.0	44.0		13.0	44.0		13.0	30.0		13.0	30.0	
Total Lost Time (s)	3.5	6.5		3.5	6.5		3.5	6.0		3.5	6.0	
Act Effct Green (s)	55.5	46.1		56.3	46.5		28.4	19.4		33.8	27.5	
Actuated g/C Ratio	0.56	0.46		0.56	0.46		0.28	0.19		0.34	0.28	
v/c Ratio	0.17	0.66		0.38	0.36		0.07	0.79		0.42	0.29	
Control Delay	6.4	12.4		14.7	19.7		20.0	36.9		26.5	26.9	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	6.4	12.4		14.7	19.7		20.0	36.9		26.5	26.9	
LOS	A	B		B	B		C	D		C	C	
Approach Delay		12.0			18.9			35.7			26.8	
Approach LOS		B			B			D			C	
Queue Length 50th (ft)	8	74		28	128		11	126		47	58	
Queue Length 95th (ft)	31	183		57	192		27	220		81	120	
Internal Link Dist (ft)		799			397			204			454	
Turn Bay Length (ft)	150			215			45			200		
Base Capacity (vph)	503	1626		297	1628		439	493		266	510	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.16	0.66		0.35	0.36		0.06	0.67		0.41	0.28	

Intersection Summary

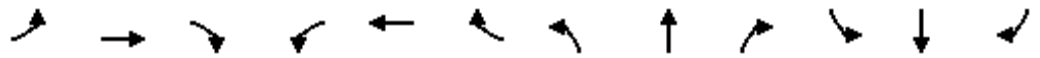
Cycle Length: 100  
 Actuated Cycle Length: 100  
 Offset: 24 (24%), Referenced to phase 2:SETL and 6:NWTL, Start of 1st Green  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.79  
 Intersection Signal Delay: 18.9  
 Intersection LOS: B  
 Intersection Capacity Utilization 73.3%  
 ICU Level of Service D  
 Analysis Period (min) 15

Splits and Phases: 3: 14th St & IL Route 38





Timings  
1: Randall Rd & IL Route 38

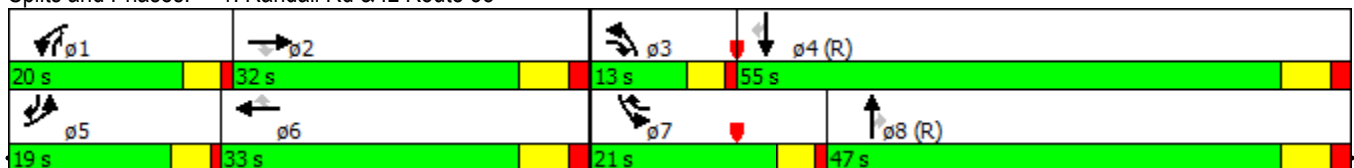


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑↑	↖	↖↗	↑↑	↖	↖↗	↑↑↑	↖	↖↗	↑↑↑	↖
Volume (vph)	298	408	87	251	616	431	111	1250	176	317	1231	290
Satd. Flow (prot)	3433	3539	1583	3433	3539	1583	3433	5085	1583	3433	5085	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3539	1583	3433	3539	1583	3433	5085	1583	3433	5085	1583
Satd. Flow (RTOR)			114			73			114			73
Lane Group Flow (vph)	324	443	95	273	670	468	121	1359	191	345	1338	315
Turn Type	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	5	2	3	1	6	7	3	8	1	7	4	5
Permitted Phases			2			6			8			4
Total Split (s)	19.0	32.0	13.0	20.0	33.0	21.0	13.0	47.0	20.0	21.0	55.0	19.0
Total Lost Time (s)	4.5	6.5	4.5	4.5	6.5	4.5	4.5	6.5	4.5	4.5	6.5	4.5
Act Effct Green (s)	14.1	27.1	41.8	13.9	26.9	48.9	8.2	41.5	61.9	15.5	48.8	69.4
Actuated g/C Ratio	0.12	0.23	0.35	0.12	0.22	0.41	0.07	0.35	0.52	0.13	0.41	0.58
v/c Ratio	0.80	0.56	0.15	0.69	0.84	0.68	0.52	0.77	0.22	0.78	0.65	0.33
Control Delay	67.5	44.6	3.8	48.0	43.5	32.4	62.1	38.9	7.0	62.3	18.3	8.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0
Total Delay	67.5	44.6	3.8	48.0	43.5	32.4	62.1	39.2	7.0	62.3	18.3	8.2
LOS	E	D	A	D	D	C	E	D	A	E	B	A
Approach Delay		48.7			40.7			37.2			24.3	
Approach LOS		D			D			D			C	
Queue Length 50th (ft)	127	162	0	90	279	337	47	346	29	107	322	94
Queue Length 95th (ft)	#190	220	27	139	#362	428	79	405	68	m164	347	m154
Internal Link Dist (ft)		670			319			781			597	
Turn Bay Length (ft)	425		490				235		460	240		220
Base Capacity (vph)	414	798	628	443	793	700	243	1756	891	472	2068	951
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	67	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.78	0.56	0.15	0.62	0.84	0.67	0.50	0.80	0.21	0.73	0.65	0.33

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 10 (8%), Referenced to phase 4:SBT and 8:NBT, Start of 1st Green  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.84  
 Intersection Signal Delay: 35.4  
 Intersection LOS: D  
 Intersection Capacity Utilization 77.1%  
 ICU Level of Service D  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Randall Rd & IL Route 38



# Timings

## 2: IL Route 38 & W Mall Entrance

HLR  
8/5/2016

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	212	650	51	63	1078	54	53	2	66	73	4	167
Satd. Flow (prot)	1770	3500	0	1770	3514	0	1770	1591	0	1770	1863	1583
Flt Permitted	0.150			0.363			0.755			0.681		
Satd. Flow (perm)	279	3500	0	676	3514	0	1406	1591	0	1269	1863	1583
Satd. Flow (RTOR)		11			6			72				182
Lane Group Flow (vph)	230	762	0	68	1231	0	58	74	0	79	4	182
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		4
Total Split (s)	24.0	73.0		13.0	62.0		13.0	21.0		13.0	21.0	21.0
Total Lost Time (s)	3.5	6.5		3.5	6.5		3.5	6.0		3.5	6.0	6.0
Act Effct Green (s)	90.3	78.9		80.7	70.9		19.5	9.9		20.2	10.3	10.3
Actuated g/C Ratio	0.75	0.66		0.67	0.59		0.16	0.08		0.17	0.09	0.09
v/c Ratio	0.62	0.33		0.13	0.59		0.23	0.38		0.32	0.03	0.60
Control Delay	16.8	15.3		2.3	5.6		40.3	17.4		42.4	48.5	16.0
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	16.8	15.3		2.3	5.6		40.3	17.4		42.4	48.5	16.0
LOS	B	B		A	A		D	B		D	D	B
Approach Delay		15.7			5.4			27.4			24.4	
Approach LOS		B			A			C			C	
Queue Length 50th (ft)	85	192		4	73		38	2		52	3	0
Queue Length 95th (ft)	m131	345		m7	98		71	47		90	14	67
Internal Link Dist (ft)		440			624			190			310	
Turn Bay Length (ft)	170			215			65			100		100
Base Capacity (vph)	464	2303		556	2077		263	261		255	232	357
Starvation Cap Reductn	0	0		0	0		0	0		0	0	0
Spillback Cap Reductn	0	0		0	0		0	0		0	0	0
Storage Cap Reductn	0	0		0	0		0	0		0	0	0
Reduced v/c Ratio	0.50	0.33		0.12	0.59		0.22	0.28		0.31	0.02	0.51

### Intersection Summary

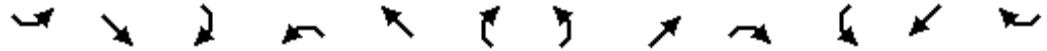
Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 16 (13%), Referenced to phase 2:EBTL and 6:WBTL, Start of 1st Green  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.62  
 Intersection Signal Delay: 12.1  
 Intersection LOS: B  
 Intersection Capacity Utilization 67.7%  
 ICU Level of Service C  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

### Splits and Phases: 2: IL Route 38 & W Mall Entrance



Timings  
3: 14th St & IL Route 38

HLR  
8/5/2016

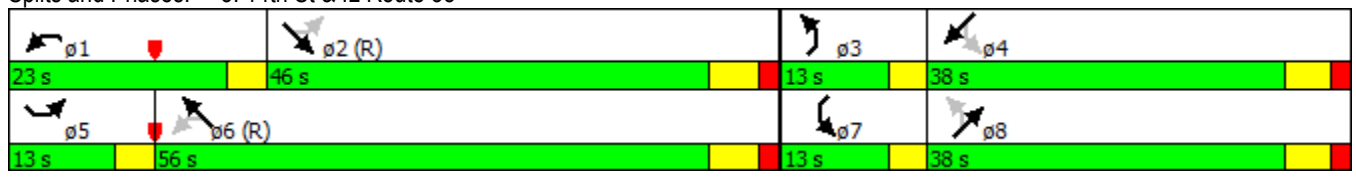


Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations	↖	↗		↖	↗		↖	↗		↖	↗	
Volume (vph)	103	677	38	241	1052	81	67	171	207	149	208	56
Satd. Flow (prot)	1770	3511	0	1770	3500	0	1770	1710	0	1770	1803	0
Flt Permitted	0.099			0.219			0.433			0.163		
Satd. Flow (perm)	184	3511	0	408	3500	0	807	1710	0	304	1803	0
Satd. Flow (RTOR)		5			8			49			11	
Lane Group Flow (vph)	112	777	0	262	1231	0	73	411	0	162	287	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		
Total Split (s)	13.0	46.0		23.0	56.0		13.0	38.0		13.0	38.0	
Total Lost Time (s)	3.5	6.5		3.5	6.5		3.5	6.0		3.5	6.0	
Act Effct Green (s)	57.6	46.1		67.3	52.4		40.8	30.1		43.4	33.3	
Actuated g/C Ratio	0.48	0.38		0.56	0.44		0.34	0.25		0.36	0.28	
v/c Ratio	0.56	0.57		0.66	0.80		0.21	0.88		0.72	0.57	
Control Delay	39.8	22.2		22.7	34.9		25.0	59.1		44.5	41.2	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	39.8	22.2		22.7	34.9		25.0	59.1		44.5	41.2	
LOS	D	C		C	C		C	E		D	D	
Approach Delay		24.4			32.7			54.0			42.4	
Approach LOS		C			C			D			D	
Queue Length 50th (ft)	45	106		104	441		35	269		82	184	
Queue Length 95th (ft)	105	260		156	541		67	#437		#145	280	
Internal Link Dist (ft)		799			397			204			454	
Turn Bay Length (ft)	150			215			45			200		
Base Capacity (vph)	215	1352		450	1532		359	491		225	507	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.52	0.57		0.58	0.80		0.20	0.84		0.72	0.57	

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 7 (6%), Referenced to phase 2:SETL and 6:NWTL, Start of 1st Green  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.88  
 Intersection Signal Delay: 34.9  
 Intersection LOS: C  
 Intersection Capacity Utilization 84.4%  
 ICU Level of Service E  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Splits and Phases: 3: 14th St & IL Route 38



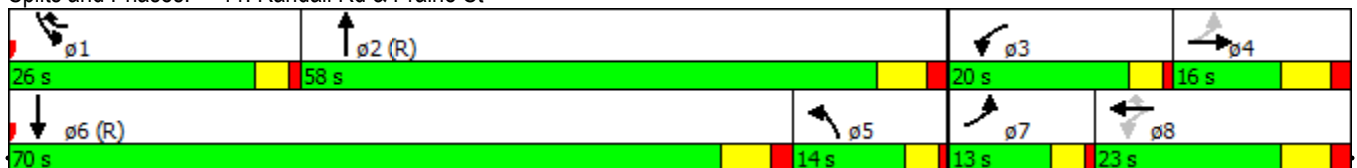
Timings  
11: Randall Rd & Prairie St

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	70	34	112	241	38	310	68	1638	222	244	1554	35
Satd. Flow (prot)	1770	1649	0	1770	1863	1583	1770	4994	0	1770	5070	0
Flt Permitted	0.730			0.296			0.950			0.950		
Satd. Flow (perm)	1360	1649	0	551	1863	1583	1770	4994	0	1770	5070	0
Satd. Flow (RTOR)		107				127		25			4	
Lane Group Flow (vph)	76	159	0	262	41	337	74	2021	0	265	1727	0
Turn Type	pm+pt	NA		pm+pt	NA	pm+ov	Prot	NA		Prot	NA	
Protected Phases	7	4		3	8	1	5	2		1	6	
Permitted Phases	4			8		8						
Total Split (s)	13.0	16.0		20.0	23.0	26.0	14.0	58.0		26.0	70.0	
Total Lost Time (s)	4.0	6.5		4.0	6.5	4.0	4.0	6.5		4.0	6.5	
Act Effct Green (s)	19.2	8.7		31.0	18.4	45.3	9.2	54.1		20.5	67.3	
Actuated g/C Ratio	0.16	0.07		0.26	0.15	0.38	0.08	0.45		0.17	0.56	
v/c Ratio	0.31	0.73		0.87	0.14	0.50	0.55	0.89		0.88	0.61	
Control Delay	38.3	39.6		66.8	47.2	20.3	50.1	22.3		77.1	19.5	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	38.3	39.6		66.8	47.2	20.3	50.1	22.3		77.1	19.5	
LOS	D	D		E	D	C	D	C		E	B	
Approach Delay		39.2			41.0			23.3			27.1	
Approach LOS		D			D			C			C	
Queue Length 50th (ft)	45	39		175	28	121	58	227		199	335	
Queue Length 95th (ft)	87	#130		#281	63	211	m70	#255		#337	386	
Internal Link Dist (ft)		187			212			597			526	
Turn Bay Length (ft)	70			100		100	145			170		
Base Capacity (vph)	259	229		304	285	695	147	2263		324	2846	
Starvation Cap Reductn	0	0		0	0	0	0	3		0	0	
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	
Reduced v/c Ratio	0.29	0.69		0.86	0.14	0.48	0.50	0.89		0.82	0.61	

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 108 (90%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.89  
 Intersection Signal Delay: 27.9 Intersection LOS: C  
 Intersection Capacity Utilization 89.6% ICU Level of Service E  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

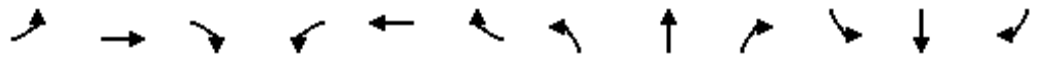
Splits and Phases: 11: Randall Rd & Prairie St



# Timings

## 1: Randall Rd & IL Route 38

HLR  
8/5/2016

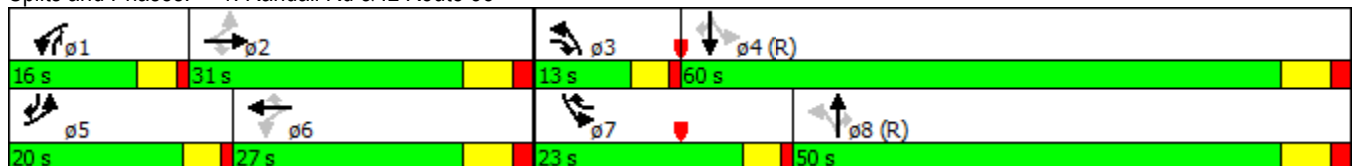


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↖	↑↑	↗	↖↖	↑↑	↗	↖↖	↑↑↑	↗	↖↖	↑↑↑	↗
Volume (vph)	394	506	118	328	384	372	116	1251	205	380	1506	301
Satd. Flow (prot)	3433	3539	1583	3433	3539	1583	3433	5085	1583	3433	5085	1583
Flt Permitted	0.287			0.269			0.085			0.094		
Satd. Flow (perm)	1037	3539	1583	972	3539	1583	307	5085	1583	340	5085	1583
Satd. Flow (RTOR)			114			73			114			95
Lane Group Flow (vph)	428	550	128	357	417	404	126	1360	223	413	1637	327
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov
Protected Phases	5	2	3	1	6	7	3	8	1	7	4	5
Permitted Phases	2		2	6		6	8		8	4		4
Total Split (s)	20.0	31.0	13.0	16.0	27.0	23.0	13.0	50.0	16.0	23.0	60.0	20.0
Total Lost Time (s)	4.5	6.5	4.5	4.5	6.5	4.5	4.5	6.5	4.5	4.5	6.5	4.5
Act Effct Green (s)	41.2	24.5	38.4	34.5	21.1	42.4	56.7	47.3	65.2	68.5	54.8	76.0
Actuated g/C Ratio	0.34	0.20	0.32	0.29	0.18	0.35	0.47	0.39	0.54	0.57	0.46	0.63
v/c Ratio	0.66	0.76	0.22	0.70	0.67	0.67	0.37	0.68	0.24	0.72	0.71	0.32
Control Delay	34.1	52.9	7.7	27.7	42.4	34.2	16.3	32.7	8.1	30.4	15.4	5.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
Total Delay	34.1	52.9	7.7	27.7	42.4	34.2	16.3	32.8	8.1	30.4	15.4	5.0
LOS	C	D	A	C	D	C	B	C	A	C	B	A
Approach Delay		40.4			35.1			28.4			16.6	
Approach LOS		D			D			C			B	
Queue Length 50th (ft)	125	213	7	77	168	276	21	319	40	62	390	62
Queue Length 95th (ft)	168	277	51	107	224	358	35	390	89	m113	397	m113
Internal Link Dist (ft)		670			319			781			597	
Turn Bay Length (ft)	425		490				235		460	240		220
Base Capacity (vph)	672	722	597	516	622	653	369	2004	913	670	2320	1046
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	55	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.64	0.76	0.21	0.69	0.67	0.62	0.34	0.70	0.24	0.62	0.71	0.31

### Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 4 (3%), Referenced to phase 4:SBTL and 8:NBTL, Start of 1st Green  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.76  
 Intersection Signal Delay: 27.3 Intersection LOS: C  
 Intersection Capacity Utilization 77.1% ICU Level of Service D  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

### Splits and Phases: 1: Randall Rd & IL Route 38







Timings  
3: 14th St & IL Route 38

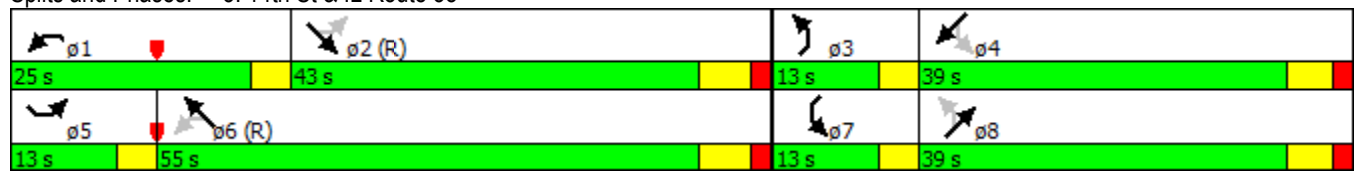
HLR  
8/5/2016

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	75	755	43	268	784	60	55	130	254	131	166	32
Satd. Flow (prot)	1770	3511	0	1770	3500	0	1770	1678	0	1770	1818	0
Flt Permitted	0.260			0.162			0.562			0.153		
Satd. Flow (perm)	484	3511	0	302	3500	0	1047	1678	0	285	1818	0
Satd. Flow (RTOR)		5			8			81			8	
Lane Group Flow (vph)	82	868	0	291	917	0	60	417	0	142	215	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		
Total Split (s)	13.0	43.0		25.0	55.0		13.0	39.0		13.0	39.0	
Total Lost Time (s)	3.5	6.5		3.5	6.5		3.5	6.0		3.5	6.0	
Act Effct Green (s)	54.4	43.4		67.5	54.9		40.4	30.1		43.6	33.5	
Actuated g/C Ratio	0.45	0.36		0.56	0.46		0.34	0.25		0.36	0.28	
v/c Ratio	0.27	0.68		0.76	0.57		0.15	0.87		0.65	0.42	
Control Delay	9.4	22.6		31.1	27.0		23.7	52.9		38.9	37.0	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	9.4	22.6		31.1	27.0		23.7	52.9		38.9	37.0	
LOS	A	C		C	C		C	D		D	D	
Approach Delay		21.5			28.0			49.3			37.8	
Approach LOS		C			C			D			D	
Queue Length 50th (ft)	18	247		120	288		28	247		70	129	
Queue Length 95th (ft)	30	186		217	366		57	#404		117	206	
Internal Link Dist (ft)		799			397			204			454	
Turn Bay Length (ft)	150			215			45			200		
Base Capacity (vph)	327	1273		432	1606		424	520		221	517	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.25	0.68		0.67	0.57		0.14	0.80		0.64	0.42	

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 16 (13%), Referenced to phase 2:SETL and 6:NWTL, Start of 1st Green  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.87  
 Intersection Signal Delay: 30.5  
 Intersection LOS: C  
 Intersection Capacity Utilization 83.9%  
 ICU Level of Service E  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Splits and Phases: 3: 14th St & IL Route 38



Timings  
11: Randall Rd & Prairie St

HLR  
8/5/2016



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↑	↗	↖	↑↑↑		↖	↑↑↑	
Volume (vph)	62	38	117	226	41	370	60	1676	283	259	1884	28
Satd. Flow (prot)	1770	1652	0	1770	1863	1583	1770	4973	0	1770	5075	0
Flt Permitted	0.728			0.305			0.950			0.950		
Satd. Flow (perm)	1356	1652	0	568	1863	1583	1770	4973	0	1770	5075	0
Satd. Flow (RTOR)		100				127		36			3	
Lane Group Flow (vph)	67	168	0	246	45	402	65	2130	0	282	2078	0
Turn Type	pm+pt	NA		pm+pt	NA	pm+ov	Prot	NA		Prot	NA	
Protected Phases	7	4		3	8	1	5	2		1	6	
Permitted Phases	4			8		8						
Total Split (s)	13.0	15.0		18.0	20.0	25.0	14.0	62.0		25.0	73.0	
Total Lost Time (s)	4.0	6.5		4.0	6.5	4.0	4.0	6.5		4.0	6.5	
Act Effct Green (s)	18.7	8.3		28.8	16.4	43.4	9.1	56.1		20.5	69.5	
Actuated g/C Ratio	0.16	0.07		0.24	0.14	0.36	0.08	0.47		0.17	0.58	
v/c Ratio	0.28	0.81		0.89	0.18	0.62	0.49	0.91		0.93	0.71	
Control Delay	39.7	52.3		74.0	50.3	26.4	51.4	24.3		86.6	20.4	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	39.7	52.3		74.0	50.3	26.4	51.4	24.4		86.6	20.4	
LOS	D	D		E	D	C	D	C		F	C	
Approach Delay		48.7			44.8			25.2			28.3	
Approach LOS		D			D			C			C	
Queue Length 50th (ft)	41	52		169	32	179	51	258		217	424	
Queue Length 95th (ft)	81	#169		#279	70	294	m70	280		#379	484	
Internal Link Dist (ft)		187			212			597			526	
Turn Bay Length (ft)	70			100		100	145			170		
Base Capacity (vph)	255	209		276	254	659	147	2345		309	2939	
Starvation Cap Reductn	0	0		0	0	0	0	2		0	0	
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	
Reduced v/c Ratio	0.26	0.80		0.89	0.18	0.61	0.44	0.91		0.91	0.71	

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 100 (83%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.93  
 Intersection Signal Delay: 30.0 Intersection LOS: C  
 Intersection Capacity Utilization 92.3% ICU Level of Service F  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 11: Randall Rd & Prairie St



APPENDIX J

CMAP Memo to St. Charles

Re: Traffic Projections

June 3, 2016



# Chicago Metropolitan Agency for Planning

233 South Wacker Drive  
Suite 800  
Chicago, Illinois 60606  
312 454 0400  
www.cmap.illinois.gov

June 3, 2016

Chris Bong, P.E.  
Development Engineering Division Manager  
City of St. Charles  
2 East Main Street  
St. Charles, IL 60174

**Subject: *Prairie Centre***  
City of St. Charles

Dear Mr. Bong:

In response to a request made on your behalf and dated June 3, 2016, we have developed year 2040 average daily traffic (ADT) projections for the subject location.

ROAD SEGMENT	Year 2040 ADT
Randall Rd between IL 38 and Prairie St	42,000
IL 38 between Randall Rd and 14 <sup>th</sup> St	17,000
Prairie St between Randall Rd and 3 <sup>rd</sup> St	5,000
14 <sup>th</sup> St between IL 38 and Prairie St	6,000

Traffic projections are developed using existing ADT data provided in the request letter and the results from the March 2016 CMAP Travel Demand Analysis. The regional travel model uses CMAP 2040 socioeconomic projections and assumes the implementation of the GO TO 2040 Comprehensive Regional Plan for the Northeastern Illinois area.

If you have any questions, please call me at (312) 386-8806.

Sincerely,

Jose Rodriguez, PTP, AICP  
Senior Planner, Research & Analysis

cc: Garbe (Hampton, Lenzini, and Renwick)  
S:\AdminGroups\ResearchAnalysis\SmallAreaTrafficForecasts\_CY16\SaintCharles\ka-10-16\ka-10-16.docx

APPENDIX K

Memo from St. Charles

Re: Alternative Development Plan

January 29, 2009



## MEMO

**TO:** Diane Lukas, Hampton Lenzini Renwick

**FROM:** Russell Colby, Planner

**CC:** David Patzelt, Shodeen  
Rita Tungare, Director of Community Development

**RE:** **St. Charles Towne Centre Traffic Impact Study- Alternative Development Plan**

**DATE:** January 29, 2009

---

In conjunction with the second amendment to the traffic impact study for the St. Charles Towne Centre development, this memorandum provides a recommendation from City staff for an Alternative Development Plan for the site.

The Alternative Development plan is solely for the purpose of comparing the potential traffic impact of the proposed Towne Centre development to the potential traffic impact of the development of the site under the existing zoning classification.

For purposes of this analysis, the Alternative Development Plan represents the most intensive development of the site that would be reasonably possible as a retail-oriented development.

### PROPOSED LAND USE

The BR Regional Business Zoning District permits a diverse range of commercial land uses. However, based upon the existing configuration of the property and the existing surrounding uses, the site is most likely to develop with one or more of the uses classified as “Retail and Service Uses”, as listed in the St. Charles Zoning Ordinance, Table 17.14-1 Permitted and Special Uses.

For purposes of traffic trip generation, City staff recommends utilizing the Institute of Traffic Engineers Land Use category “Shopping Center” (Land Use #820). This category represents an integrated development that may include a variety of individual land uses, all of which are permitted under the existing BR zoning classification.

### DEVELOPMENT SIZE

#### Site Area

The proposed development includes a detention area located in an existing PUD development. This property cannot be used as a part of the site area for a development under the existing zoning.

St. Charles Towne Centre Site Area	30.59 acres
14 <sup>th</sup> St basin property (existing PUD)	2.39 acres (not available for development)
Net developable site area under BR	28.2 acres (1,228,392 square feet)

Square footage

The total square footage of buildings that can be accommodated on the site is regulated by the “Building Coverage” and “Building Height” standards contained in the St. Charles Zoning Ordinance, Table 17.14-2, Bulk Regulations.

- The Building Coverage standard limits the ground floor square footage of any building structures to no more than 30% of the total site area.
- The Maximum Building Height limits buildings to 40 ft. Depending on the use of the building, this could allow for a 2 or 3 story structure. For “Retail and Service” uses, the ceiling heights for each level are typically too high to accommodate three full levels within the 40 ft. height requirement. Therefore, the maximum possible building height is assumed to be 2 stories.

	<b>BR Zoning Standard</b>	<b>BR standard applied to net developable site</b>
<b>Maximum Building Coverage</b>	30% of lot area	30% x 1,228,392 sf = 368,517 square feet
<b>Maximum Building Height</b>	40 ft.	Approx. 2 stories for a Retail/Service use
<b>Estimated Maximum Floor Area</b>		1 story building: 368,517 square feet 2 story building (2x 1 story building sf)  <b>= 737,034 square feet Gross Floor Area</b>

Adjustment to Gross-Leasable Area

The ITE “Shopping Center” land use trip generation calculations apply to Gross Leasable Area of a Shopping Center, as opposed to the overall Gross Floor Area. Gross Leasable Area is commonly derived by taking 85% of the Gross Floor Area.

Estimated Max Gross Floor Area	Adjustment to Gross Leasable Area	Total square footage for purposes of traffic generation
737,034 square feet	85%	626,479 square feet

RECOMMENDATION

Staff recommends that for purposes of the second traffic study amendment for St. Charles Towne Centre, the Alternative Development Plan consist of a 626,479 sq. ft. Gross Leasable shopping center, categorized under ITE Land Use #820.

## APPENDIX L

### ITE Land Use Diagrams

Weekday AM, Weekday PM, & Saturday Peak Hours and Weekday Total

1. 220 – Apartment
2. 820 – Shopping Center
3. 826 – Specialty Retail Center (no Weekday AM Peak Hour)
4. 881 – Pharmacy/Drugstore with Drive-through Window
5. 932 – High-turnover (Sit-down) Restaurant
6. 934 – Fast-food Restaurant with Drive-through Window



# Apartment (220)

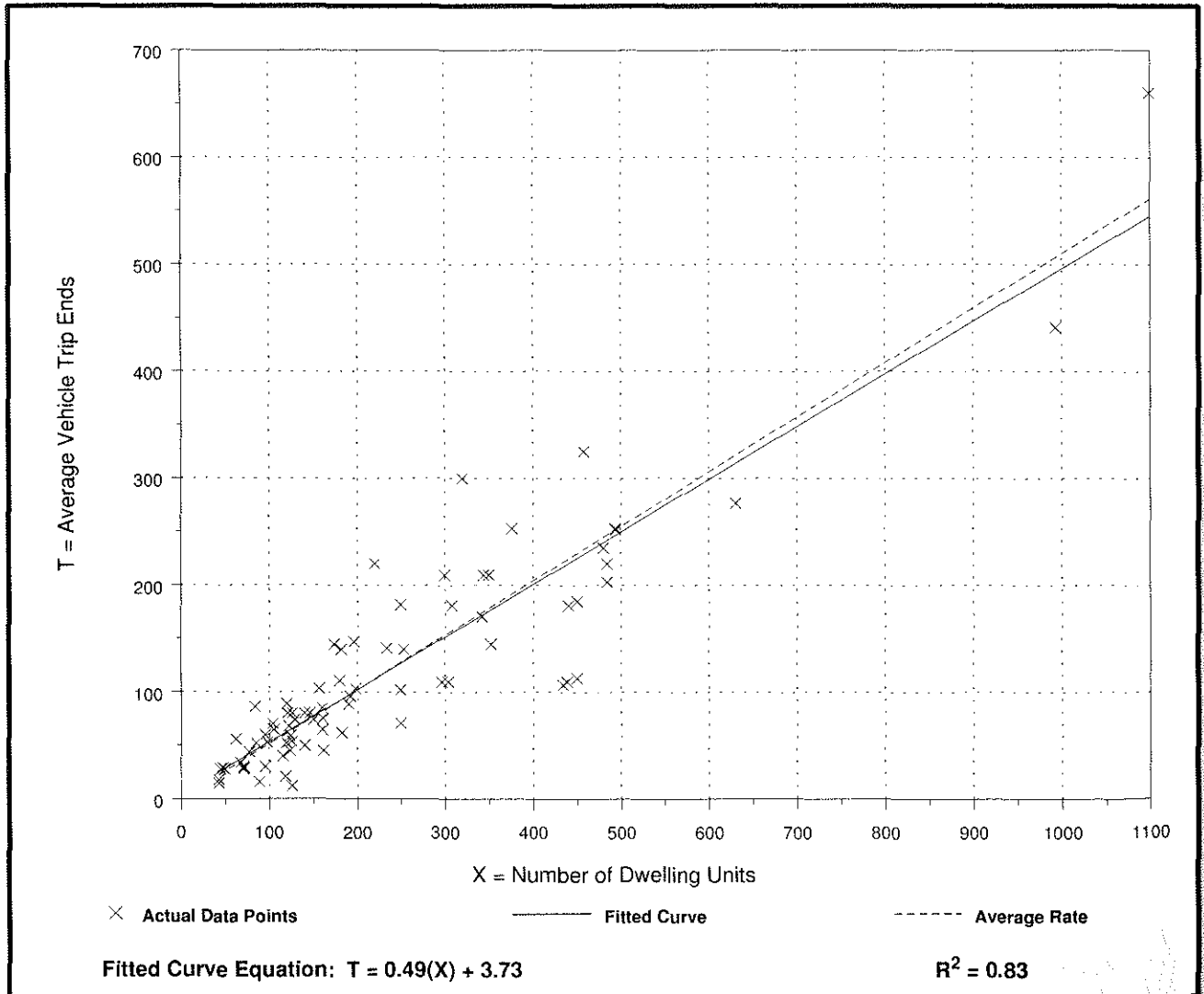
**Average Vehicle Trip Ends vs: Dwelling Units**  
**On a: Weekday,**  
**Peak Hour of Adjacent Street Traffic,**  
**One Hour Between 7 and 9 a.m.**

Number of Studies: 78  
 Avg. Number of Dwelling Units: 235  
 Directional Distribution: 20% entering, 80% exiting

## Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.51	0.10 - 1.02	0.73

## Data Plot and Equation



# Apartment (220)

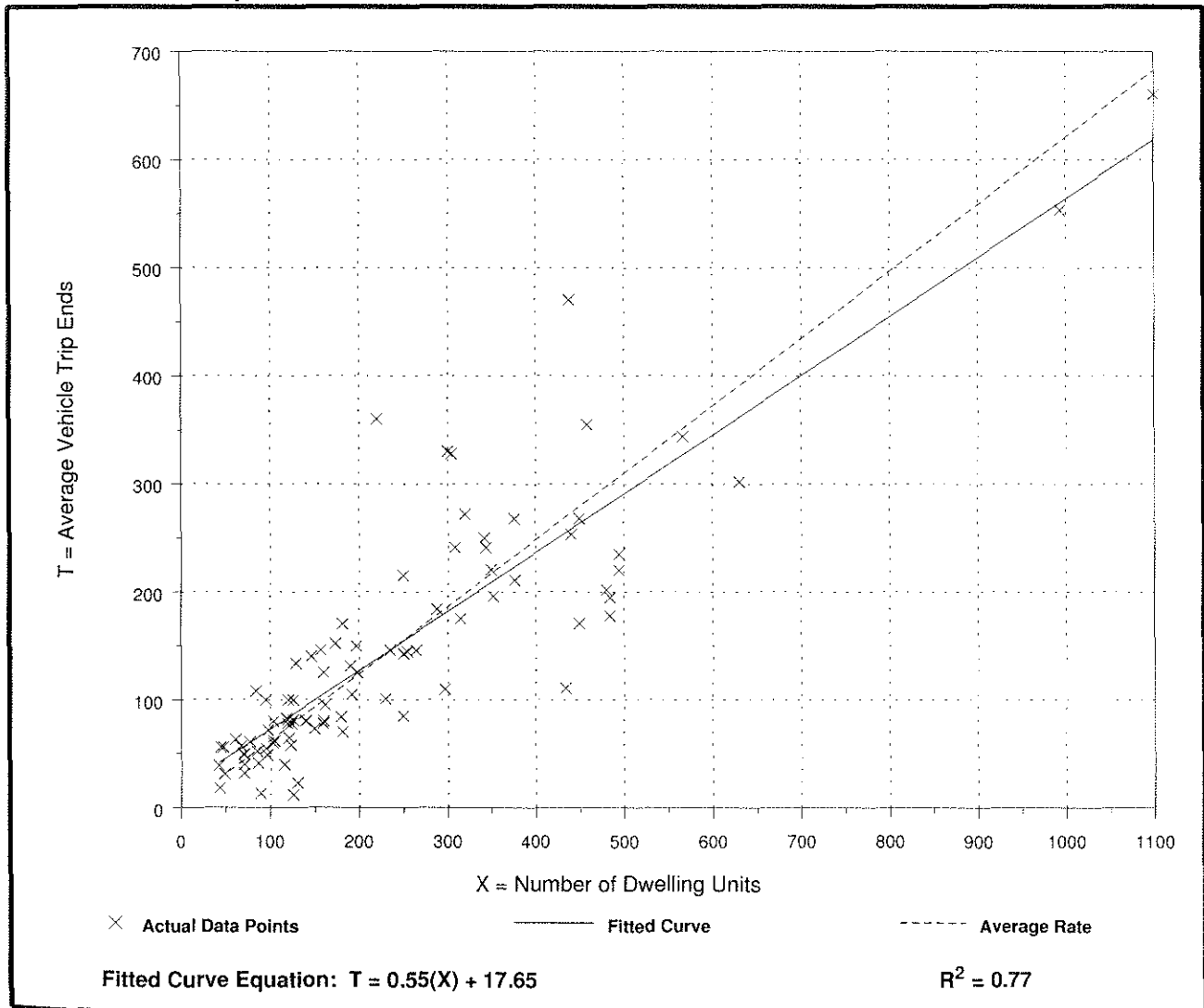
**Average Vehicle Trip Ends vs: Dwelling Units**  
**On a: Weekday,**  
**Peak Hour of Adjacent Street Traffic,**  
**One Hour Between 4 and 6 p.m.**

Number of Studies: 90  
 Avg. Number of Dwelling Units: 233  
 Directional Distribution: 65% entering, 35% exiting

## Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.62	0.10 - 1.64	0.82

## Data Plot and Equation



# Apartment (220)

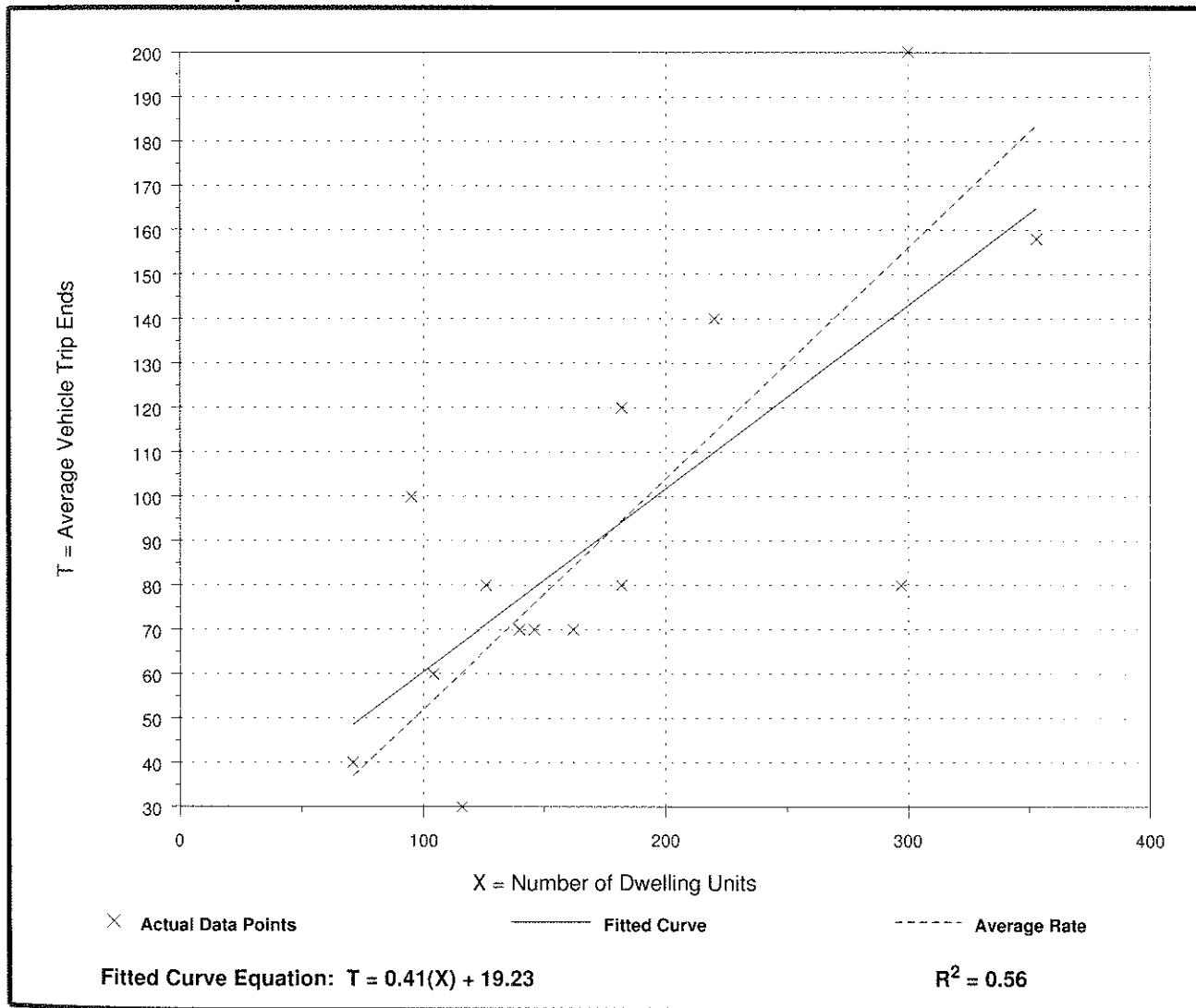
**Average Vehicle Trip Ends vs: Dwelling Units**  
**On a: Saturday,**  
**Peak Hour of Generator**

Number of Studies: 14  
 Avg. Number of Dwelling Units: 178  
 Directional Distribution: Not available

## Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.52	0.26 - 1.05	0.74

## Data Plot and Equation



# Apartment (220)

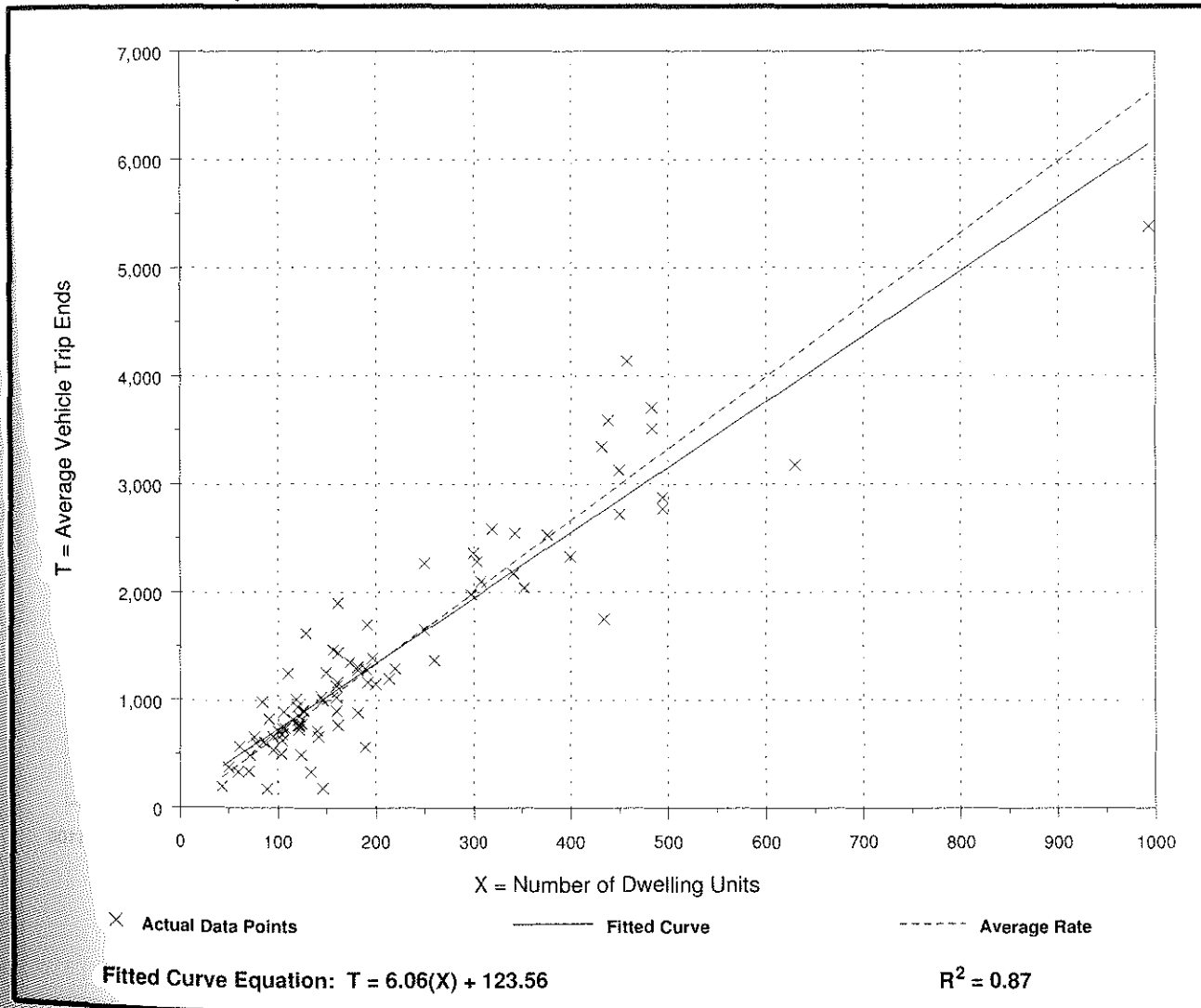
**Average Vehicle Trip Ends vs: Dwelling Units**  
On a: **Weekday**

Number of Studies: 88  
Avg. Number of Dwelling Units: 210  
Directional Distribution: 50% entering, 50% exiting

## Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
6.65	1.27 - 12.50	3.07

## Data Plot and Equation



# Shopping Center (820)

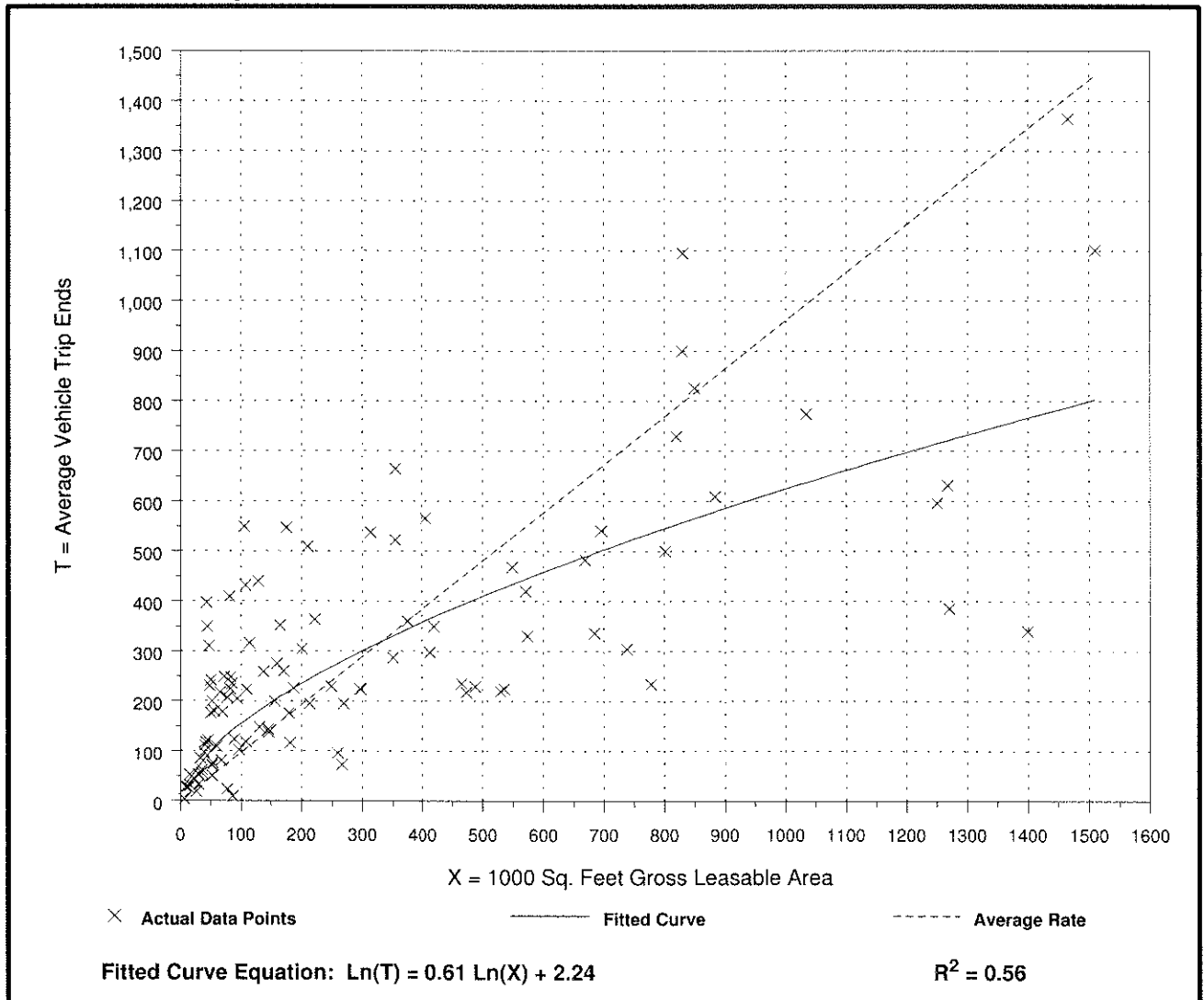
Average Vehicle Trip Ends vs: 1000 Sq. Feet Gross Leasable Area  
On a: Weekday,  
Peak Hour of Adjacent Street Traffic,  
One Hour Between 7 and 9 a.m.

