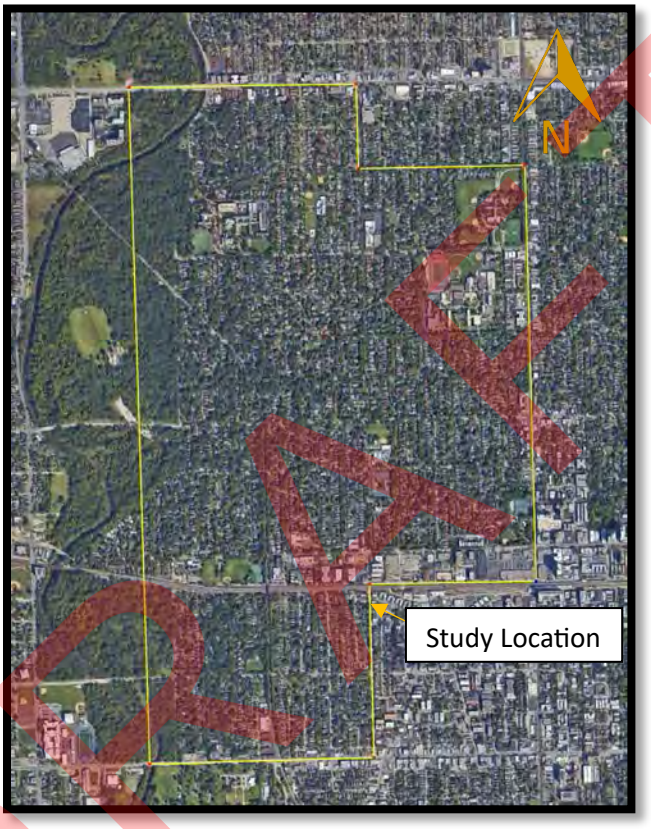
VILLAGE-WIDE TRAFFIC STUDY

for

River Forest, IL

Cook County



Prepared by:

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Prepared for:

RIVER FOREST
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Contents

INTRODUCTION

The purpose of this Village-wide traffic study was to form a comprehensive outlook on traffic patterns and traffic safety within the Village and to identify areas for further study or recommendations based on engineering expertise. The study was centered around data acquired using volume & speed counts, crash analysis, survey feedback, and locations flagged by the Village (Two-Block Spans, Washington Blvd Corridor Study). In addition to this analysis, Thomas Engineering Group (TEG) developed a Traffic Calming Toolbox (Appendix A). A capacity analysis model was developed using Synchro traffic modeling software and is provided to the Village. All counted intersections are included within this model.

Locations selected for further individual review were identified through coordination with the Village and based on the results of initial data analysis. The selected locations were: Two-Block Spans, Washington Blvd Corridor Study, and Thatcher Ave Speed Study. Each analysis had different levels of review based on the data available and the proposed scope of the study. TEG performed a representative speed study at a two-block span location and made recommendations based off the findings within the single corridor reviewed. A similar level of analysis was utilized for the Thatcher Ave Speed Study where a small representative corridor was analyzed. The Washington Blvd Corridor had an in-depth corridor study including the creation of exhibits showing proposed improvements and alternatives. Due to the wide scope of this study, many locations reviewed were identified for review in smaller more focused studies.

COMMONLY USED TERMS

Throughout this report common terminology may be used without explanation. Definitions to these terms can be found within this section to help give context to the analysis.

General

Roadway Functional Classification: The way roads are categorized by the Illinois Department of Transportation (IDOT). TEG used road classifications throughout this document to discuss the general size and character of roads being studied. Please see Functional class exhibit within Appendix H.01: Functional Class Exhibit for a full breakdown of road classifications within the Village.

Interstate: Roads connected with long distance travel in mind. Interstates are designated by the Secretary of Transportation. (*none within study area*)

Freeway/Expressway: roads in this classification have directional travel lanes that are usually separated by some type of physical barrier, and their access and egress points are limited to on- and off-ramp locations. these roadways are designed and constructed to maximize their mobility function, and abutting land uses are not directly served by them. (*none within study area*)

Other Principal Arterial: These roadways serve major centers of metropolitan areas, provide a high degree of mobility and can also provide mobility through rural areas. Unlike their access-controlled counterparts, abutting land uses can be served directly. (North Ave & Harlem Ave)

Minor Arterial: These roads provide service for trips of moderate length, serve geographic areas that are smaller than their higher Arterial counterparts and offer connectivity to the higher Arterial system. In an urban context, they interconnect and augment the higher Arterial system, provide intra-community continuity and may carry local bus routes. (Lake St & Madison St)

Collector: Collectors serve a critical role in the roadway network by gathering traffic from Local Roads and funneling them to the Arterial network.