Number of Studies: 104  
Average 1000 Sq. Feet GLA: 310  
Directional Distribution: 62% entering, 38% exiting

## Trip Generation per 1000 Sq. Feet Gross Leasable Area

Average Rate	Range of Rates	Standard Deviation
0.96	0.10 - 9.05	1.31

## Data Plot and Equation



# Shopping Center (820)

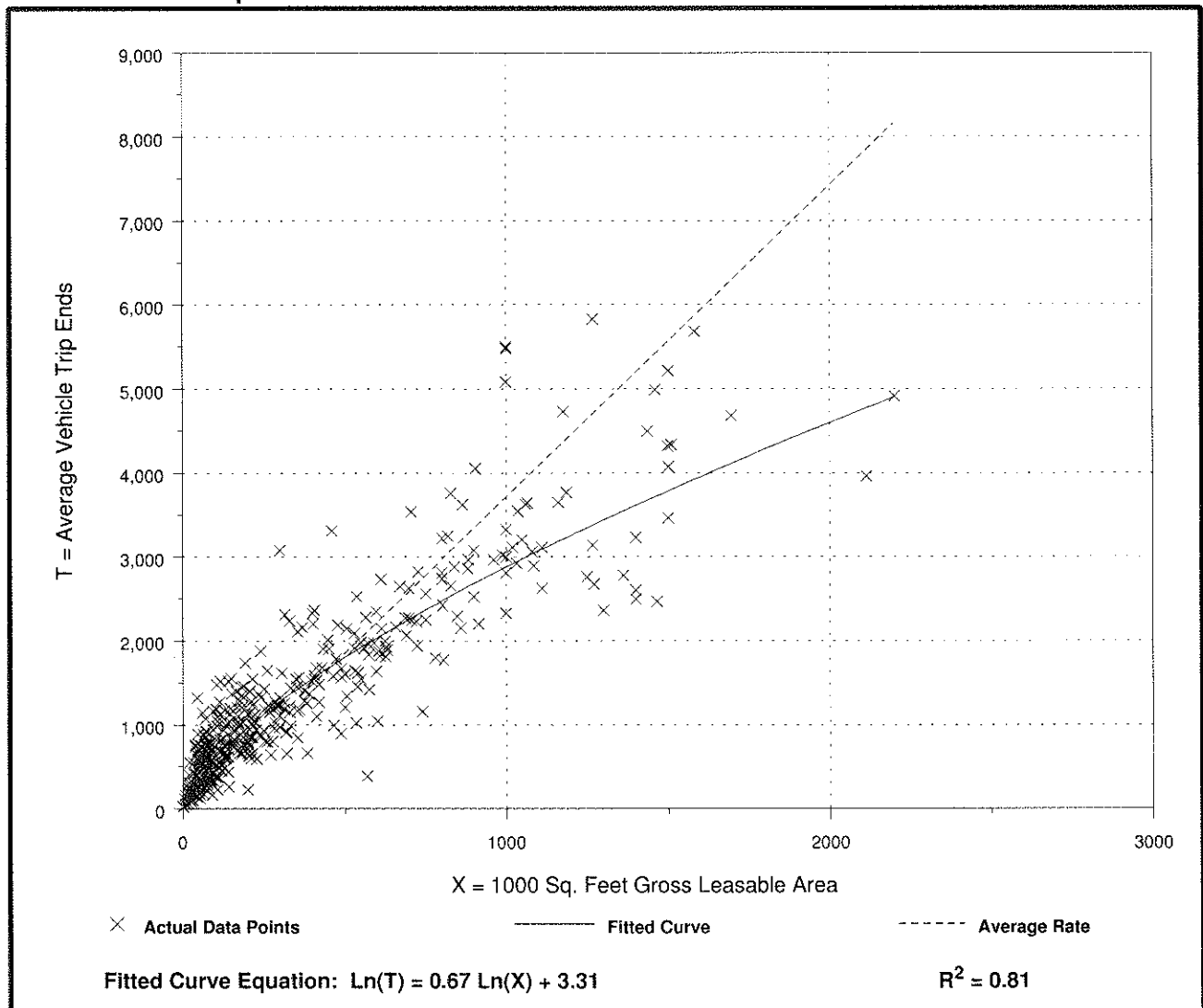
**Average Vehicle Trip Ends vs: 1000 Sq. Feet Gross Leasable Area**  
**On a: Weekday,**  
**Peak Hour of Adjacent Street Traffic,**  
**One Hour Between 4 and 6 p.m.**

Number of Studies: 426  
 Average 1000 Sq. Feet GLA: 376  
 Directional Distribution: 48% entering, 52% exiting

## Trip Generation per 1000 Sq. Feet Gross Leasable Area

Average Rate	Range of Rates	Standard Deviation
3.71	0.68 - 29.27	2.74

## Data Plot and Equation



# Shopping Center (820)

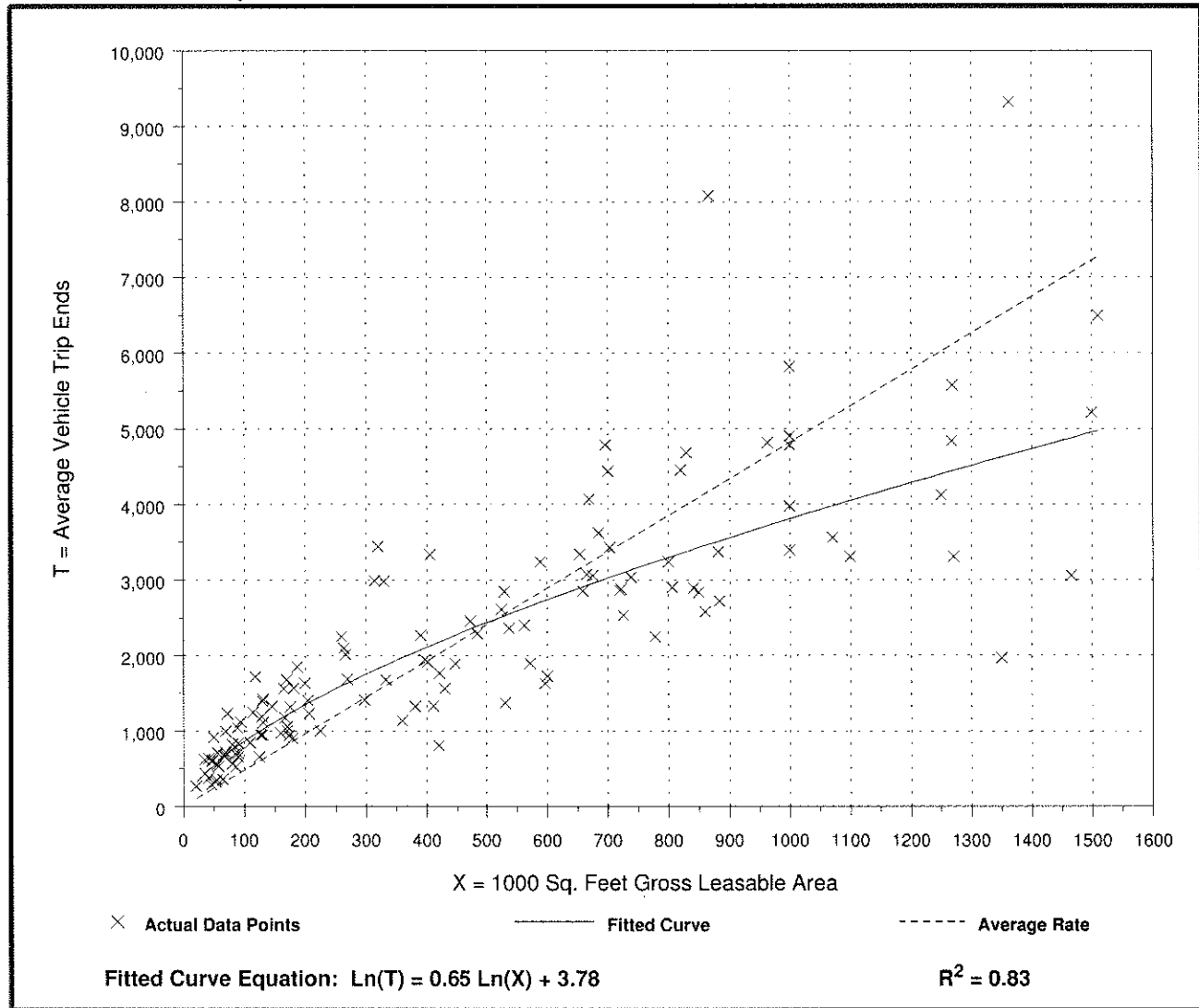
**Average Vehicle Trip Ends vs: 1000 Sq. Feet Gross Leasable Area**  
**On a: Saturday,**  
**Peak Hour of Generator**

Number of Studies: 128  
 Average 1000 Sq. Feet GLA: 458  
 Directional Distribution: 52% entering, 48% exiting

## Trip Generation per 1000 Sq. Feet Gross Leasable Area

Average Rate	Range of Rates	Standard Deviation
4.82	1.46 - 18.32	3.10

## Data Plot and Equation



# Shopping Center (820)

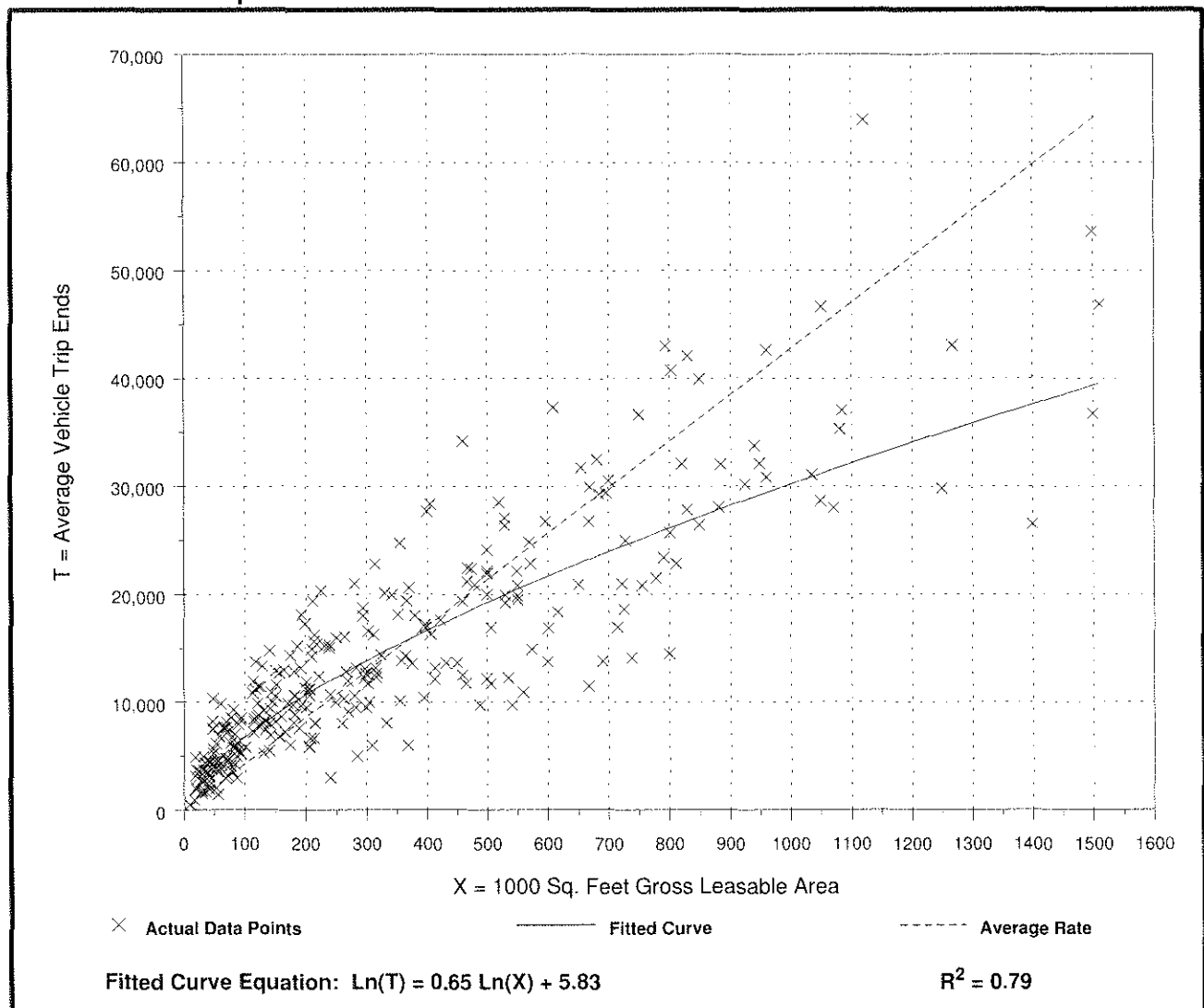
**Average Vehicle Trip Ends vs: 1000 Sq. Feet Gross Leasable Area  
On a: Weekday**

Number of Studies: 302  
Average 1000 Sq. Feet GLA: 331  
Directional Distribution: 50% entering, 50% exiting

## Trip Generation per 1000 Sq. Feet Gross Leasable Area

Average Rate	Range of Rates	Standard Deviation
42.70	12.50 - 270.89	21.25

## Data Plot and Equation





# Specialty Retail Center (826)

Average Vehicle Trip Ends vs: 1000 Sq. Feet Gross Leasable Area  
On a: Weekday,  
Peak Hour of Adjacent Street Traffic,  
One Hour Between 4 and 6 p.m.

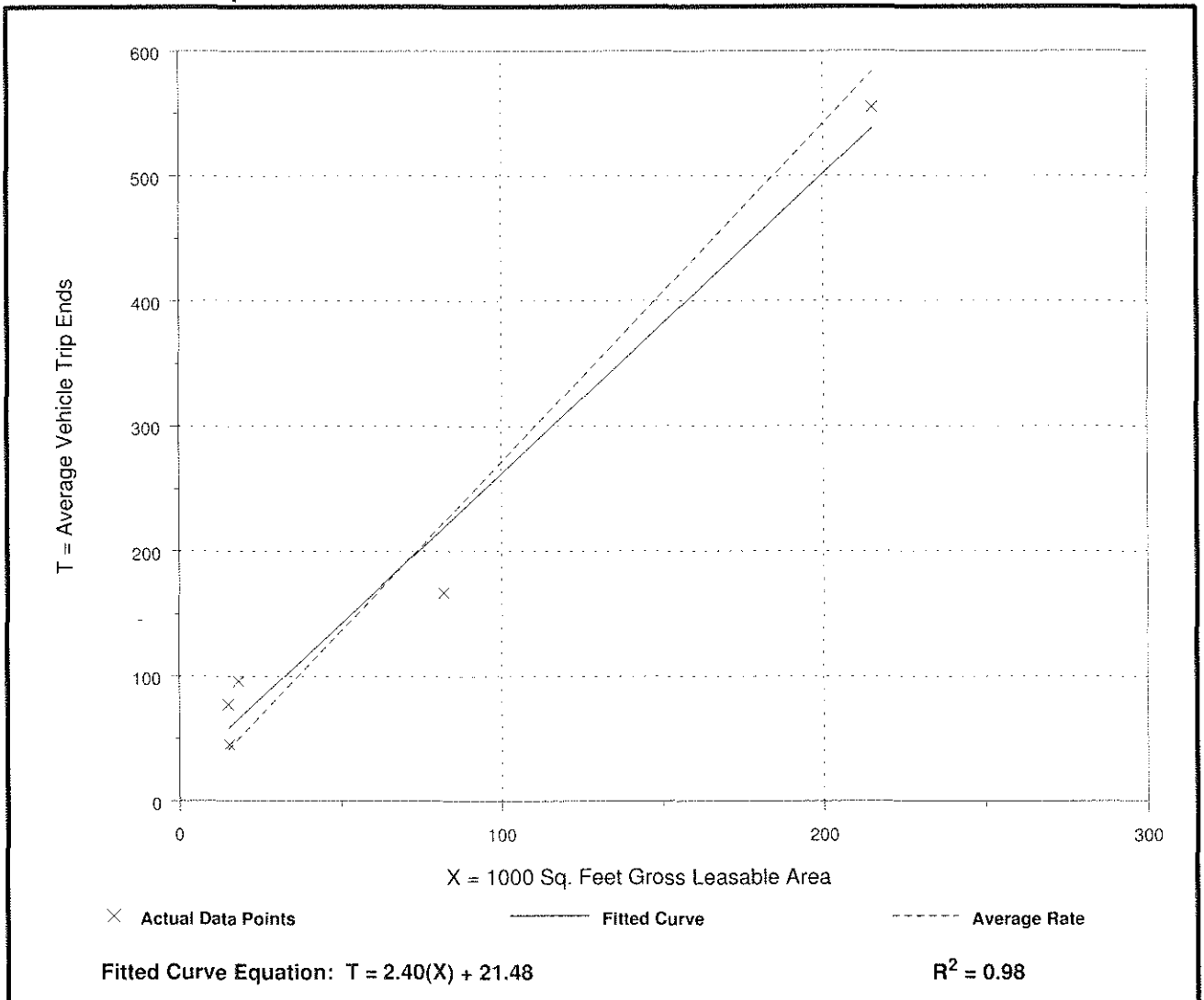
Number of Studies: 5  
Average 1000 Sq. Feet GLA: 69  
Directional Distribution: 44% entering, 56% exiting

## Trip Generation per 1000 Sq. Feet Gross Leasable Area

Average Rate	Range of Rates	Standard Deviation
2.71	2.03 - 5.16	1.83

## Data Plot and Equation

*Caution - Use Carefully - Small Sample Size*



# Specialty Retail Center (826)

**Average Vehicle Trip Ends vs: 1000 Sq. Feet Gross Leasable Area**  
On a: **Saturday**

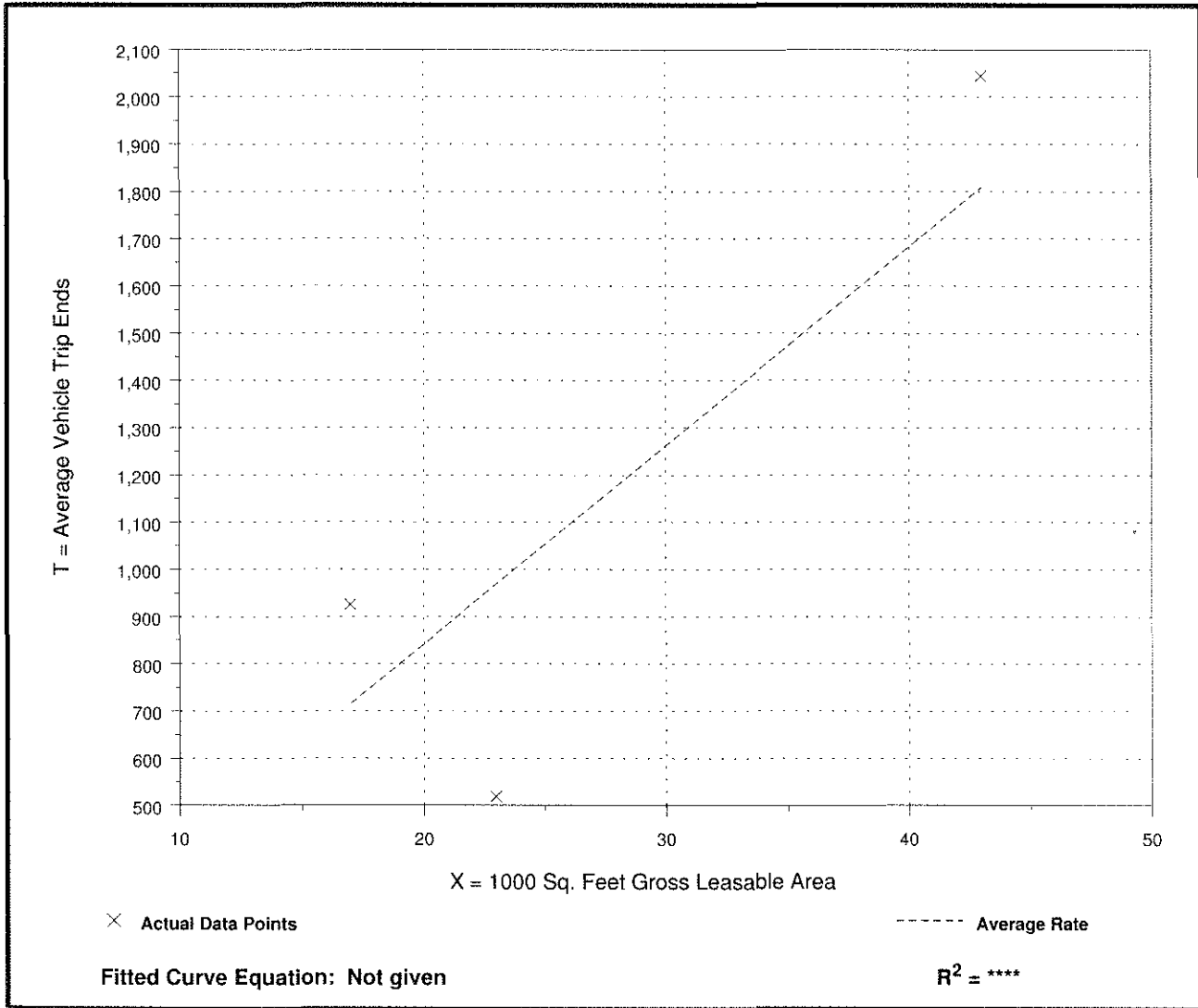
Number of Studies: 3  
Average 1000 Sq. Feet GLA: 28  
Directional Distribution: 50% entering, 50% exiting

## Trip Generation per 1000 Sq. Feet Gross Leasable Area

Average Rate	Range of Rates	Standard Deviation
42.04	22.57 - 54.47	13.97

## Data Plot and Equation

*Caution - Use Carefully - Small Sample Size*



# Specialty Retail Center (826)

**Average Vehicle Trip Ends vs: 1000 Sq. Feet Gross Leasable Area**  
On a: Weekday

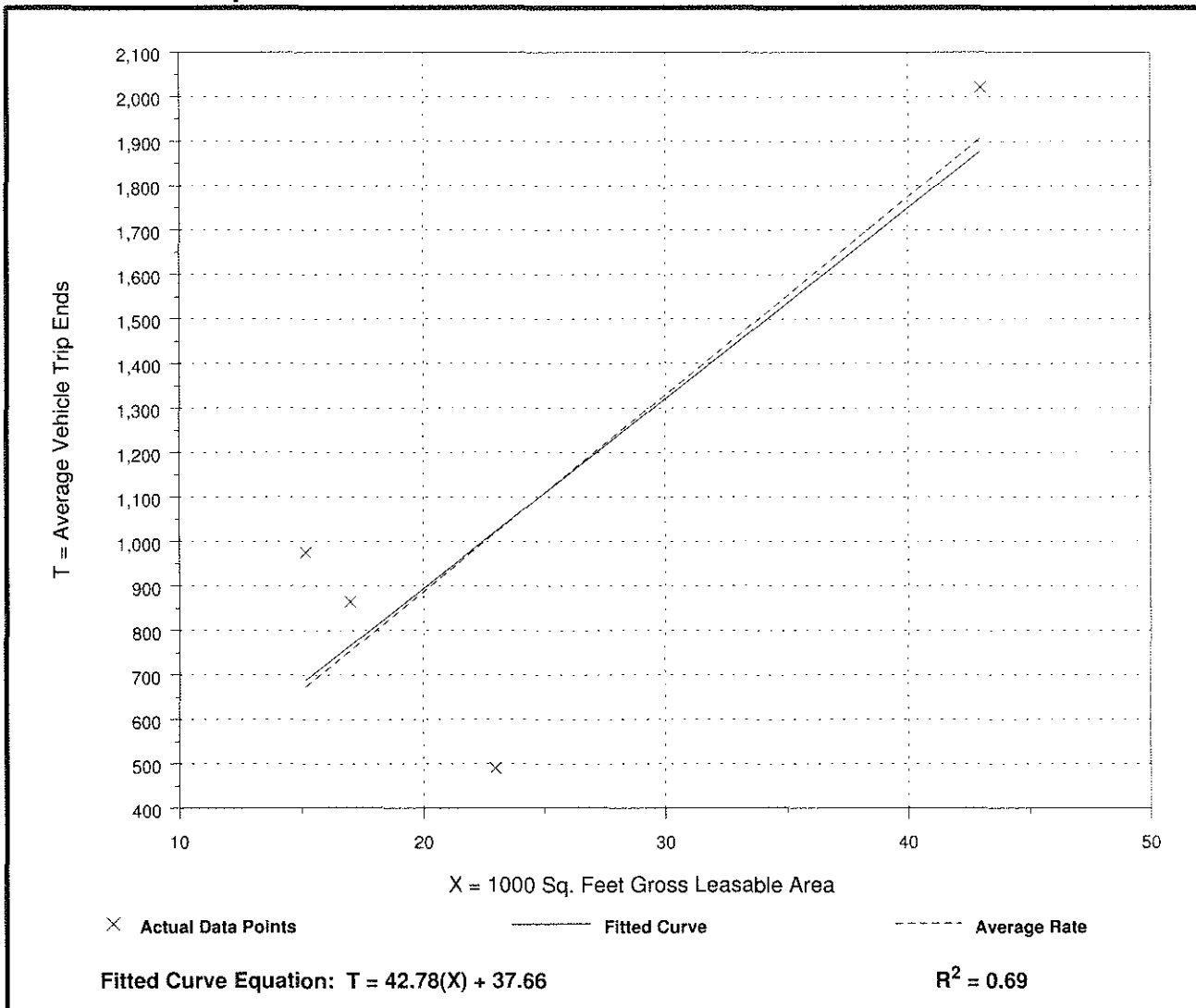
Number of Studies: 4  
Average 1000 Sq. Feet GLA: 25  
Directional Distribution: 50% entering, 50% exiting

## Trip Generation per 1000 Sq. Feet Gross Leasable Area

Average Rate	Range of Rates	Standard Deviation
44.32	21.30 - 64.21	15.52

## Data Plot and Equation

*Caution - Use Carefully - Small Sample Size*



# Pharmacy/Drugstore with Drive-Through Window (881)

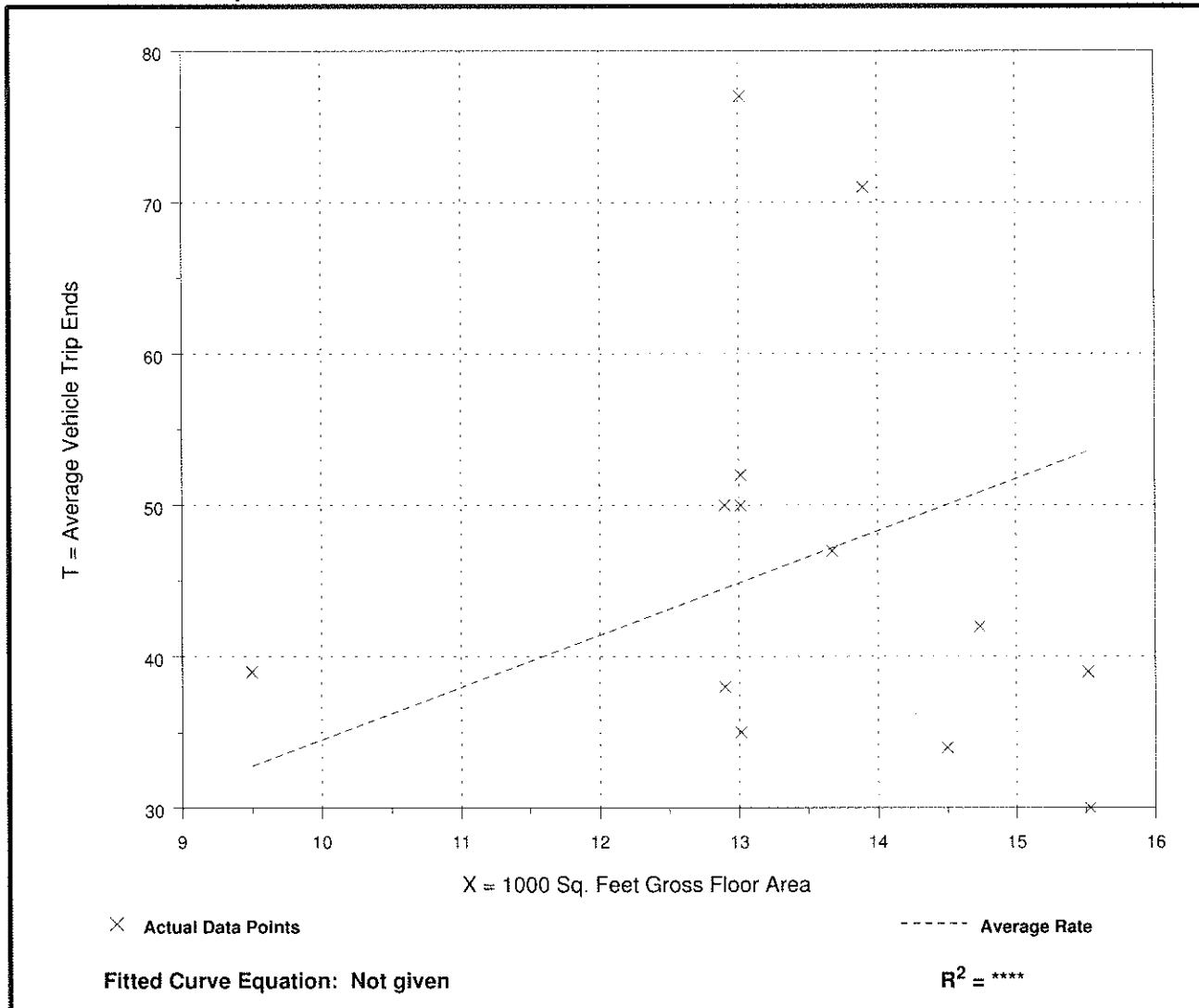
Average Vehicle Trip Ends vs: 1000 Sq. Feet Gross Floor Area  
On a: Weekday,  
Peak Hour of Adjacent Street Traffic,  
One Hour Between 7 and 9 a.m.

Number of Studies: 13  
Average 1000 Sq. Feet GFA: 13  
Directional Distribution: 52% entering, 48% exiting

## Trip Generation per 1000 Sq. Feet Gross Floor Area

Average Rate	Range of Rates	Standard Deviation
3.45	1.93 - 5.92	2.10

## Data Plot and Equation



# Pharmacy/Drugstore with Drive-Through Window (881)

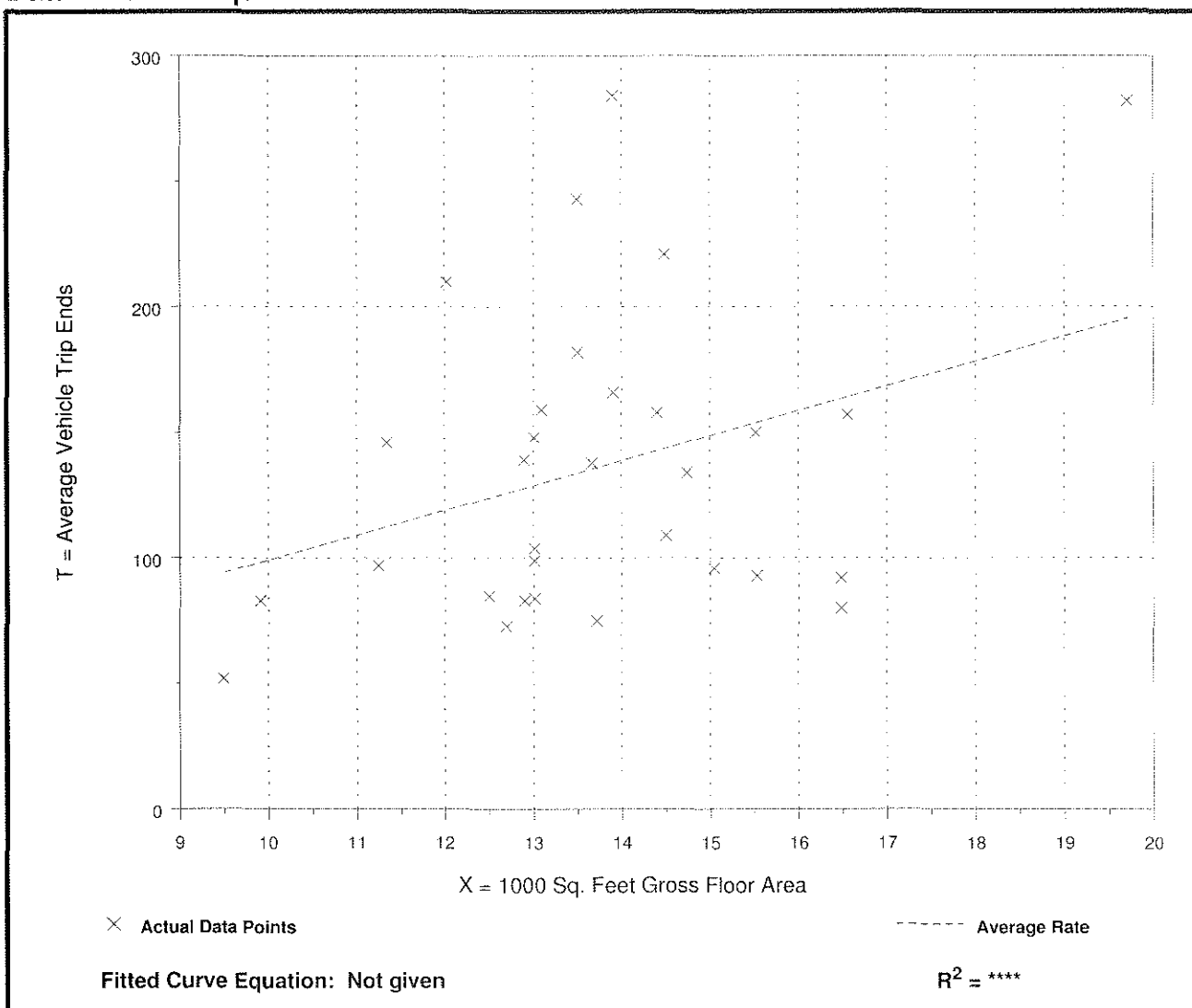
Average Vehicle Trip Ends vs: 1000 Sq. Feet Gross Floor Area  
On a: Weekday,  
Peak Hour of Adjacent Street Traffic,  
One Hour Between 4 and 6 p.m.

Number of Studies: 31  
Average 1000 Sq. Feet GFA: 14  
Directional Distribution: 50% entering, 50% exiting

## Trip Generation per 1000 Sq. Feet Gross Floor Area

Average Rate	Range of Rates	Standard Deviation
9.91	4.85 - 20.43	5.04

## Data Plot and Equation



# Pharmacy/Drugstore with Drive-Through Window (881)

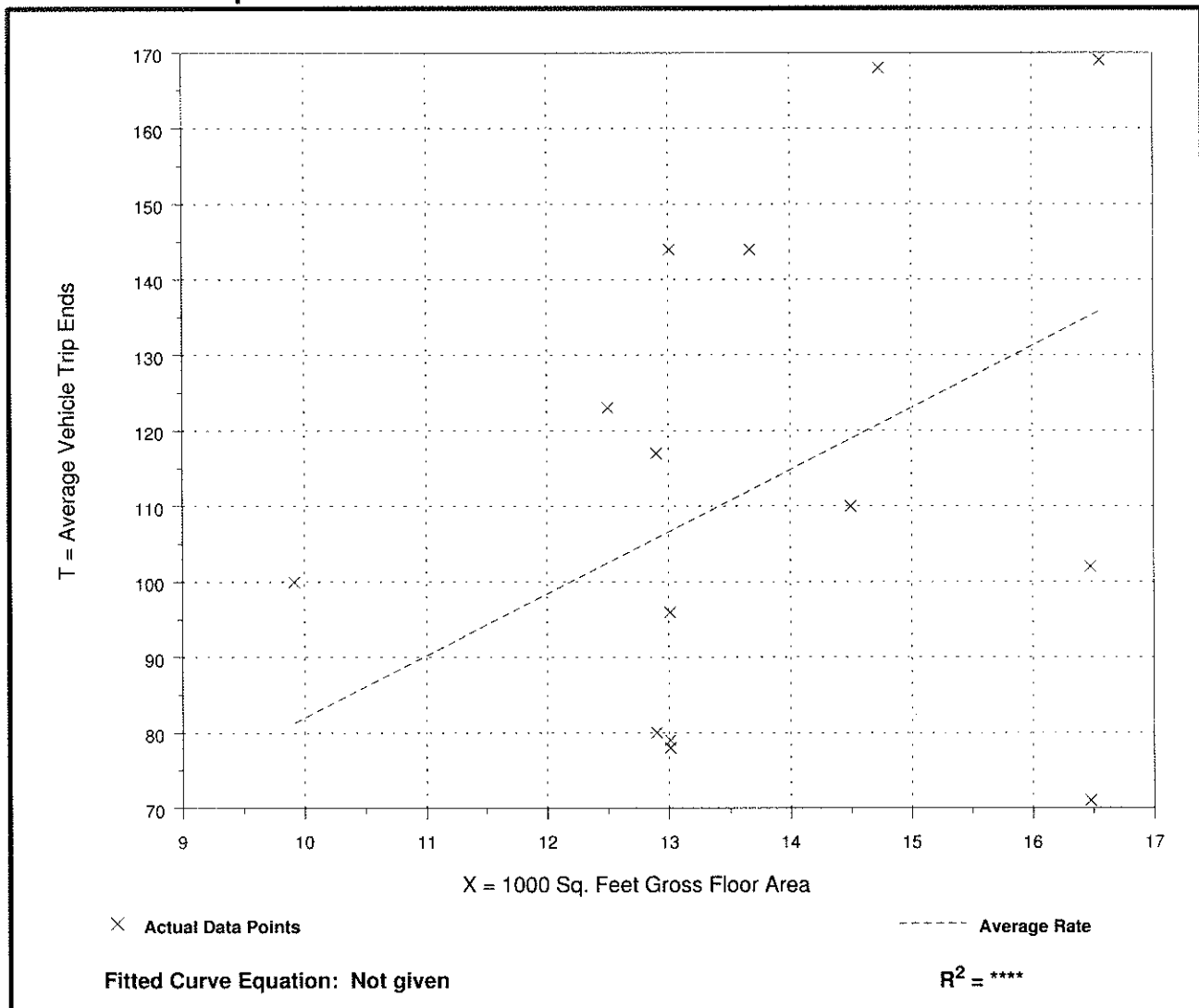
Average Vehicle Trip Ends vs: 1000 Sq. Feet Gross Floor Area  
On a: Saturday,  
Peak Hour of Generator

Number of Studies: 14  
Average 1000 Sq. Feet GFA: 14  
Directional Distribution: 49% entering, 51% exiting

## Trip Generation per 1000 Sq. Feet Gross Floor Area

Average Rate	Range of Rates	Standard Deviation
8.20	4.31 - 11.40	3.57

## Data Plot and Equation



# Pharmacy/Drugstore with Drive-Through Window (881)

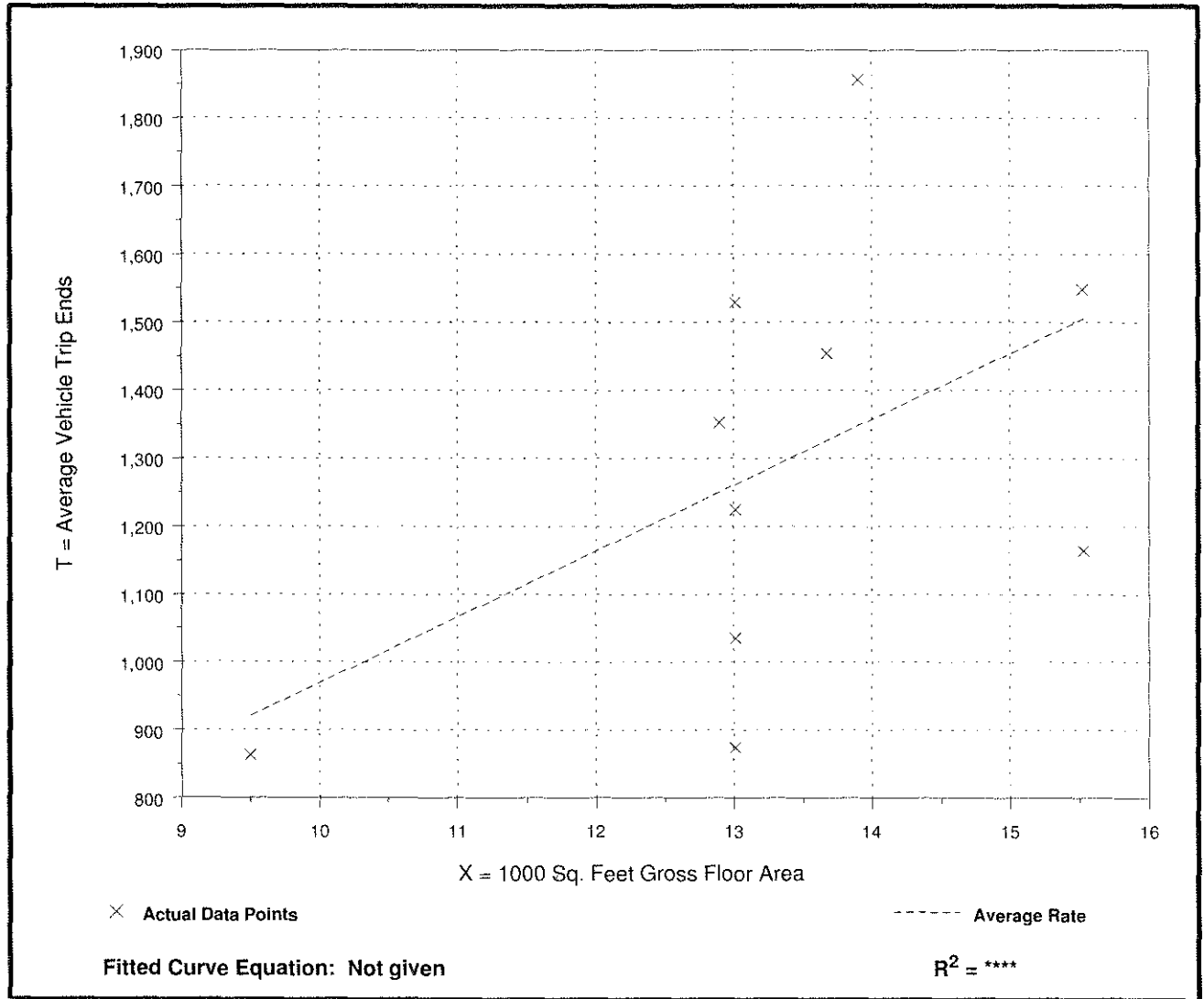
Average Vehicle Trip Ends vs: 1000 Sq. Feet Gross Floor Area  
On a: Weekday

Number of Studies: 10  
Average 1000 Sq. Feet GFA: 13  
Directional Distribution: 50% entering, 50% exiting

## Trip Generation per 1000 Sq. Feet Gross Floor Area

Average Rate	Range of Rates	Standard Deviation
96.91	67.09 - 133.45	21.59

## Data Plot and Equation



# High-Turnover (Sit-Down) Restaurant (932)

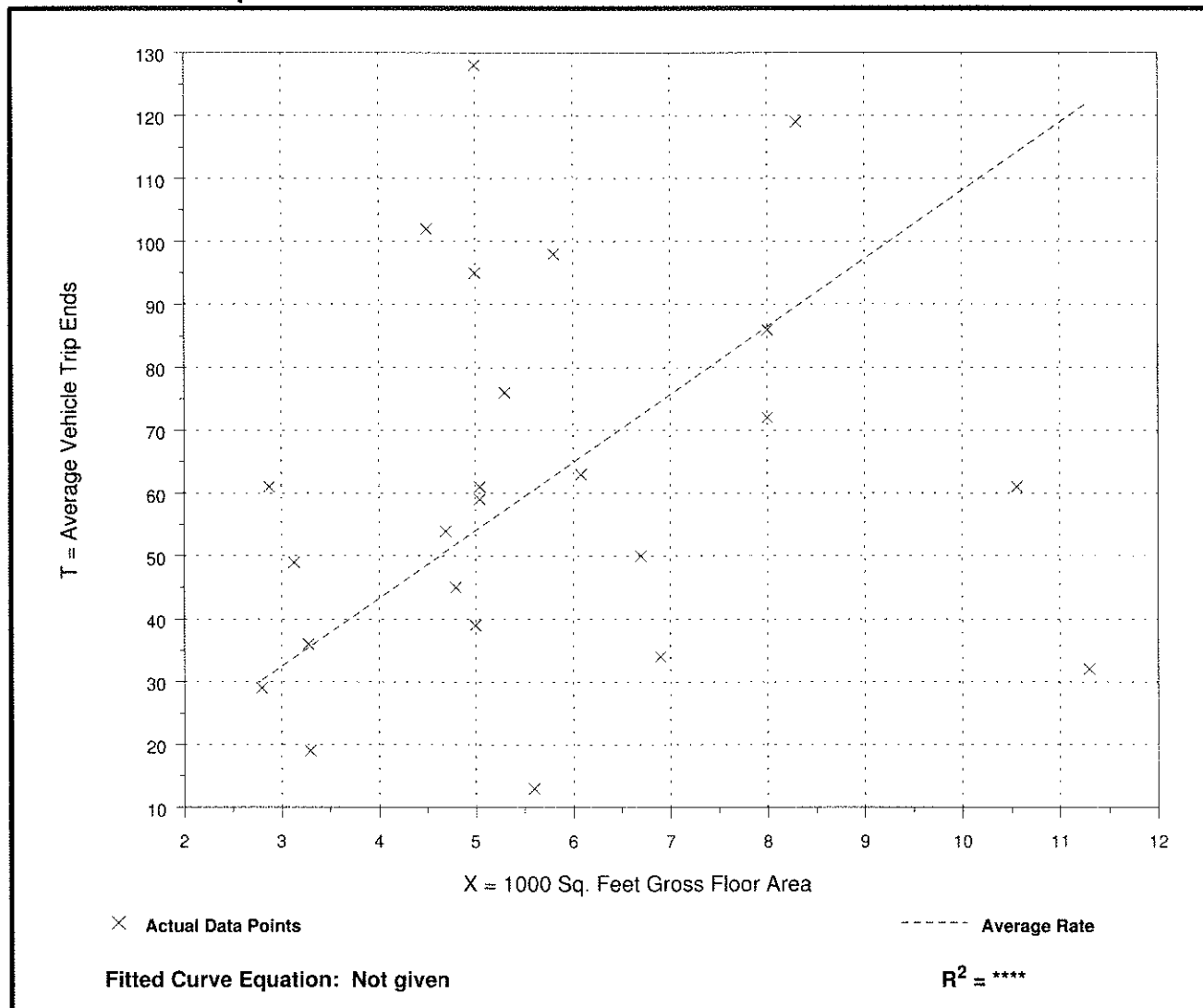
Average Vehicle Trip Ends vs: 1000 Sq. Feet Gross Floor Area  
On a: Weekday,  
Peak Hour of Adjacent Street Traffic,  
One Hour Between 7 and 9 a.m.