Major Collector: Generally, longer in length with limited driveway connectivity compared to minor collectors. Could have more travel lanes. (All 'primary' Village roads such as Thatcher Ave, Division St, and Washington Blvd)

Minor Collector: Generally, only two lanes of traffic and smaller than major collectors. (none within study area)

Local Road or Street: Roads not intended for long-distance travel. Local roads tend to have direct access to the abutting land.

NE Quadrant: The area of the Village previously studied by others and excluded from this study. Defined as the area bounded by North Ave to the north, Lathrop Ave to the west, Harlem Ave to the east, and Greenfield St to the south.

Study Road Type: This study utilized a combination of IDOT Road Classification and road characteristics to categorize all roads withing the Village into three types:

Arterial Road: Roads within the Village posted as 30 mph. North Ave and Harlem Ave

Primary Road: All roads within the Village that are classified as Collector or Minor Arterial. In addition, Augusta St is also included in this classification although it is classified as a Local Road.

Local Road: Roads within the Village classified by IDOT as Local Roads. These routes are generally low volume with minimal roadway features. Often no center striping and few businesses along the road.

Study Intersection Type: This study utilized traffic control type to categorize all intersections withing the Village into three types:

Signalized Intersection: Any intersection controlled by a traffic signal.

All-Way Stop Intersection: Intersections where all legs of traffic are expected to stop and yield right-of-way to traffic arriving at the intersection first. All legs have a stop sign with no direction having priority.

Minor-Stop Intersection: An intersection where the minor-leg is stopped using a stop sign. At these intersections, the major route always has priority while the minor route must stop for oncoming traffic.

Signal Warrant: Criteria or guidelines used by traffic engineers and transportation authorities to determine whether the installation of a traffic signal at a particular intersection is justified or

warranted. Installing traffic signals at intersections without meeting specific warrants can lead to inefficient traffic flow, increased congestion, and potential safety hazards. There are nine signal warrants, and meeting one or more of these warrants is required before a traffic signal can be installed. Meeting a warrant does not necessitate the installation of a new signal.

- Warrant 1, Eight-Hour Vehicular Volume
- Warrant 2, Four-Hour Vehicular Volume
- Warrant 3, Peak Hour
- Warrant 4, Pedestrian Volume
- Warrant 5, School Crossing
- Warrant 6, Coordinated Signal System
- Warrant 7, Crash Experience
- Warrant 8, Roadway Network
- Warrant 9, Intersection Near a Grade Crossing

All-Way Stop Warrant: Criteria or guidelines used by traffic engineers and transportation authorities to determine whether the installation of a multi-way stop sign at an intersection is justified or warranted. These warrants help ensure that stop signs are placed at intersections where they are truly necessary for safety and traffic control. The primary goal is to prevent unnecessary stops, reduce driver confusion, and improve traffic flow. Similar to signal warrants, meeting a warrant does not necessitate the installation of a new all-way stop control intersection.

Level of Traffic Stress (LTS): an approach that quantifies the amount of discomfort that people feel when they bicycle close to traffic.

LTS 1: Bike routes suitable for children

LTS 2: Bike routes suitable for most adults

LTS 3: Bike routes suitable for “enthusiastic and confident” cyclists

LTS 4: Bike routes suitable for “strong and fearless” cyclists

Crash Terms

Injury Type: The highest level injury caused as a result of a crash.

K-injury: A fatal crash is a traffic crash involving a motor vehicle in which at least one person dies within 30 days of the crash.

A-injury: Any injury, other than a fatal injury, which prevents the injured person from walking, driving, or normally continuing the activities he/she was capable of performing before the injury occurred. This includes severe lacerations, broken/distorted limbs, skull injuries, chest injuries, abdominal injuries

B-injury: Any injury, other than a fatal or incapacitating injury, which is evident to observers at the scene of the crash. This includes lumps on the head, abrasions, bruises, minor lacerations.

C-injury: Any injury reported or claimed which is not listed above. This includes momentary unconsciousness, claims of injuries not evident, limping, complaints of pain, nausea, hysteria.

Property Damage (PD): A crash with no physical injury to the involved parties but may result in vehicular damage or damage to nearby property.

Crash Type:

Rear End: Any collision involving two vehicles where the rear of one vehicle comes into the contact with the front of another vehicle. This type of crash is most common at stop locations.

Angle: Crash at an intersection (or driveway) involving two vehicles that were on separate perpendicular (or angled) routes, commonly referred to as a "T-Bone". Either vehicle may be proceeding straight or left at the intersection.

Sideswipe Same Direction: Collisions involving two drivers heading in the same direction where one or both drivers leave their lane and impact the side of another vehicle with the side of their own vehicle. Often these crashes happen in similar situations to those that result in rear end crashes. In some cases, a driver avoids a rear end crash and in the process, causes a sideswipe same direction crash.

Sideswipe Opposite Direction: A crash between drivers heading in opposing directions. Sideswipe opposite direction crashes is a result of a lane departure and these crashes have the potential to result in a head on crash.

Turning Left: A type of crash resulting when two vehicles enter the intersection from opposite directions, with one of the vehicles turning left and the other proceeding straight.

Turning Right: Right turning crashes are a type of perpendicular crash where one driver is entering a roadway by turning right where they are struck from the side/rear prior to completing the turn.

Fixed Object: A single vehicle collision involving a road user and an immoveable object. Parked cars are not considered fixed objects since they can be moved.

Overturned: A single vehicle collision (often roadway departure) resulting in a driver's vehicle to flip over.

Head On: A crash type resulting from one or both drivers leaving their lane and crashing into the front end of the other driver. Generally resulting in severe injuries due to the opposing directions and combined speeds of both drivers involved.

Pedestrian: Any crash involving a pedestrian and a vehicle. High potential for severe injuries due to the exposed nature of pedestrians using roadways.

Other Object: A collision involving a moveable object. Oftentimes these crashes are between road users and parked cars. Additionally, crashes can involve road debris or any other non-living object that may cause an obstruction in the road. For the purposes of this study unspecified other-objects will be considered parked cars.

Animal: Any collision between a vehicle and an animal.

Pedalcyclist: Crashes involving a cyclist and a vehicle. Similar to pedestrian crashes cyclists are exposed and unprotected when in the road leading to a high potential for severe crashes.

Other Non-Collision: Incidents along the road involving a vehicle and not resulting in a collision i.e. driving off-road and rolling a vehicle.

Correctable Crash: Any crash type that could be prevented by the installation of a stop sign or signal.

Capacity

Level of Service (LOS): The average amount of delay experienced by a driver as they navigate an intersection. Measured in seconds.

LOS A: Free flow traffic conditions - users are practically unaffected by the presence of other drivers. Signalized: Under 10 seconds of delay. Unsignalized: Under 10 seconds of delay.

LOS B: Steady traffic conditions - presence of other vehicles begins to effect driver behavior. Signalized: 10-20 seconds of delay. Unsignalized: 10-15 seconds of delay.

LOS C: Steady but limited traffic conditions - choice of speed is limited by traffic and maneuvering requires vigilance. Signalized: 15-25 seconds of delay. Unsignalized: 20-35 seconds of delay.

LOS D: Steady traffic at high density - reduced speeds and maneuverability. Drivers may wait through more than one signal cycle at signalized locations. Signalized: 35-55 seconds of delay. Unsignalized: 25-35 seconds of delay.

LOS E: Traffic at saturation - low but uniform speed and reduced maneuverability. Signalized: 55-80 seconds of delay. Unsignalized: 35-50 seconds of delay.

LOS F: Congestion - unstable speed with the formation of waiting lines at several points. Cycles of stop and departure with no apparent pattern. Signalized: More than 80 seconds of delay. Unsignalized: More than 50 seconds of delay.

Saturation Flow Rate: The maximum number of cars that can utilize a lane within one hour. Typically assumed to be 1,900 under ideal conditions.

Average Daily Traffic (ADT): A key metric used in transportation planning and traffic engineering to describe the average number of vehicles that pass a specific point on a road or highway over a 24-hour period. Defined as a standard weekdays traffic volume (Tuesday-Thursday).

Speed

85th Percentile Speed: The speed at which 85% of drivers use the road. Drivers traveling above the 85th percentile speed are considered to be exceeding the safe and reasonable speed for road and traffic conditions. Oftentimes speed limits are set based on 85th percentile. In speed studies, an 85th percentile speed significantly over the posted speed limit is indicative that there is a speed issue.