Number of Studies: 24  
Average 1000 Sq. Feet GFA: 6  
Directional Distribution: 55% entering, 45% exiting

## Trip Generation per 1000 Sq. Feet Gross Floor Area

Average Rate	Range of Rates	Standard Deviation
10.81	2.32 - 25.60	6.59

## Data Plot and Equation





# High-Turnover (Sit-Down) Restaurant (932)

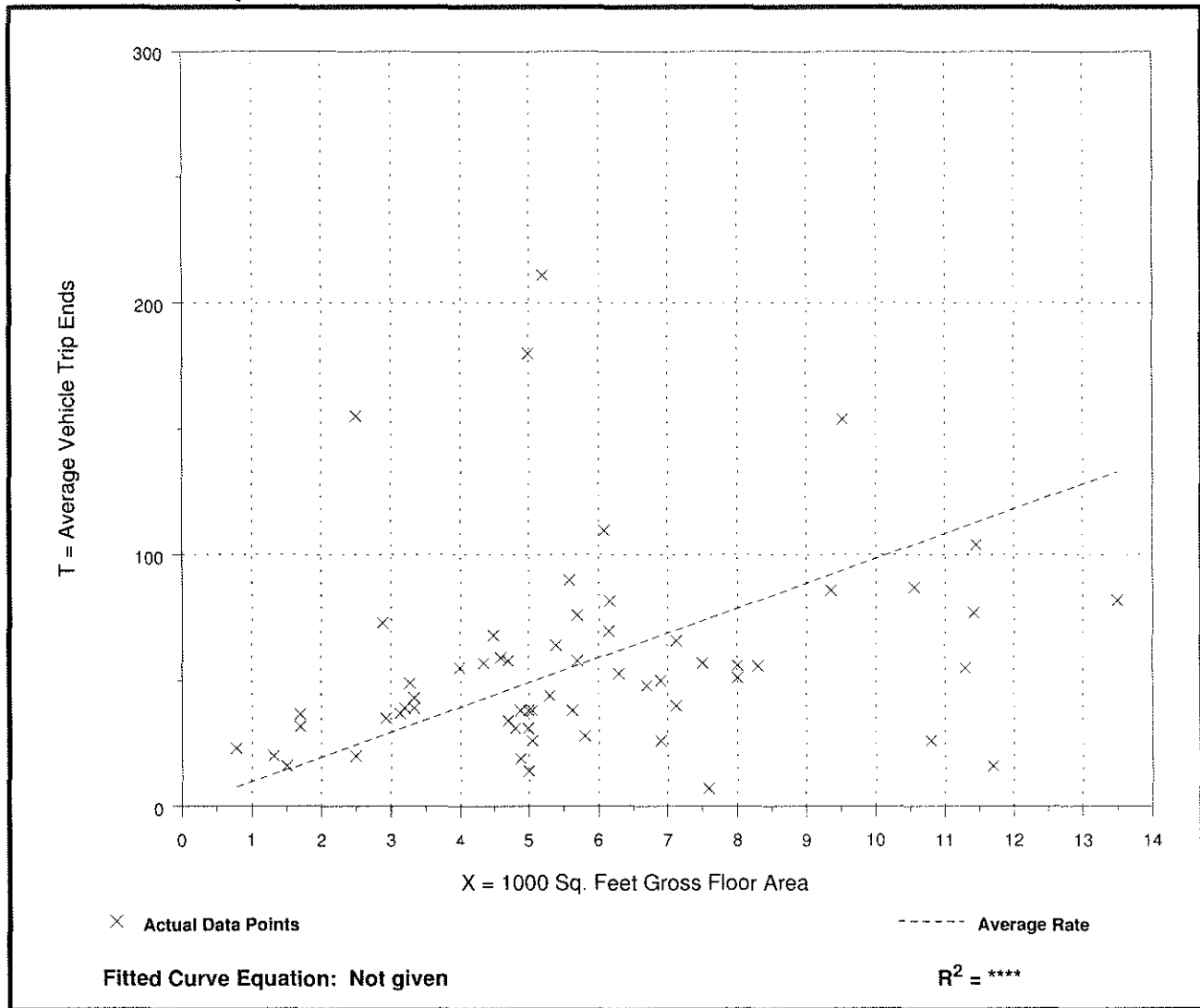
Average Vehicle Trip Ends vs: 1000 Sq. Feet Gross Floor Area  
On a: Weekday,  
Peak Hour of Adjacent Street Traffic,  
One Hour Between 4 and 6 p.m.

Number of Studies: 60  
Average 1000 Sq. Feet GFA: 6  
Directional Distribution: 60% entering, 40% exiting

## Trip Generation per 1000 Sq. Feet Gross Floor Area

Average Rate	Range of Rates	Standard Deviation
9.85	0.92 - 62.00	8.54

## Data Plot and Equation



# High-Turnover (Sit-Down) Restaurant (932)

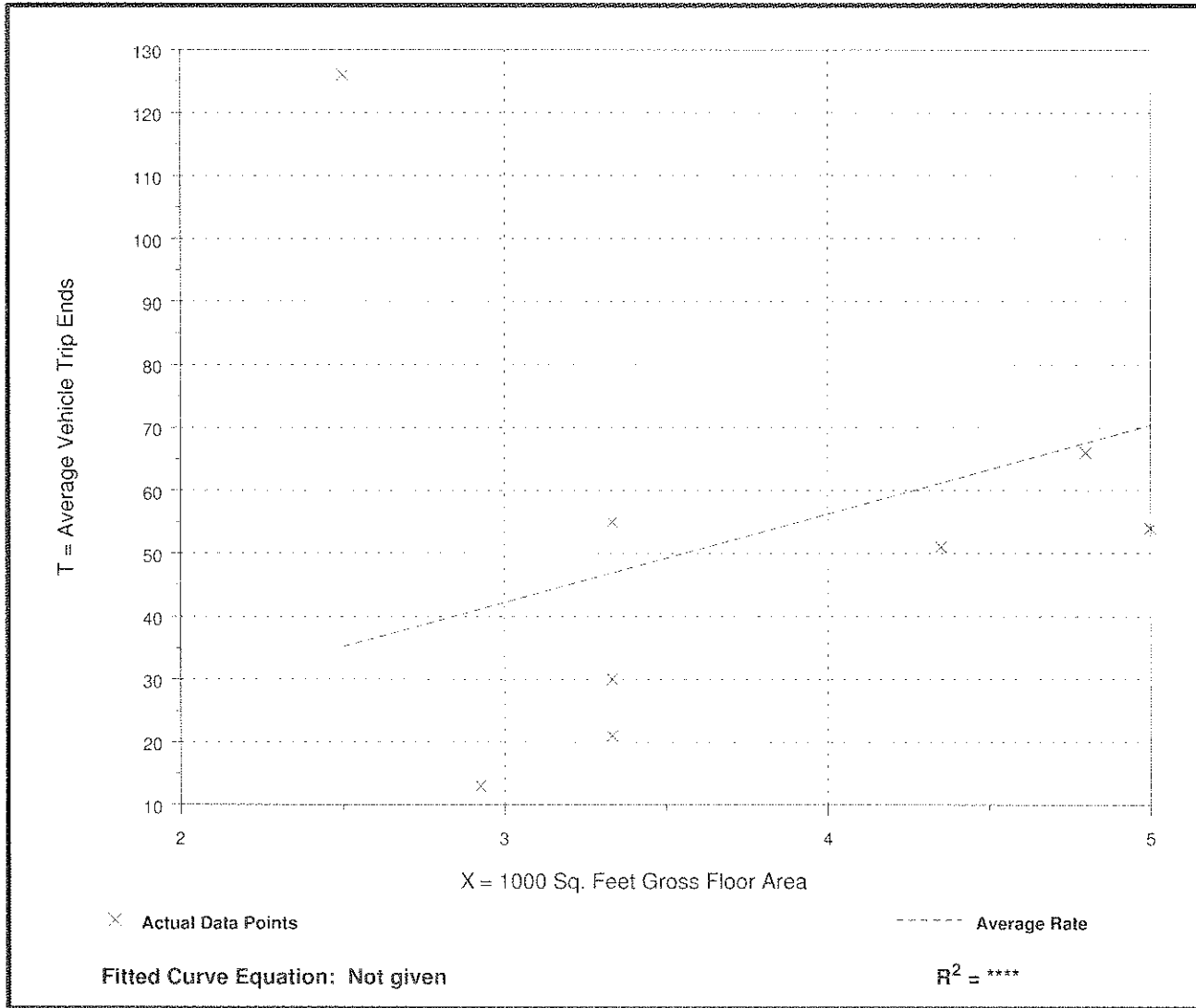
Average Vehicle Trip Ends vs: 1000 Sq. Feet Gross Floor Area  
On a: Saturday,  
Peak Hour of Generator

Number of Studies: 8  
Average 1000 Sq. Feet GFA: 4  
Directional Distribution: 53% entering, 47% exiting

## Trip Generation per 1000 Sq. Feet Gross Floor Area

Average Rate	Range of Rates	Standard Deviation
14.07	4.44 - 50.40	12.19

## Data Plot and Equation



# High-Turnover (Sit-Down) Restaurant (932)

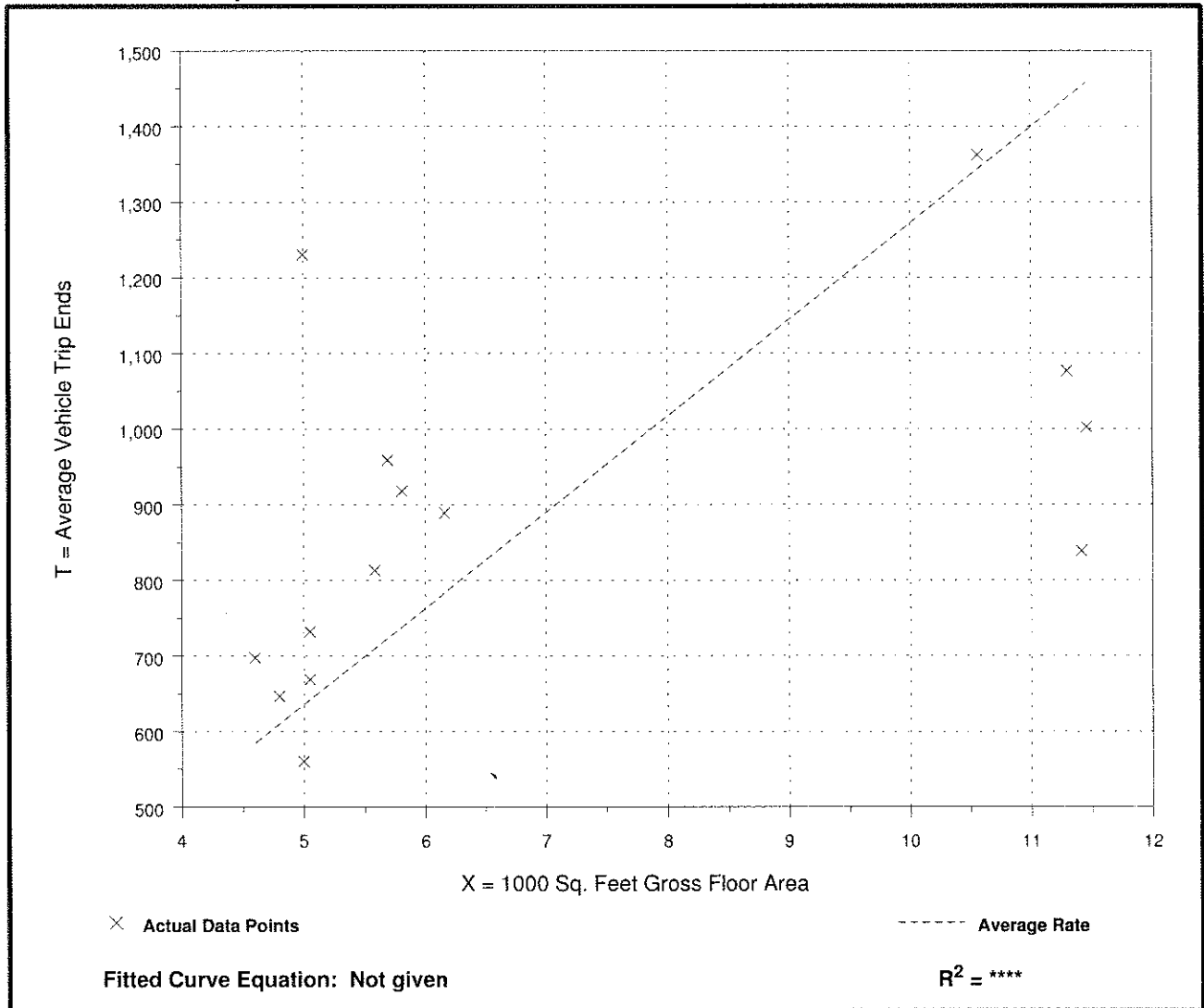
Average Vehicle Trip Ends vs: 1000 Sq. Feet Gross Floor Area  
On a: Weekday

Number of Studies: 14  
Average 1000 Sq. Feet GFA: 7  
Directional Distribution: 50% entering, 50% exiting

## Trip Generation per 1000 Sq. Feet Gross Floor Area

Average Rate	Range of Rates	Standard Deviation
127.15	73.51 - 246.00	41.77

## Data Plot and Equation



# Fast-Food Restaurant with Drive-Through Window (934)

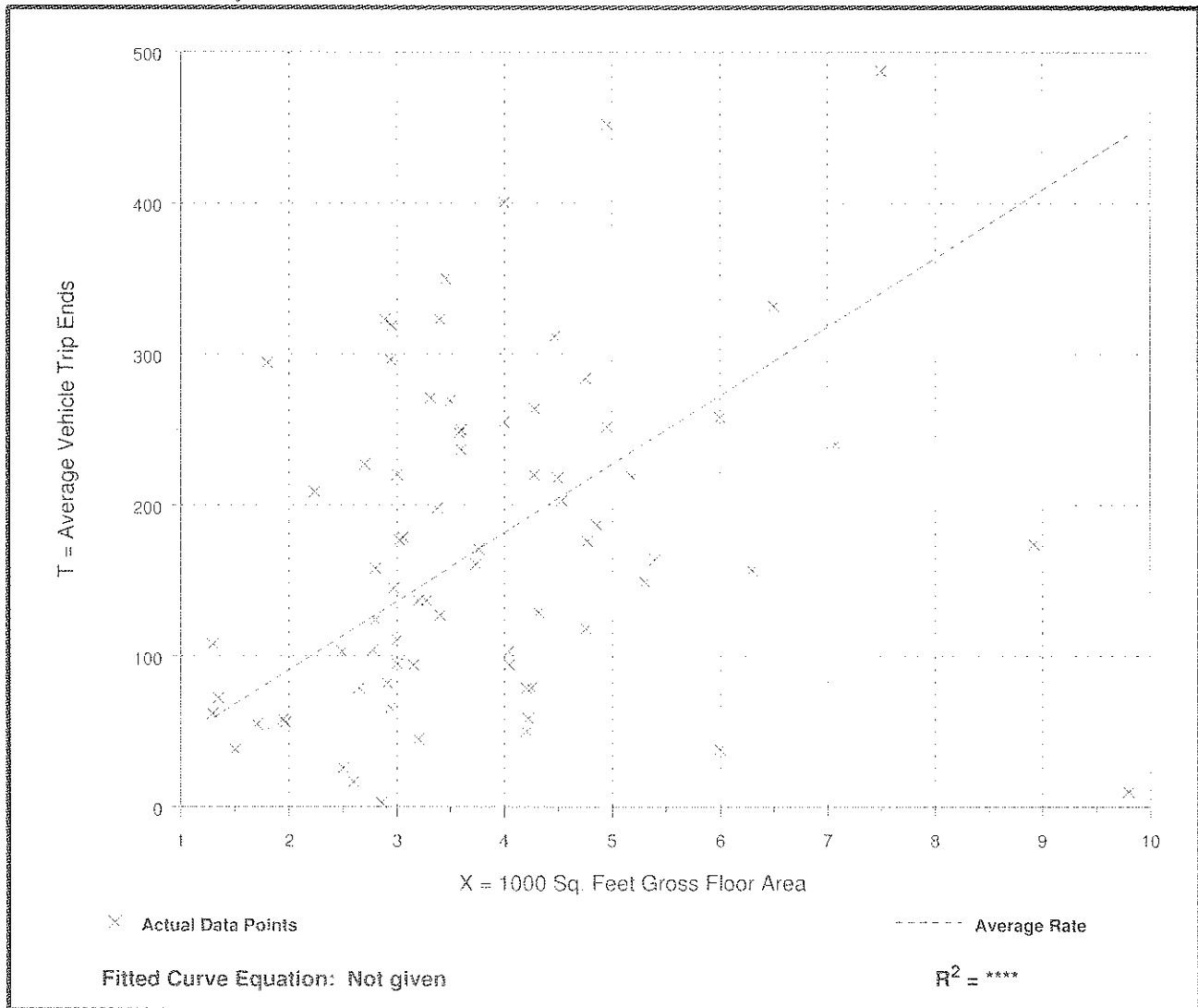
Average Vehicle Trip Ends vs: 1000 Sq. Feet Gross Floor Area  
 On a: Weekday,  
 Peak Hour of Adjacent Street Traffic,  
 One Hour Between 7 and 9 a.m.

Number of Studies: 75  
 Average 1000 Sq. Feet GFA: 4  
 Directional Distribution: 51% entering, 49% exiting

## Trip Generation per 1000 Sq. Feet Gross Floor Area

Average Rate	Range of Rates	Standard Deviation
45.42	1.02 - 163.33	28.63

## Data Plot and Equation



# Fast-Food Restaurant with Drive-Through Window (934)

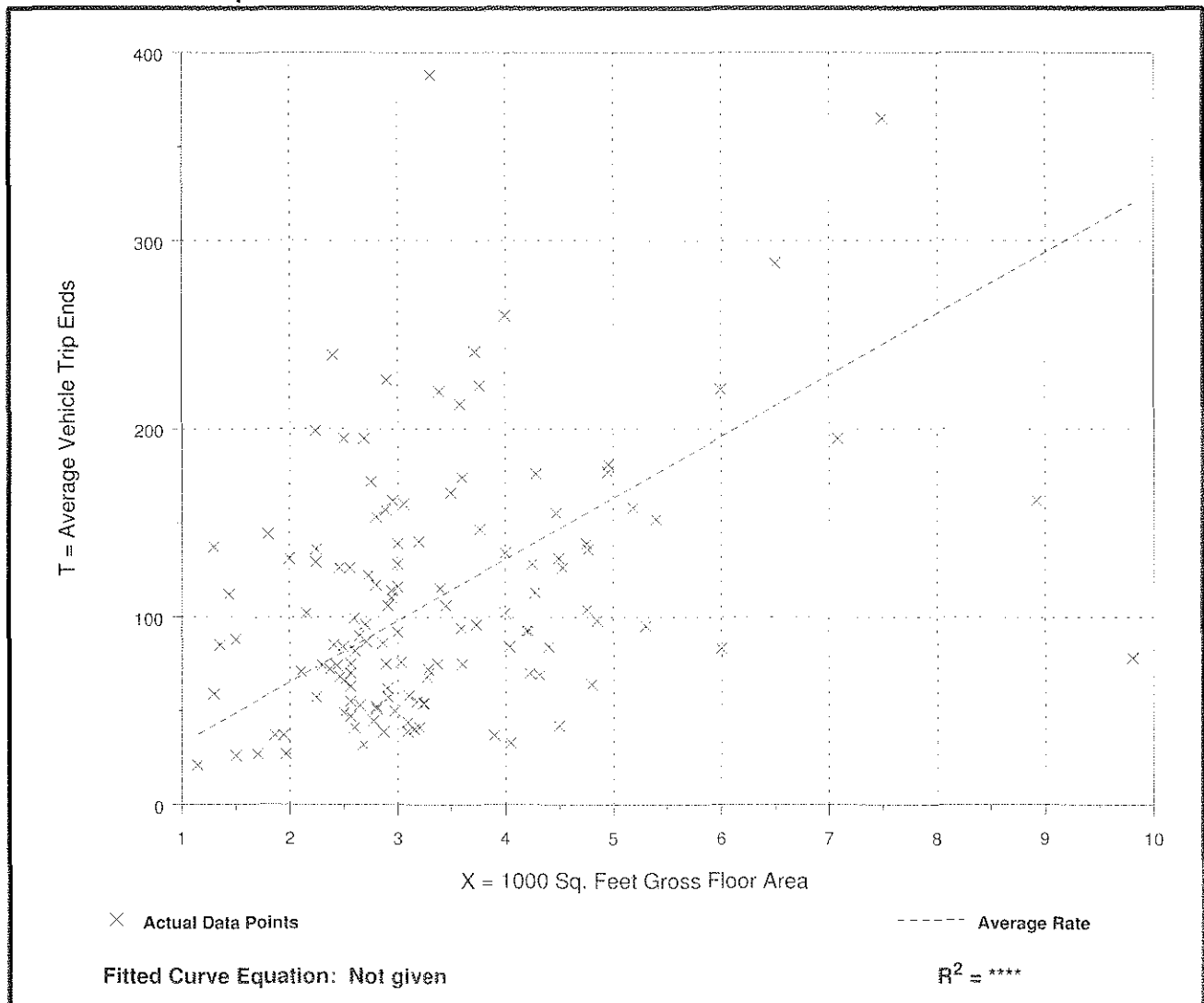
Average Vehicle Trip Ends vs: 1000 Sq. Feet Gross Floor Area  
On a: Weekday,  
Peak Hour of Adjacent Street Traffic,  
One Hour Between 4 and 6 p.m.

Number of Studies: 132  
Average 1000 Sq. Feet GFA: 3  
Directional Distribution: 52% entering, 48% exiting

## Trip Generation per 1000 Sq. Feet Gross Floor Area

Average Rate	Range of Rates	Standard Deviation
32.65	7.96 - 117.15	19.73

## Data Plot and Equation



# Fast-Food Restaurant with Drive-Through Window (934)

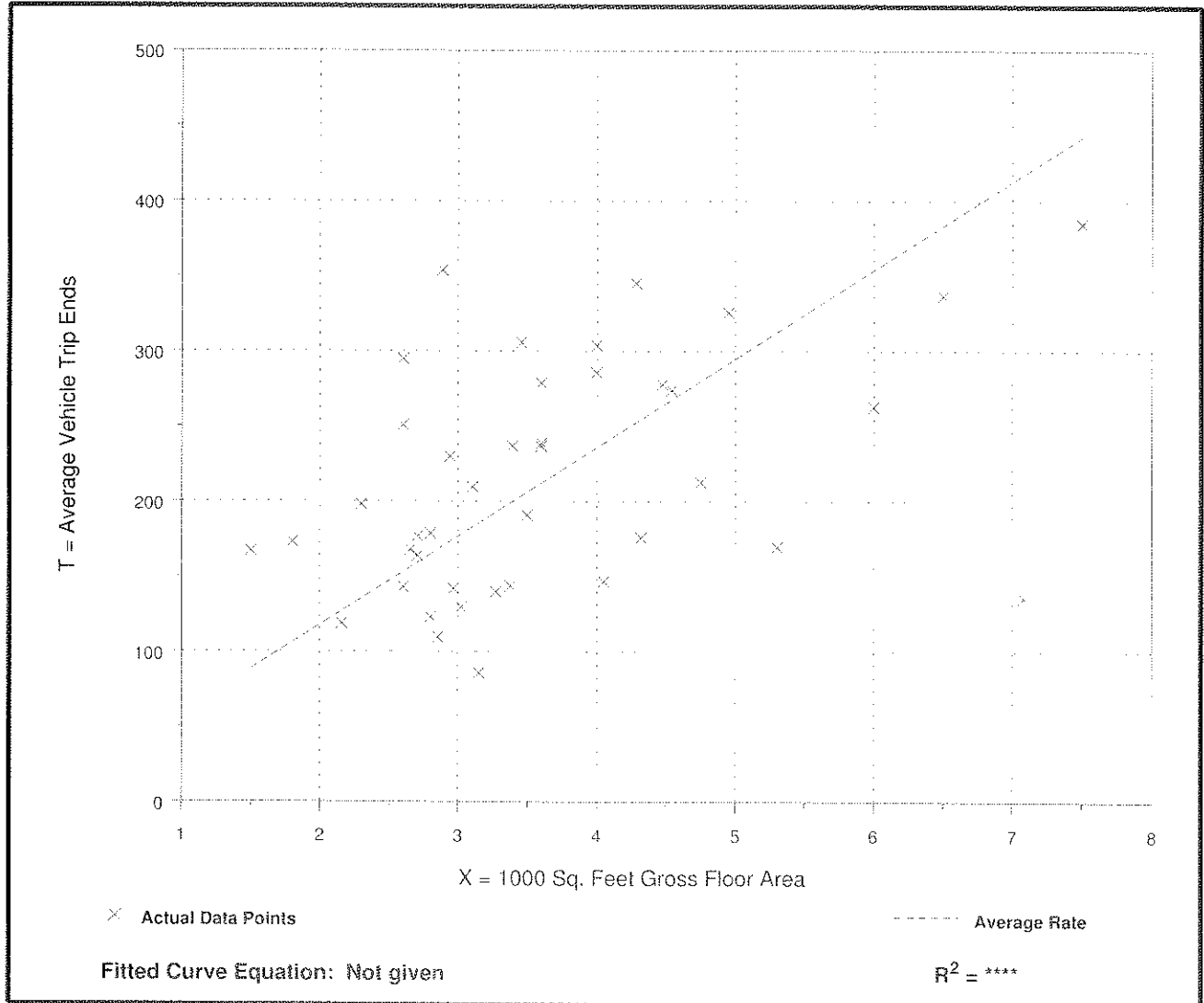
Average Vehicle Trip Ends vs: 1000 Sq. Feet Gross Floor Area  
On a: Saturday,  
Peak Hour of Generator

Number of Studies: 41  
Average 1000 Sq. Feet GFA: 4  
Directional Distribution: 51% entering, 49% exiting

## Trip Generation per 1000 Sq. Feet Gross Floor Area

Average Rate	Range of Rates	Standard Deviation
59.00	19.21 - 122.49	22.89

## Data Plot and Equation



# Fast-Food Restaurant with Drive-Through Window (934)

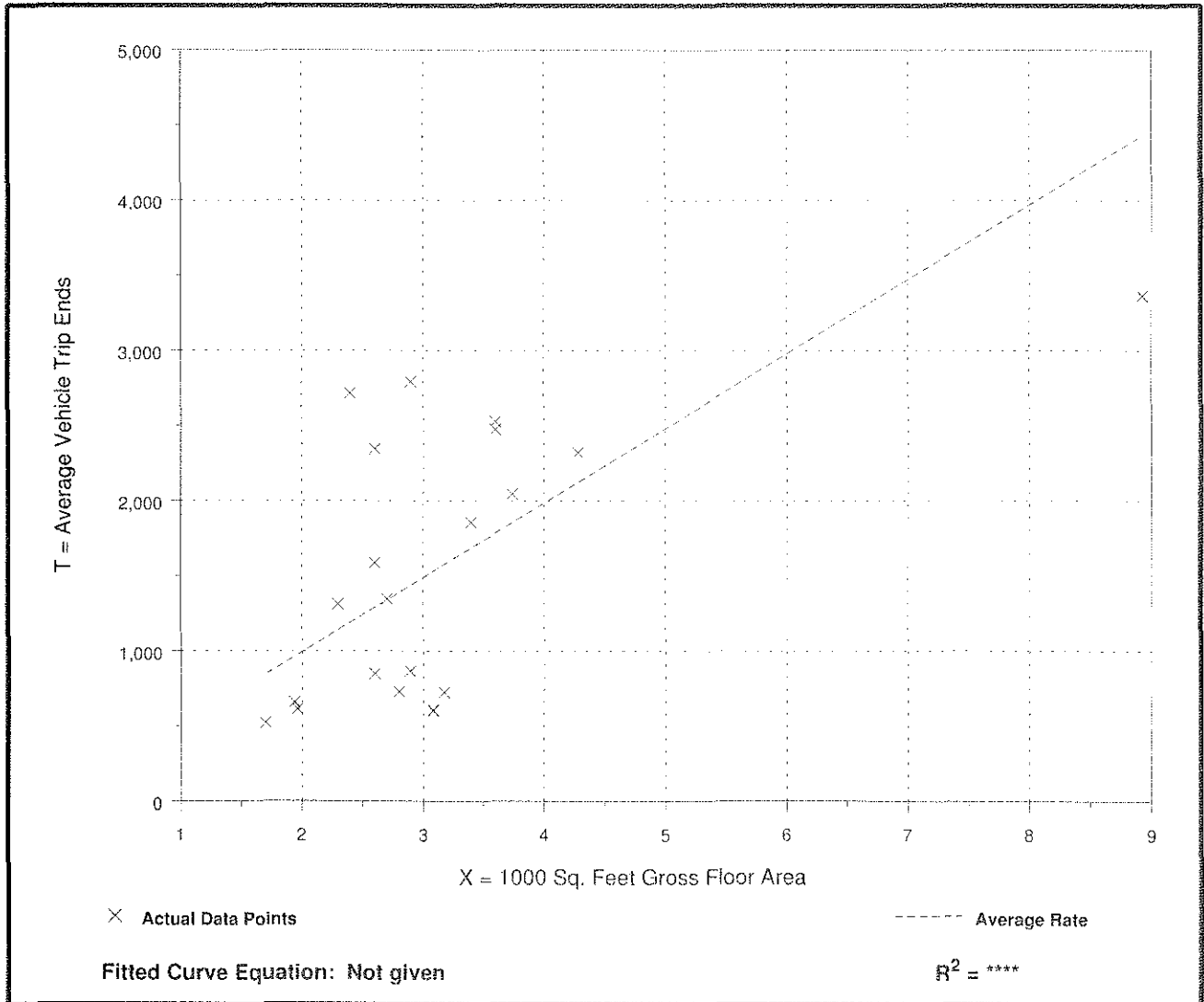
Average Vehicle Trip Ends vs: 1000 Sq. Feet Gross Floor Area  
On a: Weekday

Number of Studies: 21  
Average 1000 Sq. Feet GFA: 3  
Directional Distribution: 50% entering, 50% exiting

## Trip Generation per 1000 Sq. Feet Gross Floor Area

Average Rate	Range of Rates	Standard Deviation
496.12	195.98 - 1132.92	242.52

## Data Plot and Equation



## APPENDIX M

### Trip Generation Diagrams

1. Prairie Centre Site Generated Traffic
2. CVS Pharmacy
3. Alternate Development



**St Charles Prairie Centre**  
**Trip Generation Table - Site Generated Traffic**

(All trips generated using ITE's Trip Generation Manual, 9<sup>th</sup> ed.)

5/31/2016

Hampton, Lenzi, & Renwick, Inc., Elgin, IL

HLR Project: 16.0220.350

Analyst: HLR

AM Peak Hour Parcel	Land Use Type (ITE Code) ITE Land Use	Trip Generation Rate	Development Units	Number of Units, X	Total Trips, T	Directional Distribution		Trips	
						Entering %	Exiting %	Entering	Exiting
Residential Units	(220) Apartment	T=0.49X+3.73	Dwelling Units	609	302	20	80	60	242
Retail Units	(826) Specialty Retail Center	Ln(T)=0.61Ln(X)+2.24	1000 SF	83.325	139	62	38	86	53
Sit-down Restaurants	(932) High-turnover (Sit-down) Restaurant	10.81	1000 SF	26.200	283	55	45	156	127
Fast-food Restaurants	(934) Fast-food Restaurant w/Drive-through Window	45.42	1000 SF	6.950	316	51	49	161	155
<b>Total Trips:</b>								<b>463</b>	<b>577</b>
						15% Internal Capture:		(69)	(87)
<b>Total Trips at Development Driveways:</b>								<b>394</b>	<b>490</b>
						5% Pass-by Adjustment:		(17)	(14)
<b>TOTAL New Trips:</b>								<b>377</b>	<b>476</b>

Note: Pass-by reduction not applied to Residential Units in any time period studied.  
 Shopping Center (820) used for AM Peak Hour only for Retail Units. See report for explanation.

PM Peak Hour Parcel	Land Use Type (ITE Code) ITE Land Use	Trip Generation Rate	Development Units	Number of Units, X	Total Trips, T	Directional Distribution		Trips	
						Entering %	Exiting %	Entering	Exiting
Residential Units	(220) Apartment	T=0.55X+17.65	Dwelling Units	609	353	65	35	229	124
Retail Units	(826) Specialty Retail Center	T=2.40x+21.48	1000 SF	83.325	221	44	56	97	124
Sit-down Restaurants	(932) High-turnover (Sit-down) Restaurant	9.85	1000 SF	26.200	258	60	40	155	103
Fast-food Restaurants	(934) Fast-food Restaurant w/Drive-through Window	32.65	1000 SF	6.950	227	52	48	118	109
<b>Total Trips:</b>								<b>599</b>	<b>460</b>
						15% Internal Capture:		(90)	(69)
<b>Total Trips at Development Driveways:</b>								<b>509</b>	<b>391</b>
						5% Pass-by Adjustment:		(16)	(14)
<b>TOTAL New Trips:</b>								<b>493</b>	<b>377</b>

Saturday Peak Hour Parcel	Land Use Type (ITE Code) ITE Land Use	Trip Generation Rate	Development Units	Number of Units, X	Total Trips, T	Directional Distribution		Trips	
						Entering %	Exiting %	Entering	Exiting
Residential Units	(220) Apartment	0.52	Dwelling Units	609	317	50	50	159	158
Retail Units	(826) Specialty Retail Center	0.4204	1000 SF	83.325	35	50	50	18	17
Sit-down Restaurants	(932) High-turnover (Sit-down) Restaurant	14.07	1000 SF	26.200	369	53	47	196	173
Fast-food Restaurants	(934) Fast-food Restaurant w/Drive-through Window	59.00	1000 SF	6.950	410	51	49	209	201
<b>Total Trips:</b>								<b>582</b>	<b>549</b>
						15% Internal Capture:		(87)	(82)
<b>Total Trips at Development Driveways:</b>								<b>495</b>	<b>467</b>
						5% Pass-by Adjustment:		(18)	(17)
<b>TOTAL New Trips:</b>								<b>477</b>	<b>450</b>

Note: Specialty Retail Saturday Peak Hour Trip Generation Rate estimated as 10% of Saturday whole day rate.

Weekday Total Parcel	Land Use Type (ITE Code) ITE Land Use	Trip Generation Rate	Development Units	Number of Units, X	Total Trips, T	Directional Distribution		Trips	
						Entering %	Exiting %	Entering	Exiting
Residential Units	(220) Apartment	T=6.06x+123.56	Dwelling Units	609	3814	50	50	1907	1907
Retail Units	(826) Specialty Retail Center	44.32	1000 SF	83.325	3693	50	50	1847	1846
Sit-down Restaurants	(932) High-turnover (Sit-down) Restaurant	127.15	1000 SF	26.200	3331	50	50	1666	1665
Fast-food Restaurants	(934) Fast-food Restaurant w/Drive-through Window	496.12	1000 SF	6.950	3448	50	50	1724	1724
<b>Total Trips:</b>								<b>7144</b>	<b>7142</b>
						15% Internal Capture:		(1072)	(1071)
<b>Total Trips at Development Driveways:</b>								<b>6072</b>	<b>6071</b>
						5% Pass-by Adjustment:		(223)	(222)
<b>TOTAL New Trips:</b>								<b>5849</b>	<b>5849</b>

**St Charles Prairie Centre**  
**Trip Generation Table - CVS**

(All trips generated using ITE's Trip Generation Manual, 9<sup>th</sup> ed.)

6/7/2016

Hampton, Lenzini, & Renwick, Inc., Elgin, IL

HLR Project: 16.0220.350

Analyst: HLR

AM Peak Hour	Parcel	Land Use Type (ITE Code) ITE Land Use	Trip Generation Rate	Development Units	Number of Units, X	Total Trips, T	Directional Distribution		Trips	
							Entering %	Exiting %	Entering	Exiting
	CVS	(881) Pharmacy/Drugstore w/Drive-through Window	3.45	1000 SF	13.225	46	52	48	24	22
	CVS outlot	(826) Specialty Retail Center	6.84	1000 SF	4.620	32	48	52	15	17
<b>Total Trips:</b>									<b>39</b>	<b>39</b>
							10%	Pass-by Adjustment:	(4)	(4)
<b>TOTAL New Trips:</b>									<b>35</b>	<b>35</b>

PM Peak Hour	Parcel	Land Use Type (ITE Code) ITE Land Use	Trip Generation Rate	Development Units	Number of Units, X	Total Trips, T	Directional Distribution		Trips	
							Entering %	Exiting %	Entering	Exiting
	CVS	(881) Pharmacy/Drugstore w/Drive-through Window	9.91	1000 SF	13.225	131	50	50	66	65
	CVS outlot	(826) Specialty Retail Center	T=2.40x+21.48	1000 SF	4.620	33	44	56	15	18
<b>Total Trips:</b>									<b>81</b>	<b>83</b>
							10%	Pass-by Adjustment:	(8)	(8)
<b>TOTAL New Trips:</b>									<b>73</b>	<b>75</b>

Saturday Peak Hour	Parcel	Land Use Type (ITE Code) ITE Land Use	Trip Generation Rate	Development Units	Number of Units, X	Total Trips, T	Directional Distribution		Trips	
							Entering %	Exiting %	Entering	Exiting
	CVS	(881) Pharmacy/Drugstore w/Drive-through Window	8.20	1000 SF	13.225	108	49	51	53	55
	CVS outlot	(826) Specialty Retail Center	0.4204	1000 SF	4.620	2	50	50	1	1
<b>Total Trips:</b>									<b>54</b>	<b>56</b>
							10%	Pass-by Adjustment:	(5)	(6)
<b>TOTAL New Trips:</b>									<b>49</b>	<b>50</b>

Note: Specialty Retail Saturday Peak Hour Trip Generation Rate estimated as 10% of Saturday whole day rate.

Weekday Total	Parcel	Land Use Type (ITE Code) ITE Land Use	Trip Generation Rate	Development Units	Number of Units, X	Total Trips, T	Directional Distribution		Trips	
							Entering %	Exiting %	Entering	Exiting
	CVS	(881) Pharmacy/Drugstore w/Drive-through Window	96.91	1000 SF	13.225	1282	50	50	641	641
	CVS outlot	(826) Specialty Retail Center	44.32	1000 SF	4.620	205	50	50	103	102
<b>Total Trips:</b>									<b>744</b>	<b>743</b>
							10%	Pass-by Adjustment:	(74)	(74)
<b>TOTAL New Trips:</b>									<b>670</b>	<b>669</b>

**St Charles Prairie Centre  
Trip Generation Table - Alternate Development**

(All trips generated using ITE's Trip Generation Manual, 9<sup>th</sup> ed.)

8/2/2016

Hampton, Lenzini, & Renwick, Inc., Elgin, IL

HLR Project: 16.0220.350

Analyst: HLR

AM Peak Hour	Parcel	Land Use Type (ITE Code) ITE Land Use	Trip Generation Rate	Development Units	Number of Units, X	Total Trips, T	Directional Distribution		Trips	
							Entering %	Exiting %	Entering	Exiting
	Prairie Centre Site	(820) Shopping Center	$\ln(T)=0.61\ln(X)+2.24$	1000 SF	626.479	477	62	38	296	181
<b>Total Trips:</b>									<b>296</b>	<b>181</b>
							20%	Pass-by Adjustment:	(59)	(36)
<b>TOTAL New Trips:</b>									<b>237</b>	<b>145</b>

PM Peak Hour	Parcel	Land Use Type (ITE Code) ITE Land Use	Trip Generation Rate	Development Units	Number of Units, X	Total Trips, T	Directional Distribution		Trips	
							Entering %	Exiting %	Entering	Exiting
	Prairie Centre Site	(820) Shopping Center	$\ln(T)=0.67\ln(X)+3.31$	1000 SF	626.479	2049	48	52	983	1066
<b>Total Trips:</b>									<b>983</b>	<b>1066</b>
							20%	Pass-by Adjustment:	(197)	(213)
<b>TOTAL New Trips:</b>									<b>786</b>	<b>853</b>

Saturday Peak Hour	Parcel	Land Use Type (ITE Code) ITE Land Use	Trip Generation Rate	Development Units	Number of Units, X	Total Trips, T	Directional Distribution		Trips	
							Entering %	Exiting %	Entering	Exiting
	Prairie Centre Site	(820) Shopping Center	$\ln(T)=0.65\ln(X)+3.78$	1000 SF	626.479	2882	52	48	1498	1384
<b>Total Trips:</b>									<b>1498</b>	<b>1384</b>
							20%	Pass-by Adjustment:	(300)	(277)
<b>TOTAL New Trips:</b>									<b>1198</b>	<b>1107</b>

Weekday Total	Parcel	Land Use Type (ITE Code) ITE Land Use	Trip Generation Rate	Development Units	Number of Units, X	Total Trips, T	Directional Distribution		Trips	
							Entering %	Exiting %	Entering	Exiting
	Prairie Centre Site	(820) Shopping Center	$\ln(T)=0.65\ln(X)+5.83$	1000 SF	626.479	22383	50	50	11192	11191
<b>Total Trips:</b>									<b>11192</b>	<b>11191</b>
							20%	Pass-by Adjustment:	(2238)	(2238)
<b>TOTAL New Trips:</b>									<b>8954</b>	<b>8953</b>

## APPENDIX N

### ITE Trip Generation Handbook

#### Chapter 7

#### Multi-use Development

# Multi-Use Development

## 7.1 Background

A basic premise behind the data presented in *Trip Generation* is that they were collected at single-use, free-standing sites. However, the development of mixed-use or multi-use sites is increasingly popular. While the trip generation rates for individual uses on such sites may be the same or similar to what they are for free-standing sites, there is potential for interaction among those uses within the multi-use site, particularly where the trip can be made by walking. As a result, the total generation of vehicle trips entering and exiting the multi-use site may be reduced from simply a sum of the individual, discrete trips generated by each land use.

A common example of this internal trip-making occurs at a multi-use development containing offices and a shopping/service area. Some of the trips made by office workers to shops, to restaurants, or to banks may occur on site. These types of trips are defined as internal to (i.e., "captured" within) the multi-use site.