VILLAGE SURVEY ANALYSIS

To gain a better understanding of the priorities and preferences of Village residents, Thomas Engineering Group (TEG) created a survey with a broad range of questions related to Traffic and Safety in the Village. The goal of the survey was to better guide TEG's approach to Village improvements and to help identify locations where there is a perception of unsafe conditions that may not currently result in elevated crashes or poor level of service (LOS). The survey had a total of 31 questions and not all respondents were given all the questions. Not all questions/responses will be directly utilized in this study as some were included for potential future use or indirectly utilized to gain a better understanding of resident preferences.. The questions can be divided into several categories:

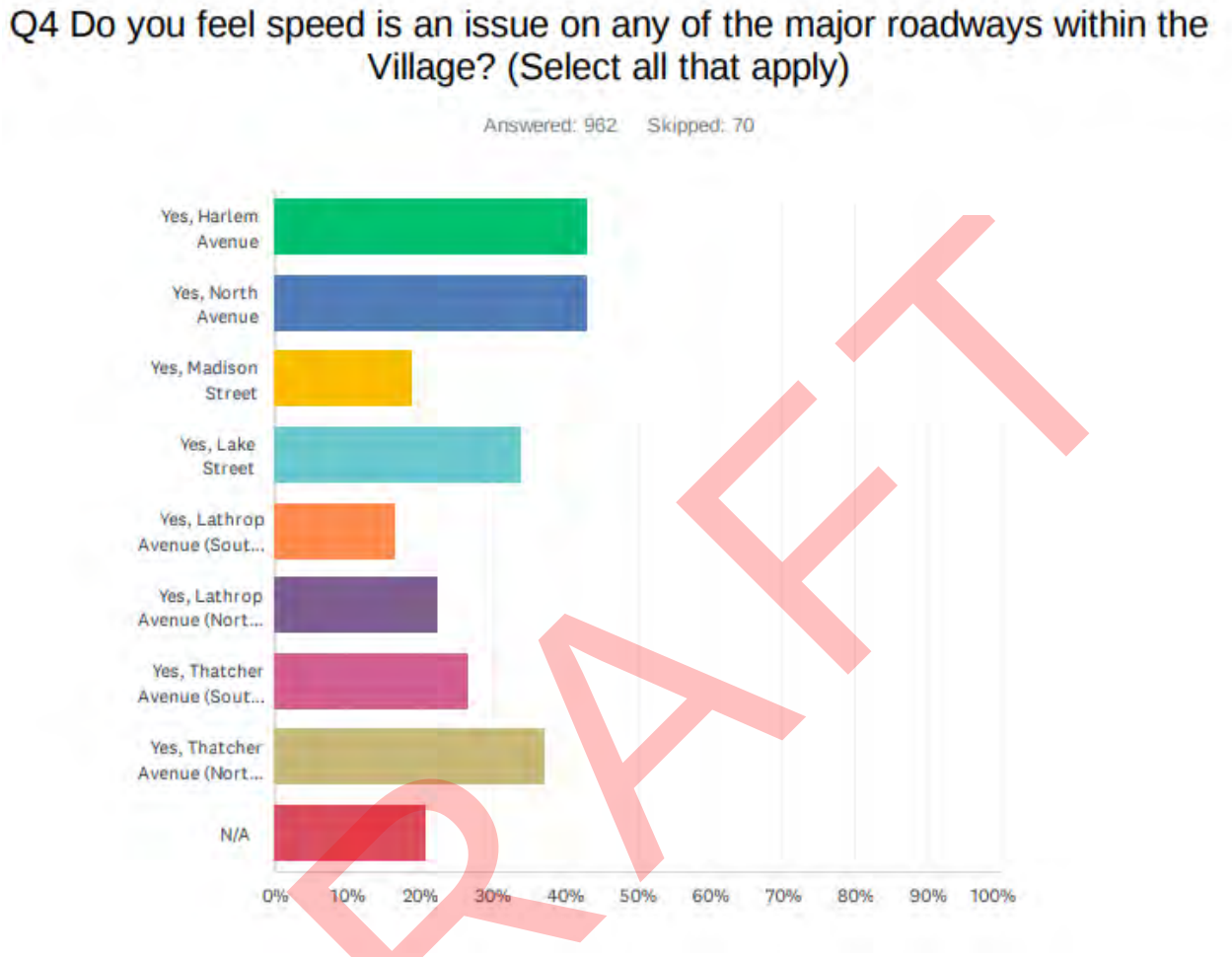
- General Respondent Information: Initial questions to locate respondents within the Village and gain an understanding of how respondents use the roads.
    - Questions 1 & 2
- Local and Village-wide speed survey: Questions to gauge respondents' feelings about speeds on their local roads as well as primary roads in the Village.
    - Questions 3 & 4
- Local stop survey: Questions about respondent impression of stop sign usage along their roads. Large numbers of drivers not obeying stop signs indicate potential operational concerns.
    - Questions 5 & 6 (open ended)
- Cut-through traffic impressions: These questions were to gauge respondent impression of drivers using residential Village roads specifically to avoid traffic on larger non-residential streets. This was something noted as a concern by the Village prior to the start of the study.
    - Questions 7 & 8 (open ended)
- Road features and operation survey: Questions asking respondent opinions on road improvements, signing in the Village, sight conditions, and lane configurations. These questions helped to gain a deeper insight into respondent preferences and impressions of areas TEG flagged as potential areas of concern.
    - Questions 9-12, 25-27
- Washington Blvd survey: These questions were only answered by road users who answered that they regularly used Washington Blvd or lived on or near the street. All responses were incorporated into the Washington Blvd Corridor Study.
    - Questions 13-21
- Bike survey: Questions about cyclists' impression of roadways in the Village. This gave TEG a better idea of if a resident would be comfortable starting to use a bike as a local mode of transportation or if it was seen as dangerous.
    - Questions 22-24