## 7.2 What Is a Multi-Use Development?

For purposes of this handbook, a *multi-use development is typically a single real-estate project that consists of two or more ITE land use classifications between which trips can be made without using the off-site road system*. Because of the nature of these land uses, the

trip-making characteristics are interrelated, and some trips are made among the on-site uses. This capture of trips internal to the site has the net effect of reducing vehicle trip generation between the overall development site and the external street system (compared to the total number of trips generated by comparable, stand-alone sites).

Multi-use developments are commonly found *ranging in size from 100,000 square feet to 2 million square feet*. The data presented in this chapter correspond to multi-use developments in this size range. The recommended procedures for estimating trip generation at multi-use developments are likely applicable at even larger sites, but the analyst is encouraged to collect additional data.

A key characteristic of a multi-use development is that trips among the various land uses can be made on site and these *internal trips are not made on the major street system*. In some multi-use developments, these internal trips can be made either by walking or by vehicle entirely on internal pathways or internal roadways without using streets external to the site.

An *internal capture rate* can generally be defined as a percentage reduction that can be applied to the trip generation estimates for individual land uses to account for trips internal to the site. It is important to note that these reductions are applied externally to the site (i.e., at entrances, at adjacent intersections,

### Multi-Use Development

- ◆ typically planned as a single real-estate project,
- ◆ typically between 100,000 and 2 million square feet in size,
- ◆ contains two or more land uses,
- ◆ some trips are between on-site land uses, and
- ◆ trips between land uses do not travel on major street system.

### Not

- ◆ a central business district,
- ◆ a suburban activity center, or
- ◆ an existing ITE land use classification with potential for a mix of land uses, such as
  - a shopping center,
  - an office park with retail,
  - an office building with retail, or
  - a hotel with limited retail and restaurant space.

and on adjacent roadways). The trip reduction for internally captured trips is separate from the reduction for *pass-by trips*. These are two distinct phenomena, and both could be applicable for a proposed development. The internal trips, if present, should be subtracted out *before* pass-by trip reductions are applied (refer to chapter 5 for a complete discussion of pass-by trip estimation).

### 7.3 What Is Not a Multi-Use Development?

In literal terms, a multi-use development could mean any combination of different land use types within a defined, congruous area. But that definition would encompass a wide range of potential applications, many of which are not intended to be the focus of this chapter.

A traditional **downtown or central business district (CBD)** is not considered a multi-use development for purposes of this handbook. Downtown areas typically have a mixture of diverse employment, retail, residential, commercial, recreation, and hotel uses. Extensive pedestrian interaction occurs because of the scale of the downtown area, the ease of access, and the proximity of the various uses. Automobile occupancy, particularly during peak commuting hours, is usually higher in the CBD than in the outlying areas. Some downtowns have excellent transit service. For these reasons, trip generation characteristics in a downtown environment are different from those found in outlying or suburban areas. The focus of the data presented throughout *Trip Generation* is on sites in suburban settings with limited or no transit service and with free parking. *Accordingly, trip generation characteristics in this chapter, and specifically in the case of capture rates at multi-use developments, are directly applicable only to sites outside the traditional downtown.* The potential effects of transit service and on site parking fees are discussed in appendix B.

A shopping center could also be considered a multi-use development. However, because data have been collected directly for them, shopping centers are considered in *Trip Generation* as a single land use. The associated trip generation rates and equations given in *Trip Generation* reflect the “multi-use” nature of the development because of the way shopping center data have been collected. *Accordingly, internal capture rates are not applicable and should not be used to forecast trips for shopping centers if using Land Use Code 820 statistics and data.* However, if the shopping center is planned to have out-parcel development of a significantly different land use classification or a very large percentage of overall GLA, the site could be considered a multi-use development for the purpose of estimating site trip generation.

Likewise, a subdivision or planned unit development containing general office buildings and support services such as banks, restaurants, and service stations arranged in a park- or campus-like atmosphere should be considered as an **office park** (Land Use Code 750), not as a multi-use development. Similarly, office buildings with support retail or restaurant facilities contained inside the building should be treated as **general office buildings** (Land Use Code 710) because the trip generation rates and equations already reflect such support uses. A hotel with an on-site restaurant and small retail falls within Land Use Code 310 and should not be treated as a multi-use development.

### 7.4 Methodology for Estimating Trip Generation at Multi-Use Sites

Internally captured trips can be a significant component in the travel patterns at multi-use developments. However, more studies are needed to thoroughly quantify this phenomenon. Section 7.5 presents a recommended procedure for estimating internal capture rates (and a worksheet for organizing and documenting the analysis assumptions used in the estimation of the internal capture rates) for multi-use development sites.

The internal trip-making characteristics of multi-use development sites are directly related to the mix of on-site land uses (which are typically a combination of residential, office, shopping/retail, restaurant, entertainment, and hotel/motel). When combined within a single mixed-use development, these land uses tend to interact, and thus to attract a portion of each other's trip generation.

The recommended methodology for estimating internal capture rates and trip generation at multi-use sites is based on two fundamental assumptions. First, the proportions of trips between interacting land use types (which will be satisfied internally by pairs of land uses) are assumed to be relatively stable. Second, if sufficient data were available, these internal capture percentages could be predicted with adequate confidence. The need for additional data collection at multi-use developments is described in section 7.7.

As should be expected, the observed internal capture rates for multi-use developments vary by time of day, by the site's mix of land uses, and by the size of the development.

Several premises frame the recommended methodology. An example to illustrate their application is presented in the highlighted text to the side. Key to the success of this methodology in replicating internal capture patterns at multi-use sites is its iterative, balancing steps that constrain internal trip-making levels to what are realistic given the mix of land uses.

### ***Illustration of Methodology Overview***

**Assume a multi-use development with a mix of office, retail, and residential uses. Assume that the office building generates 500 exiting trips during the evening peak hour (based on factors presented in *Trip Generation*).**

**Based on surveys at other multi-use developments (for illustration purposes), it is estimated that the 500 peak hour trips could go to the following destinations: 5 trips to another office building within the development, 115 trips to a retail site within the development, 10 trips to residential units on-site, and 370 to external sites (as illustrated in figure 7.1a).**

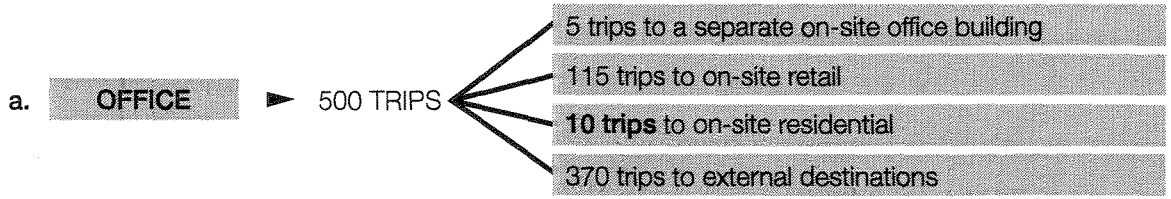
***What if there are no on-site residential units?* The number of trips from the office to an internal residential destination changes to zero and the number of trips to external destinations becomes 380 (i.e., the total trips from the office building remains constant at 500).**

***What if there are a large number of on-site residences?* Assume the residential uses generate 1,000 entering trips during the evening peak hour. As illustrated in figure 7.1b, the trips are assumed to originate as follows: 20 trips from an on-site office building, 310 trips from on-site retail, no trips from another on-site residential component, and 670 trips from external origins.**

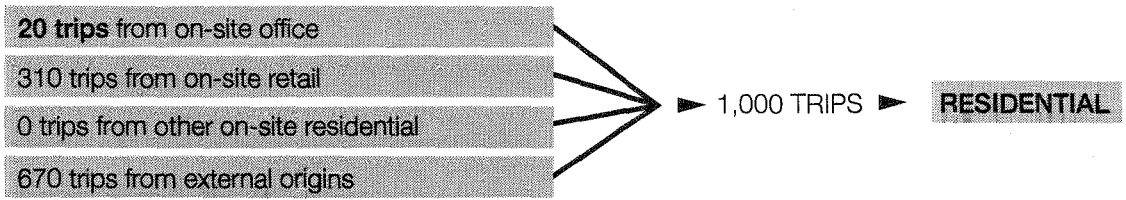
**With the larger number of residences, as many as 20 trips could come from on-site office buildings. But the actual on-site office buildings generate only 10 trips to the on-site residential land use. So, 10 trips would be expected from on-site office to on-site residential in figure 7.1c. The key assumption is that the "balanced" number of internal trips will match the controlling (i.e., lower) value.**

**Figure 7.1 Illustration of Internal Trip Balancing for a Multi-Use Development**

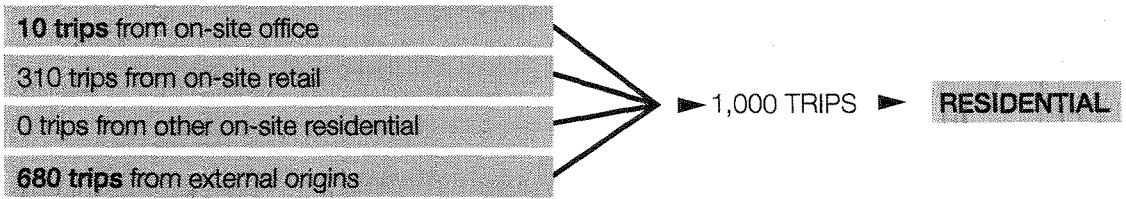
**DISTRIBUTION OF POTENTIAL DESTINATIONS OF TRIPS FROM OFFICE USE**



**b. DISTRIBUTION OF POTENTIAL ORIGINS OF TRIPS TO RESIDENTIAL USE**



**c. BALANCED<sup>1</sup> DISTRIBUTION OF ORIGINS OF TRIPS TO RESIDENTIAL USE**



<sup>1</sup> Only the office-to-residential values have been “balanced.” Each other pair of land uses would likewise need to be balanced.

**Premise 1:** The distribution of trip purposes among motorists entering or exiting a development site is relatively stable. The distribution of destination land uses is likewise assumed to be relatively stable. For example, the destinations of trips from an office building are distributed among the many potential destinations (e.g., retail, residential, other office) in roughly the same pattern whether the office is stand-alone or in a multi-use development.

**Premise 2:** The converse of Premise 1 is also true, that the distribution of origins for trips to a particular land use is relatively stable.

**Premise 3:** The number of trips from a land use within a multi-use development to another land use within the same multi-use development (i.e., an internal trip) is a function of the size of the “receiving” land use and the number of trips it attracts as well as the size of

the “originating” land use and the number of trips it sends. *The number of trips between a particular pair of internal land uses is limited to the smaller of these two values.*



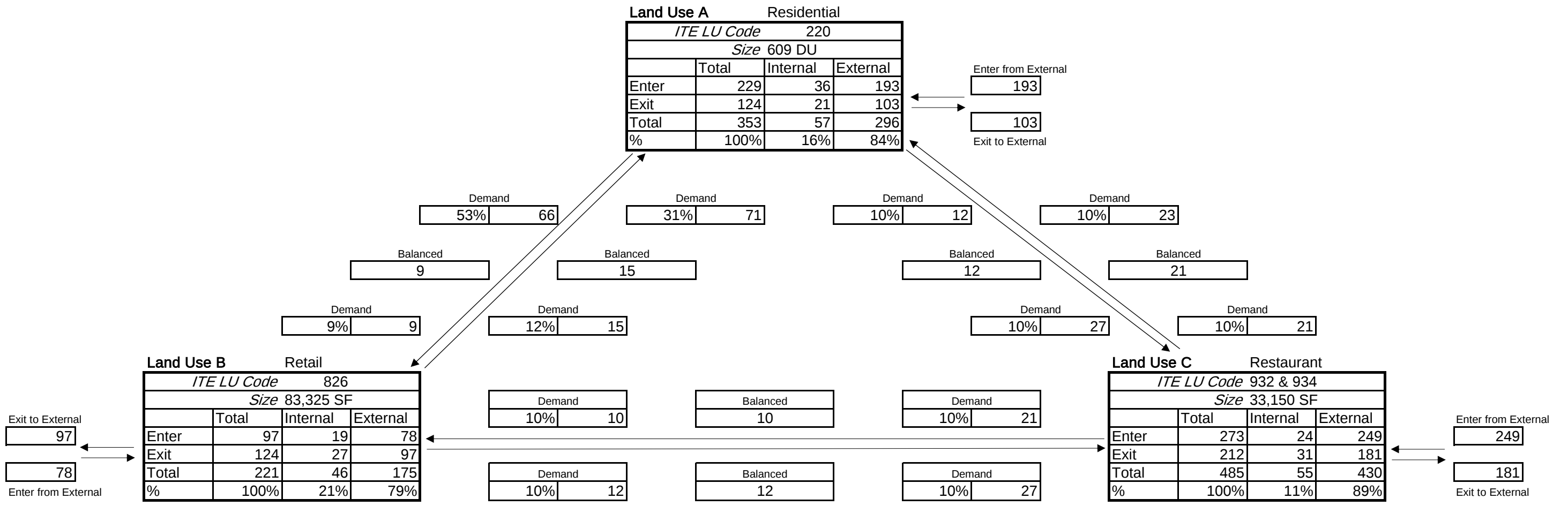
APPENDIX O

Internal Capture Diagram

**St Charles Prairie Centre**  
**Internal Capture - Weekday PM Peak**  
 (All trips generated using ITE's Trip Generation Manual, 9<sup>th</sup> ed.)

6/8/2016

Hampton, Lenzini, & Renwick, Inc., Elgin, IL  
 HLR Project: 16.0220.350  
 Analyst: HLR



## APPENDIX P

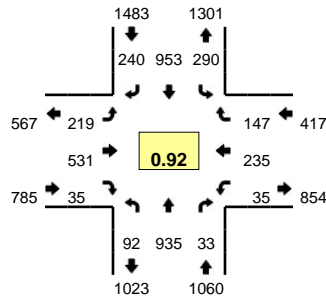
### Traffic Counts

Weekday AM, Weekday PM, & Saturday Peak Hours

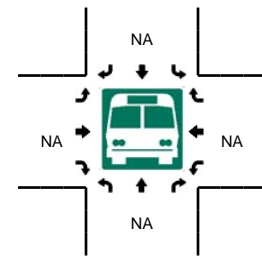
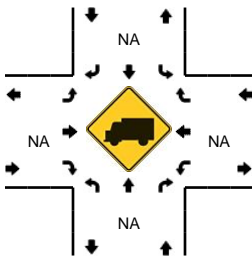
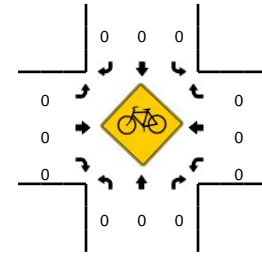
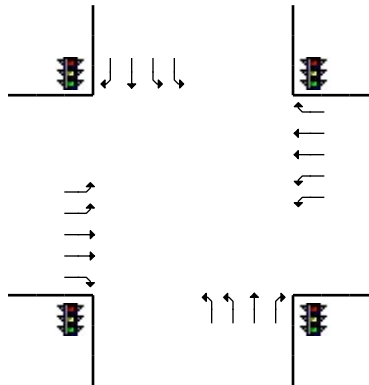
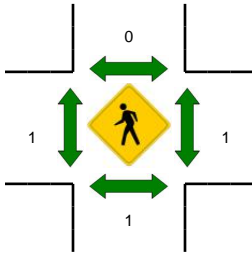
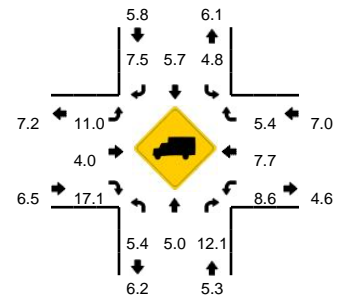
1. IL Route 38 & Randall Road
2. IL Route 38 & Jewel Driveway
3. IL Route 38 & West Mall Entrance
4. IL Route 38 & East Mall Entrance/Vanderbilt Drive
5. IL Route 38 & 14<sup>th</sup> Street/Bricher Road
6. Randall Road & Prairie Street
7. Prairie Street & Jewel Driveway
8. Prairie Street & West Mall Entrance
9. Prairie Street & East Mall Entrance
10. Prairie Street & Covington Court/Wessel Court
11. Prairie Street & 16th Street
12. Prairie Street & 14th Street
13. Prairie Street & 7th Street
14. Prairie Street & 3<sup>rd</sup> Street
15. 14<sup>th</sup> Street & Vanderbilt Drive
16. 14<sup>th</sup> Street & Covington Court/Horne Street

**LOCATION:** Randall Rd -- IL 38  
**CITY/STATE:** Saint Charles, IL

**QC JOB #:** 13714001  
**DATE:** Tue, Apr 12 2016



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**Peak 15-Min: 7:45 AM -- 8:00 AM**

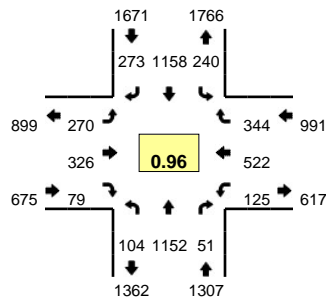


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6:00 AM	5	106	4	0	28	102	18	0	38	52	6	0	2	19	14	0	394	
6:15 AM	7	141	3	0	50	162	26	0	34	93	8	0	1	25	27	0	577	
6:30 AM	15	170	2	0	74	181	28	0	52	115	9	0	5	34	28	0	713	
6:45 AM	12	189	4	0	55	210	30	0	42	119	8	0	6	31	26	0	732	2416
7:00 AM	11	177	6	0	60	199	38	0	44	168	7	0	6	45	35	0	796	2818
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7:30 AM	17	235	7	0	68	224	54	0	54	139	11	0	14	64	37	0	924	3388
7:45 AM	37	237	13	0	80	257	68	0	65	124	11	0	7	86	37	0	1022	3678
8:00 AM	19	218	5	0	61	217	66	0	55	119	9	0	10	43	41	0	863	3745
8:15 AM	28	196	4	0	70	202	100	0	48	120	21	0	9	61	31	0	890	3699
8:30 AM	24	227	7	0	56	192	63	0	56	101	11	0	10	57	53	0	857	3632
8:45 AM	35	220	7	0	86	216	88	0	64	112	14	0	13	77	56	1	989	3599
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	148	948	52	0	320	1028	272	0	260	496	44	0	28	344	148	0	4088	
Heavy Trucks	0	60	4		8	40	12		32	32	12		4	8	12		224	
Pedestrians	0	0	0		0	0	0		0	0	0		0	0	0		0	
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0	
Railroad																		
Stopped Buses																		

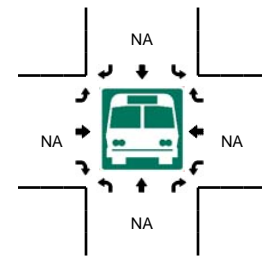
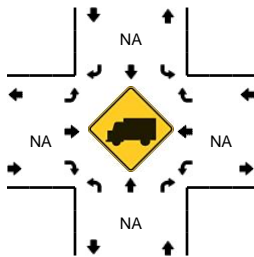
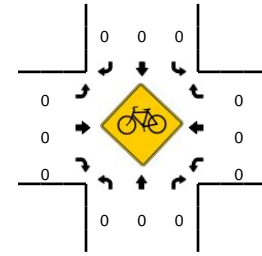
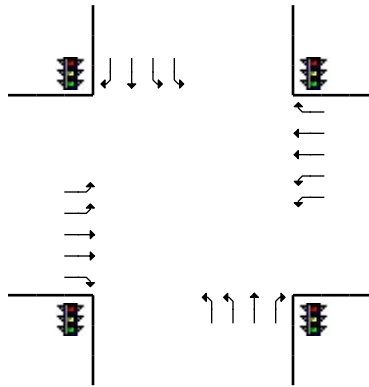
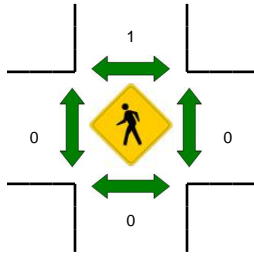
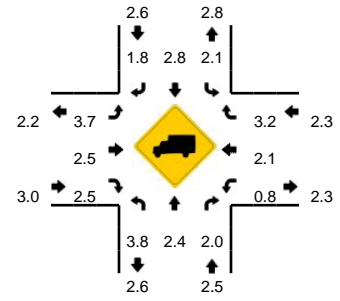
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**CITY/STATE:** Saint Charles, IL

**QC JOB #:** 13714003  
**DATE:** Tue, Apr 12 2016



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**Peak 15-Min: 4:30 PM -- 4:45 PM**

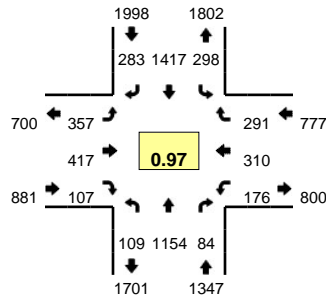


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3:45 PM	16	292	18	0	33	295	62	0	62	76	24	0	24	81	60	0	1043	
4:00 PM	14	299	24	0	61	281	79	0	61	81	24	0	31	101	70	0	1126	
4:15 PM	26	334	10	0	66	290	73	0	64	84	20	0	30	105	69	0	1171	4419
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4:45 PM	33	306	15	0	61	300	76	0	62	85	16	0	24	148	86	0	1212	4721
5:00 PM	22	322	8	0	54	305	70	0	68	67	16	0	43	109	88	0	1172	4767
5:15 PM	23	245	15	0	64	223	47	0	59	90	17	0	25	146	94	0	1048	4644
5:30 PM	17	317	17	0	54	313	68	0	56	66	15	0	33	124	86	0	1166	4598
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6:00 PM	24	211	9	1	59	261	60	0	52	42	15	0	23	105	83	0	945	4171
6:15 PM	24	233	10	0	51	243	56	0	49	59	13	0	32	97	63	0	930	4053
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
All Vehicles	104	1116	52	0	244	1320	320	0	324	336	120	0	132	476	304	0	4848	
Heavy Trucks	0	32	0		4	44	8		16	12	0		0	8	12		136	
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Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0	
Railroad																		
Stopped Buses																		

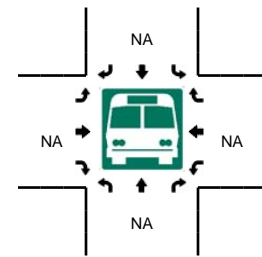
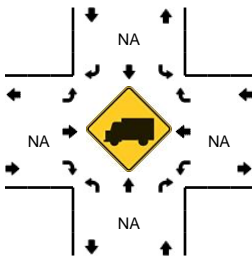
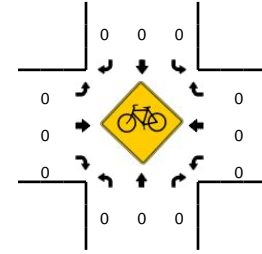
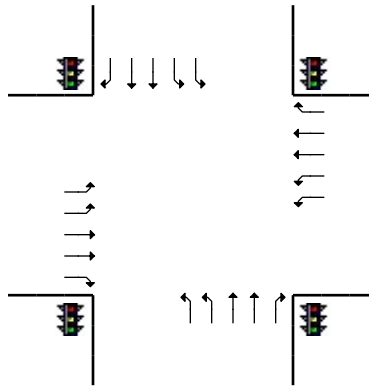
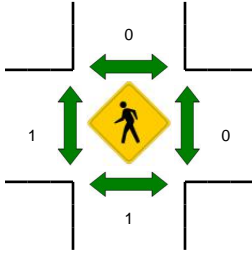
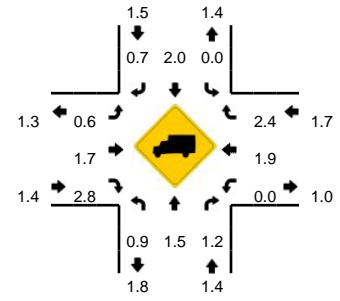
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**CITY/STATE:** Saint Charles, IL

**QC JOB #:** 13714046  
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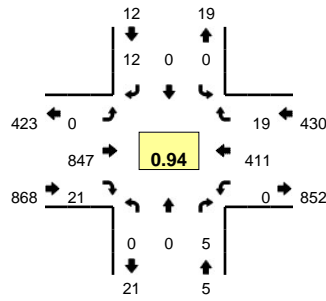


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11:30 AM	17	282	28	0	74	379	70	0	100	111	28	0	51	69	76	0	1285	
11:45 AM	29	301	21	0	86	332	69	0	87	116	34	0	39	84	82	0	1280	4983
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12:15 PM	33	261	26	1	74	351	70	0	84	91	31	0	59	81	60	0	1222	5033
12:30 PM	21	306	12	0	76	358	61	0	78	92	36	0	50	73	67	0	1230	4978
12:45 PM	27	299	23	0	74	346	68	0	79	117	46	0	55	65	65	0	1264	4962
1:00 PM	27	304	36	1	57	336	58	0	70	91	32	0	52	88	79	0	1231	4947
1:15 PM	26	296	27	0	55	382	74	1	89	84	22	0	56	77	70	0	1259	4984
1:30 PM	26	291	23	0	59	348	49	0	73	119	15	0	54	71	59	0	1187	4941
1:45 PM	27	329	32	1	59	344	60	0	75	86	27	1	55	85	54	0	1235	4912
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	68	1128	112	0	296	1516	280	0	400	444	112	0	204	276	304	0	5140	
Heavy Trucks	4	28	0		0	24	8		0	12	0		0	4	12		92	
Pedestrians		4				0				0				0			4	
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0	
Railroad																		
Stopped Buses																		

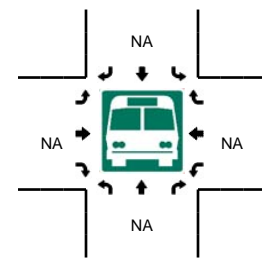
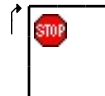
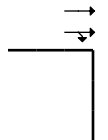
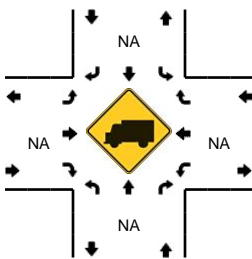
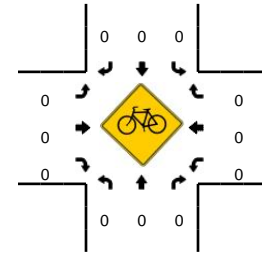
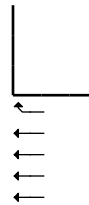
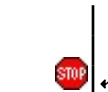
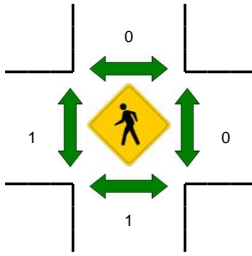
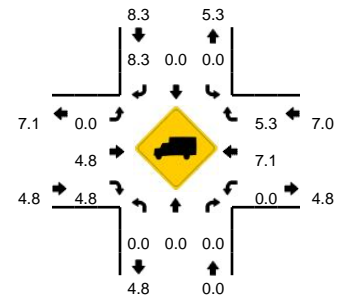
Comments:

**LOCATION:** Jewel Dwy -- IL 38  
**CITY/STATE:** Saint Charles, IL

**QC JOB #:** 13714004  
**DATE:** Tue, Apr 12 2016



**Peak-Hour: 7:15 AM -- 8:15 AM**  
**Peak 15-Min: 7:45 AM -- 8:00 AM**



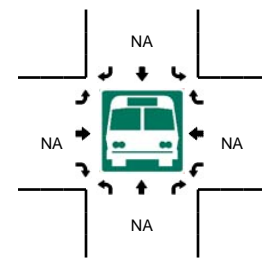
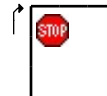
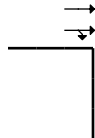
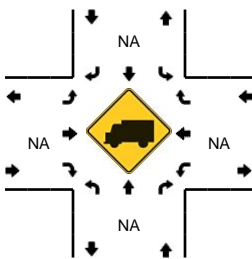
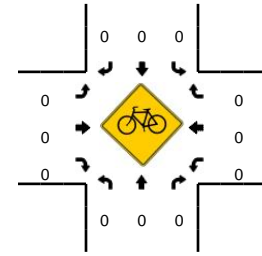
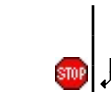
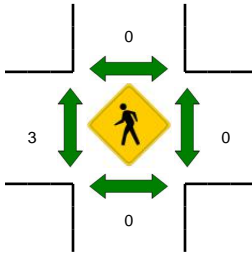
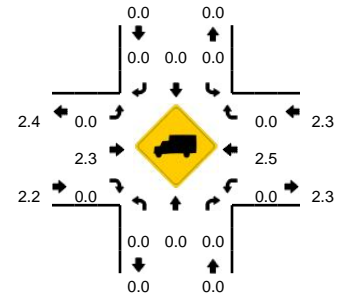
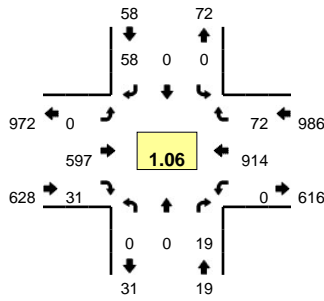
15-Min Count Period Beginning At	Jewel Dwy (Northbound)				Jewel Dwy (Southbound)				IL 38 (Eastbound)				IL 38 (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
6:00 AM	0	0	0	0	0	0	2	0	0	88	2	0	0	34	1	0	127	
6:15 AM	0	0	1	0	0	0	1	0	0	152	1	0	0	50	2	0	207	
6:30 AM	0	0	0	0	0	0	1	0	0	197	2	0	0	68	3	0	271	
6:45 AM	0	0	0	0	0	0	1	0	0	188	3	0	0	69	2	0	263	868
7:00 AM	0	0	2	0	0	0	2	0	0	228	5	0	0	77	4	0	318	1059
7:15 AM	0	0	1	0	0	0	0	0	0	237	9	0	0	89	2	0	338	1190
7:30 AM	0	0	2	0	0	0	3	0	0	213	1	0	0	110	3	0	332	1251
7:45 AM	0	0	1	0	0	0	4	0	0	215	6	0	0	121	3	0	350	1338
8:00 AM	0	0	1	0	0	0	5	0	0	182	5	0	0	91	11	0	295	1315
8:15 AM	0	0	1	0	0	0	7	0	0	197	3	0	0	89	5	0	302	1279
8:30 AM	0	0	1	0	0	0	2	0	0	163	5	0	0	122	3	0	296	1243
8:45 AM	0	0	3	0	0	0	5	0	0	207	4	0	0	138	1	0	358	1251
<b>Peak 15-Min Flowrates</b>	<b>Northbound</b>				<b>Southbound</b>				<b>Eastbound</b>				<b>Westbound</b>				<b>Total</b>	
All Vehicles	0	0	4	0	0	0	16	0	0	860	24	0	0	484	12	0	1400	
Heavy Trucks	0	0	0		0	0	0		0	52	4		0	32	0		88	
Pedestrians	0	0	0		0	0	0		0	0	0		0	0	0		0	
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0	
Railroad																		
Stopped Buses																		

Comments:

**LOCATION:** Jewel Dwy -- IL 38  
**CITY/STATE:** Saint Charles, IL

**QC JOB #:** 13714006  
**DATE:** Tue, Apr 12 2016

**Peak-Hour: 4:30 PM -- 5:30 PM**  
**Peak 15-Min: 4:30 PM -- 4:45 PM**



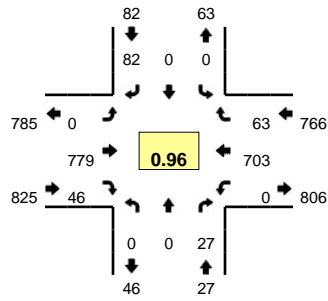
15-Min Count Period Beginning At	Jewel Dwy (Northbound)				Jewel Dwy (Southbound)				IL 38 (Eastbound)				IL 38 (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
3:30 PM	0	0	3	0	0	0	13	0	0	140	8	0	0	197	8	0	369	
3:45 PM	0	0	5	0	0	0	10	0	0	126	4	0	0	176	13	0	334	
4:00 PM	0	0	2	0	0	0	10	0	0	167	8	0	0	174	17	0	378	
4:15 PM	0	0	7	0	0	0	13	0	0	149	16	0	0	211	19	0	415	1496
4:30 PM	0	0	4	0	0	0	12	0	0	145	8	0	0	211	18	0	398	1525
4:45 PM	0	0	6	0	0	0	20	0	0	162	9	0	0	230	17	0	444	1635
5:00 PM	0	0	5	0	0	0	14	0	0	120	10	0	0	234	19	0	402	1659
5:15 PM	0	0	4	0	0	0	12	0	0	170	4	0	0	239	18	0	447	1691
5:30 PM	0	0	4	0	0	0	15	0	0	132	6	0	0	241	15	0	413	1706
5:45 PM	0	0	4	0	0	0	22	0	0	139	6	0	0	222	14	0	407	1669
6:00 PM	0	0	6	0	0	0	8	0	0	104	7	0	0	207	20	0	352	1619
6:15 PM	0	0	6	0	0	0	14	0	0	114	6	0	0	180	16	0	336	1508
<b>Peak 15-Min Flowrates</b>	<b>Northbound</b>				<b>Southbound</b>				<b>Eastbound</b>				<b>Westbound</b>				<b>Total</b>	
All Vehicles	0	0	16	0	0	0	48	0	0	580	32	0	0	844	72	0	1592	
Heavy Trucks	0	0	0		0	0	0		0	16	0		0	20	0		36	
Pedestrians	0	0	0		0	0	0		0	12	0		0	0	0		12	
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0	
Railroad																		
Stopped Buses																		

Comments:

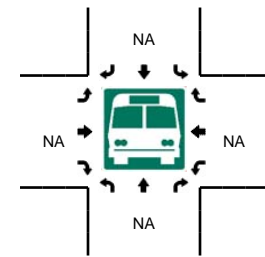
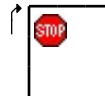
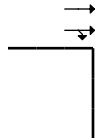
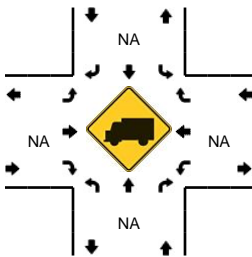
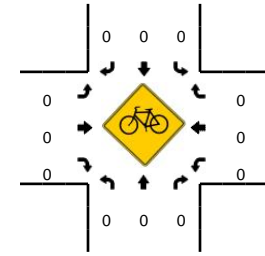
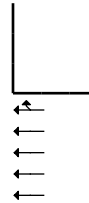
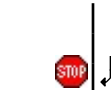
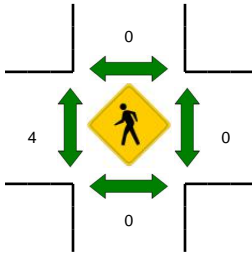
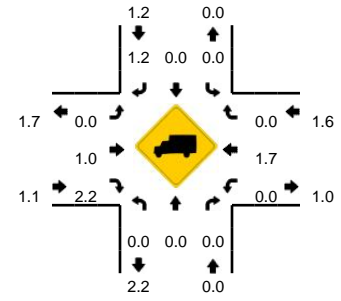


**LOCATION:** Jewel Dwy -- IL 38  
**CITY/STATE:** Saint Charles, IL

**QC JOB #:** 13714047  
**DATE:** Sat, May 07 2016



**Peak-Hour: 11:15 AM -- 12:15 PM**  
**Peak 15-Min: 11:30 AM -- 11:45 AM**

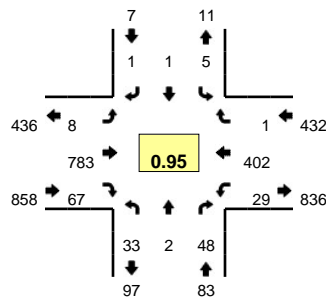


15-Min Count Period Beginning At	Jewel Dwy (Northbound)				Jewel Dwy (Southbound)				IL 38 (Eastbound)				IL 38 (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
11:00 AM	0	0	8	0	0	0	20	0	0	185	12	0	0	178	16	0	419	
11:15 AM	0	0	6	0	0	0	21	0	0	193	9	0	0	170	16	0	415	
11:30 AM	0	0	4	0	0	0	21	0	0	207	11	0	0	182	19	0	444	
11:45 AM	0	0	8	0	0	0	18	0	0	209	16	0	0	178	11	0	440	1718
12:00 PM	0	0	9	0	0	0	22	0	0	170	10	0	0	173	17	0	401	1700
12:15 PM	0	0	5	0	0	0	15	0	0	165	19	0	0	184	14	0	402	1687
12:30 PM	0	0	6	0	0	0	21	0	0	169	14	0	0	169	14	0	393	1636
12:45 PM	0	0	1	0	0	0	18	0	0	197	12	0	0	169	16	0	413	1609
1:00 PM	0	0	11	0	0	0	28	0	0	183	7	0	0	188	13	0	430	1638
1:15 PM	0	0	4	0	0	0	12	0	0	160	7	0	0	197	11	0	391	1627
1:30 PM	0	0	5	0	0	0	22	0	0	194	11	0	0	170	23	0	425	1659
1:45 PM	0	0	2	0	0	0	21	0	0	170	11	0	0	181	7	0	392	1638
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	0	0	16	0	0	0	84	0	0	828	44	0	0	728	76	0	1776	
Heavy Trucks	0	0	0		0	0	0		0	12	0		0	16	0		28	
Pedestrians	0				0				4				0				4	
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0	
Railroad																	0	
Stopped Buses																		

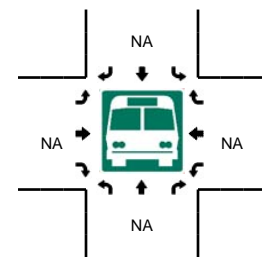
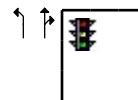
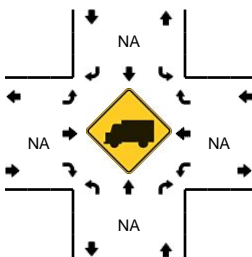
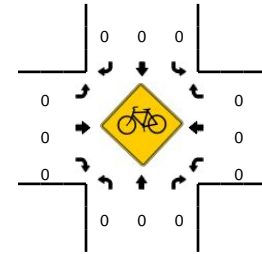
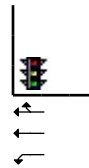
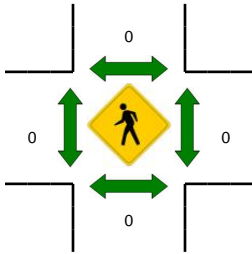
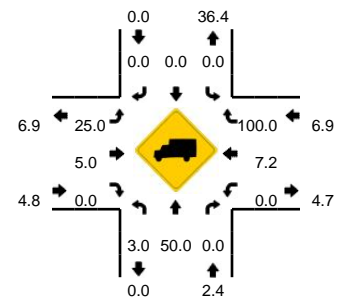
Comments:

**LOCATION:** West Mall Ent -- IL 38  
**CITY/STATE:** Saint Charles, IL

**QC JOB #:** 13714025  
**DATE:** Tue, Apr 12 2016



**Peak-Hour: 7:15 AM -- 8:15 AM**  
**Peak 15-Min: 7:45 AM -- 8:00 AM**

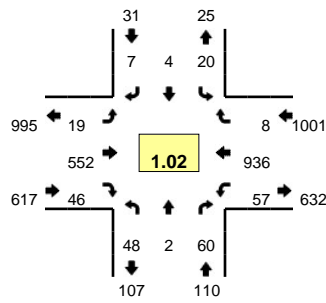


15-Min Count Period Beginning At	West Mall Ent (Northbound)				West Mall Ent (Southbound)				IL 38 (Eastbound)				IL 38 (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
6:00 AM	3	0	8	0	0	0	0	0	0	80	10	0	7	32	0	0	140	
6:15 AM	4	0	8	0	1	1	0	0	1	154	8	0	8	46	0	0	231	
6:30 AM	6	0	14	0	0	0	0	0	0	178	11	0	11	70	0	0	290	
6:45 AM	7	0	10	0	1	1	0	0	0	176	9	0	10	59	0	0	273	934
7:00 AM	7	0	21	0	0	0	0	0	0	214	11	0	8	76	1	1	339	1133
7:15 AM	6	0	21	0	3	0	1	0	2	218	23	0	6	90	0	0	370	1272
7:30 AM	10	0	12	0	0	1	0	0	1	200	17	0	5	98	0	0	344	1326
7:45 AM	6	0	9	0	2	0	0	0	5	193	16	0	10	121	1	0	363	1416
8:00 AM	11	2	6	0	0	0	0	0	0	172	11	0	8	93	0	0	303	1380
8:15 AM	8	2	11	0	3	1	0	0	2	191	7	0	14	88	0	0	327	1337
8:30 AM	10	0	13	0	4	1	0	0	0	148	12	1	9	110	1	0	309	1302
8:45 AM	9	0	7	0	0	0	2	0	2	193	14	1	9	126	1	0	364	1303
<b>Peak 15-Min Flowrates</b>	<b>Northbound</b>				<b>Southbound</b>				<b>Eastbound</b>				<b>Westbound</b>				<b>Total</b>	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	24	0	36	0	8	0	0	0	20	772	64	0	40	484	4	0	1452	
Heavy Trucks	0	0	0		0	0	0		4	44	0		0	32	4		84	
Pedestrians	0	0	0		0	0	0		0	0	0		0	0	0		0	
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0	
Railroad																		
Stopped Buses																		

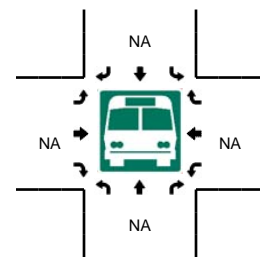
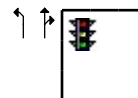
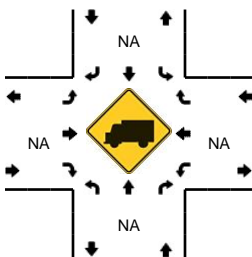
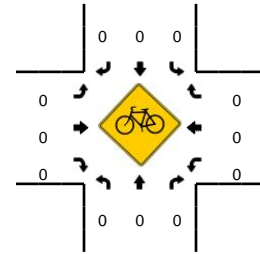
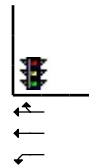
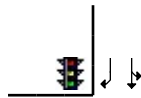
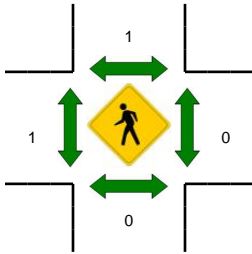
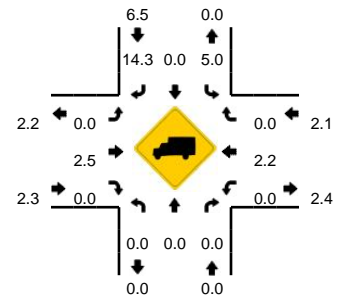
Comments:

**LOCATION:** West Mall Ent -- IL 38  
**CITY/STATE:** Saint Charles, IL

**QC JOB #:** 13714027  
**DATE:** Tue, Apr 12 2016



**Peak-Hour: 4:30 PM -- 5:30 PM**  
**Peak 15-Min: 4:30 PM -- 4:45 PM**

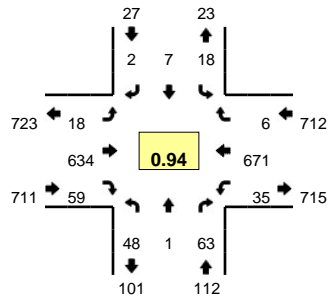


15-Min Count Period Beginning At	West Mall Ent (Northbound)				West Mall Ent (Southbound)				IL 38 (Eastbound)				IL 38 (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
3:30 PM	16	0	12	0	5	2	2	0	3	132	7	1	17	180	4	0	381	
3:45 PM	13	1	11	0	5	1	1	0	4	117	12	0	12	191	2	0	370	
4:00 PM	6	0	16	0	5	2	0	0	5	154	9	1	10	172	4	0	384	
4:15 PM	12	0	14	0	2	3	1	0	3	134	17	0	11	225	2	0	424	1559
4:30 PM	13	1	18	0	4	1	0	0	4	143	15	1	14	214	4	0	432	1610
4:45 PM	8	0	14	0	3	0	2	0	1	140	13	1	20	246	2	0	450	1690
5:00 PM	18	1	15	0	4	1	1	0	2	113	5	2	12	226	2	0	402	1708
5:15 PM	9	0	13	0	9	2	4	0	8	156	13	0	11	250	0	0	475	1759
5:30 PM	9	2	11	0	3	2	3	0	6	121	5	0	13	242	1	0	418	1745
5:45 PM	13	1	14	0	1	0	1	0	2	144	9	0	11	222	0	0	418	1713
6:00 PM	11	0	19	0	3	2	1	0	1	98	11	0	9	209	2	0	366	1677
6:15 PM	10	0	14	0	3	0	0	0	1	114	6	0	12	187	4	0	351	1553
<b>Peak 15-Min Flowrates</b>	<b>Northbound</b>				<b>Southbound</b>				<b>Eastbound</b>				<b>Westbound</b>				<b>Total</b>	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	52	4	72	0	16	4	0	0	16	572	60	4	56	856	16	0	1728	
Heavy Trucks	0	0	0		0	0	0		0	16	0		0	16	0		32	
Pedestrians	0	0	0		0	0	0		0	4	0		0	0	0		4	
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0	
Railroad																		
Stopped Buses																		

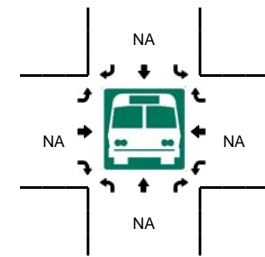
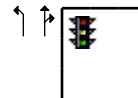
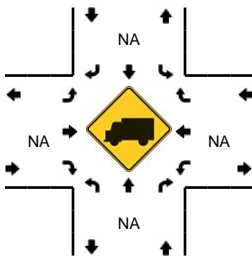
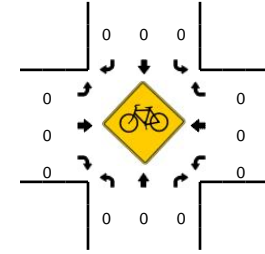
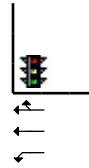
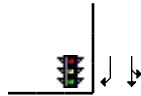
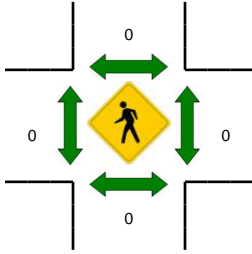
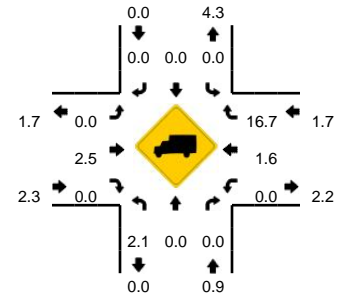
Comments:

**LOCATION:** West Mall Ent -- IL 38  
**CITY/STATE:** Saint Charles, IL

**QC JOB #:** 13714054  
**DATE:** Sat, Apr 16 2016



**Peak-Hour: 11:15 AM -- 12:15 PM**  
**Peak 15-Min: 11:30 AM -- 11:45 AM**

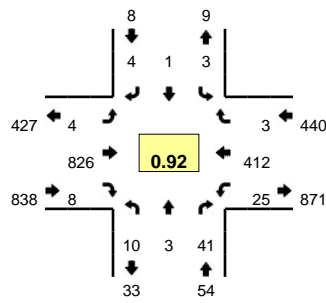


15-Min Count Period Beginning At	West Mall Ent (Northbound)				West Mall Ent (Southbound)				IL 38 (Eastbound)				IL 38 (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
11:00 AM	23	0	12	0	6	1	2	0	5	161	18	0	10	138	2	0	378	
11:15 AM	11	0	18	0	4	2	1	0	2	152	14	0	6	176	1	0	387	
11:30 AM	17	0	11	0	4	1	1	0	8	188	10	1	9	162	3	0	415	
11:45 AM	13	1	13	0	2	2	0	0	3	119	14	0	12	170	1	0	350	1530
12:00 PM	7	0	21	0	8	2	0	0	3	175	21	1	8	163	1	0	410	1562
12:15 PM	13	1	21	0	2	0	1	0	4	149	10	0	17	174	0	0	392	1567
12:30 PM	11	1	13	0	2	2	2	0	2	174	8	1	11	168	1	0	396	1548
12:45 PM	8	0	18	0	6	1	1	0	0	168	11	1	20	186	0	0	420	1618
1:00 PM	12	0	9	0	4	1	1	0	3	170	7	1	12	154	1	0	375	1583
1:15 PM	10	0	17	0	2	0	1	0	5	153	9	0	12	187	1	1	398	1589
1:30 PM	9	0	11	0	8	2	1	0	7	133	8	0	16	179	3	0	377	1570
1:45 PM	13	1	15	0	7	1	0	0	1	161	12	0	11	159	0	0	381	1531
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	68	0	44	0	16	4	4	0	32	752	40	4	36	648	12	0	1660	
Heavy Trucks	4	0	0		0	0	0		0	20	0		0	8	4		36	
Pedestrians	0				0				0	0			0	0			0	
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0	
Railroad																		
Stopped Buses																		

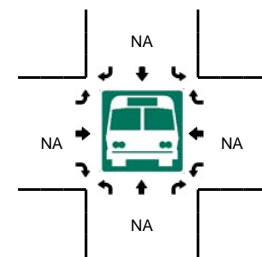
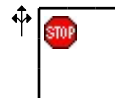
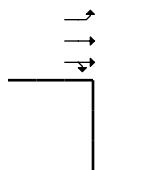
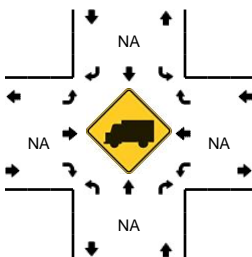
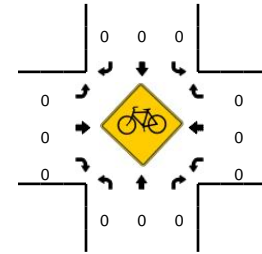
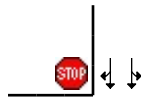
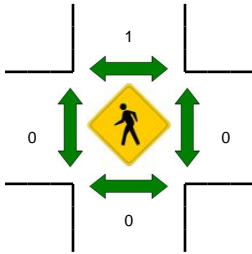
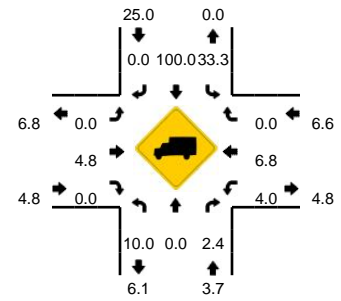
Comments:

**LOCATION:** East Mall Ent/Vanderbilt Dr -- IL 38  
**CITY/STATE:** Saint Charles, IL

**QC JOB #:** 13714007  
**DATE:** Tue, Apr 12 2016



**Peak-Hour: 7:15 AM -- 8:15 AM**  
**Peak 15-Min: 7:45 AM -- 8:00 AM**

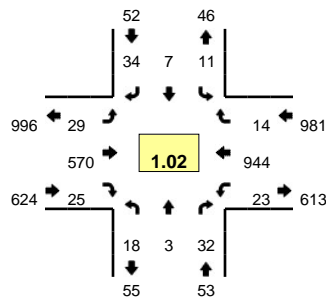


15-Min Count Period Beginning At	East Mall Ent/Vanderbilt Dr (Northbound)				East Mall Ent/Vanderbilt Dr (Southbound)				IL 38 (Eastbound)				IL 38 (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
6:00 AM	2	0	3	0	0	0	0	0	0	87	0	0	0	37	1	0	130	
6:15 AM	1	0	2	0	1	1	0	0	0	153	0	0	1	52	1	0	212	
6:30 AM	0	0	2	0	1	0	0	0	0	197	1	0	4	81	1	0	287	
6:45 AM	2	0	6	0	1	0	0	0	1	190	0	0	1	67	1	0	269	898
7:00 AM	3	2	15	0	1	1	1	0	1	232	4	0	8	85	1	0	354	1122
7:15 AM	1	0	9	0	1	0	2	0	0	240	3	0	9	91	0	0	356	1266
7:30 AM	4	2	14	0	0	1	1	0	0	201	2	0	3	97	0	0	325	1304
7:45 AM	3	0	8	0	0	0	1	0	1	211	3	0	7	127	2	0	363	1398
8:00 AM	2	1	10	0	2	0	0	0	2	174	0	1	5	97	1	1	296	1340
8:15 AM	1	1	8	0	0	0	2	0	3	196	3	0	7	99	0	0	320	1304
8:30 AM	1	4	11	0	2	0	3	0	1	166	1	0	6	124	0	0	319	1298
8:45 AM	2	0	11	0	1	1	0	0	4	190	5	0	10	126	0	0	350	1285
<b>Peak 15-Min Flowrates</b>	<b>Northbound</b>				<b>Southbound</b>				<b>Eastbound</b>				<b>Westbound</b>				<b>Total</b>	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	12	0	32	0	0	0	4	0	4	844	12	0	28	508	8	0	1452	
Heavy Trucks	0	0	0		0	0	0		0	44	0		0	36	0		80	
Pedestrians		0				0				0				0			0	
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0	
Railroad																	0	
Stopped Buses																	0	

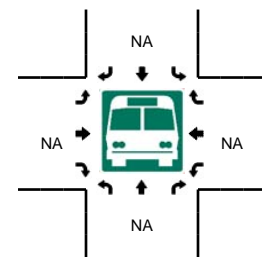
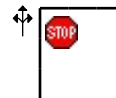
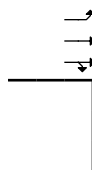
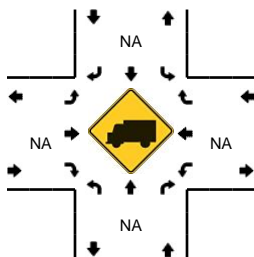
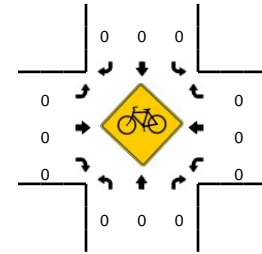
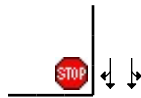
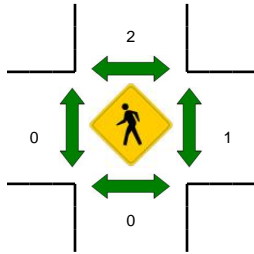
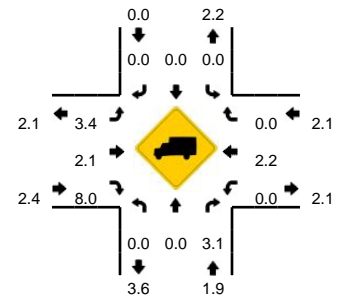
Comments:

**LOCATION:** East Mall Ent/Vanderbilt Dr -- IL 38  
**CITY/STATE:** Saint Charles, IL

**QC JOB #:** 13714009  
**DATE:** Tue, Apr 12 2016



**Peak-Hour: 4:30 PM -- 5:30 PM**  
**Peak 15-Min: 4:30 PM -- 4:45 PM**

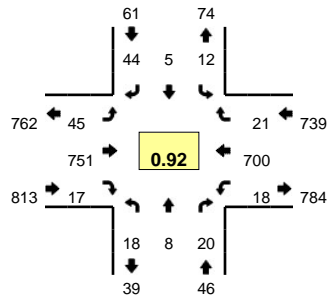


15-Min Count Period Beginning At	East Mall Ent/Vanderbilt Dr (Northbound)				East Mall Ent/Vanderbilt Dr (Southbound)				IL 38 (Eastbound)				IL 38 (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
3:30 PM	3	0	5	0	2	2	6	0	7	138	3	0	10	194	6	0	376	
3:45 PM	7	4	8	0	0	1	7	1	5	121	6	0	9	192	3	0	364	
4:00 PM	3	1	5	0	3	1	7	0	5	168	4	0	5	177	1	0	380	
4:15 PM	2	0	6	0	4	0	10	0	4	145	2	0	5	222	5	0	405	1525
4:30 PM	3	1	12	0	5	1	7	0	5	142	6	0	7	223	7	0	419	1568
4:45 PM	5	0	6	0	0	2	8	0	9	153	6	0	7	251	4	0	451	1655
5:00 PM	4	1	8	0	3	1	10	0	8	119	7	0	3	227	1	0	392	1667
5:15 PM	6	1	6	0	3	3	9	0	7	156	6	0	6	243	2	0	448	1710
5:30 PM	5	0	8	0	1	0	11	0	8	134	4	0	7	242	1	0	421	1712
5:45 PM	1	1	6	0	2	1	5	0	5	139	5	0	7	227	5	0	404	1665
6:00 PM	1	1	8	0	1	1	7	0	6	114	2	0	5	214	2	0	362	1635
6:15 PM	5	1	11	0	2	2	7	0	4	118	2	0	4	189	7	0	352	1539
<b>Peak 15-Min Flowrates</b>	<b>Northbound</b>				<b>Southbound</b>				<b>Eastbound</b>				<b>Westbound</b>				<b>Total</b>	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	12	4	48	0	20	4	28	0	20	568	24	0	28	892	28	0	1676	
Heavy Trucks	0	0	0		0	0	0		0	16	0		0	16	0		32	
Pedestrians	0	0	0		0	0	0		0	0	0		0	0	0		0	
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0	
Railroad																		
Stopped Buses																		

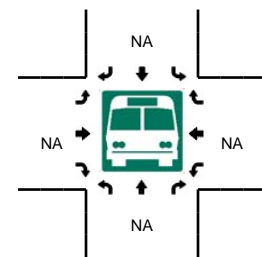
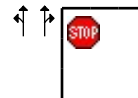
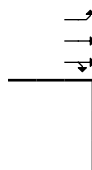
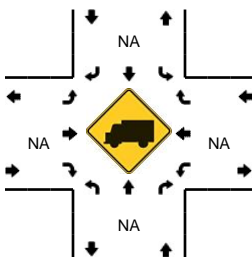
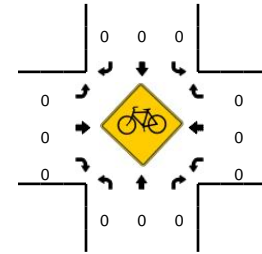
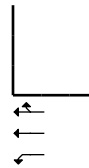
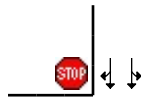
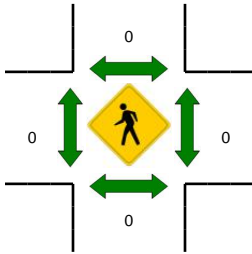
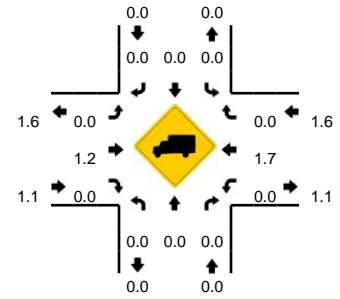
Comments:

**LOCATION:** East Mall Entrance/Vanderbilt -- IL 38  
**CITY/STATE:** Saint Charles, IL

**QC JOB #:** 13714048  
**DATE:** Sat, May 07 2016



**Peak-Hour: 11:15 AM -- 12:15 PM**  
**Peak 15-Min: 11:30 AM -- 11:45 AM**

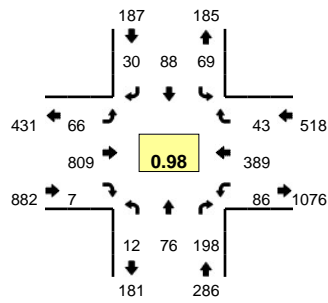


15-Min Count Period Beginning At	East Mall Entrance/Vanderbilt (Northbound)				East Mall Entrance/Vanderbilt (Southbound)				IL 38 (Eastbound)				IL 38 (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
11:00 AM	8	5	11	0	3	2	10	0	8	174	9	0	2	168	4	0	404	
11:15 AM	4	2	3	0	2	0	13	0	10	171	2	0	4	168	5	1	385	
11:30 AM	4	2	7	0	3	2	11	0	15	210	7	0	3	178	7	0	449	
11:45 AM	5	3	3	0	2	2	14	0	11	189	4	0	4	176	5	0	418	1656
12:00 PM	5	1	7	0	5	1	6	0	9	181	4	0	6	178	4	0	407	1659
12:15 PM	5	1	12	0	1	0	16	0	7	165	1	0	7	179	6	0	400	1674
12:30 PM	5	3	8	0	3	1	6	0	8	169	6	0	4	160	6	0	379	1604
12:45 PM	4	2	10	0	8	0	7	0	12	203	6	0	6	181	0	0	439	1625
1:00 PM	5	1	11	0	4	2	8	0	15	174	5	0	8	201	5	0	439	1657
1:15 PM	4	2	10	0	8	0	17	0	20	153	4	0	3	179	5	0	405	1662
1:30 PM	5	2	4	0	1	3	14	0	10	176	1	0	9	173	8	0	406	1689
1:45 PM	4	1	6	0	3	1	18	0	20	158	4	0	8	161	7	0	391	1641
<b>Peak 15-Min Flowrates</b>	<b>Northbound</b>				<b>Southbound</b>				<b>Eastbound</b>				<b>Westbound</b>				<b>Total</b>	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	16	8	28	0	12	8	44	0	60	840	28	0	12	712	28	0	1796	
Heavy Trucks	0	0	0		0	0	0		0	8	0		0	20	0		28	
Pedestrians	0	0	0		0	0	0		0	0	0		0	0	0		0	
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0	
Railroad																		
Stopped Buses																		

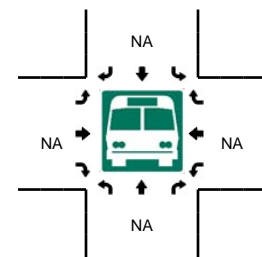
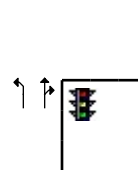
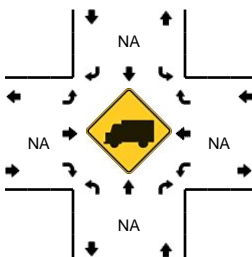
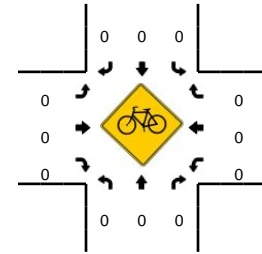
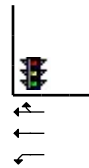
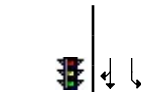
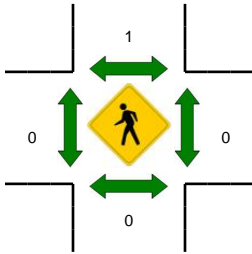
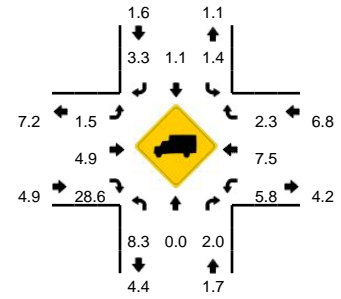
Comments:

**LOCATION:** Bircher Rd/14th St -- IL 38  
**CITY/STATE:** Saint Charles, IL

**QC JOB #:** 13714010  
**DATE:** Tue, Apr 12 2016



**Peak-Hour: 7:15 AM -- 8:15 AM**  
**Peak 15-Min: 7:45 AM -- 8:00 AM**



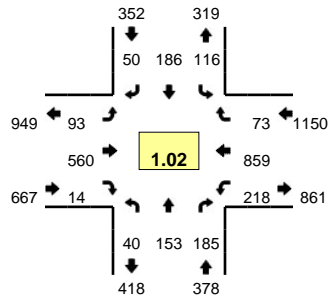
15-Min Count Period Beginning At	Bircher Rd/14th St (Northbound)				Bircher Rd/14th St (Southbound)				IL 38 (Eastbound)				IL 38 (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
6:00 AM	3	3	10	0	11	10	1	0	9	86	0	0	7	35	3	0	178	
6:15 AM	1	4	20	0	12	11	5	0	7	144	0	0	8	48	5	0	265	
6:30 AM	2	10	14	0	15	11	6	0	18	164	1	0	12	78	3	0	334	
6:45 AM	3	8	40	0	16	11	8	0	17	187	1	0	8	58	4	0	361	1138
7:00 AM	5	24	50	0	19	15	4	0	15	217	4	0	17	81	6	0	457	1417
7:15 AM	2	10	81	0	21	16	6	0	11	219	3	0	10	91	13	0	483	1635
7:30 AM	1	27	57	0	21	30	8	0	22	213	1	0	28	91	9	0	508	1809
7:45 AM	4	24	32	0	10	25	13	0	18	192	2	0	29	116	15	0	480	1928
8:00 AM	5	15	28	0	17	17	3	0	15	185	1	0	19	91	6	0	402	1873
8:15 AM	1	12	30	0	15	25	10	0	17	162	2	0	22	94	7	0	397	1787
8:30 AM	3	14	37	0	22	36	10	0	17	166	4	0	19	113	11	0	452	1731
8:45 AM	5	19	43	0	24	33	17	0	9	186	5	0	28	111	9	0	489	1740
<b>Peak 15-Min Flowrates</b>	<b>Northbound</b>				<b>Southbound</b>				<b>Eastbound</b>				<b>Westbound</b>				<b>Total</b>	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	16	96	128	0	40	100	52	0	72	768	8	0	116	464	60	0	1920	
Heavy Trucks	0	0	0		0	0	0		0	40	4		0	32	0		76	
Pedestrians		0				4				0				0			4	
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0	
Railroad																		
Stopped Buses																		

Comments:

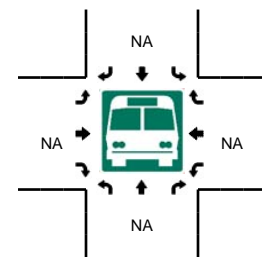
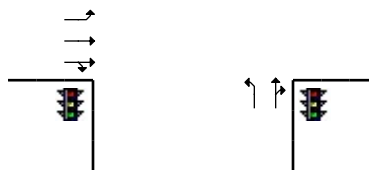
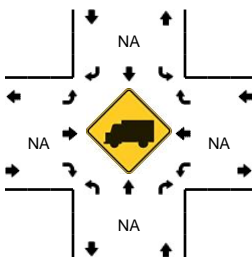
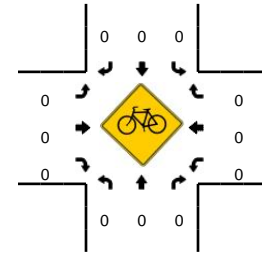
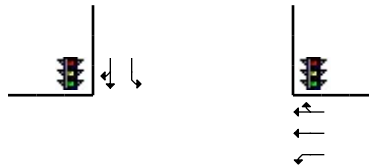
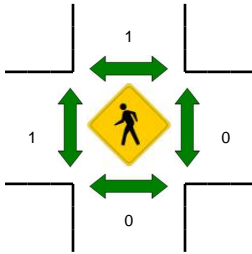
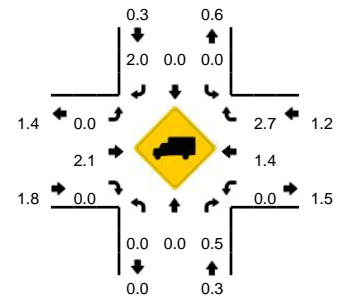


**LOCATION:** Bircher Rd/14th St -- IL 38  
**CITY/STATE:** Saint Charles, IL

**QC JOB #:** 13714012  
**DATE:** Tue, May 10 2016



**Peak-Hour: 4:30 PM -- 5:30 PM**  
**Peak 15-Min: 4:30 PM -- 4:45 PM**

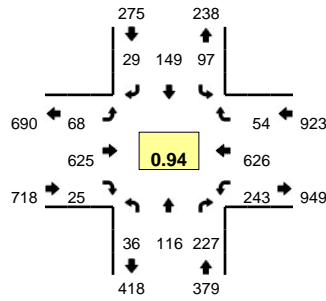


15-Min Count Period Beginning At	Bircher Rd/14th St (Northbound)				Bircher Rd/14th St (Southbound)				IL 38 (Eastbound)				IL 38 (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
3:30 PM	14	32	30	0	16	50	9	0	20	108	3	0	55	163	18	0	518	
3:45 PM	8	35	38	0	24	58	16	0	18	120	6	0	49	180	11	0	563	
4:00 PM	7	38	34	0	25	32	14	0	24	157	5	0	52	211	18	0	617	
4:15 PM	10	32	57	0	25	41	13	0	18	120	2	0	51	184	19	0	572	2270
4:30 PM	8	30	43	0	29	49	14	0	23	146	5	0	53	208	18	0	626	2378
4:45 PM	6	46	45	0	15	40	12	0	22	163	6	0	38	198	16	0	607	2422
5:00 PM	11	36	51	0	37	47	13	0	19	130	2	0	53	235	21	0	655	2460
5:15 PM	15	41	46	0	35	50	11	0	29	121	1	0	74	218	18	0	659	2547
5:30 PM	8	24	37	0	28	36	14	0	18	138	4	0	71	233	15	0	626	2547
5:45 PM	5	37	40	0	25	42	9	0	18	110	4	0	44	185	18	0	537	2477
6:00 PM	7	24	35	0	26	27	7	0	8	96	7	0	48	248	18	0	551	2373
6:15 PM	10	24	45	0	23	45	16	0	22	108	3	0	54	147	8	0	505	2219
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
All Vehicles	32	120	172	0	116	196	56	0	92	584	20	0	212	832	72	0	2504	
Heavy Trucks	0	0	4	0	0	0	0	0	0	28	0	0	0	16	8	0	56	
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Bicycles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Railroad	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

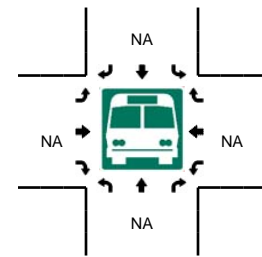
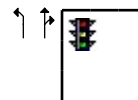
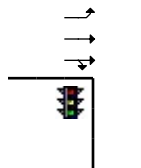
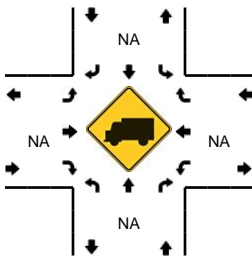
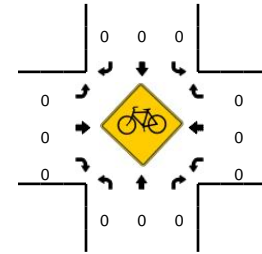
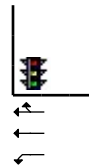
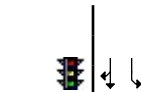
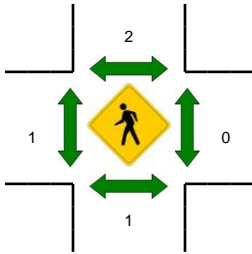
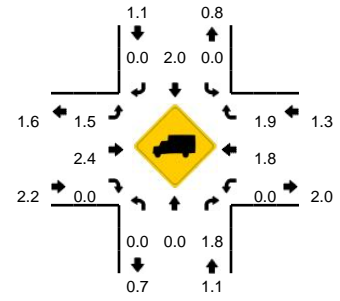
Comments:

**LOCATION:** Bircher Rd/14th St -- IL 38  
**CITY/STATE:** Saint Charles, IL

**QC JOB #:** 13714049  
**DATE:** Sat, Jul 16 2016



**Peak-Hour: 11:15 AM -- 12:15 PM**  
**Peak 15-Min: 11:30 AM -- 11:45 AM**

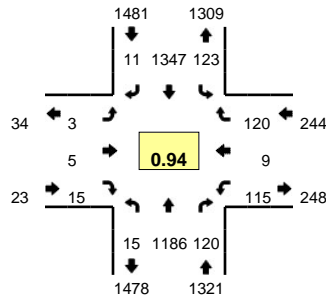


15-Min Count Period Beginning At	Bircher Rd/14th St (Northbound)				Bircher Rd/14th St (Southbound)				IL 38 (Eastbound)				IL 38 (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
11:00 AM	6	30	50	0	22	38	10	0	26	160	1	0	46	133	7	0	529	
11:15 AM	9	29	54	0	14	42	10	0	19	141	6	0	57	155	15	0	551	
11:30 AM	7	26	69	0	33	42	4	0	15	177	8	0	61	153	15	0	610	
11:45 AM	15	32	51	1	30	36	7	0	15	135	4	0	64	170	13	0	573	2263
12:00 PM	4	29	53	0	20	29	8	0	19	172	7	0	61	148	11	0	561	2295
12:15 PM	9	26	55	0	24	28	16	0	21	139	5	0	47	159	12	0	541	2285
12:30 PM	13	28	54	0	12	40	13	0	14	177	4	0	49	143	15	0	562	2237
12:45 PM	6	34	42	0	14	49	18	0	25	166	2	0	56	181	12	0	605	2269
1:00 PM	9	34	49	0	32	39	12	0	17	152	4	0	66	140	15	0	569	2277
1:15 PM	8	33	39	0	18	41	10	0	22	134	4	0	51	170	10	0	540	2276
1:30 PM	7	40	44	0	24	40	9	0	18	131	4	0	54	163	8	0	542	2256
1:45 PM	1	27	61	0	23	42	10	0	19	152	1	0	65	157	9	0	567	2218
<b>Peak 15-Min Flowrates</b>	<b>Northbound</b>				<b>Southbound</b>				<b>Eastbound</b>				<b>Westbound</b>				<b>Total</b>	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	28	104	276	0	132	168	16	0	60	708	32	0	244	612	60	0	2440	
Heavy Trucks	0	0	8		0	4	0		0	20	0		0	12	0		44	
Pedestrians		0				4				4				0			8	
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0	
Railroad																		
Stopped Buses																		

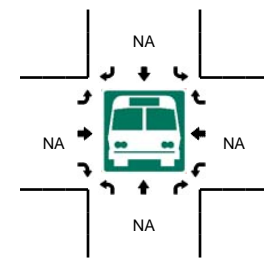
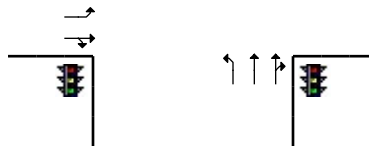
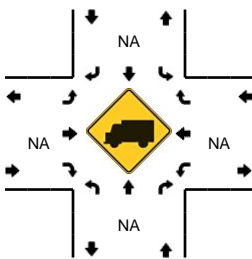
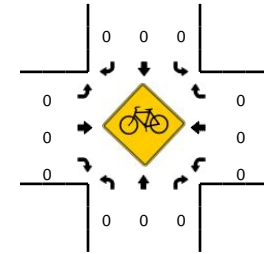
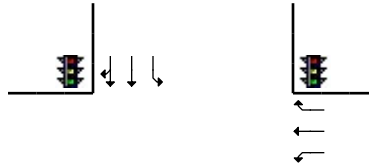
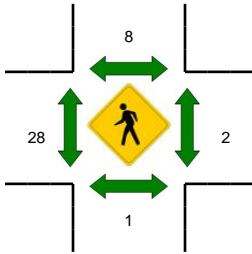
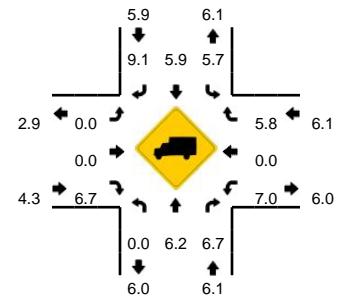
Comments:

**LOCATION:** Randall Rd -- Prairie St  
**CITY/STATE:** Saint Charles, IL

**QC JOB #:** 13714037  
**DATE:** Tue, Apr 12 2016



**Peak-Hour: 7:15 AM -- 8:15 AM**  
**Peak 15-Min: 7:45 AM -- 8:00 AM**

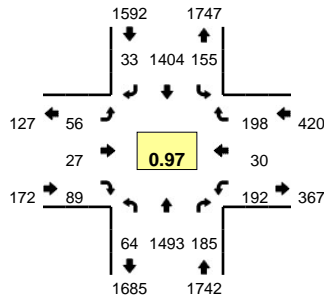


15-Min Count Period Beginning At	Randall Rd (Northbound)				Randall Rd (Southbound)				Prairie St (Eastbound)				Prairie St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
6:00 AM	0	156	6	0	6	127	0	0	2	0	1	0	10	1	11	0	320	
6:15 AM	3	203	9	0	8	241	0	0	2	1	1	0	11	1	11	0	491	
6:30 AM	1	233	19	0	12	278	1	0	0	1	0	0	13	1	25	0	584	
6:45 AM	2	246	22	0	23	297	0	0	1	0	1	0	10	1	19	0	622	2017
7:00 AM	1	223	24	0	19	296	1	0	0	0	5	0	13	0	22	0	604	2301
7:15 AM	0	314	25	1	38	336	4	0	1	1	4	0	27	1	31	0	783	2593
7:30 AM	1	288	27	0	28	351	0	0	0	0	3	0	28	4	21	0	751	2760
7:45 AM	4	312	42	0	22	357	2	0	1	2	3	0	30	3	37	0	815	2953
8:00 AM	9	272	26	0	35	303	5	0	1	2	5	0	30	1	31	0	720	3069
8:15 AM	8	253	24	0	18	327	5	0	1	3	10	0	35	3	35	0	722	3008
8:30 AM	20	293	28	0	37	261	10	0	7	1	15	0	41	8	27	0	748	3005
8:45 AM	13	286	31	0	39	362	6	0	5	5	9	0	48	3	26	0	833	3023
<b>Peak 15-Min Flowrates</b>	<b>Northbound</b>				<b>Southbound</b>				<b>Eastbound</b>				<b>Westbound</b>				<b>Total</b>	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	16	1248	168	0	88	1428	8	0	4	8	12	0	120	12	148	0	3260	
Heavy Trucks	0	96	12		0	60	0		0	0	0		8	0	8		184	
Pedestrians		0				8				24				0			32	
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0	
Railroad																		
Stopped Buses																		

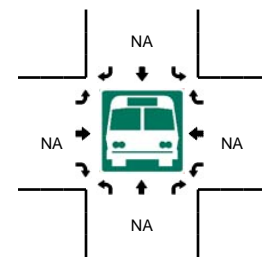
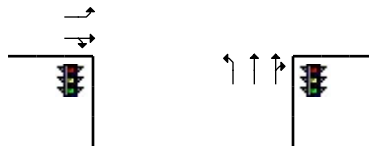
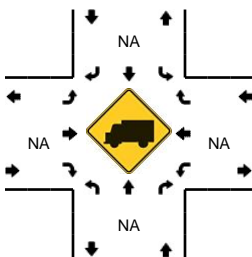
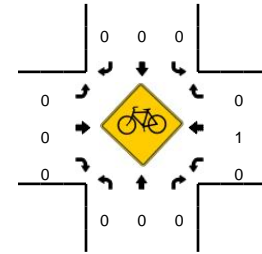
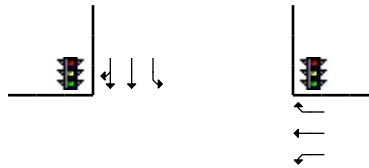
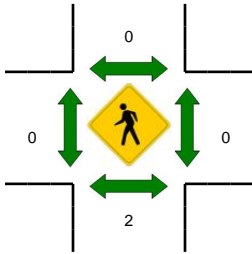
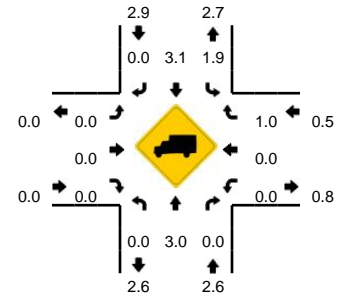
Comments:

**LOCATION:** Randall Rd -- Prairie St  
**CITY/STATE:** Saint Charles, IL

**QC JOB #:** 13714039  
**DATE:** Tue, Apr 12 2016



**Peak-Hour: 4:30 PM -- 5:30 PM**  
**Peak 15-Min: 4:30 PM -- 4:45 PM**

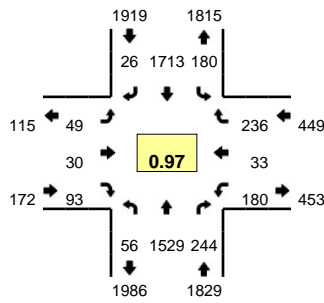


15-Min Count Period Beginning At	Randall Rd (Northbound)				Randall Rd (Southbound)				Prairie St (Eastbound)				Prairie St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
3:30 PM	19	371	34	0	32	333	6	0	12	6	25	0	34	1	46	0	919	
3:45 PM	13	384	39	0	50	344	8	0	17	6	15	0	38	4	37	0	955	
4:00 PM	12	369	39	0	34	342	12	0	13	8	12	0	53	9	47	0	950	
4:15 PM	12	440	39	0	30	374	8	0	13	6	15	0	42	11	44	0	1034	3858
4:30 PM	11	355	43	0	42	368	12	0	16	11	27	0	60	7	58	0	1010	3949
4:45 PM	18	415	43	0	50	373	5	0	14	3	25	0	49	5	53	0	1053	4047
5:00 PM	18	399	49	0	29	361	10	0	14	3	26	0	40	9	40	0	998	4095
5:15 PM	17	324	50	0	34	302	6	0	12	10	11	0	43	9	47	0	865	3926
5:30 PM	20	428	40	0	48	347	3	0	9	10	24	0	32	6	47	0	1014	3930
5:45 PM	9	330	43	0	43	290	7	0	22	9	16	0	41	3	75	0	888	3765
6:00 PM	12	312	35	0	32	326	7	0	6	7	22	1	38	3	45	0	846	3613
6:15 PM	7	296	31	0	37	281	3	0	12	5	19	0	53	4	42	0	790	3538
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	44	1420	172	0	168	1472	48	0	64	44	108	0	240	28	232	0	4040	
Heavy Trucks	0	44	0		4	52	0		0	0	0		0	0	8		108	
Pedestrians		0				0				0				0				0
Bicycles		0	0			0	0			0	0			0	0			0
Railroad																		0
Stopped Buses																		0

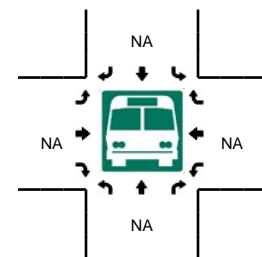
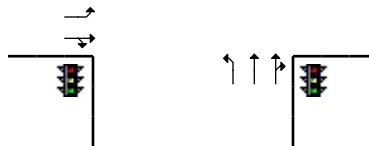
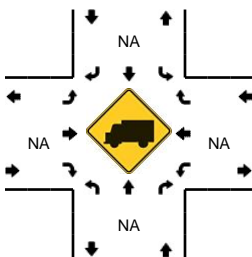
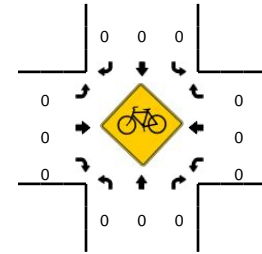
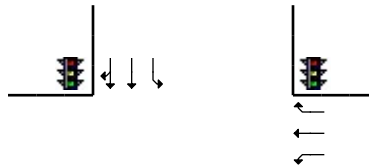
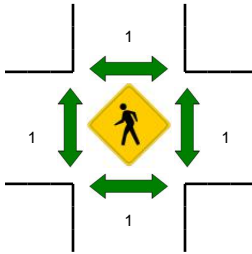
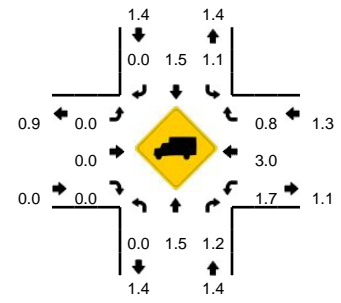
Comments:

**LOCATION:** Randall Rd -- Prairie  
**CITY/STATE:** Saint Charles, IL

**QC JOB #:** 13714058  
**DATE:** Sat, May 07 2016



**Peak-Hour: 11:15 AM -- 12:15 PM**  
**Peak 15-Min: 11:30 AM -- 11:45 AM**

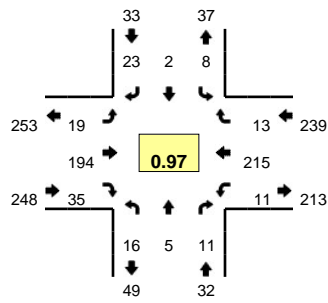


15-Min Count Period Beginning At	Randall Rd (Northbound)				Randall Rd (Southbound)				Prairie (Eastbound)				Prairie (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
11:00 AM	15	337	57	0	49	434	8	1	19	13	25	0	50	16	60	0	1084	
11:15 AM	17	320	59	0	45	415	7	0	15	10	20	0	46	11	65	0	1030	
11:30 AM	9	399	68	0	48	449	7	1	7	7	29	0	46	7	44	0	1121	
11:45 AM	19	392	59	0	49	411	5	0	14	8	17	0	56	6	71	0	1107	4342
12:00 PM	11	418	58	0	37	438	7	0	13	5	27	0	32	9	56	0	1111	4369
12:15 PM	16	327	56	0	49	449	6	0	10	8	23	0	45	8	71	0	1068	4407
12:30 PM	20	377	60	0	40	402	6	2	10	8	15	0	53	10	56	0	1059	4345
12:45 PM	20	375	48	0	49	437	8	0	15	11	25	0	40	8	57	0	1093	4331
1:00 PM	24	390	49	0	40	393	7	0	12	7	20	0	37	11	45	0	1035	4255
1:15 PM	20	385	58	0	45	454	10	0	17	10	23	0	48	6	47	0	1123	4310
1:30 PM	15	352	42	0	47	369	9	0	11	11	22	0	50	9	64	0	1001	4252
1:45 PM	17	416	56	0	30	404	7	0	9	6	24	0	46	8	47	0	1070	4229
<b>Peak 15-Min Flowrates</b>	<b>Northbound</b>				<b>Southbound</b>				<b>Eastbound</b>				<b>Westbound</b>				<b>Total</b>	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	36	1596	272	0	192	1796	28	4	28	28	116	0	184	28	176	0	4484	
Heavy Trucks	0	36	4		0	24	0		0	0	0		4	0	0		68	
Pedestrians	0	0	0		0	0	0		0	0	0		4	4	0		4	
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0	
Railroad																		
Stopped Buses																		

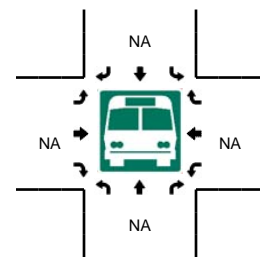
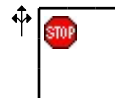
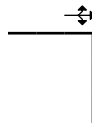
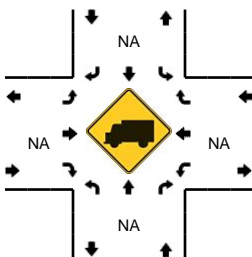
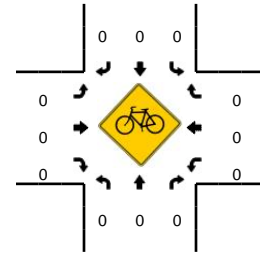
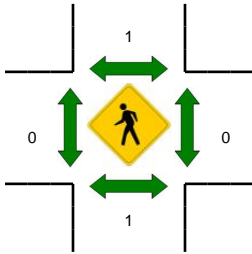
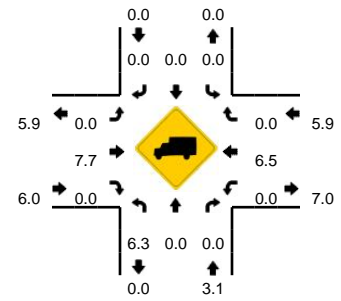
Comments:

**LOCATION:** Jewel Ent -- Prairie St  
**CITY/STATE:** Saint Charles, IL

**QC JOB #:** 13714034  
**DATE:** Tue, Apr 12 2016



**Peak-Hour: 7:15 AM -- 8:15 AM**  
**Peak 15-Min: 7:45 AM -- 8:00 AM**

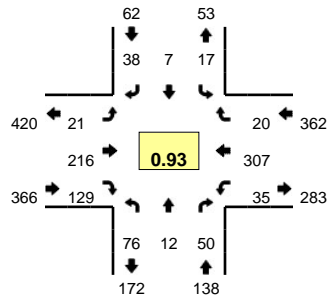


15-Min Count Period Beginning At	Jewel Ent (Northbound)				Jewel Ent (Southbound)				Prairie St (Eastbound)				Prairie St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
6:00 AM	1	0	0	0	0	0	0	0	0	9	3	0	0	21	0	0	34	
6:15 AM	3	0	2	0	0	0	1	0	1	14	3	0	3	21	1	0	49	
6:30 AM	0	1	2	0	1	0	0	0	5	25	2	0	0	36	2	0	74	
6:45 AM	2	0	0	0	0	0	0	0	1	39	4	0	2	31	5	0	84	241
7:00 AM	2	0	1	0	2	0	1	0	5	36	6	0	3	27	3	0	86	293
7:15 AM	2	2	1	0	1	0	7	0	4	53	9	0	1	56	0	0	136	380
7:30 AM	4	1	2	1	0	1	3	0	7	42	6	0	3	50	2	0	122	428
7:45 AM	7	0	3	0	1	0	7	0	6	46	12	0	5	52	3	0	142	486
8:00 AM	2	2	5	0	6	1	6	0	2	53	8	0	2	57	8	0	152	552
8:15 AM	5	1	3	0	3	1	9	0	5	34	7	0	8	56	4	0	136	552
8:30 AM	5	2	2	0	3	2	8	0	8	47	11	0	2	64	6	0	160	590
8:45 AM	8	1	3	0	4	2	8	0	16	43	17	0	4	56	10	0	172	620
<b>Peak 15-Min Flowrates</b>	<b>Northbound</b>				<b>Southbound</b>				<b>Eastbound</b>				<b>Westbound</b>				<b>Total</b>	
All Vehicles	28	0	12	0	4	0	28	0	24	184	48	0	20	208	12	0	568	
Heavy Trucks	4	0	0		0	0	0		0	12	0		0	12	0		28	
Pedestrians	0				0				0				0				0	
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0	
Railroad																		
Stopped Buses																		

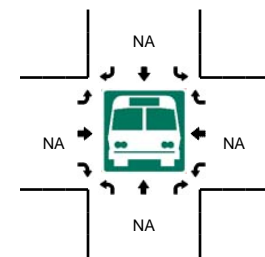
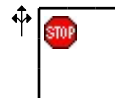
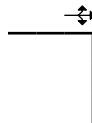
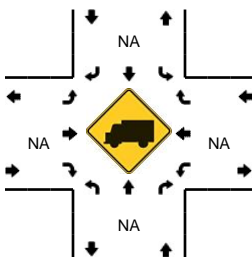
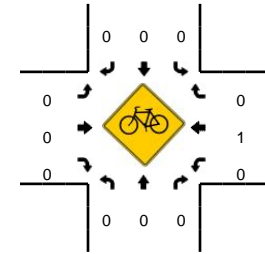
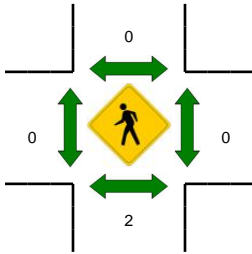
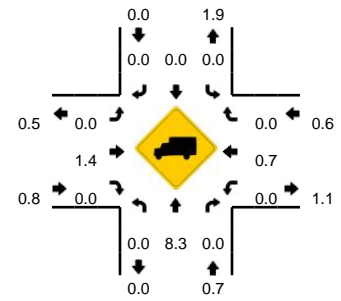
Comments:

**LOCATION:** Jewel Ent -- Prairie St  
**CITY/STATE:** Saint Charles, IL

**QC JOB #:** 13714036  
**DATE:** Tue, Apr 12 2016



**Peak-Hour: 4:30 PM -- 5:30 PM**  
**Peak 15-Min: 4:30 PM -- 4:45 PM**

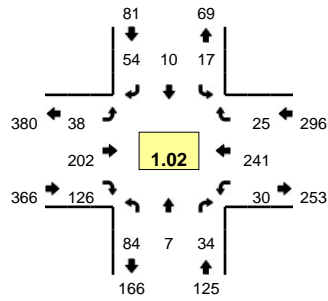


15-Min Count Period Beginning At	Jewel Ent (Northbound)				Jewel Ent (Southbound)				Prairie St (Eastbound)				Prairie St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
3:30 PM	10	3	11	0	5	0	9	0	7	46	16	0	9	63	1	0	180	
3:45 PM	13	2	10	0	4	4	12	0	9	55	31	0	5	61	5	0	211	
4:00 PM	21	2	10	0	7	2	8	0	7	45	27	1	10	68	4	0	212	
4:15 PM	20	2	14	0	7	4	8	0	6	45	26	0	3	77	5	0	217	820
4:30 PM	18	3	12	0	4	1	10	0	5	47	40	0	12	91	7	0	250	890
4:45 PM	23	4	14	0	6	3	11	0	4	65	31	0	9	77	2	0	249	928
5:00 PM	14	5	10	1	2	2	8	0	5	41	30	0	6	67	6	0	197	913
5:15 PM	20	0	14	0	5	1	9	0	7	63	28	0	8	72	5	0	232	928
5:30 PM	18	5	17	0	3	1	7	0	12	63	20	0	11	60	8	0	225	903
5:45 PM	22	2	9	0	3	1	15	0	14	56	26	0	3	80	1	0	232	886
6:00 PM	19	5	10	0	4	1	9	0	10	50	12	0	12	63	2	0	197	886
6:15 PM	10	1	17	0	5	1	11	0	10	51	14	0	7	67	9	0	203	857
<b>Peak 15-Min Flowrates</b>	<b>Northbound</b>				<b>Southbound</b>				<b>Eastbound</b>				<b>Westbound</b>				<b>Total</b>	
All Vehicles	72	12	48	0	16	4	40	0	20	188	160	0	48	364	28	0	1000	
Heavy Trucks	0	4	0		0	0	0		0	4	0		0	8	0		16	
Pedestrians	0	0	0		0	0	0		0	0	0		0	0	0		0	
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0	
Railroad																		
Stopped Buses																		

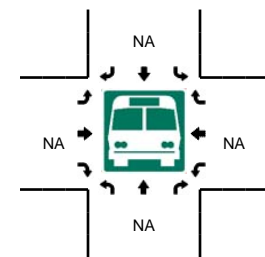
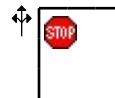
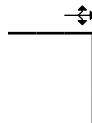
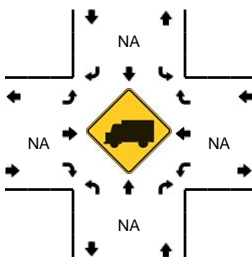
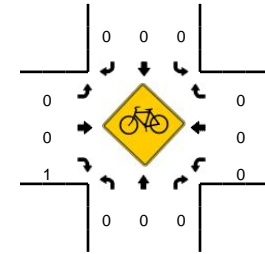
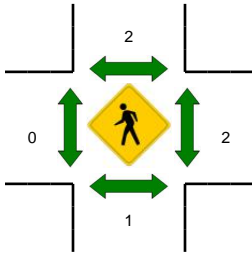
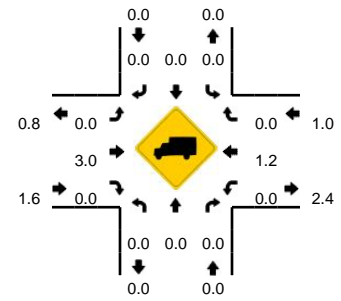
Comments:

**LOCATION:** Jewel Ent -- Prairie St  
**CITY/STATE:** Saint Charles, IL

**QC JOB #:** 13714057  
**DATE:** Sat, Apr 16 2016



**Peak-Hour: 11:15 AM -- 12:15 PM**  
**Peak 15-Min: 11:30 AM -- 11:45 AM**



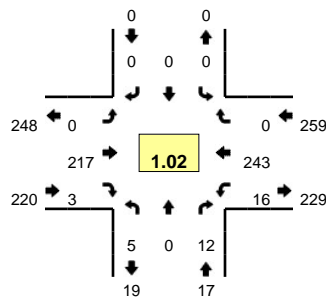
15-Min Count Period Beginning At	Jewel Ent (Northbound)				Jewel Ent (Southbound)				Prairie St (Eastbound)				Prairie St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
11:00 AM	23	1	8	0	3	1	11	0	9	41	31	0	11	70	4	0	213	
11:15 AM	20	2	9	0	4	2	22	0	9	46	33	0	8	59	7	0	221	
11:30 AM	16	0	9	0	4	0	11	0	12	46	36	1	6	64	8	0	213	
11:45 AM	18	1	8	0	5	3	14	0	6	50	28	0	9	56	3	0	201	848
12:00 PM	30	4	8	0	4	5	7	0	10	60	29	0	7	62	7	0	233	868
12:15 PM	12	4	10	0	5	1	13	0	6	36	29	0	5	63	2	0	186	833
12:30 PM	20	2	6	0	2	0	8	0	7	50	24	0	2	55	1	0	177	797
12:45 PM	11	0	11	0	10	0	14	0	14	44	41	0	10	71	10	0	236	832
1:00 PM	18	2	7	0	8	3	12	0	14	56	17	0	7	50	8	0	202	801
1:15 PM	17	3	6	0	9	1	21	0	10	56	24	0	6	58	2	0	213	828
1:30 PM	13	2	8	0	5	5	15	0	7	39	30	0	5	60	1	0	190	841
1:45 PM	18	2	12	0	5	2	13	0	6	47	38	0	5	58	4	0	210	815
<b>Peak 15-Min Flowrates</b>	<b>Northbound</b>				<b>Southbound</b>				<b>Eastbound</b>				<b>Westbound</b>				<b>Total</b>	
All Vehicles	64	0	36	0	16	0	44	0	48	184	144	4	24	256	32	0	852	
Heavy Trucks	0	0	0		0	0	0		0	8	0		0	0	0		8	
Pedestrians	0	0	0		0	0	0		0	0	0		0	0	0		0	
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0	
Railroad																		
Stopped Buses																		

Comments:

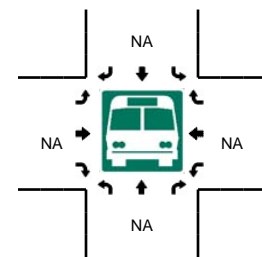
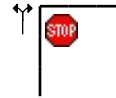
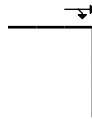
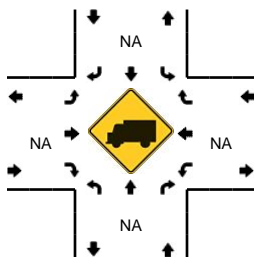
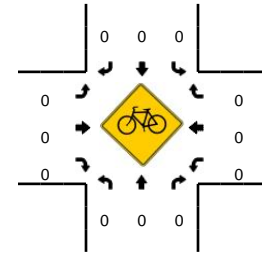
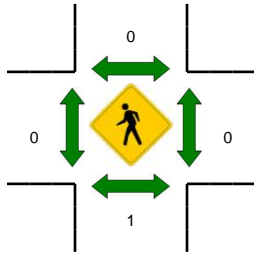
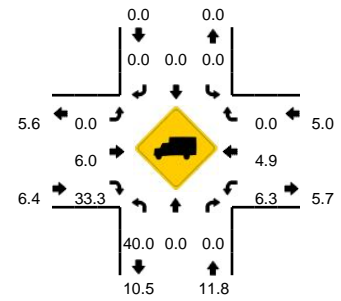


**LOCATION:** West Mall Ent -- Prairie St  
**CITY/STATE:** Saint Charles, IL

**QC JOB #:** 13714031  
**DATE:** Tue, Apr 12 2016



**Peak-Hour: 7:15 AM -- 8:15 AM**  
**Peak 15-Min: 7:45 AM -- 8:00 AM**

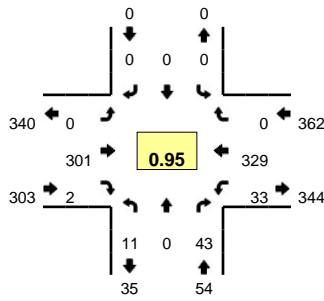


15-Min Count Period Beginning At	West Mall Ent (Northbound)				West Mall Ent (Southbound)				Prairie St (Eastbound)				Prairie St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
6:00 AM	1	0	0	0	0	0	0	0	0	9	0	0	2	22	0	0	34	
6:15 AM	1	0	2	0	0	0	0	0	0	15	1	0	3	27	0	0	49	
6:30 AM	0	0	2	0	0	0	0	0	0	28	0	0	2	36	0	0	68	
6:45 AM	0	0	3	0	0	0	0	0	0	37	1	0	2	41	0	0	84	235
7:00 AM	0	0	3	0	0	0	0	0	0	39	1	0	2	30	0	0	75	276
7:15 AM	1	0	4	0	0	0	0	0	0	56	0	0	5	59	0	0	125	352
7:30 AM	0	0	4	0	0	0	0	0	0	45	3	0	5	55	0	0	112	396
7:45 AM	3	0	1	0	0	0	0	0	0	53	0	0	1	63	0	0	121	433
8:00 AM	1	0	3	0	0	0	0	0	0	63	0	0	5	66	0	0	138	496
8:15 AM	2	0	7	0	0	0	0	0	0	40	2	0	5	69	0	0	125	496
8:30 AM	1	0	8	0	0	0	0	0	0	51	2	0	5	74	0	0	141	525
8:45 AM	1	0	10	0	0	0	0	0	0	52	1	0	6	70	0	0	140	544
<b>Peak 15-Min Flowrates</b>	<b>Northbound</b>				<b>Southbound</b>				<b>Eastbound</b>				<b>Westbound</b>				<b>Total</b>	
All Vehicles	12	0	4	0	0	0	0	0	0	212	0	0	4	252	0	0	484	
Heavy Trucks	4	0	0		0	0	0		0	12	0		0	8	0		24	
Pedestrians	0				0				0				0				0	
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0	
Railroad																		
Stopped Buses																		

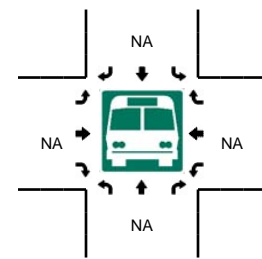
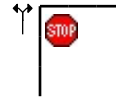
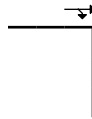
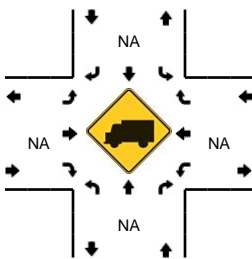
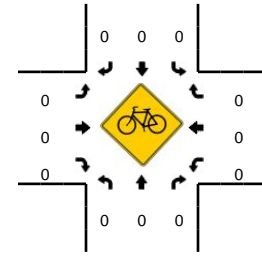
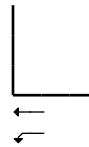
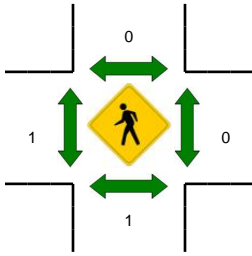
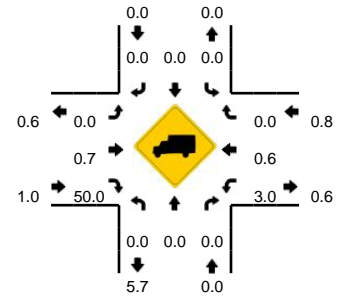
Comments:

**LOCATION:** West Mall Ent -- Prairie St  
**CITY/STATE:** Saint Charles, IL

**QC JOB #:** 13714033  
**DATE:** Tue, Apr 12 2016



**Peak-Hour: 4:30 PM -- 5:30 PM**  
**Peak 15-Min: 4:30 PM -- 4:45 PM**

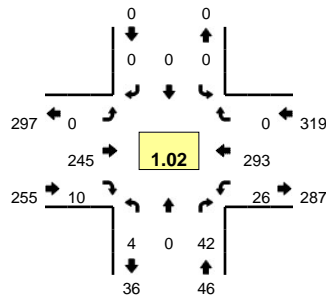


15-Min Count Period Beginning At	West Mall Ent (Northbound)				West Mall Ent (Southbound)				Prairie St (Eastbound)				Prairie St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
3:30 PM	2	0	11	0	0	0	0	0	0	62	1	0	13	70	0	0	159	
3:45 PM	1	0	7	0	0	0	0	0	0	74	1	0	11	72	0	0	166	
4:00 PM	1	0	12	0	0	0	0	0	0	64	1	0	9	88	0	0	175	
4:15 PM	3	0	12	0	0	0	0	0	0	70	0	0	7	79	0	0	171	671
4:30 PM	1	0	10	0	0	0	0	0	0	74	1	0	7	97	0	0	190	702
4:45 PM	3	0	12	0	0	0	0	0	0	86	0	0	12	69	0	0	182	718
5:00 PM	3	0	5	0	0	0	0	0	0	57	0	0	8	79	0	0	152	695
5:15 PM	4	0	16	0	0	0	0	0	0	84	1	0	6	84	0	0	195	719
5:30 PM	2	0	17	0	0	0	0	0	0	83	1	0	6	75	0	0	184	713
5:45 PM	1	0	10	0	0	0	0	0	0	74	1	0	13	85	0	0	184	715
6:00 PM	1	0	16	0	0	0	0	0	0	63	1	0	12	76	0	0	169	732
6:15 PM	0	0	10	0	0	0	0	0	0	77	3	0	8	88	0	0	186	723
<b>Peak 15-Min Flowrates</b>	<b>Northbound</b>				<b>Southbound</b>				<b>Eastbound</b>				<b>Westbound</b>				<b>Total</b>	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	4	0	40	0	0	0	0	0	0	296	4	0	28	388	0	0	760	
Heavy Trucks	0	0	0		0	0	0		0	0	4		0	8	0		12	
Pedestrians	0	0	0		0	0	0		0	0	0		0	0	0		0	
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0	
Railroad																		
Stopped Buses																		

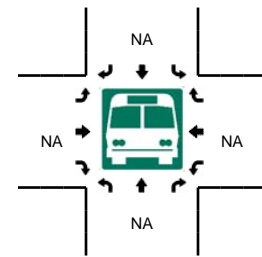
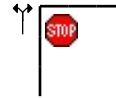
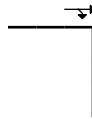
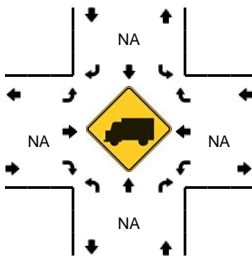
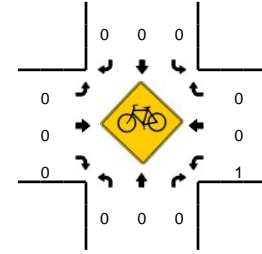
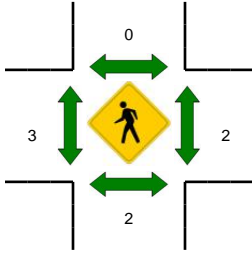
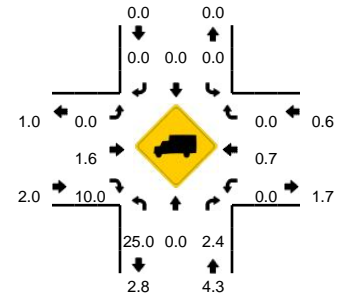
Comments:

**LOCATION:** West Mall Ent -- Prairie St  
**CITY/STATE:** Saint Charles, IL

**QC JOB #:** 13714056  
**DATE:** Sat, Apr 16 2016



**Peak-Hour: 11:15 AM -- 12:15 PM**  
**Peak 15-Min: 11:30 AM -- 11:45 AM**

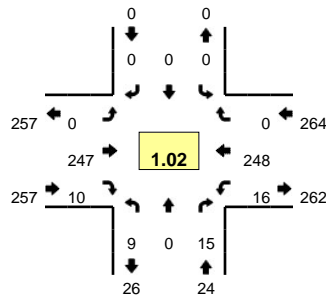


15-Min Count Period Beginning At	West Mall Ent (Northbound)				West Mall Ent (Southbound)				Prairie St (Eastbound)				Prairie St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
11:00 AM	0	0	3	0	0	0	0	0	0	52	2	0	6	86	0	0	149	
11:15 AM	1	0	13	0	0	0	0	0	0	57	1	0	8	76	0	0	156	
11:30 AM	1	0	10	0	0	0	0	0	0	58	3	0	4	76	0	0	152	
11:45 AM	1	0	12	0	0	0	0	0	0	60	3	0	6	64	0	0	146	603
12:00 PM	1	0	7	0	0	0	0	0	0	70	3	0	8	77	0	0	166	620
12:15 PM	1	0	3	0	0	0	0	0	0	49	0	0	10	67	0	0	130	594
12:30 PM	1	0	12	0	0	0	0	0	0	61	1	0	8	57	0	0	140	582
12:45 PM	1	0	10	0	0	0	0	0	0	66	1	0	6	88	0	0	172	608
1:00 PM	0	0	9	0	0	0	0	0	0	71	2	0	5	68	0	0	155	597
1:15 PM	1	0	12	0	0	0	0	0	0	71	1	0	11	70	0	0	166	633
1:30 PM	2	0	8	0	0	0	0	0	0	52	2	0	12	69	0	0	145	638
1:45 PM	1	0	16	0	0	0	0	0	0	66	0	0	9	64	0	0	156	622
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	4	0	40	0	0	0	0	0	0	232	12	0	16	304	0	0	608	
Heavy Trucks	0	0	0	0	0	0	0	0	0	4	0	0	0	4	0	0	8	
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Bicycles	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	
Railroad																		
Stopped Buses																		

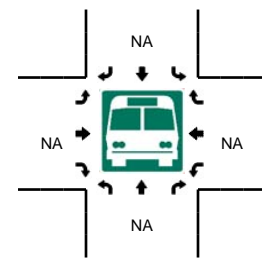
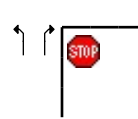
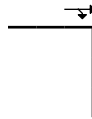
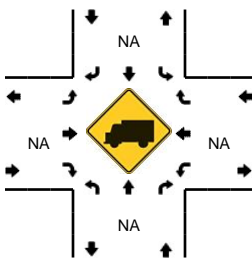
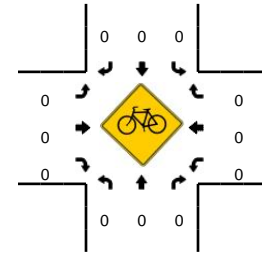
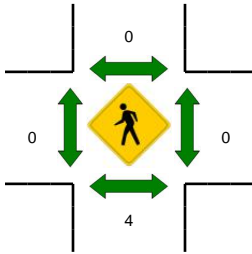
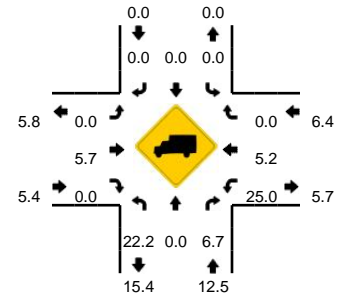
Comments:

**LOCATION:** East Mall Ent -- Prairie St  
**CITY/STATE:** Saint Charles, IL

**QC JOB #:** 13714028  
**DATE:** Tue, Apr 12 2016



**Peak-Hour: 7:15 AM -- 8:15 AM**  
**Peak 15-Min: 7:45 AM -- 8:00 AM**

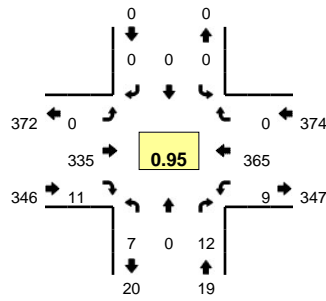


15-Min Count Period Beginning At	East Mall Ent (Northbound)				East Mall Ent (Southbound)				Prairie St (Eastbound)				Prairie St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
6:00 AM	0	0	0	0	0	0	0	0	0	10	1	0	1	20	0	0	32	
6:15 AM	1	0	2	0	0	0	0	0	0	26	2	0	1	24	0	0	56	
6:30 AM	0	0	2	0	0	0	0	0	0	38	2	0	3	40	0	0	85	257
6:45 AM	3	0	2	0	0	0	0	0	0	42	1	0	2	34	0	0	84	300
7:00 AM	1	0	0	0	0	0	0	0	0	41	5	0	2	26	0	0	75	
7:15 AM	1	0	8	0	0	0	0	0	0	65	3	0	4	61	0	0	142	386
7:30 AM	4	0	4	0	0	0	0	0	0	57	3	0	5	55	0	0	128	429
7:45 AM	0	0	3	0	0	0	0	0	0	59	3	0	5	63	0	0	133	478
8:00 AM	4	0	0	0	0	0	0	0	0	66	1	0	2	69	0	0	142	545
8:15 AM	2	0	5	0	0	0	0	0	0	43	3	0	6	63	0	0	122	525
8:30 AM	2	0	4	0	0	0	0	0	0	58	4	0	1	81	0	0	150	547
8:45 AM	1	0	1	0	0	0	0	0	0	61	2	0	2	77	0	0	144	558
<b>Peak 15-Min Flowrates</b>	<b>Northbound</b>				<b>Southbound</b>				<b>Eastbound</b>				<b>Westbound</b>				<b>Total</b>	
All Vehicles	0	0	12	0	0	0	0	0	0	236	12	0	20	252	0	0	532	
Heavy Trucks	0	0	4		0	0	0		0	16	0		12	12	0		44	
Pedestrians		4				0				0				0			4	
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0	
Railroad																	0	
Stopped Buses																		

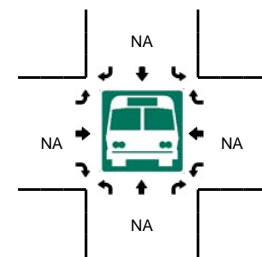
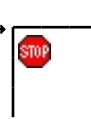
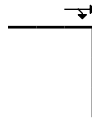
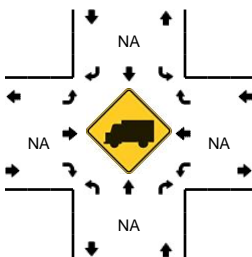
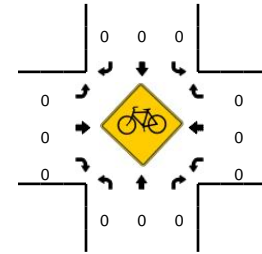
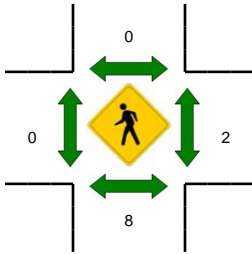
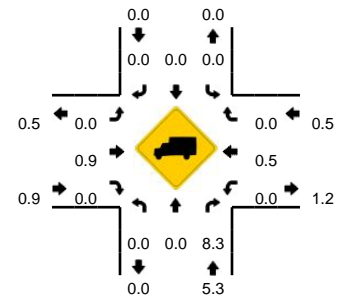
Comments:

**LOCATION:** East Mall Ent -- Prairie St  
**CITY/STATE:** Saint Charles, IL

**QC JOB #:** 13714030  
**DATE:** Tue, Apr 12 2016



**Peak-Hour: 4:30 PM -- 5:30 PM**  
**Peak 15-Min: 4:30 PM -- 4:45 PM**

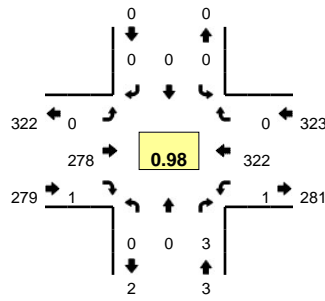


15-Min Count Period Beginning At	East Mall Ent (Northbound)				East Mall Ent (Southbound)				Prairie St (Eastbound)				Prairie St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
3:30 PM	0	0	2	0	0	0	0	0	0	77	1	0	2	91	0	1	174	
3:45 PM	1	0	2	0	0	0	0	0	0	81	1	0	1	80	0	0	166	
4:00 PM	2	0	7	0	0	0	0	0	0	78	3	0	4	93	0	0	187	
4:15 PM	1	0	2	0	0	0	0	0	0	75	2	0	1	90	0	0	171	698
4:30 PM	2	0	1	0	0	0	0	0	0	85	3	0	3	101	0	0	195	719
4:45 PM	2	0	4	0	0	0	0	0	0	99	4	0	1	83	0	0	193	746
5:00 PM	2	0	5	0	0	0	0	0	0	52	2	0	4	90	0	0	155	714
5:15 PM	1	0	2	0	0	0	0	0	0	99	2	0	1	91	0	0	196	739
5:30 PM	3	0	6	0	0	0	0	0	0	98	3	0	4	82	0	0	196	740
5:45 PM	2	0	1	0	0	0	0	0	0	83	0	0	1	93	0	0	180	727
6:00 PM	0	0	4	0	0	0	0	0	0	75	2	0	0	86	0	0	167	739
6:15 PM	1	0	0	0	0	0	0	0	0	79	2	0	0	99	0	0	181	724
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	8	0	4	0	0	0	0	0	0	340	12	0	12	404	0	0	780	
Heavy Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	
Pedestrians		4				0				0				4			8	
Bicycles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Railroad																		
Stopped Buses																		

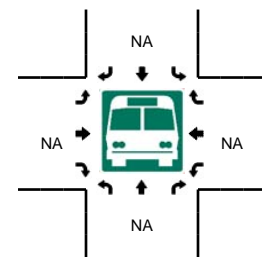
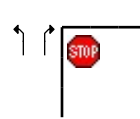
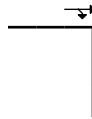
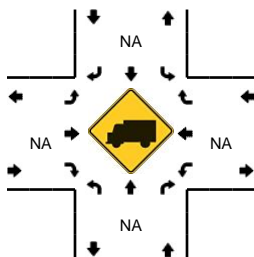
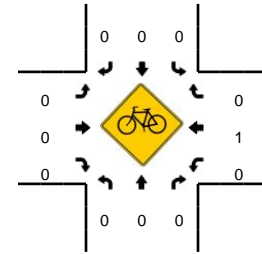
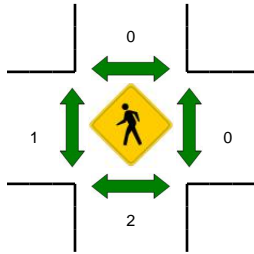
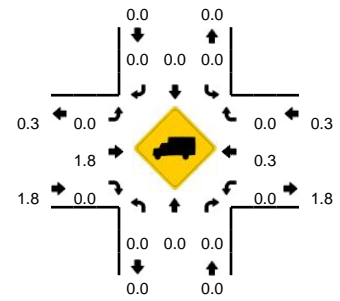
Comments:

**LOCATION:** East Mall Ent -- Prairie St  
**CITY/STATE:** Saint Charles, IL

**QC JOB #:** 13714055  
**DATE:** Sat, Apr 16 2016



**Peak-Hour: 11:15 AM -- 12:15 PM**  
**Peak 15-Min: 11:30 AM -- 11:45 AM**

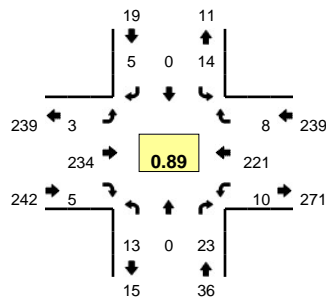


15-Min Count Period Beginning At	East Mall Ent (Northbound)				East Mall Ent (Southbound)				Prairie St (Eastbound)				Prairie St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
11:00 AM	0	0	0	0	0	0	0	0	0	57	0	0	0	91	0	0	148	
11:15 AM	0	0	0	0	0	0	0	0	0	64	0	0	0	81	0	0	145	
11:30 AM	0	0	1	0	0	0	0	0	0	73	0	0	0	81	0	0	155	
11:45 AM	0	0	1	0	0	0	0	0	0	75	0	0	0	74	0	0	150	598
12:00 PM	0	0	1	0	0	0	0	0	0	66	1	0	1	86	0	0	155	605
12:15 PM	0	0	1	0	0	0	0	0	0	61	1	0	1	75	0	0	139	599
12:30 PM	0	0	0	0	0	0	0	0	0	71	0	0	0	66	0	0	137	581
12:45 PM	1	0	0	0	0	0	0	0	0	73	0	0	1	90	0	0	165	596
1:00 PM	0	0	0	0	0	0	0	0	0	80	1	0	0	73	0	0	154	595
1:15 PM	0	0	1	0	0	0	0	0	0	77	0	0	0	75	0	0	153	609
1:30 PM	0	0	0	0	0	0	0	0	0	62	0	0	0	83	0	0	145	617
1:45 PM	1	0	1	0	0	0	0	0	0	84	1	0	0	73	0	0	160	612
<b>Peak 15-Min Flowrates</b>	<b>Northbound</b>				<b>Southbound</b>				<b>Eastbound</b>				<b>Westbound</b>				<b>Total</b>	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	0	0	4	0	0	0	0	0	0	292	0	0	0	324	0	0	620	
Heavy Trucks	0	0	0		0	0	0		0	4	0		0	0	0		4	
Pedestrians	0				0				0				0				0	
Bicycles	0	0	0		0	0	0		0	0	0		0	1	0		1	
Railroad																		
Stopped Buses																		

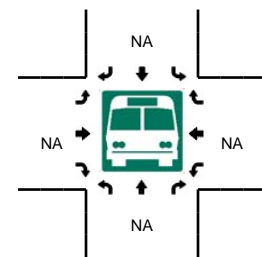
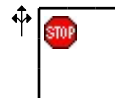
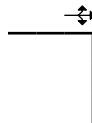
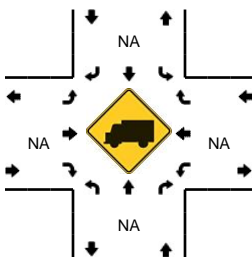
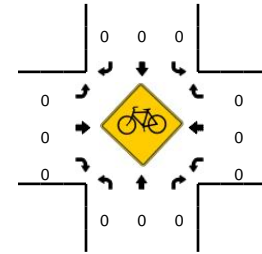
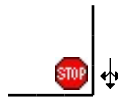
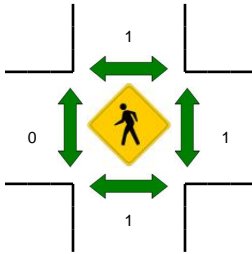
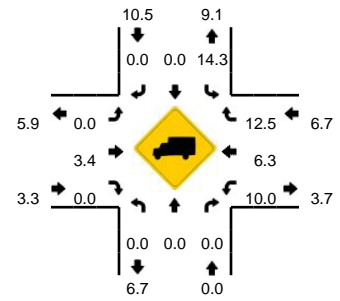
Comments:

**LOCATION:** Covington Ct -- Prairie St  
**CITY/STATE:** Saint Charles, IL

**QC JOB #:** 13714022  
**DATE:** Tue, May 10 2016



**Peak-Hour: 7:15 AM -- 8:15 AM**  
**Peak 15-Min: 7:45 AM -- 8:00 AM**

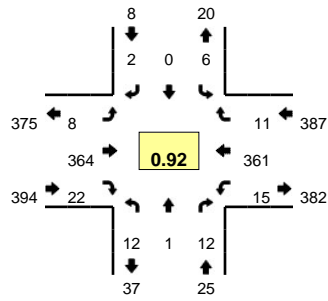


15-Min Count Period Beginning At	Covington Ct (Northbound)				Covington Ct (Southbound)				Prairie St (Eastbound)				Prairie St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
6:00 AM	3	0	1	0	2	0	0	0	0	19	1	0	1	17	0	0	44	
6:15 AM	3	0	4	0	4	0	2	0	0	21	1	0	0	17	1	0	53	
6:30 AM	8	0	2	0	3	0	1	0	1	36	1	0	0	29	3	0	84	
6:45 AM	3	0	4	0	2	0	0	0	0	45	0	0	2	33	0	0	89	270
7:00 AM	3	0	5	0	2	0	0	0	0	39	0	0	0	33	2	0	84	310
7:15 AM	6	0	7	0	1	0	1	0	0	44	1	0	1	48	0	0	109	366
7:30 AM	4	0	4	0	3	0	1	0	0	63	2	0	4	56	0	0	137	419
7:45 AM	1	0	6	0	6	0	2	0	1	70	1	0	3	56	4	0	150	480
8:00 AM	2	0	6	0	4	0	1	0	2	57	1	0	2	61	4	0	140	536
8:15 AM	2	0	3	0	2	0	0	0	2	46	2	0	2	56	3	0	118	545
8:30 AM	8	0	1	0	1	0	0	0	0	46	0	0	4	63	0	0	123	531
8:45 AM	2	0	2	0	1	0	2	0	1	40	1	0	1	56	2	0	108	489
<b>Peak 15-Min Flowrates</b>	<b>Northbound</b>				<b>Southbound</b>				<b>Eastbound</b>				<b>Westbound</b>				<b>Total</b>	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	4	0	24	0	24	0	8	0	4	280	4	0	12	224	16	0	600	
Heavy Trucks	0	0	0		8	0	0		0	16	0		0	24	4		52	
Pedestrians	0	0	0		0	0	0		0	0	0		0	0	0		0	
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0	
Railroad																		
Stopped Buses																		

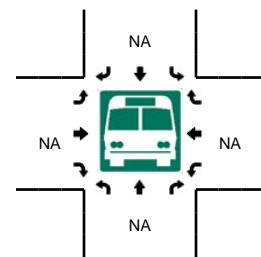
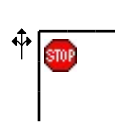
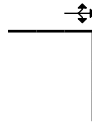
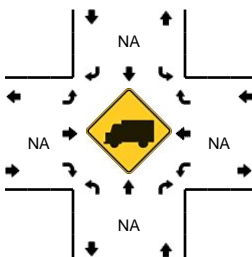
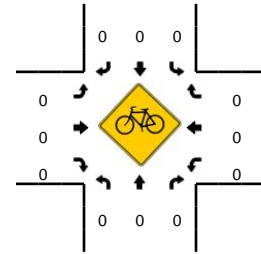
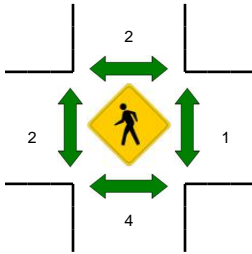
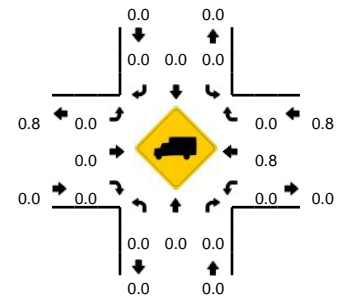
Comments:

**LOCATION:** Covington Ct -- Prairie St  
**CITY/STATE:** Saint Charles, IL

**QC JOB #:** 13714024  
**DATE:** Tue, May 10 2016



**Peak-Hour: 4:30 PM -- 5:30 PM**  
**Peak 15-Min: 4:30 PM -- 4:45 PM**



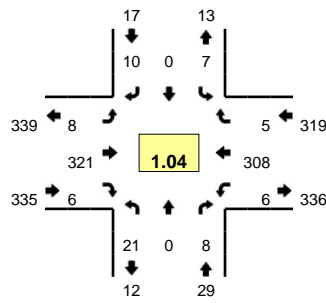
15-Min Count Period Beginning At	Covington Ct (Northbound)				Covington Ct (Southbound)				Prairie St (Eastbound)				Prairie St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
3:30 PM	5	0	2	0	4	1	4	0	4	74	5	0	3	97	3	0	202	
3:45 PM	4	0	3	0	3	0	2	0	1	84	2	0	1	84	4	0	188	
4:00 PM	1	0	2	0	3	0	2	0	1	79	8	0	6	109	5	0	216	
4:15 PM	6	0	2	0	1	0	2	0	1	76	5	0	3	102	0	0	198	804
4:30 PM	6	0	3	0	0	0	2	0	1	96	11	0	3	98	2	0	222	824
4:45 PM	2	0	3	0	2	0	0	0	4	82	4	0	2	86	2	0	187	823
5:00 PM	4	0	4	0	1	0	0	0	2	107	3	0	3	96	4	0	224	831
5:15 PM	0	1	2	0	3	0	0	0	1	79	4	0	7	81	3	0	181	814
5:30 PM	5	1	2	0	1	0	1	0	1	71	2	0	4	63	3	0	154	746
5:45 PM	4	0	2	0	2	0	0	0	2	71	3	0	6	77	2	0	169	728
6:00 PM	2	0	2	0	0	0	0	0	1	67	3	0	5	80	3	0	163	667
6:15 PM	2	0	1	0	1	0	0	0	1	70	3	0	1	82	3	0	164	650
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
All Vehicles	24	0	12	0	0	0	8	0	4	384	44	0	12	392	8	0	888	
Heavy Trucks	0	0	0		0	0	0		0	0	0		0	8	0		8	
Pedestrians		4				4				0				0			8	
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0	
Railroad																		
Stopped Buses																		

Comments:

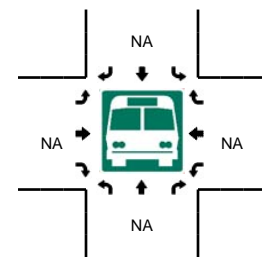
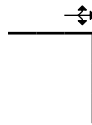
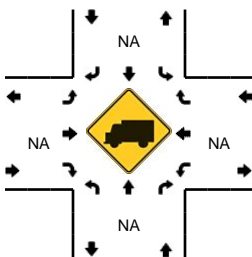
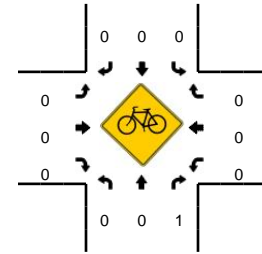
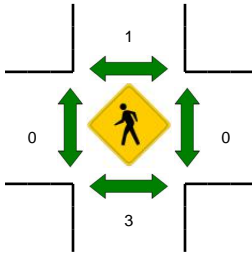
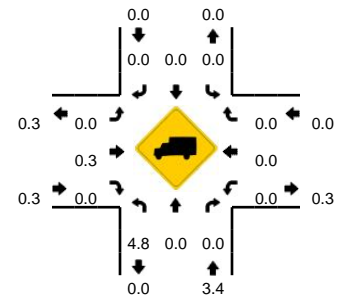


**LOCATION:** Covington Ct -- Prairie St  
**CITY/STATE:** Saint Charles, IL

**QC JOB #:** 13714053  
**DATE:** Sat, May 07 2016



**Peak-Hour: 11:15 AM -- 12:15 PM**  
**Peak 15-Min: 11:30 AM -- 11:45 AM**

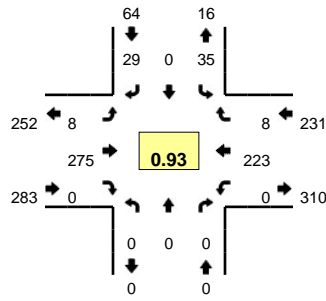


15-Min Count Period Beginning At	Covington Ct (Northbound)				Covington Ct (Southbound)				Prairie St (Eastbound)				Prairie St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
11:00 AM	7	0	3	0	2	0	2	0	1	75	5	0	0	99	2	0	196	
11:15 AM	9	0	3	0	1	0	2	0	3	78	1	0	1	82	1	0	181	
11:30 AM	6	0	2	0	3	0	1	0	0	82	1	0	0	71	2	0	168	
11:45 AM	3	0	1	0	1	0	6	0	4	86	2	0	2	79	1	0	185	730
12:00 PM	3	0	2	0	2	0	1	0	1	75	2	0	3	76	1	0	166	700
12:15 PM	2	0	1	0	0	0	2	0	0	73	2	0	2	85	0	0	167	686
12:30 PM	4	1	2	0	0	0	1	0	2	69	2	0	5	84	2	0	172	690
12:45 PM	5	0	3	1	1	0	1	0	2	65	4	0	3	68	3	0	156	661
1:00 PM	5	0	1	0	1	0	1	0	2	74	3	0	3	70	1	0	161	656
1:15 PM	7	0	2	0	1	0	0	0	4	74	2	0	0	60	0	0	150	639
1:30 PM	3	0	2	0	1	0	0	0	1	72	5	0	5	81	1	0	171	638
1:45 PM	3	0	4	0	2	0	1	0	1	58	6	0	2	70	3	0	150	632
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	24	0	8	0	12	0	4	0	0	328	4	0	0	284	8	0	672	
Heavy Trucks	0	0	0		0	0	0		0	0	0		0	0	0		0	
Pedestrians	0	0	0		0	0	0		0	0	0		0	0	0		0	
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0	
Railroad																		
Stopped Buses																		

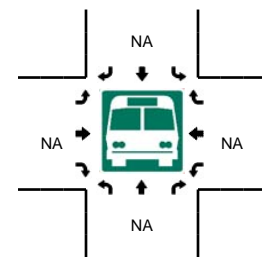
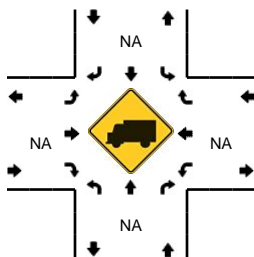
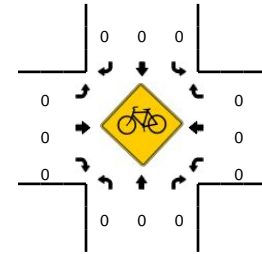
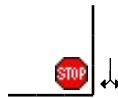
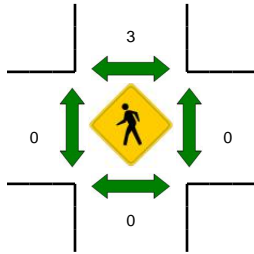
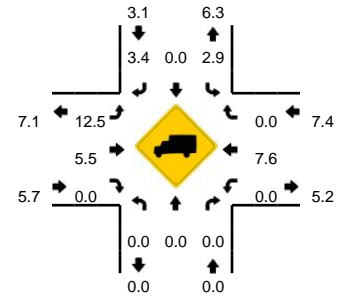
Comments:

**LOCATION:** 16th St -- Prairie St  
**CITY/STATE:** Saint Charles, IL

**QC JOB #:** 13714019  
**DATE:** Tue, Apr 12 2016



**Peak-Hour: 7:15 AM -- 8:15 AM**  
**Peak 15-Min: 7:45 AM -- 8:00 AM**

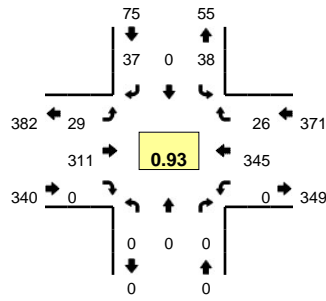


15-Min Count Period Beginning At	16th St (Northbound)				16th St (Southbound)				Prairie St (Eastbound)				Prairie St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
6:00 AM	0	0	0	0	8	0	1	0	2	16	0	0	0	20	1	0	48	
6:15 AM	0	0	0	0	5	0	4	0	0	32	0	0	0	20	2	0	63	
6:30 AM	0	0	0	0	7	0	3	0	0	47	0	0	0	38	2	0	97	
6:45 AM	0	0	0	0	6	0	6	0	2	51	0	0	0	24	1	0	90	298
7:00 AM	0	0	0	0	9	0	3	0	2	50	0	0	0	23	2	0	89	339
7:15 AM	0	0	0	0	14	0	7	0	3	71	0	0	0	52	1	0	148	424
7:30 AM	0	0	0	0	9	0	6	0	3	62	0	0	0	44	3	0	127	454
7:45 AM	0	0	0	0	6	0	12	0	2	71	0	0	0	61	3	0	155	519
8:00 AM	0	0	0	0	6	0	4	0	0	71	0	0	0	66	1	0	148	578
8:15 AM	0	0	0	0	8	0	14	0	6	51	0	0	0	62	5	0	146	576
8:30 AM	0	0	0	0	11	0	10	0	2	60	0	0	0	67	5	0	155	604
8:45 AM	0	0	0	0	14	0	11	0	6	63	0	0	0	64	1	0	159	608
<b>Peak 15-Min Flowrates</b>	<b>Northbound</b>				<b>Southbound</b>				<b>Eastbound</b>				<b>Westbound</b>				<b>Total</b>	
All Vehicles	0	0	0	0	24	0	48	0	8	284	0	0	0	244	12	0	620	
Heavy Trucks	0	0	0	0	0	0	4	0	4	20	0	0	0	28	0	0	56	
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Bicycles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Railroad	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

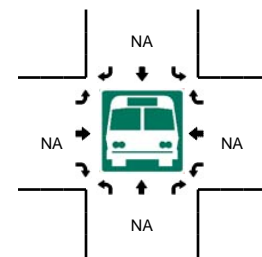
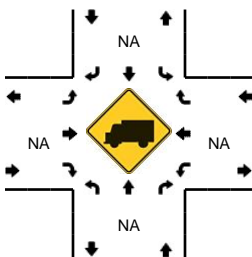
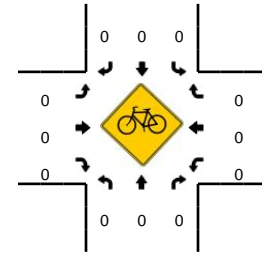
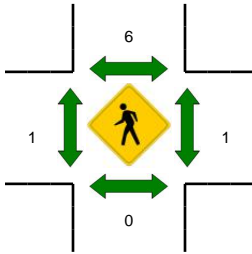
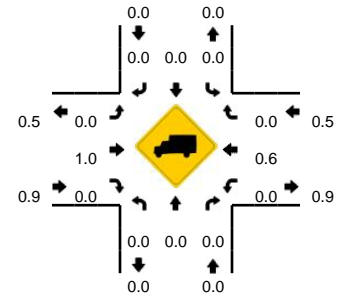
Comments:

**LOCATION:** 16th St -- Prairie St  
**CITY/STATE:** Saint Charles, IL

**QC JOB #:** 13714021  
**DATE:** Tue, Apr 12 2016



**Peak-Hour: 4:30 PM -- 5:30 PM**  
**Peak 15-Min: 4:30 PM -- 4:45 PM**

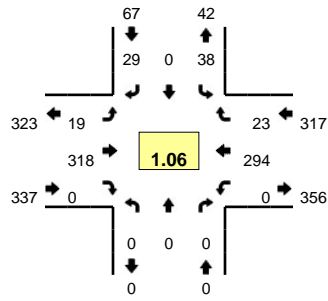


15-Min Count Period Beginning At	16th St (Northbound)				16th St (Southbound)				Prairie St (Eastbound)				Prairie St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
3:30 PM	0	0	0	0	8	0	11	0	15	65	0	0	0	86	3	0	188	
3:45 PM	0	0	0	0	8	0	12	0	7	73	0	0	0	78	9	0	187	
4:00 PM	0	0	0	0	9	0	7	0	8	79	0	0	0	98	5	0	206	
4:15 PM	0	0	0	0	6	0	9	0	11	72	0	0	0	77	5	0	180	761
4:30 PM	0	0	0	0	8	0	8	0	7	80	0	0	0	102	7	0	212	785
4:45 PM	0	0	0	0	14	0	9	0	6	88	0	0	0	68	7	0	192	790
5:00 PM	0	0	0	0	7	0	8	0	4	52	0	0	0	93	7	0	171	755
5:15 PM	0	0	0	0	9	0	12	0	12	91	0	0	0	82	5	0	211	786
5:30 PM	0	0	0	0	8	0	8	0	5	91	0	0	0	83	4	0	199	773
5:45 PM	0	0	0	0	9	0	10	0	2	74	0	0	0	85	8	0	188	769
6:00 PM	0	0	0	0	2	0	11	0	6	73	0	0	0	81	5	0	178	776
6:15 PM	0	0	0	0	7	0	8	0	6	68	0	0	0	94	9	0	192	757
<b>Peak 15-Min Flowrates</b>	<b>Northbound</b>				<b>Southbound</b>				<b>Eastbound</b>				<b>Westbound</b>				<b>Total</b>	
All Vehicles	0	0	0	0	32	0	32	0	28	320	0	0	0	408	28	0	848	
Heavy Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Bicycles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Railroad																		
Stopped Buses																		

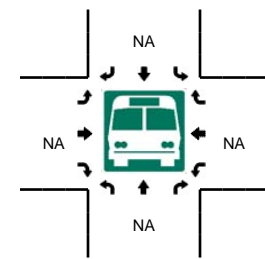
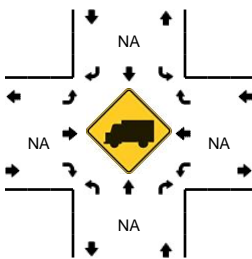
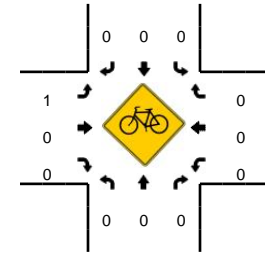
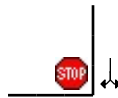
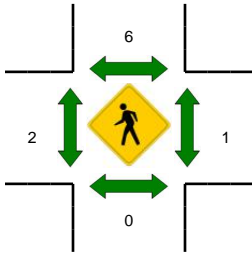
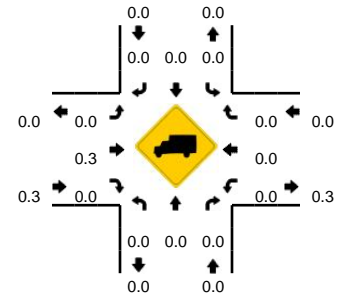
Comments:

**LOCATION:** 16th St -- Prairie St  
**CITY/STATE:** Saint Charles, IL

**QC JOB #:** 13714052  
**DATE:** Sat, May 07 2016



**Peak-Hour: 11:15 AM -- 12:15 PM**  
**Peak 15-Min: 11:30 AM -- 11:45 AM**

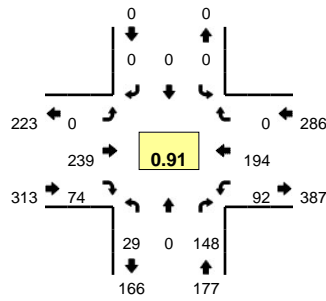


15-Min Count Period Beginning At	16th St (Northbound)				16th St (Southbound)				Prairie St (Eastbound)				Prairie St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
11:00 AM	0	0	0	0	8	0	8	0	0	80	0	0	0	94	5	0	195	
11:15 AM	0	0	0	0	11	0	10	0	5	80	0	0	0	77	2	0	185	
11:30 AM	0	0	0	0	7	0	6	0	3	82	0	0	0	67	5	0	170	
11:45 AM	0	0	0	0	10	0	9	0	6	83	0	0	0	75	5	0	188	738
12:00 PM	0	0	0	0	10	0	4	0	5	73	0	0	0	75	11	0	178	721
12:15 PM	0	0	0	0	11	0	7	0	7	67	0	0	0	81	5	0	178	714
12:30 PM	0	0	0	0	9	0	9	0	1	69	0	0	0	81	6	0	175	719
12:45 PM	0	0	0	0	12	0	6	0	4	65	0	0	0	70	9	0	166	697
1:00 PM	0	0	0	0	9	0	11	0	4	72	0	0	0	63	8	0	167	686
1:15 PM	0	0	0	0	7	0	7	0	7	71	0	0	0	53	6	0	151	659
1:30 PM	0	0	0	0	8	0	8	0	8	67	0	0	0	81	5	0	177	661
1:45 PM	0	0	0	0	6	0	6	0	8	59	0	0	0	69	1	0	149	644
<b>Peak 15-Min Flowrates</b>	<b>Northbound</b>				<b>Southbound</b>				<b>Eastbound</b>				<b>Westbound</b>				<b>Total</b>	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	0	0	0	0	28	0	24	0	12	328	0	0	0	268	20	0	680	
Heavy Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Bicycles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Railroad																		
Stopped Buses																		

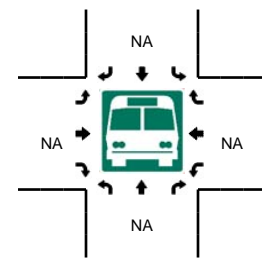
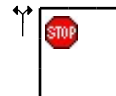
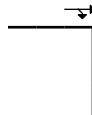
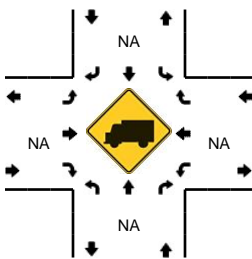
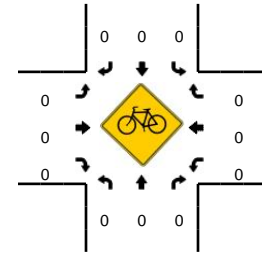
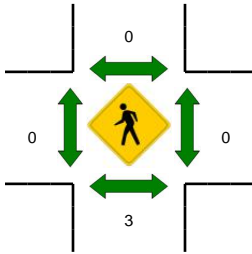
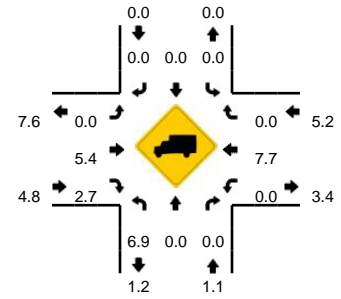
Comments:

**LOCATION:** 14th St -- Prairie St  
**CITY/STATE:** Saint Charles, IL

**QC JOB #:** 13714040  
**DATE:** Thu, May 12 2016



**Peak-Hour: 7:15 AM -- 8:15 AM**  
**Peak 15-Min: 7:45 AM -- 8:00 AM**

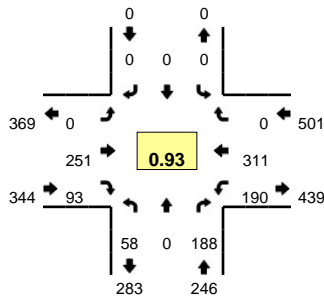


15-Min Count Period Beginning At	14th St (Northbound)				14th St (Southbound)				Prairie St (Eastbound)				Prairie St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
6:00 AM	5	0	5	1	0	0	0	0	0	12	9	0	7	16	0	0	55	
6:15 AM	5	0	13	0	0	0	0	0	0	27	12	0	7	17	0	0	81	
6:30 AM	4	0	25	0	0	0	0	0	0	41	11	0	13	36	0	0	130	
6:45 AM	5	0	32	0	0	0	0	0	0	46	14	0	17	20	0	0	134	400
7:00 AM	6	0	37	0	0	0	0	0	0	38	16	0	14	19	0	0	130	475
7:15 AM	9	0	27	0	0	0	0	0	0	64	26	0	24	37	0	0	187	581
7:30 AM	5	0	47	0	0	0	0	0	0	47	22	0	21	41	0	0	183	634
7:45 AM	10	0	44	0	0	0	0	0	0	70	9	0	27	53	0	0	213	713
8:00 AM	5	0	30	0	0	0	0	0	0	58	17	0	20	63	0	0	193	776
8:15 AM	9	0	27	0	0	0	0	0	0	44	13	0	32	57	0	0	182	771
8:30 AM	15	0	26	0	0	0	0	0	0	55	20	0	37	59	0	0	212	800
8:45 AM	11	0	24	0	0	0	0	0	0	49	24	0	29	55	0	0	192	779
9:00 AM	14	0	25	0	0	0	0	0	0	59	17	0	34	41	0	0	190	776
9:15 AM	5	0	25	0	0	0	0	0	0	38	19	0	22	45	0	0	154	748
9:30 AM	13	0	16	0	0	0	0	0	0	35	17	0	28	37	0	0	146	682
9:45 AM	14	0	22	0	0	0	0	0	0	28	21	0	25	32	0	0	142	632
10:00 AM	6	0	22	0	0	0	0	0	0	21	15	0	34	34	0	0	132	574
10:15 AM	3	0	21	1	0	0	0	0	0	39	17	0	26	41	0	0	148	568
10:30 AM	6	0	32	0	0	0	0	0	0	27	9	0	29	41	0	0	144	566
10:45 AM	15	0	27	0	0	0	0	0	0	48	10	0	26	37	0	0	163	587
11:00 AM	8	0	25	0	0	0	0	0	0	50	18	0	23	35	0	0	159	614
11:15 AM	11	0	36	1	0	0	0	0	0	32	16	0	31	44	0	0	171	637
11:30 AM	14	0	37	0	0	0	0	0	0	36	19	0	30	47	0	0	183	676
11:45 AM	8	0	28	0	0	0	0	0	0	45	17	0	33	49	0	0	180	693
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	40	0	176	0	0	0	0	0	0	280	36	0	108	212	0	0	852	
Heavy Trucks	4	0	0		0	0	0		0	16	4		0	20	0		44	
Pedestrians			8				0				0				0		8	
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0	
Railroad																		
Stopped Buses																		

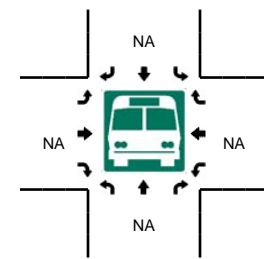
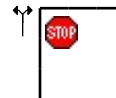
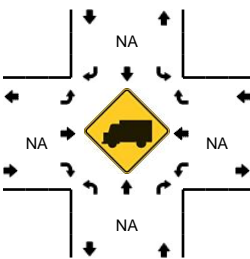
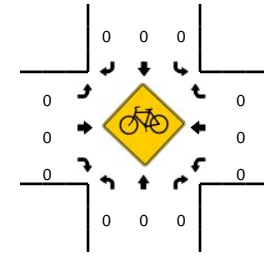
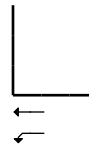
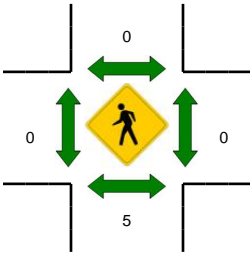
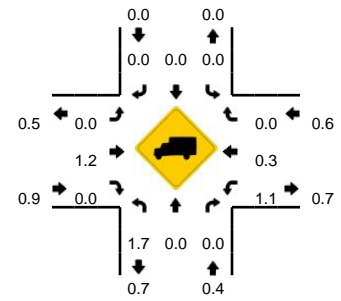
Comments:

**LOCATION:** 14th St -- Prairie St  
**CITY/STATE:** Saint Charles, IL

**QC JOB #:** 13714040  
**DATE:** Thu, May 12 2016



**Peak-Hour: 4:30 PM -- 5:30 PM**  
**Peak 15-Min: 4:30 PM -- 4:45 PM**

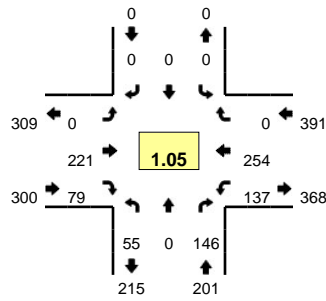


15-Min Count Period Beginning At	14th St (Northbound)				14th St (Southbound)				Prairie St (Eastbound)				Prairie St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
1:00 PM	13	0	52	0	0	0	0	0	0	43	25	0	27	40	0	0	200	785
1:15 PM	15	0	33	0	0	0	0	0	0	44	18	0	42	46	0	0	198	784
1:30 PM	10	0	38	0	0	0	0	0	0	44	10	0	34	49	0	0	185	781
1:45 PM	16	0	37	0	0	0	0	0	0	38	22	0	29	38	0	0	180	763
2:00 PM	7	0	36	0	0	0	0	0	0	50	22	0	33	55	0	0	203	766
2:15 PM	10	0	31	0	0	0	0	0	0	48	18	0	27	51	0	0	185	753
2:30 PM	16	0	36	0	0	0	0	0	0	47	15	0	35	57	0	0	206	774
2:45 PM	9	0	45	0	0	0	0	0	0	58	17	0	26	49	0	0	204	798
3:00 PM	14	0	52	0	0	0	0	0	0	50	23	0	34	66	0	0	239	834
3:15 PM	11	0	47	0	0	0	0	0	0	69	14	0	45	56	0	0	242	891
3:30 PM	10	0	36	0	0	0	0	0	0	49	24	0	51	80	0	0	250	935
3:45 PM	15	0	51	1	0	0	0	0	0	60	20	0	57	71	0	0	275	1006
4:00 PM	16	0	57	0	0	0	0	0	0	63	27	0	42	86	0	0	291	1058
4:15 PM	12	0	51	0	0	0	0	0	0	57	20	0	53	71	0	0	264	1080
4:30 PM	19	0	61	0	0	0	0	0	0	56	30	0	40	87	0	0	293	1123
4:45 PM	12	0	42	0	0	0	0	0	0	75	28	0	49	64	0	0	270	1118
5:00 PM	13	0	41	0	0	0	0	0	0	43	15	0	53	86	0	0	251	1078
5:15 PM	14	0	44	0	0	0	0	0	0	77	20	0	48	74	0	0	277	1091
5:30 PM	15	0	36	1	0	0	0	0	0	77	23	0	50	69	0	0	271	1069
5:45 PM	21	0	35	0	0	0	0	0	0	66	18	0	52	73	0	0	265	1064
6:00 PM	10	0	38	0	0	0	0	0	0	63	10	0	47	77	0	0	245	1058
6:15 PM	14	0	39	0	0	0	0	0	0	55	17	0	29	91	0	0	245	1026
6:30 PM	13	0	34	0	0	0	0	0	0	44	17	0	31	54	0	0	193	948
6:45 PM	14	0	27	0	0	0	0	0	0	53	15	0	35	49	0	0	193	876
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	76	0	244	0	0	0	0	0	0	224	120	0	160	348	0	0	1172	
Heavy Trucks	4	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	12	
Pedestrians		4				0				0				0			4	
Bicycles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Railroad																		
Stopped Buses																		

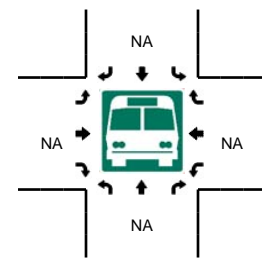
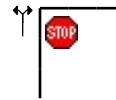
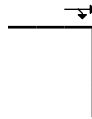
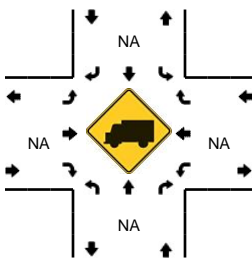
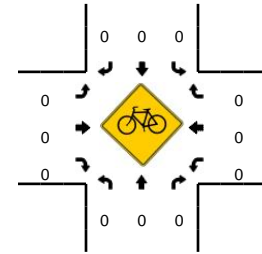
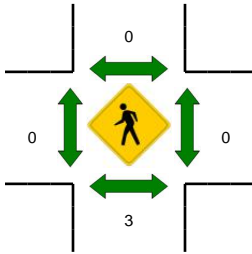
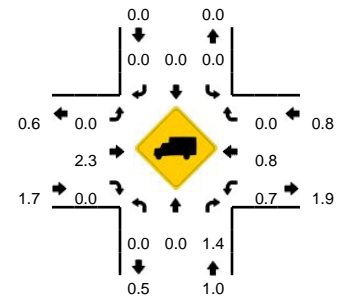
Comments:

**LOCATION:** 14th St -- Prairie St  
**CITY/STATE:** Saint Charles, IL

**QC JOB #:** 13714041  
**DATE:** Mon, May 16 2016



**Peak-Hour: 11:15 AM -- 12:15 PM**  
**Peak 15-Min: 11:30 AM -- 11:45 AM**

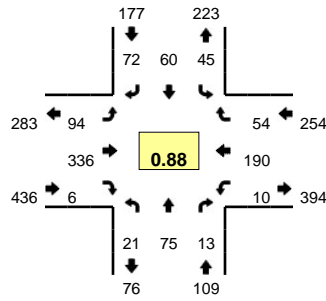


15-Min Count Period Beginning At	14th St (Northbound)				14th St (Southbound)				Prairie St (Eastbound)				Prairie St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
11:00 AM	13	0	40	0	0	0	0	0	0	42	17	0	40	65	0	0	217	
11:15 AM	15	0	37	0	0	0	0	0	0	51	14	0	34	66	0	0	217	
11:30 AM	11	0	33	0	0	0	0	0	0	55	19	0	34	61	0	0	213	
11:45 AM	12	0	41	0	0	0	0	0	0	63	28	0	30	60	0	1	235	882
12:00 PM	17	0	35	0	0	0	0	0	0	52	18	0	38	67	0	0	227	892
12:15 PM	14	0	38	0	0	0	0	0	0	42	18	0	32	57	0	0	201	876
12:30 PM	11	0	43	0	0	0	0	0	0	54	19	0	29	51	0	0	207	870
12:45 PM	15	0	46	0	0	0	0	0	0	55	18	0	44	65	0	0	243	878
1:00 PM	15	0	39	0	0	0	0	0	0	60	23	0	38	50	0	0	225	876
1:15 PM	17	0	37	0	0	0	0	0	0	59	11	0	47	60	0	0	231	906
1:30 PM	9	0	44	0	0	0	0	0	0	47	18	0	39	74	0	0	231	930
1:45 PM	10	0	41	0	0	0	0	0	0	59	26	0	32	55	0	0	223	910
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	44	0	132	0	0	0	0	0	0	220	76	0	136	244	0	0	852	
Heavy Trucks	0	0	0	0	0	0	0	0	0	4	0	0	4	0	0	0	8	
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Bicycles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Railroad																		
Stopped Buses																		

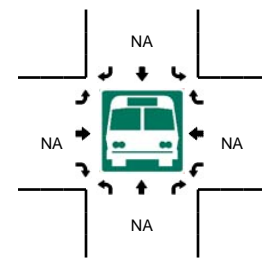
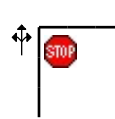
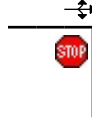
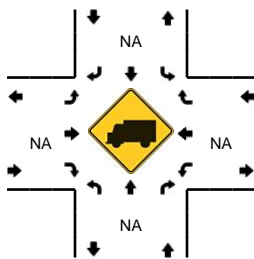
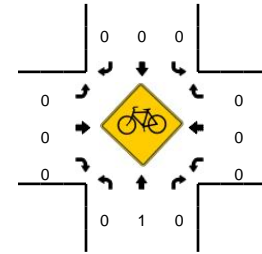
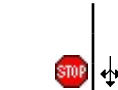
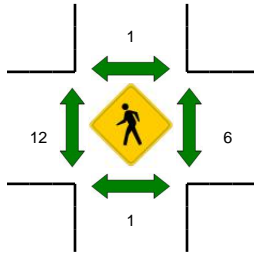
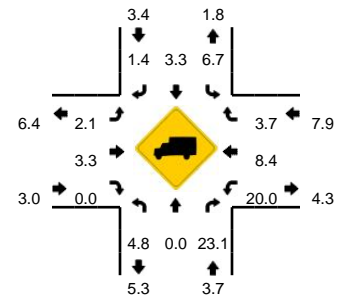
Comments:

**LOCATION:** 7th St -- Prairie St  
**CITY/STATE:** Saint Charles, IL

**QC JOB #:** 13714042  
**DATE:** Sat, Apr 16 2016



**Peak-Hour: 7:15 AM -- 8:15 AM**  
**Peak 15-Min: 7:45 AM -- 8:00 AM**



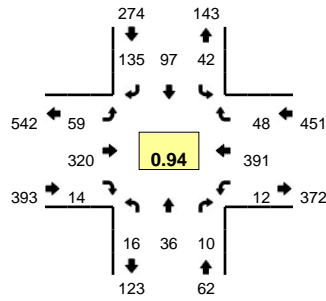
15-Min Count Period Beginning At	7th St (Northbound)				7th St (Southbound)				Prairie St (Eastbound)				Prairie St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
6:00 AM	0	4	0	0	6	0	3	0	8	13	0	0	0	13	0	0	47	
6:15 AM	1	3	0	0	3	3	3	0	13	32	0	0	0	16	0	0	74	
6:30 AM	1	9	2	0	4	3	7	0	21	55	0	0	0	31	5	0	138	
6:45 AM	3	11	4	0	6	4	9	0	18	77	0	0	0	15	5	0	152	411
7:00 AM	3	9	5	0	7	4	9	0	22	80	0	0	2	27	12	0	180	544
7:15 AM	2	14	5	0	10	16	2	0	19	75	0	0	0	46	16	0	205	675
7:30 AM	5	12	0	0	13	15	15	0	23	78	1	0	1	40	18	0	221	758
7:45 AM	8	26	5	0	9	9	18	0	28	100	3	0	6	58	8	0	278	884
8:00 AM	6	23	3	0	13	20	37	0	24	83	2	0	3	46	12	0	272	976
8:15 AM	6	9	1	0	12	28	22	0	17	56	8	0	3	64	9	0	235	1006
8:30 AM	12	16	7	0	9	19	13	0	20	63	5	0	4	68	17	0	253	1038
8:45 AM	1	8	3	0	11	14	20	0	10	80	4	0	5	51	3	0	210	970
9:00 AM	4	13	5	0	11	6	20	0	20	64	4	0	0	45	8	0	200	898
9:15 AM	1	5	0	0	5	3	17	0	17	43	4	0	0	46	4	0	145	808
9:30 AM	1	4	0	0	5	4	14	0	10	36	1	0	1	39	4	0	119	674
9:45 AM	2	8	0	0	1	10	14	0	12	43	3	0	0	37	6	0	136	600
10:00 AM	3	3	1	0	6	3	18	0	9	30	0	0	1	50	4	0	128	528
10:15 AM	1	6	0	0	4	5	9	0	12	44	1	0	0	42	2	0	126	509
10:30 AM	1	5	1	0	7	8	13	0	9	48	1	0	1	50	9	0	153	543
10:45 AM	1	6	3	0	3	10	14	0	11	54	2	0	3	49	5	0	161	568
11:00 AM	3	9	0	0	12	7	15	0	5	60	1	0	1	42	4	0	159	599
11:15 AM	2	7	0	0	7	10	22	0	14	49	3	0	4	48	11	0	177	650
11:30 AM	3	5	3	0	15	8	26	0	11	52	4	0	0	57	8	0	192	689
11:45 AM	1	5	1	0	4	10	23	0	12	57	4	0	0	51	5	0	173	701
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	32	104	20	0	36	36	72	0	112	400	12	0	24	232	32	0	1112	
Heavy Trucks	4	0	4		8	0	0		8	12	0		4	20	8		68	
Pedestrians		4				4				24				24			56	
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0	
Railroad																		
Stopped Buses																		

Comments:

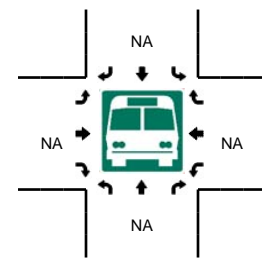
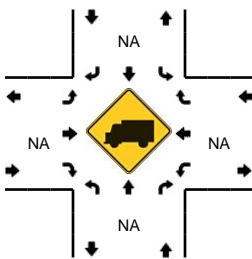
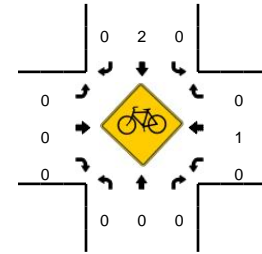
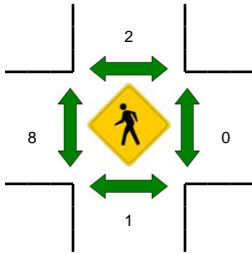
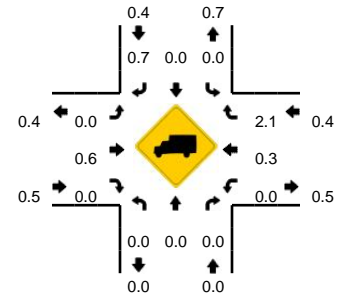


**LOCATION:** 7th St -- Prairie St  
**CITY/STATE:** Saint Charles, IL

**QC JOB #:** 13714042  
**DATE:** Sat, Apr 16 2016



**Peak-Hour: 4:30 PM -- 5:30 PM**  
**Peak 15-Min: 4:30 PM -- 4:45 PM**

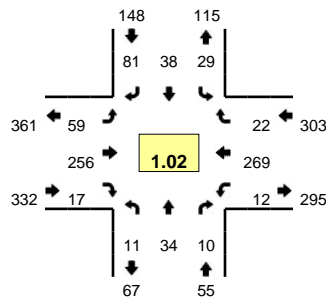


15-Min Count Period Beginning At	7th St (Northbound)				7th St (Southbound)				Prairie St (Eastbound)				Prairie St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
1:00 PM	0	6	1	0	7	6	22	0	16	57	3	0	0	57	10	0	185	742
1:15 PM	1	3	3	0	3	7	22	0	17	58	0	0	1	59	4	0	178	743
1:30 PM	5	5	4	0	5	5	22	0	17	57	0	0	2	57	4	0	183	735
1:45 PM	2	5	1	0	4	7	23	0	17	66	1	0	1	52	4	0	183	729
2:00 PM	2	3	0	0	12	10	21	0	15	56	2	0	4	64	6	0	195	739
2:15 PM	2	4	6	0	12	9	13	0	8	54	0	0	2	57	4	0	171	732
2:30 PM	3	6	2	0	3	15	18	0	11	61	2	0	1	77	16	0	215	764
2:45 PM	5	8	1	0	10	24	24	0	14	75	5	0	3	64	7	0	240	821
3:00 PM	14	26	6	0	5	16	22	0	16	68	4	0	5	81	16	0	279	905
3:15 PM	8	15	3	0	4	16	23	0	30	87	3	0	4	76	8	0	277	1011
3:30 PM	5	17	1	0	12	17	35	0	12	76	4	0	2	98	15	0	294	1090
3:45 PM	3	12	0	0	11	12	28	0	12	85	5	0	1	101	12	0	282	1132
4:00 PM	5	15	3	0	12	18	27	0	23	84	5	0	3	99	9	0	303	1156
4:15 PM	5	11	3	0	10	17	29	0	19	77	4	0	3	81	19	0	278	1157
4:30 PM	6	11	4	0	12	28	32	0	22	81	5	0	3	98	12	0	314	1177
4:45 PM	2	13	4	0	14	24	26	0	14	85	3	0	1	96	15	0	297	1192
5:00 PM	4	4	2	0	11	21	40	0	8	72	2	0	3	108	12	0	287	1176
5:15 PM	4	8	0	0	5	24	37	0	15	82	4	0	5	89	9	0	282	1180
5:30 PM	4	11	4	0	14	17	33	0	11	69	4	0	4	95	10	0	276	1142
5:45 PM	2	8	2	0	5	18	30	0	14	71	0	0	3	90	10	0	253	1098
6:00 PM	1	13	4	0	10	17	24	0	21	62	3	0	4	108	11	0	278	1089
6:15 PM	5	10	1	0	18	11	19	0	8	66	1	0	2	82	4	0	227	1034
6:30 PM	5	14	3	0	5	10	20	0	8	51	7	0	1	54	9	0	187	945
6:45 PM	4	9	4	0	7	21	20	0	19	50	2	0	5	58	9	0	208	900
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	24	44	16	0	48	112	128	0	88	324	20	0	12	392	48	0	1256	
Heavy Trucks	0	0	0	0	0	0	4	0	0	0	0	0	0	4	4	0	12	
Pedestrians	0	0	0	0	0	0	0	0	12	0	0	0	0	0	0	0	12	
Bicycles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Railroad																		
Stopped Buses																		

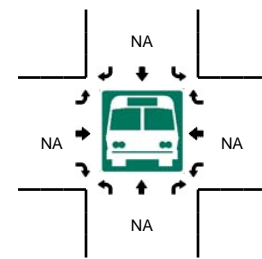
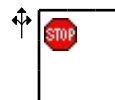
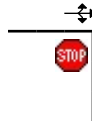
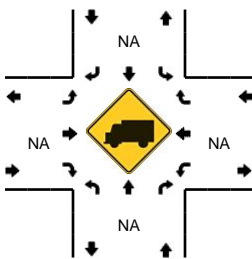
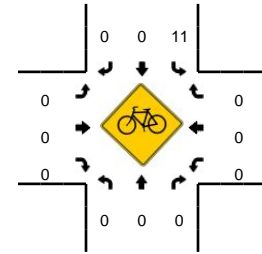
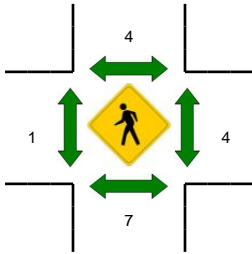
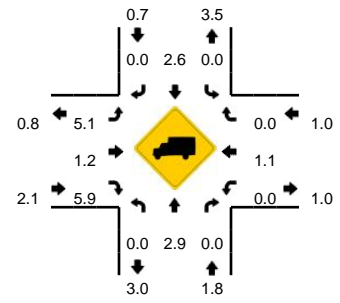
Comments:

**LOCATION:** 7th St -- Prairie St  
**CITY/STATE:** Saint Charles, IL

**QC JOB #:** 13714043  
**DATE:** Sat, Apr 16 2016



**Peak-Hour: 11:15 AM -- 12:15 PM**  
**Peak 15-Min: 11:30 AM -- 11:45 AM**

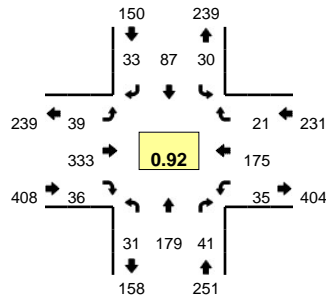


15-Min Count Period Beginning At	7th St (Northbound)				7th St (Southbound)				Prairie St (Eastbound)				Prairie St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
11:00 AM	2	4	1	0	6	13	14	0	14	63	1	0	0	77	3	0	198	
11:15 AM	3	13	2	0	5	9	25	0	17	50	1	0	3	69	3	0	200	
11:30 AM	2	7	1	0	4	4	22	0	16	72	5	0	4	63	6	0	206	
11:45 AM	4	8	2	0	13	7	19	0	17	70	9	0	3	69	8	0	229	833
12:00 PM	2	6	5	0	7	18	15	0	9	64	2	0	2	68	5	0	203	838
12:15 PM	3	9	3	0	5	11	16	0	13	67	2	0	3	57	3	0	192	830
12:30 PM	2	9	2	0	4	10	19	0	13	66	0	0	0	58	6	0	189	813
12:45 PM	4	11	0	0	14	19	23	0	23	62	2	0	3	81	6	0	248	832
1:00 PM	2	3	1	0	12	10	17	0	12	70	3	0	2	71	7	0	210	839
1:15 PM	2	4	1	0	6	13	26	0	20	62	0	0	0	72	12	0	218	865
1:30 PM	2	4	3	0	7	5	20	0	18	61	2	0	0	73	10	0	205	881
1:45 PM	3	6	1	0	11	10	13	0	17	74	0	0	3	58	10	0	206	839
<b>Peak 15-Min Flowrates</b>	<b>Northbound</b>				<b>Southbound</b>				<b>Eastbound</b>				<b>Westbound</b>				<b>Total</b>	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	8	28	4	0	16	16	88	0	64	288	20	0	16	252	24	0	824	
Heavy Trucks	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	4	
Pedestrians		4				4				0				4			12	
Bicycles	0	0	0		2	0	0		0	0	0		0	0	0		2	
Railroad																		
Stopped Buses																		

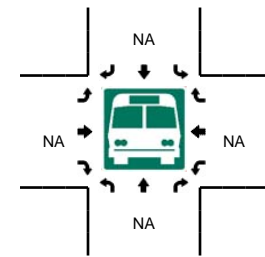
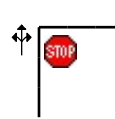
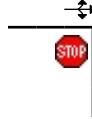
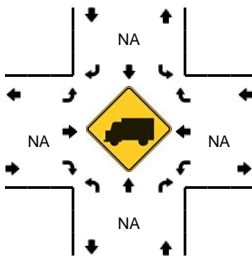
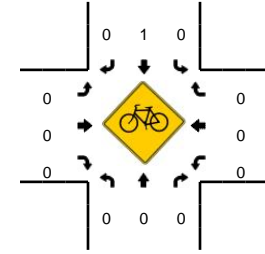
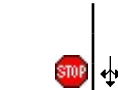
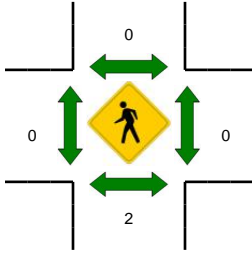
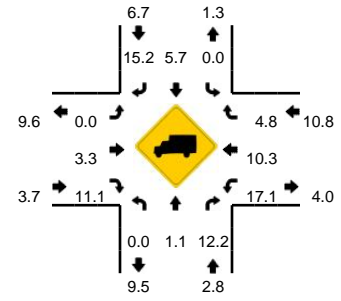
Comments:

**LOCATION:** 3rd St -- Prairie St  
**CITY/STATE:** Saint Charles, IL

**QC JOB #:** 13714044  
**DATE:** Tue, Apr 12 2016



**Peak-Hour: 7:15 AM -- 8:15 AM**  
**Peak 15-Min: 7:45 AM -- 8:00 AM**

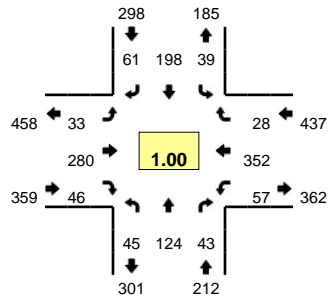


15-Min Count Period Beginning At	3rd St (Northbound)				3rd St (Southbound)				Prairie St (Eastbound)				Prairie St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
6:00 AM	3	16	2	0	2	2	0	0	1	18	2	0	3	8	1	0	58	
6:15 AM	1	28	3	0	1	12	0	0	4	34	2	0	3	13	1	0	102	
6:30 AM	9	36	8	0	4	19	1	0	2	52	2	0	3	24	2	0	162	
6:45 AM	4	30	9	0	5	12	0	0	9	80	10	0	4	13	4	0	180	502
7:00 AM	9	35	16	0	9	22	5	0	13	77	9	0	7	29	6	0	237	681
7:15 AM	7	51	6	0	7	14	7	0	6	80	5	0	11	48	4	0	246	825
7:30 AM	11	44	9	0	11	29	2	0	10	80	5	0	11	40	4	0	256	919
7:45 AM	9	48	14	0	5	20	13	0	11	96	9	0	4	45	8	0	282	1021
8:00 AM	4	36	12	0	7	24	11	0	12	77	17	0	9	42	5	0	256	1040
8:15 AM	10	34	15	0	6	21	17	0	11	54	10	0	7	48	2	0	235	1029
8:30 AM	10	29	12	0	4	16	12	0	8	61	3	0	7	59	4	0	225	998
8:45 AM	3	26	10	0	6	22	11	0	11	79	13	0	4	44	4	0	233	949
9:00 AM	3	31	6	0	4	29	6	0	11	55	10	0	9	41	8	0	213	906
9:15 AM	7	20	9	0	8	28	6	0	10	40	5	0	6	35	5	0	179	850
9:30 AM	6	24	5	0	6	20	2	0	7	24	9	0	5	35	5	0	148	773
9:45 AM	6	25	13	0	7	25	5	0	7	33	5	0	3	33	4	0	166	706
10:00 AM	11	15	3	0	5	18	6	0	5	25	7	0	6	37	1	0	139	632
10:15 AM	7	19	9	0	4	16	12	0	4	41	3	0	4	24	6	0	149	602
10:30 AM	8	21	4	0	1	14	12	0	9	33	8	0	4	39	4	0	157	611
10:45 AM	6	19	11	0	3	25	10	0	4	51	10	0	5	40	2	0	186	631
11:00 AM	8	27	15	0	4	20	11	0	4	55	8	0	5	31	4	0	192	684
11:15 AM	8	26	5	0	2	22	6	0	8	41	10	0	5	50	4	0	187	722
11:30 AM	7	25	10	0	5	21	10	0	5	49	7	0	11	47	5	0	202	767
11:45 AM	7	27	6	0	6	34	5	0	9	49	6	0	9	45	2	0	205	786
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	36	192	56	0	20	80	52	0	44	384	36	0	16	180	32	0	1128	
Heavy Trucks	0	4	12		0	0	12		0	16	4		0	28	4		80	
Pedestrians		0				0				0				0			0	
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0	
Railroad																		
Stopped Buses																		

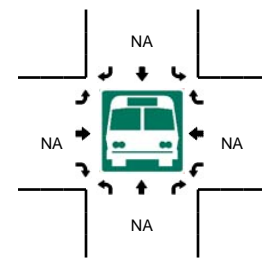
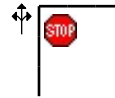
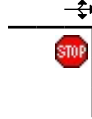
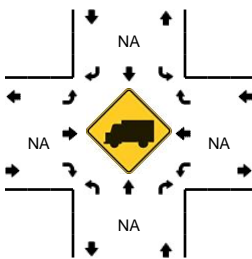
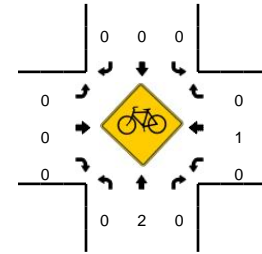
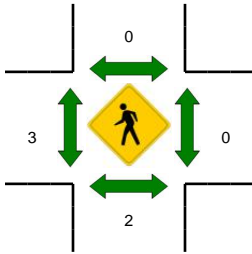
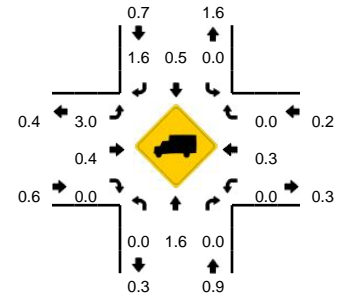
Comments:

**LOCATION:** 3rd St -- Prairie St  
**CITY/STATE:** Saint Charles, IL

**QC JOB #:** 13714044  
**DATE:** Tue, Apr 12 2016



**Peak-Hour: 4:30 PM -- 5:30 PM**  
**Peak 15-Min: 4:30 PM -- 4:45 PM**

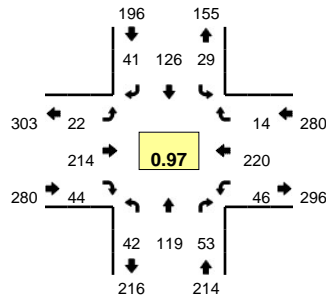


15-Min Count Period Beginning At	3rd St (Northbound)				3rd St (Southbound)				Prairie St (Eastbound)				Prairie St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
1:00 PM	13	25	11	0	5	22	7	0	7	51	8	0	10	45	12	0	216	812
1:15 PM	7	9	6	0	6	20	12	0	5	49	5	0	6	42	1	0	168	792
1:30 PM	6	20	7	0	5	20	11	0	7	54	11	0	3	45	1	0	190	784
1:45 PM	6	21	8	0	4	19	11	0	6	49	13	0	9	48	3	0	197	771
2:00 PM	18	31	11	0	4	25	10	0	5	51	7	0	12	47	4	0	225	780
2:15 PM	6	21	6	0	7	26	7	0	5	54	15	0	9	50	3	0	209	821
2:30 PM	14	26	13	0	7	31	10	0	10	51	10	0	9	65	5	0	251	882
2:45 PM	11	35	9	0	12	32	11	0	8	64	11	0	12	49	4	0	258	943
3:00 PM	9	41	17	0	5	48	18	0	7	62	6	0	6	74	5	0	298	1016
3:15 PM	14	30	9	0	3	37	14	0	9	66	14	0	12	65	10	0	283	1090
3:30 PM	15	37	17	0	5	45	16	0	6	67	17	0	14	66	6	0	311	1150
3:45 PM	13	31	11	0	6	47	17	0	11	68	11	0	16	84	7	0	322	1214
4:00 PM	21	48	21	0	8	50	16	0	10	70	13	0	15	73	7	0	352	1268
4:15 PM	14	28	15	0	5	50	13	0	5	69	16	0	12	81	9	0	317	1302
4:30 PM	8	31	12	0	8	56	13	0	7	71	13	0	14	92	3	0	328	1319
4:45 PM	13	34	12	0	7	41	11	0	7	78	14	0	8	92	10	0	327	1324
5:00 PM	15	26	7	0	13	62	18	0	13	62	12	0	17	90	7	0	342	1314
5:15 PM	9	33	12	0	11	39	19	0	6	69	7	0	18	78	8	0	309	1306
5:30 PM	11	35	13	0	6	48	12	0	8	68	10	0	8	79	6	0	304	1282
5:45 PM	12	30	16	0	4	40	23	0	9	58	12	0	9	74	6	0	293	1248
6:00 PM	14	33	14	0	9	38	18	0	8	56	7	0	10	93	5	0	305	1211
6:15 PM	12	40	20	0	3	47	7	0	6	64	19	0	8	71	4	0	301	1203
6:30 PM	6	52	10	0	5	37	7	0	4	45	7	0	11	48	1	0	233	1132
6:45 PM	11	33	11	0	4	39	9	0	7	46	10	0	12	56	1	0	239	1078
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	32	124	48	0	32	224	52	0	28	284	52	0	56	368	12	0	1312	
Heavy Trucks	0	0	0		0	0	0		0	0	0		0	4	0		4	
Pedestrians		4				0				0				0			4	
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0	
Railroad																		
Stopped Buses																		

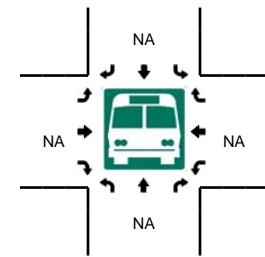
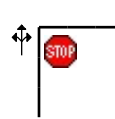
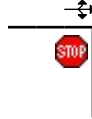
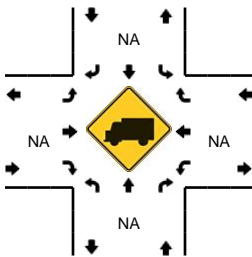
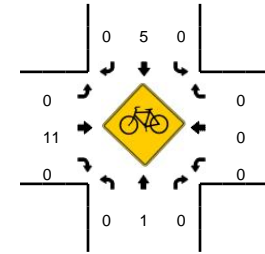
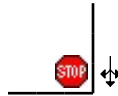
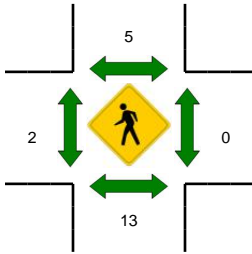
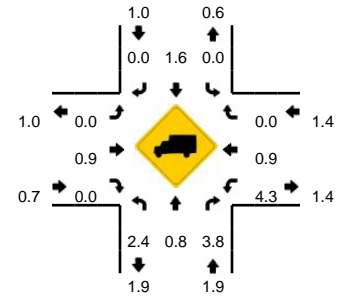
Comments:

**LOCATION:** 3rd St -- Prairie St  
**CITY/STATE:** Saint Charles, IL

**QC JOB #:** 13714045  
**DATE:** Sat, Apr 16 2016



**Peak-Hour: 11:15 AM -- 12:15 PM**  
**Peak 15-Min: 11:30 AM -- 11:45 AM**

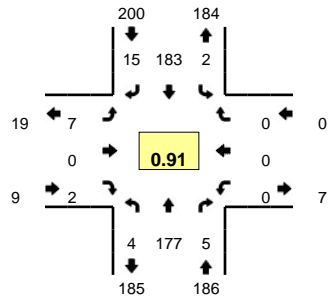


15-Min Count Period Beginning At	3rd St (Northbound)				3rd St (Southbound)				Prairie St (Eastbound)				Prairie St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
11:00 AM	12	36	11	0	5	22	9	0	8	55	7	0	9	58	4	0	236	
11:15 AM	10	27	8	0	5	34	6	0	6	37	9	0	12	53	5	0	212	
11:30 AM	9	21	18	0	8	31	13	0	4	53	16	0	12	61	3	0	249	
11:45 AM	13	36	13	0	9	34	8	0	6	66	8	0	10	59	3	0	265	962
12:00 PM	10	35	14	0	7	27	14	0	6	58	11	0	12	47	3	0	244	970
12:15 PM	3	24	9	0	8	29	9	0	8	59	13	0	9	47	1	0	219	977
12:30 PM	11	35	8	0	4	31	8	0	2	64	10	0	11	54	4	0	242	970
12:45 PM	10	34	16	0	6	30	11	0	4	64	12	0	9	72	4	0	272	977
1:00 PM	10	31	11	0	4	34	15	0	5	58	13	0	10	56	1	0	248	981
1:15 PM	13	27	11	0	4	26	9	0	5	56	8	0	7	67	6	0	239	1001
1:30 PM	8	28	7	0	3	26	9	1	7	56	9	0	7	66	4	0	231	990
1:45 PM	11	33	7	0	8	28	3	0	8	63	8	0	7	52	2	0	230	948
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	36	84	72	0	32	124	52	0	16	212	64	0	48	244	12	0	996	
Heavy Trucks	0	0	0		0	4	0		0	0	0		8	0	0		12	
Pedestrians		36				4				4				0			44	
Bicycles	0	0	0		0	0	0		0	2	0		0	0	0		2	
Railroad																		
Stopped Buses																		