- NE Quadrant opinions: Questions allowing respondents to give opinions on the NE Quadrant improvements previously performed by the Village including an open-ended response section. Response data was conveyed to the Village, but not analyzed within this study due to that area of the Village being excluded from this study.
    - Questions 28-30
- Open response: An open-ended response for respondents to give opinions not addressed within the survey.
    - Question 31

A total of 1,032 residents responded to the survey. This accounted for nearly 10% of the Village population and shows a high level of community investment from Village residents. This is encouraging for future education and outreach plans seeing that so many residents took the survey and often gave detailed open-ended responses when given the opportunity.

Below is a brief summary of several questions response data to highlight TEG's findings that may not be detailed elsewhere in the report. A complete summary of all response data can be found in Appendix B.01: Survey Response Graphs and Data.

Speeds on Major Roadways



TEG wanted to see which major roads in the Village were most known for speeding. The two largest arterials in the Village, North Ave and Harlem Ave were expected to get a large number of responses due to their characteristics. Additionally, the northern half of Thatcher Ave and Lake St both had elevated response rates. This data along with individual responses helped TEG to select Thatcher Ave as a location for individual review.

Traffic Calming Options

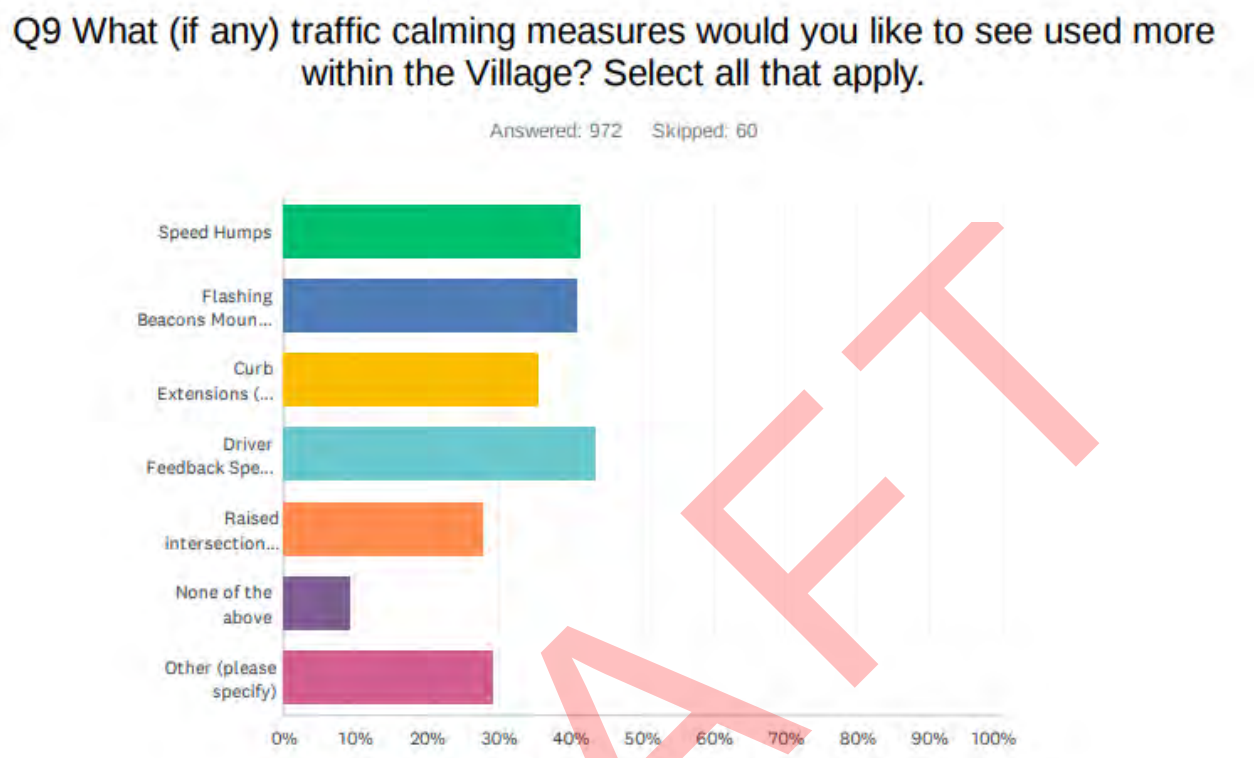


Figure 1. Responses: Wat if any traffic calming measures would you like to see used more within the Village?

TEG wanted to gauge the popularity of traffic calming implements that are being considered throughout the Village. It was reassuring that less than 10% of respondents selected "None of the above" and many respondents gave additional feedback in the open-ended response area. From the data, it is apparent that most respondents would like to see more forms of traffic calming used within the Village. TEG agrees and would recommend using a variety of traffic calming measures in order to achieve the best effect along the improved route.

It was noted that more residents wanted to see speed humps than raised intersections even though both countermeasures achieve a similar effect. TEG believes this could be due to a lack of knowledge about raised intersections are implemented that could be addressed using outreach programs. TEG found in many of the open responses, respondents would mention not wanting curb extensions because of the effect they have on cyclists. While this can be true, it is possible to design curb extensions with bike lane pass-throughs or other design variations that incorporate bike lanes. Knowing this is a concern TEG will consider bike facilities in any areas where curb extensions are being proposed.

TEMPORARY ONE-WAY LOCATIONS

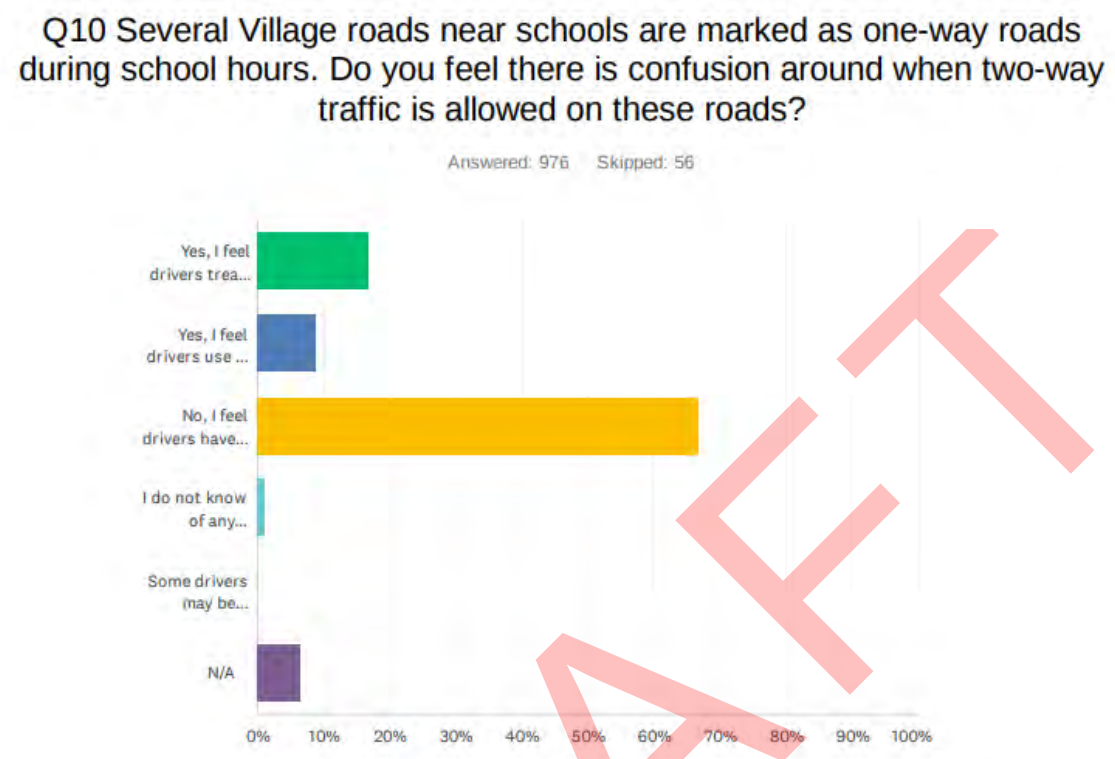


Figure 2. Responses: Do you feel there is confusion around when two-way traffic is allowed on these roads?

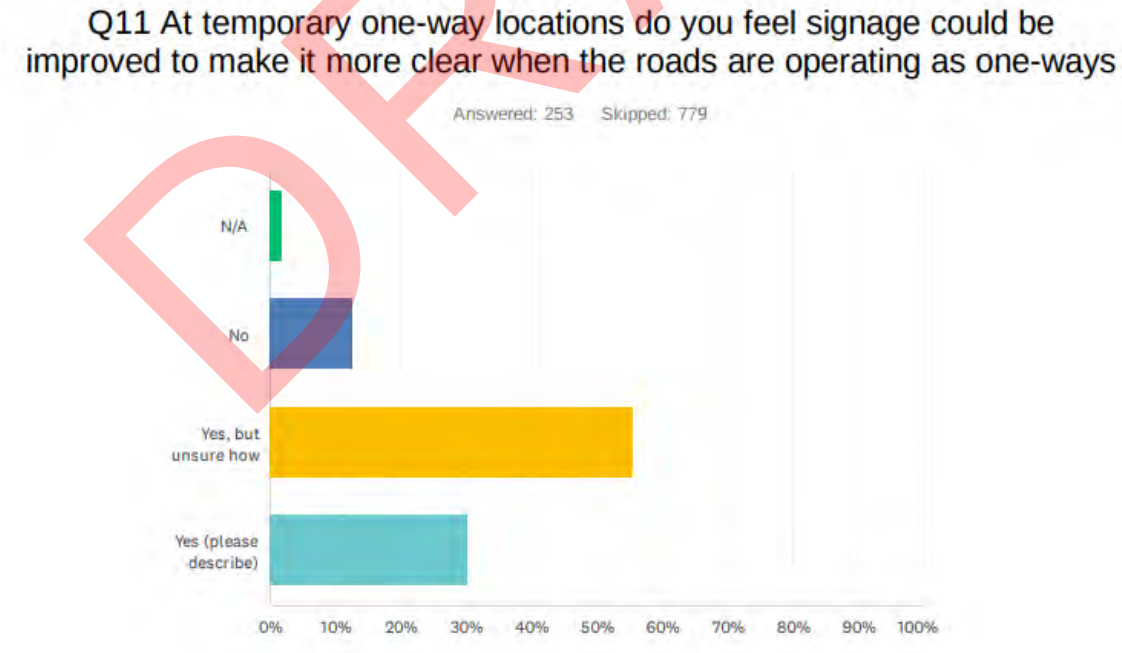


Figure 3. Responses: At temporary one-way locations do you feel signage could be improved to make it more clear when the roads are operating as one-ways?

TEG noted that overwhelmingly respondents in question 10 believed residents were accustomed to the temporary one-way locations. In the next question, residents who did feel the temporary one-ways were confusing were asked if signage could be improved. Most of these respondents said signage could be improved, and within the open response section many respondents suggested larger signs or blocking the roads. TEG agrees that signing could be improved at these locations, and suggests that the one-way restriction be changed from 'on school days' which is ambiguous for those not aware of school schedules to 'all weekdays'. This would remove ambiguity from the location and makes the locations safer for kids in summer programs who may be used to one-way traffic in the area.