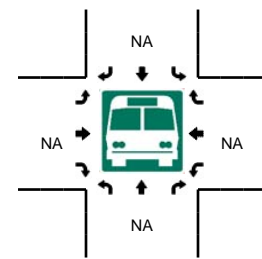
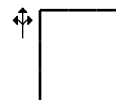
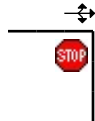
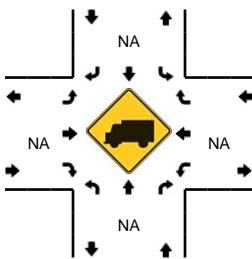
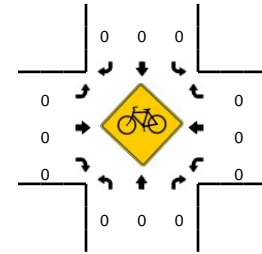
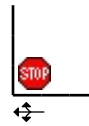
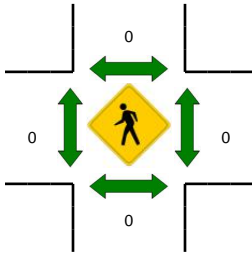
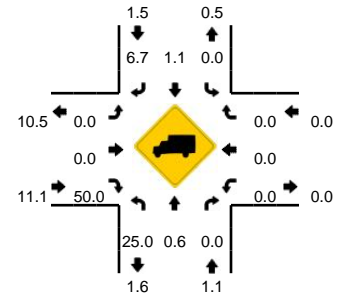
Comments:

**LOCATION:** 14th St -- Vanderbilt Dr  
**CITY/STATE:** Saint Charles, IL

**QC JOB #:** 13714013  
**DATE:** Tue, Apr 12 2016



**Peak-Hour: 7:15 AM -- 8:15 AM**  
**Peak 15-Min: 7:45 AM -- 8:00 AM**

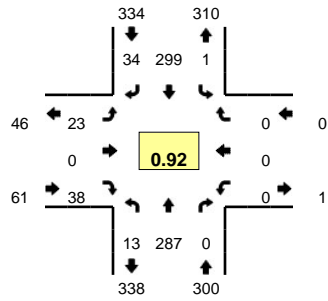


15-Min Count Period Beginning At	14th St (Northbound)				14th St (Southbound)				Vanderbilt Dr (Eastbound)				Vanderbilt Dr (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
6:00 AM	0	15	0	0	0	22	2	1	0	0	0	0	0	0	0	0	40	
6:15 AM	0	16	0	0	0	27	2	0	0	0	1	0	0	0	0	0	46	
6:30 AM	0	32	0	0	0	32	0	0	1	0	0	0	0	0	0	0	65	
6:45 AM	0	28	0	0	0	39	1	0	0	0	0	0	0	0	0	0	68	219
7:00 AM	0	45	0	0	0	33	3	0	2	0	0	0	0	0	0	0	83	262
7:15 AM	1	33	0	0	0	48	5	0	4	0	1	0	0	0	0	0	92	308
7:30 AM	0	56	2	0	0	51	1	0	2	0	1	0	0	0	0	0	113	356
7:45 AM	2	54	1	0	1	46	4	0	1	0	0	0	0	0	0	0	109	397
8:00 AM	1	34	2	0	1	38	5	0	0	0	0	0	0	0	0	0	81	395
8:15 AM	0	34	0	2	0	52	2	0	0	0	0	0	0	0	0	0	90	393
8:30 AM	2	40	0	0	0	66	3	0	2	0	0	0	0	0	0	0	113	393
8:45 AM	2	34	1	0	0	70	3	0	2	0	1	0	0	0	0	0	113	397
<b>Peak 15-Min Flowrates</b>	<b>Northbound</b>				<b>Southbound</b>				<b>Eastbound</b>				<b>Westbound</b>				<b>Total</b>	
All Vehicles	8	216	4	0	4	184	16	0	4	0	0	0	0	0	0	0	436	
Heavy Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Bicycles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Railroad																		
Stopped Buses																		

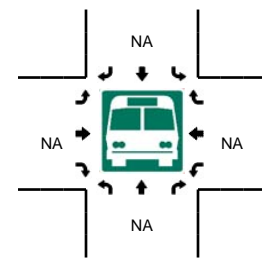
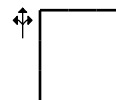
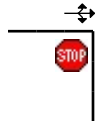
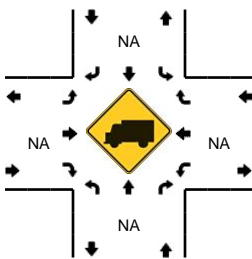
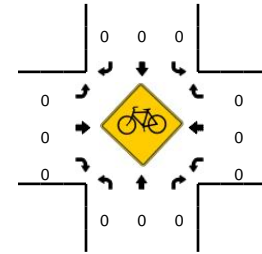
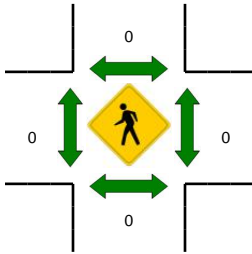
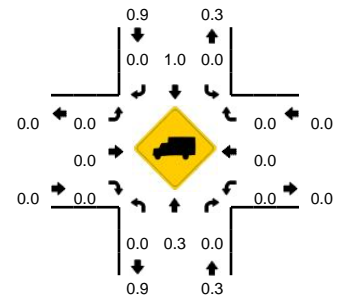
Comments:

**LOCATION:** 14th St -- Vanderbilt Dr  
**CITY/STATE:** Saint Charles, IL

**QC JOB #:** 13714015  
**DATE:** Tue, Apr 12 2016



**Peak-Hour: 4:30 PM -- 5:30 PM**  
**Peak 15-Min: 4:30 PM -- 4:45 PM**

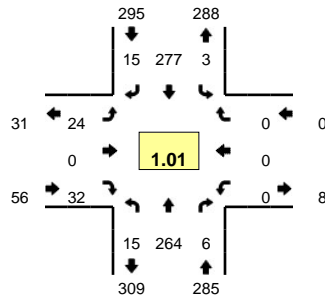


15-Min Count Period Beginning At	14th St (Northbound)				14th St (Southbound)				Vanderbilt Dr (Eastbound)				Vanderbilt Dr (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
3:30 PM	1	60	0	0	2	77	6	0	3	0	4	0	0	0	0	0	153	
3:45 PM	5	71	1	0	2	75	8	0	5	0	8	0	0	0	0	0	175	
4:00 PM	3	86	0	1	0	71	4	0	3	0	6	0	0	0	0	0	174	
4:15 PM	4	71	0	0	0	77	7	0	4	0	9	0	0	0	0	0	172	674
4:30 PM	3	91	0	0	1	68	9	0	8	0	8	0	0	0	0	0	188	709
4:45 PM	3	57	0	1	0	84	9	0	7	0	9	0	0	0	0	0	170	704
5:00 PM	3	67	0	0	0	70	8	0	5	0	11	0	0	0	0	0	164	694
5:15 PM	3	72	0	0	0	77	8	0	3	0	10	0	0	0	0	0	173	695
5:30 PM	2	61	1	0	1	63	17	0	10	0	12	0	0	0	0	0	167	674
5:45 PM	1	63	0	0	0	80	6	0	8	0	9	0	0	0	0	0	167	671
6:00 PM	1	74	0	0	0	62	3	0	4	0	8	0	0	0	0	0	152	659
6:15 PM	3	59	0	0	0	49	6	0	7	0	13	0	0	0	0	0	137	623
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
All Vehicles	12	364	0	0	4	272	36	0	32	0	32	0	0	0	0	0	752	
Heavy Trucks	0	0	0	0	0	12	0	0	0	0	0	0	0	0	0	0	12	
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Bicycles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Railroad																		
Stopped Buses																		

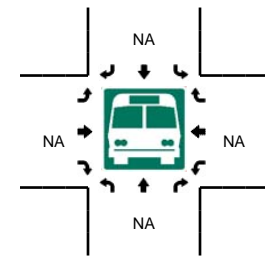
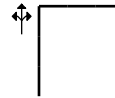
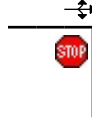
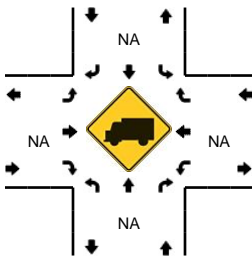
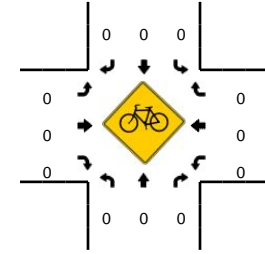
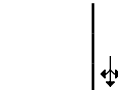
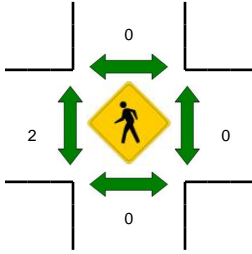
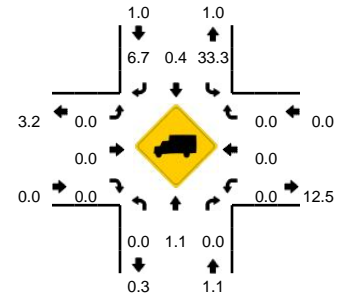
Comments:

**LOCATION:** 14th St -- Vanderbilt  
**CITY/STATE:** Saint Charles, IL

**QC JOB #:** 13714050  
**DATE:** Sat, May 07 2016



**Peak-Hour: 11:15 AM -- 12:15 PM**  
**Peak 15-Min: 11:30 AM -- 11:45 AM**



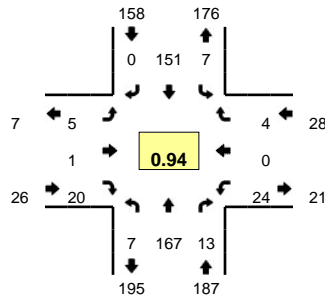
15-Min Count Period Beginning At	14th St (Northbound)				14th St (Southbound)				Vanderbilt (Eastbound)				Vanderbilt (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
11:00 AM	6	49	0	0	0	62	4	0	5	0	5	0	0	0	1	0	132	
11:15 AM	6	65	1	0	0	73	5	0	5	0	8	0	0	0	0	0	163	
11:30 AM	4	67	1	0	0	68	3	0	7	0	7	1	0	0	0	0	158	
11:45 AM	4	63	2	0	1	66	2	0	8	0	9	0	0	0	0	0	155	608
12:00 PM	1	69	2	0	1	70	5	1	3	0	8	0	0	0	0	0	160	636
12:15 PM	2	61	1	1	2	75	7	0	3	0	8	0	1	0	0	0	161	634
12:30 PM	3	61	1	0	0	72	6	0	9	0	6	0	0	0	0	0	158	634
12:45 PM	5	64	0	0	0	70	16	0	7	0	6	0	0	0	0	0	168	647
1:00 PM	7	69	0	1	3	68	5	0	11	0	11	0	0	0	1	0	176	663
1:15 PM	7	67	0	0	0	61	9	0	7	0	7	0	0	0	0	0	158	660
1:30 PM	5	65	0	0	0	59	6	0	14	0	5	0	0	0	0	0	154	656
1:45 PM	1	58	0	0	1	58	3	0	6	0	8	0	0	0	0	0	135	623
<b>Peak 15-Min Flowrates</b>	<b>Northbound</b>				<b>Southbound</b>				<b>Eastbound</b>				<b>Westbound</b>				<b>Total</b>	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	16	268	4	0	0	272	12	0	28	0	28	4	0	0	0	0	632	
Heavy Trucks	0	0	0		0	0	4		0	0	0		0	0	0		4	
Pedestrians	0	0	0		0	0	0		0	8	0		0	0	0		8	
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0	
Railroad																		
Stopped Buses																		

Comments:

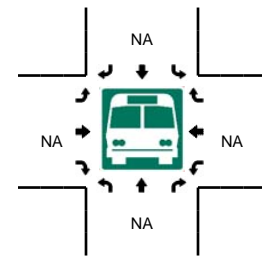
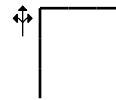
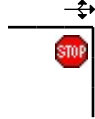
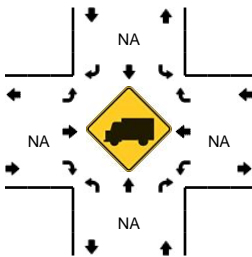
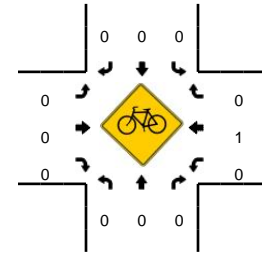
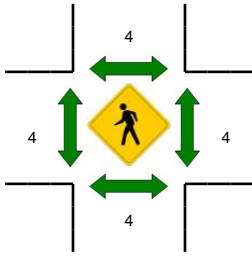
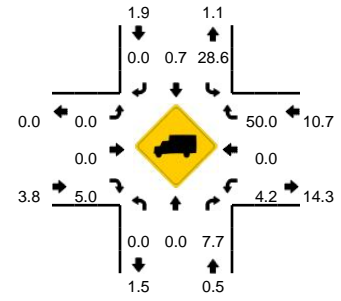


**LOCATION:** 14th St -- Covington Ct/St  
**CITY/STATE:** Saint Charles, IL

**QC JOB #:** 13714016  
**DATE:** Tue, Apr 12 2016



**Peak-Hour: 7:15 AM -- 8:15 AM**  
**Peak 15-Min: 7:45 AM -- 8:00 AM**

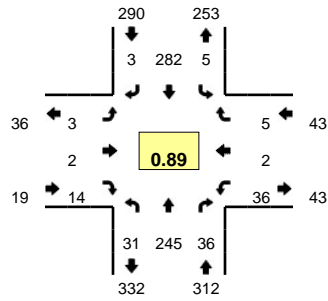


15-Min Count Period Beginning At	14th St (Northbound)				14th St (Southbound)				Covington Ct/St (Eastbound)				Covington Ct/St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
6:00 AM	2	11	2	0	1	17	1	0	1	0	5	0	3	0	0	0	43	
6:15 AM	0	16	1	0	0	17	1	0	0	0	5	0	9	0	0	0	49	
6:30 AM	0	28	4	0	0	25	1	0	1	0	2	0	2	0	1	0	64	
6:45 AM	0	31	1	0	1	29	0	0	3	0	4	0	6	1	3	0	79	235
7:00 AM	3	39	3	0	1	30	1	0	1	0	5	0	4	0	1	0	88	280
7:15 AM	3	30	3	0	3	41	0	0	1	0	6	0	4	0	3	0	94	325
7:30 AM	2	53	6	0	2	39	0	0	3	0	5	0	10	0	1	0	121	382
7:45 AM	2	51	3	0	1	37	0	0	0	0	5	0	7	0	0	0	106	409
8:00 AM	0	33	1	0	1	34	0	0	1	1	4	0	3	0	0	0	78	399
8:15 AM	1	29	5	0	1	45	0	0	2	1	3	0	8	1	3	0	99	404
8:30 AM	0	39	5	0	0	57	0	0	2	0	2	0	5	0	1	0	111	394
8:45 AM	1	32	5	0	1	55	0	0	0	0	4	0	15	0	0	0	113	401
<b>Peak 15-Min Flowrates</b>	<b>Northbound</b>				<b>Southbound</b>				<b>Eastbound</b>				<b>Westbound</b>				<b>Total</b>	
All Vehicles	8	204	12	0	4	148	0	0	0	0	20	0	28	0	0	0	424	
Heavy Trucks	0	0	0		4	4	0		0	0	0		0	0	0		8	
Pedestrians	0	0	0		0	0	0		0	0	0		0	0	0		0	
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0	
Railroad																		
Stopped Buses																		

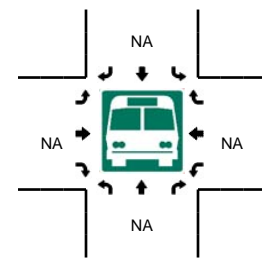
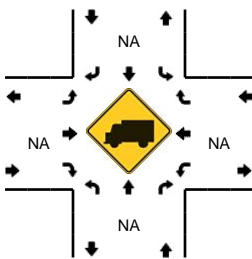
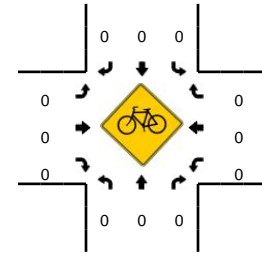
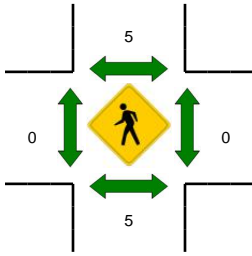
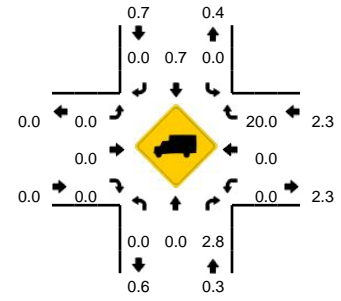
Comments:

**LOCATION:** 14th St -- Covington Ct/St  
**CITY/STATE:** Saint Charles, IL

**QC JOB #:** 13714018  
**DATE:** Tue, Apr 12 2016



**Peak-Hour: 4:30 PM -- 5:30 PM**  
**Peak 15-Min: 4:30 PM -- 4:45 PM**

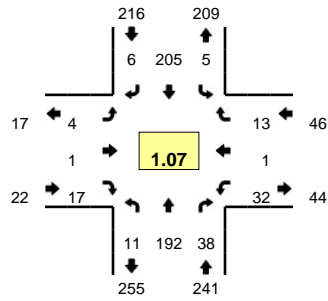


15-Min Count Period Beginning At	14th St (Northbound)				14th St (Southbound)				Covington Ct/St (Eastbound)				Covington Ct/St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
3:30 PM	6	48	9	0	2	72	2	0	2	0	5	0	6	0	2	0	154	
3:45 PM	5	62	7	0	2	75	1	0	0	0	3	0	7	1	1	0	164	
4:00 PM	5	74	11	0	6	64	4	0	0	0	3	0	6	0	0	0	173	
4:15 PM	3	59	14	0	1	69	2	0	1	0	3	0	10	0	3	0	165	656
4:30 PM	10	78	10	0	2	70	0	0	1	0	3	0	9	1	2	0	186	688
4:45 PM	4	54	5	0	1	75	1	0	0	0	6	0	10	1	0	0	157	681
5:00 PM	9	56	9	0	0	69	1	0	0	2	2	0	4	0	1	0	153	661
5:15 PM	8	57	12	0	2	68	1	0	2	0	3	0	13	0	2	0	168	664
5:30 PM	5	49	19	0	0	70	3	0	1	0	3	0	8	0	2	0	160	638
5:45 PM	3	48	19	0	2	68	2	0	0	0	3	0	11	2	1	0	159	640
6:00 PM	6	52	19	0	2	56	3	0	1	0	0	0	9	0	2	0	150	637
6:15 PM	6	50	10	0	3	41	1	0	0	1	5	0	8	0	1	0	126	595
<b>Peak 15-Min Flowrates</b>	<b>Northbound</b>				<b>Southbound</b>				<b>Eastbound</b>				<b>Westbound</b>				<b>Total</b>	
All Vehicles	40	312	40	0	8	280	0	0	4	0	12	0	36	4	8	0	744	
Heavy Trucks	0	0	0	0	0	8	0	0	0	0	0	0	0	0	4	0	12	
Pedestrians		0				4				0				0			4	
Bicycles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Railroad																		
Stopped Buses																		

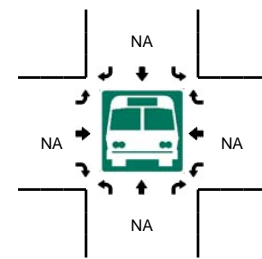
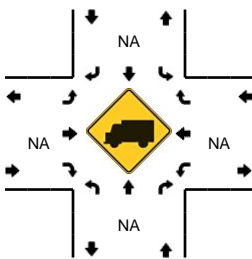
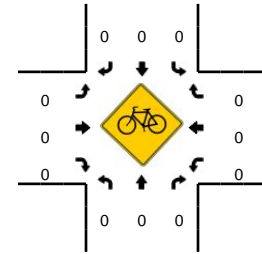
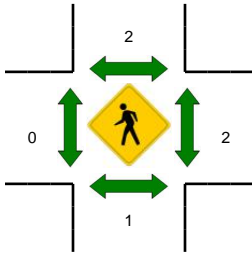
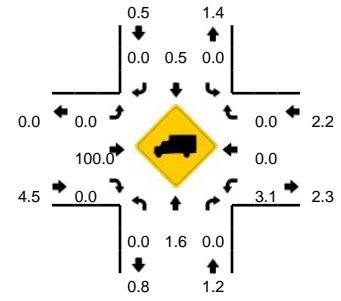
Comments:

**LOCATION:** 14th St -- Covington Ct/St  
**CITY/STATE:** Saint Charles, IL

**QC JOB #:** 13714051  
**DATE:** Sat, Apr 16 2016



**Peak-Hour: 11:15 AM -- 12:15 PM**  
**Peak 15-Min: 11:30 AM -- 11:45 AM**



15-Min Count Period Beginning At	14th St (Northbound)				14th St (Southbound)				Covington Ct/St (Eastbound)				Covington Ct/St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
11:00 AM	1	48	11	0	2	54	2	0	2	0	4	0	6	0	1	0	131	
11:15 AM	3	49	10	1	1	49	0	0	0	0	3	0	11	1	5	0	133	
11:30 AM	3	41	8	0	0	53	2	0	2	0	7	0	5	0	2	0	123	
11:45 AM	2	53	11	0	1	52	2	0	1	1	5	0	10	0	1	0	139	526
12:00 PM	2	49	9	0	3	51	2	0	1	0	2	0	6	0	5	0	130	525
12:15 PM	4	50	7	0	1	51	0	0	2	0	5	0	11	0	3	0	134	526
12:30 PM	5	49	8	0	2	47	0	0	2	0	3	0	12	0	2	0	130	533
12:45 PM	4	57	12	0	3	58	3	0	1	0	8	0	13	0	2	0	161	555
1:00 PM	3	56	14	0	2	62	0	0	0	0	6	0	9	0	1	0	153	578
1:15 PM	1	50	11	0	0	58	0	0	0	0	4	0	12	0	3	0	139	583
1:30 PM	0	59	13	0	3	57	4	0	0	1	5	0	8	0	1	0	151	604
1:45 PM	3	45	6	0	4	53	1	0	1	0	6	0	13	0	6	0	138	581
<b>Peak 15-Min Flowrates</b>	<b>Northbound</b>				<b>Southbound</b>				<b>Eastbound</b>				<b>Westbound</b>				<b>Total</b>	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	12	164	32	0	0	212	8	0	8	0	28	0	20	0	8	0	492	
Heavy Trucks	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	4	
Pedestrians		4				0				0				4			8	
Bicycles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Railroad																		
Stopped Buses																		

Comments:

## APPENDIX Q

### Traffic Signal Warrant Analysis Reports

#### 2016 Existing Traffic, 2026 Base Traffic, & 2026 Total Traffic

1. Prairie Street & 14th Street
  - a. 2016 Existing Traffic
  - b. 2026 Base Traffic
  - c. 2026 Total Traffic
2. Prairie Street & 7th Street
  - a. 2016 Existing Traffic
  - b. 2026 Base Traffic
  - c. 2026 Total Traffic
3. Prairie Street & 3<sup>rd</sup> Street
  - a. 2016 Existing Traffic
  - b. 2026 Base Traffic
  - c. 2026 Total Traffic

# TRAFFIC SIGNAL WARRANT REVIEW SHEET

Intersection: **Prairie Street and 14th Street**

2016 Existing Traffic

Municipality: **City of St. Charles**

Speed limit of major route: **30**

Isolated Community with population <10,000? **No**

Number of lanes for major approach: **1**

Number of lanes for minor approach: **1**

SRA: **No**

Hour	Veh. per hr. on major street (total of both approaches)	Veh. per hr. on higher volume minor street approach (one direction only)	Check any hours that meet the following warrants						Warrant Number	Requirement Satisfied?	
			Warrant 1 Condition A	Warrant 1 Condition B	Warrant 1 Combo	Warrant 2	Warrant 3	Warrant 4			
6:00 AM	305	94								<b>Warrant 1 Condition A</b> Minimum Vehicular Volume	Yes <input type="radio"/> No <input checked="" type="radio"/>
7:00 AM	528	185	X								
8:00 AM	632	147			X						
9:00 AM	498	134									
10:00 AM	454	132									
11:00 AM	525	167	X								
12:00 PM	540	229	X								
1:00 PM	549	214	X								
2:00 PM	608	190	X		X						
3:00 PM	769	236	X	X	X	X					
4:00 PM	848	270	X	X	X	X	X				
5:00 PM	844	219	X	X	X	X					
6:00 PM	687	189	X		X						
Volume Requirements:			Major Street	500	750	600					
			Minor Street	150	75	120					
Completed By:			<u>ASG</u> Hampton, Lenzini and Renwick, Inc.								
Date:			<u>6/27/2016</u>								
										<b>Warrant 2</b>	Yes <input type="radio"/> No <input checked="" type="radio"/>
										Four Hour Volume	
										<b>Warrant 3</b>	Yes <input type="radio"/> No <input checked="" type="radio"/>
										Peak Hour	
										<b>Warrant 4</b>	Yes <input type="radio"/> No <input checked="" type="radio"/>
										Pedestrian Volume	
										<b>Warrant 5</b>	Yes <input type="radio"/> No <input checked="" type="radio"/>
										School Crossing	
										<b>Warrant 6</b>	Yes <input type="radio"/> No <input checked="" type="radio"/>
										Coordinated Signal System	
										<b>Warrant 7</b>	Not Evaluated
										Crash Experience	
										Total # of crashes:	
										Number of correctable crashes:	
										Less restrictive remedies tried?	
										Volume requirements met?	
										<b>Warrant 8</b>	Yes <input type="radio"/> No <input checked="" type="radio"/>
										Roadway Network	
										<b>Warrant 9</b>	Yes <input type="radio"/> No <input checked="" type="radio"/>
										Grade Crossing	

**ST. CHARLES  
PRAIRIE CENTRE TIS  
Traffic Signal Warrant Review  
EXHIBIT 11A**

# TRAFFIC SIGNAL WARRANT REVIEW SHEET

Intersection: **Prairie Street and 14th Street**

2026 Base Traffic

Municipality: **City of St. Charles**

Speed limit of major route: **30**

Isolated Community with population <10,000? **No**

Number of lanes for major approach: **1**

Number of lanes for minor approach: **1**

SRA: **No**

Hour	Veh. per hr. on major street (total of both approaches)	Veh. per hr. on higher volume minor street approach (one direction only)	Check any hours that meet the following warrants					
			Warrant 1 Condition A	Warrant 1 Condition B	Warrant 1 Combo	Warrant 2	Warrant 3	Warrant 4
7:00 AM	759	203	X	X	X	X		
↓								
55% of DHV	591	158	X					
↓								
5:00 PM	1074	287	X	X	X	X	X	

Volume Requirements:

Major Street	500	750	600
Minor Street	150	75	120

Completed By: ASG  
Hampton, Lenzini and Renwick, Inc.

Date: 6/27/2016

**ST. CHARLES  
PRAIRIE CENTRE TIS  
Traffic Signal Warrant Review  
EXHIBIT 11B**

Warrant Number	Requirement Satisfied?
<b>Warrant 1 Condition A</b> Minimum Vehicular Volume	Yes <input checked="" type="radio"/> No
<b>Warrant 1 Condition B</b> Interruption of Continuous Traffic	Yes <input type="radio"/> No <input checked="" type="radio"/>
<b>Warrant 1 Combo</b> Combination of Condition A and Condition B	Yes <input type="radio"/> No <input checked="" type="radio"/>
<b>Warrant 2</b> Four Hour Volume	Not Evaluated
<b>Warrant 3</b> Peak Hour	Yes <input checked="" type="radio"/> No
<b>Warrant 4</b> Pedestrian Volume	Yes <input type="radio"/> No <input checked="" type="radio"/>
<b>Warrant 5</b> School Crossing	Yes <input type="radio"/> No <input checked="" type="radio"/>
<b>Warrant 6</b> Coordinated Signal System	Yes <input type="radio"/> No <input checked="" type="radio"/>
<b>Warrant 7</b> Crash Experience	Not Evaluated
Total # of crashes: Number of correctable crashes: Less restrictive remedies tried? Volume requirements met?	
<b>Warrant 8</b> Roadway Network	Yes <input type="radio"/> No <input checked="" type="radio"/>
<b>Warrant 9</b> Grade Crossing	Yes <input type="radio"/> No <input checked="" type="radio"/>

# TRAFFIC SIGNAL WARRANT REVIEW SHEET

Intersection: **Prairie Street and 14th Street**

2026 Total Traffic

Municipality: **City of St. Charles**

Speed limit of major route: **30**

Isolated Community with population <10,000? **No**

Number of lanes for major approach: **1**

Number of lanes for minor approach: **1**

SRA: **No**

Hour	Veh. per hr. on major street (total of both approaches)	Veh. per hr. on higher volume minor street approach (one direction only)	Check any hours that meet the following warrants					
			Warrant 1 Condition A	Warrant 1 Condition B	Warrant 1 Combo	Warrant 2	Warrant 3	Warrant 4
7:00 AM	887	203	X	X	X	X		
↓								
55% of DHV	662	158	X		X			
↓								
5:00 PM	1203	287	X	X	X	X	X	

Volume Requirements:

Major Street	500	750	600
Minor Street	150	75	120

Completed By: ASG  
Hampton, Lenzini and Renwick, Inc.

Date: 6/27/2016

Warrant Number	Requirement Satisfied?
<b>Warrant 1 Condition A</b> Minimum Vehicular Volume	Yes <input checked="" type="radio"/> No
<b>Warrant 1 Condition B</b> Interruption of Continuous Traffic	Yes <input checked="" type="radio"/> No
<b>Warrant 1 Combo</b> Combination of Condition A and Condition B	Yes <input checked="" type="radio"/> No
<b>Warrant 2</b> Four Hour Volume	Not Evaluated
<b>Warrant 3</b> Peak Hour	Yes <input checked="" type="radio"/> No
<b>Warrant 4</b> Pedestrian Volume	Yes <input checked="" type="radio"/> No
<b>Warrant 5</b> School Crossing	Yes <input checked="" type="radio"/> No
<b>Warrant 6</b> Coordinated Signal System	Yes <input checked="" type="radio"/> No
<b>Warrant 7</b> Crash Experience	Not Evaluated
Total # of crashes: Number of correctable crashes: Less restrictive remedies tried? Volume requirements met?	
<b>Warrant 8</b> Roadway Network	Yes <input checked="" type="radio"/> No
<b>Warrant 9</b> Grade Crossing	Yes <input checked="" type="radio"/> No

**ST. CHARLES  
PRAIRIE CENTRE TIS  
Traffic Signal Warrant Review  
EXHIBIT 11B**

# TRAFFIC SIGNAL WARRANT REVIEW SHEET

Intersection: **Prairie Street and 7th Street**

2016 Existing Traffic

Municipality: **City of St. Charles**

Speed limit of major route: **30**

Isolated Community with population <10,000? **No**

Number of lanes for major approach: **1**

Number of lanes for minor approach: **1**

SRA: **No**

Hour	Veh. per hr. on major street (total of both approaches)	Veh. per hr. on higher volume minor street approach (one direction only)	Check any hours that meet the following warrants					
			Warrant 1 Condition A	Warrant 1 Condition B	Warrant 1 Combo	Warrant 2	Warrant 3	Warrant 4
6:00 AM	322	51						
7:00 AM	663	127			X			
8:00 AM	657	218	X		X	X		
9:00 AM	447	110						
10:00 AM	437	100						
11:00 AM	503	159	X					
12:00 PM	543	145						
1:00 PM	560	133						
2:00 PM	608	171	X		X			
3:00 PM	821	201	X	X	X	X		
4:00 PM	861	249	X	X	X	X		
5:00 PM	790	255	X	X	X	X		
6:00 PM	645	182	X		X			

Volume Requirements:

Major Street	500	750	600
Minor Street	150	75	120

Completed By: ASG  
Hampton, Lenzini and Renwick, Inc.

Date: 6/27/2016

Warrant Number	Requirement Satisfied?
<b>Warrant 1 Condition A</b> Minimum Vehicular Volume	Yes <input type="radio"/> No <input checked="" type="radio"/>
<b>Warrant 1 Condition B</b> Interruption of Continous Traffic	Yes <input checked="" type="radio"/> No <input type="radio"/>
<b>Warrant 1 Combo</b> Combination of Condition A and Condition B	Yes <input checked="" type="radio"/> No <input type="radio"/>
<b>Warrant 2</b> Four Hour Volume	Yes <input type="radio"/> No <input checked="" type="radio"/>
<b>Warrant 3</b> Peak Hour	Yes <input checked="" type="radio"/> No <input type="radio"/>
<b>Warrant 4</b> Pedestrian Volume	Yes <input checked="" type="radio"/> No <input type="radio"/>
<b>Warrant 5</b> School Crossing	Yes <input checked="" type="radio"/> No <input type="radio"/>
<b>Warrant 6</b> Coordinated Signal System	Yes <input checked="" type="radio"/> No <input type="radio"/>
<b>Warrant 7</b> Crash Experience	Not Evaluated
Total # of crashes: Number of correctable crashes: Less restrictive remedies tried? Volume requirements met?	
<b>Warrant 8</b> Roadway Network	Yes <input type="radio"/> No <input checked="" type="radio"/>
<b>Warrant 9</b> Grade Crossing	Yes <input checked="" type="radio"/> No <input type="radio"/>

**ST. CHARLES  
PRAIRIE CENTRE TIS  
Traffic Signal Warrant Review  
EXHIBIT A-X**



# TRAFFIC SIGNAL WARRANT REVIEW SHEET

Intersection: **Prairie Street and 7th Street**

2026 Base Traffic

Municipality: **City of St. Charles**

Speed limit of major route: **30**

Isolated Community with population <10,000? **No**

Number of lanes for major approach: **1**

Number of lanes for minor approach: **1**

SRA: **No**

Hour	Veh. per hr. on major street (total of both approaches)	Veh. per hr. on higher volume minor street approach (one direction only)	Check any hours that meet the following warrants					
			Warrant 1 Condition A	Warrant 1 Condition B	Warrant 1 Combo	Warrant 2	Warrant 3	Warrant 4
7:00 AM	868	222	X	X	X	X		
↓								
55% of DHV	583	190	X					
↓								
5:00 PM	1060	345	X	X	X	X	X	

Volume Requirements:      Major Street      500      750      600

Minor Street      150      75      120

Completed By:      ASG

Hampton, Lenzini and Renwick, Inc.

Date:      6/27/2016

**ST. CHARLES  
PRAIRIE CENTRE TIS  
Traffic Signal Warrant Review  
EXHIBIT A-X**

Warrant Number	Requirement Satisfied?
<b>Warrant 1 Condition A</b> Minimum Vehicular Volume	Yes <input checked="" type="radio"/> No
<b>Warrant 1 Condition B</b> Interruption of Continuous Traffic	Yes <input type="radio"/> No <input checked="" type="radio"/>
<b>Warrant 1 Combo</b> Combination of Condition A and Condition B	Yes <input type="radio"/> No <input checked="" type="radio"/>
<b>Warrant 2</b> Four Hour Volume	Not Evaluated
<b>Warrant 3</b> Peak Hour	Yes <input type="radio"/> No <input checked="" type="radio"/>
<b>Warrant 4</b> Pedestrian Volume	Yes <input type="radio"/> No <input checked="" type="radio"/>
<b>Warrant 5</b> School Crossing	Yes <input type="radio"/> No <input checked="" type="radio"/>
<b>Warrant 6</b> Coordinated Signal System	Yes <input type="radio"/> No <input checked="" type="radio"/>
<b>Warrant 7</b> Crash Experience	Not Evaluated
Total # of crashes: Number of correctable crashes: Less restrictive remedies tried? Volume requirements met?	
<b>Warrant 8</b> Roadway Network	Yes <input type="radio"/> No <input checked="" type="radio"/>
<b>Warrant 9</b> Grade Crossing	Yes <input type="radio"/> No <input checked="" type="radio"/>

# TRAFFIC SIGNAL WARRANT REVIEW SHEET

Intersection: **Prairie Street and 7th Street**

2026 Total Traffic

Municipality: **City of St. Charles**

Speed limit of major route: **30**

Isolated Community with population <10,000? **No**

Number of lanes for major approach: **1**

Number of lanes for minor approach: **1**

SRA: **No**

Hour	Veh. per hr. on major street (total of both approaches)	Veh. per hr. on higher volume minor street approach (one direction only)	Check any hours that meet the following warrants													
			Warrant 1 Condition A	Warrant 1 Condition B	Warrant 1 Combo	Warrant 2	Warrant 3	Warrant 4								
7:00 AM	978	240	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>									
↓																
55% of DHV	641	203	<b>X</b>		<b>X</b>											
↓																
5:00 PM	1165	369	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>									
<p>Volume Requirements:</p> <table style="width: 100%; border: none;"> <tr> <td style="padding-right: 20px;">Major Street</td> <td style="padding-right: 20px;">500</td> <td style="padding-right: 20px;">750</td> <td>600</td> </tr> <tr> <td>Minor Street</td> <td>150</td> <td>75</td> <td>120</td> </tr> </table> <p>Completed By: <u>ASG</u> Hampton, Lenzini and Renwick, Inc.</p> <p>Date: <u>6/27/2016</u></p>									Major Street	500	750	600	Minor Street	150	75	120
Major Street	500	750	600													
Minor Street	150	75	120													

Warrant Number	Requirement Satisfied?
<b>Warrant 1 Condition A</b> Minimum Vehicular Volume	Yes <input checked="" type="radio"/> No <input type="radio"/>
<b>Warrant 1 Condition B</b> Interruption of Continuous Traffic	Yes <input type="radio"/> No <input checked="" type="radio"/>
<b>Warrant 1 Combo</b> Combination of Condition A and Condition B	Yes <input type="radio"/> No <input checked="" type="radio"/>
<b>Warrant 2</b> Four Hour Volume	Not Evaluated
<b>Warrant 3</b> Peak Hour	Yes <input type="radio"/> No <input checked="" type="radio"/>
<b>Warrant 4</b> Pedestrian Volume	Yes <input type="radio"/> No <input checked="" type="radio"/>
<b>Warrant 5</b> School Crossing	Yes <input type="radio"/> No <input checked="" type="radio"/>
<b>Warrant 6</b> Coordinated Signal System	Yes <input type="radio"/> No <input checked="" type="radio"/>
<b>Warrant 7</b> Crash Experience	Not Evaluated
Total # of crashes: Number of correctable crashes: Less restrictive remedies tried? Volume requirements met?	
<b>Warrant 8</b> Roadway Network	Yes <input type="radio"/> No <input checked="" type="radio"/>
<b>Warrant 9</b> Grade Crossing	Yes <input type="radio"/> No <input checked="" type="radio"/>

**ST. CHARLES  
PRAIRIE CENTRE TIS  
Traffic Signal Warrant Review  
EXHIBIT A-X**

# TRAFFIC SIGNAL WARRANT REVIEW SHEET

Intersection: **Prairie Street and 3rd Street**

2016 Existing Traffic

Municipality: **City of St. Charles**

Speed limit of major route: **30**

Isolated Community with population <10,000? **No**

Number of lanes for major approach: **1**

Number of lanes for minor approach: **1**

SRA: **No**

Hour	Veh. per hr. on major street (total of both approaches)	Veh. per hr. on higher volume minor street approach (one direction only)	Check any hours that meet the following warrants					Warrant Number	Requirement Satisfied?
			Warrant 1 Condition A	Warrant 1 Condition B	Warrant 1 Combo	Warrant 2	Warrant 3		
6:00 AM	295	149							<b>Warrant 1 Condition A</b> Minimum Vehicular Volume
7:00 AM	618	259	X		X	X			
8:00 AM	591	201	X						<b>Warrant 1 Combo</b> Combination of Condition A and Condition B
9:00 AM	405	155							
10:00 AM	372	133							<b>Warrant 3</b> Peak Hour
11:00 AM	469	171							
12:00 PM	476	166							<b>Warrant 5</b> School Crossing
1:00 PM	490	142							
2:00 PM	560	201	X						<b>Warrant 7</b> Crash Experience
3:00 PM	709	261	X		X	X			
4:00 PM	789	278	X	X	X	X			<b>Warrant 8</b> Roadway Network
5:00 PM	734	295	X		X	X			
6:00 PM	599	256	X			X			

Volume Requirements:	Major Street	500	750	600
	Minor Street	150	75	120

Completed By: ASG  
Hampton, Lenzini and Renwick, Inc.

Date: 6/27/2016

**ST. CHARLES  
PRAIRIE CENTRE TIS  
Traffic Signal Warrant Review  
EXHIBIT**

# TRAFFIC SIGNAL WARRANT REVIEW SHEET

Intersection: **Prairie Street and 3rd Street**

2026 Base Traffic

Municipality: **City of St. Charles**

Speed limit of major route: **30**

Isolated Community with population <10,000? **No**

Number of lanes for major approach: **1**

Number of lanes for minor approach: **1**

SRA: **No**

Hour	Veh. per hr. on major street (total of both approaches)	Veh. per hr. on higher volume minor street approach (one direction only)	Check any hours that meet the following warrants					Warrant 4	Warrant Number	Requirement Satisfied?
			Warrant 1 Condition A	Warrant 1 Condition B	Warrant 1 Combo	Warrant 2	Warrant 3			
7:00 AM	802	315	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>		<b>Warrant 1 Condition A</b> Minimum Vehicular Volume	Yes <input checked="" type="radio"/> No
↓									<b>Warrant 1 Condition B</b> Interruption of Continuous Traffic	Yes <input checked="" type="radio"/> No
55% of DHV	550	206	<b>X</b>						<b>Warrant 1 Combo</b> Combination of Condition A and Condition B	Yes <input checked="" type="radio"/> No
↓									<b>Warrant 2</b> Four Hour Volume	Not Evaluated
5:00 PM	1000	375	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>		<b>Warrant 3</b> Peak Hour	Yes <input checked="" type="radio"/> No
<p>Volume Requirements: Major Street      500      750      600</p> <p>Minor Street      150      75      120</p>										
<p>Completed By: <u>ASG</u> Hampton, Lenzini and Renwick, Inc.</p> <p>Date: <u>6/27/2016</u></p>										
<p><b>Warrant 4</b>      Yes <input checked="" type="radio"/> No</p> <p>Pedestrian Volume</p>										
<p><b>Warrant 5</b>      Yes <input checked="" type="radio"/> No</p> <p>School Crossing</p>										
<p><b>Warrant 6</b>      Yes <input checked="" type="radio"/> No</p> <p>Coordinated Signal System</p>										
<p><b>Warrant 7</b>      Not Evaluated</p> <p>Crash Experience</p> <p>Total # of crashes:</p> <p>Number of correctable crashes:</p> <p>Less restrictive remedies tried?</p> <p>Volume requirements met?</p>										
<p><b>Warrant 8</b>      Yes <input checked="" type="radio"/> No</p> <p>Roadway Network</p>										
<p><b>Warrant 9</b>      Yes <input checked="" type="radio"/> No</p> <p>Grade Crossing</p>										

**ST. CHARLES  
PRAIRIE CENTRE TIS  
Traffic Signal Warrant Review  
EXHIBIT**

# TRAFFIC SIGNAL WARRANT REVIEW SHEET

Intersection: **Prairie Street and 3rd Street**

2026 Total Traffic

Municipality: **City of St. Charles**

Speed limit of major route: **30**

Isolated Community with population <10,000? **No**

Number of lanes for major approach: **1**

Number of lanes for minor approach: **1**

SRA: **No**

Hour	Veh. per hr. on major street (total of both approaches)	Veh. per hr. on higher volume minor street approach (one direction only)	Check any hours that meet the following warrants					
			Warrant 1 Condition A	Warrant 1 Condition B	Warrant 1 Combo	Warrant 2	Warrant 3	Warrant 4
7:00 AM	869	315	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	
↓								
55% of DHV	584	220	<b>X</b>					
↓								
5:00 PM	1062	400	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	

Volume Requirements:

Major Street	500	750	600
Minor Street	150	75	120

Completed By: ASG  
Hampton, Lenzini and Renwick, Inc.

Date: 6/27/2016

**ST. CHARLES  
PRAIRIE CENTRE TIS  
Traffic Signal Warrant Review  
EXHIBIT 9C**

Warrant Number	Requirement Satisfied?
<b>Warrant 1 Condition A</b> Minimum Vehicular Volume	Yes <input checked="" type="radio"/> No <input type="radio"/>
<b>Warrant 1 Condition B</b> Interruption of Continous Traffic	Yes <input type="radio"/> No <input checked="" type="radio"/>
<b>Warrant 1 Combo</b> Combination of Condition A and Condition B	Yes <input type="radio"/> No <input checked="" type="radio"/>
<b>Warrant 2</b> Four Hour Volume	Not Evaluated
<b>Warrant 3</b> Peak Hour	Yes <input type="radio"/> No <input checked="" type="radio"/>
<b>Warrant 4</b> Pedestrian Volume	Yes <input type="radio"/> No <input checked="" type="radio"/>
<b>Warrant 5</b> School Crossing	Yes <input type="radio"/> No <input checked="" type="radio"/>
<b>Warrant 6</b> Coordinated Signal System	Yes <input type="radio"/> No <input checked="" type="radio"/>
<b>Warrant 7</b> Crash Experience	Not Evaluated
Total # of crashes: Number of correctable crashes: Less restrictim remedies tried? Volume requirements met?	
<b>Warrant 8</b> Roadway Network	Yes <input type="radio"/> No <input checked="" type="radio"/>
<b>Warrant 9</b> Grade Crossing	Yes <input type="radio"/> No <input checked="" type="radio"/>