THATCHER TURN OPINIONS

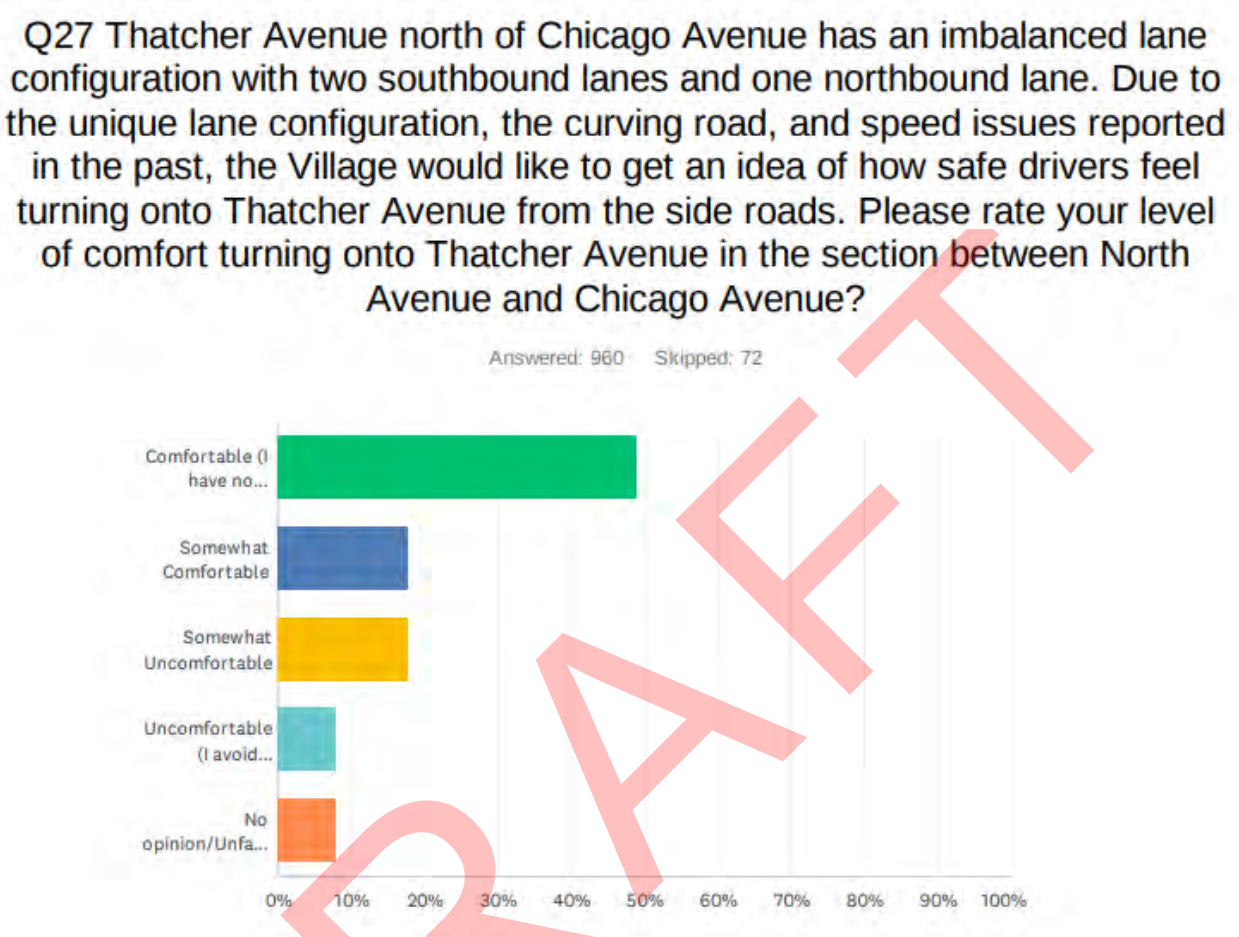


Figure 4. Responses: Please rate your level of comfort turning onto Thatcher Ave in the section between North Ave and Chicago Ave?

It was surprising that most drivers were comfortable turning onto Thatcher Ave. While studying the location for the individual study, TEG found significant speeding that we believed would result in driver discomfort entering Thatcher Ave from the side streets. Seeing this is not the case supports the hypothesis that drivers have gotten used to the speeding along Thatcher.

Despite drivers being comfortable turning onto Thatcher Ave, TEG found that there were elevated rates of injuries when crashes did occur. More study may be necessary to understand diver behaviors in this area.

RESULTS

TEG created multiple exhibits using survey data that will be seen elsewhere within this report. Survey responses were kept in mind prior to making recommendations. Open ended responses were reviewed and considered in final recommendations but due to the wide variety of answers and varying amounts of detail/information given TEG decided to not review those responses here. The volume of respondents was far exceeding the expected response rate for a community of this size. While this was beneficial to get as many opinions as possible it made concise analysis of open-ended responses impossible.

Capacity Analysis

Thomas Engineering Group (TEG) was tasked with creating a traffic model of the Village including all existing traffic counts and any traffic counts performed as part of the Village-wide Traffic Study. The traffic model allows the Village to simulate new lane configurations or intersection layouts prior to implementation in the Village to get an idea how changes will impact the system. The advantage of a complete Village-wide traffic model over individual intersection modeling is the ability to see how intersections interact with each other.

The model was created using Synchro 11 Traffic modeling software. The traffic model is set up as an overlay on an aerial of the Village showing all primary roads and any other roads with recent traffic counts. Currently there are 35 counted locations and an additional 24 uncounted intersections within the model. The system is set up in a way that the Village can continue to add to and maintain the model to eventually have a functional simulation of all roads within the Village and how they interact during peak hours. This helps the Village identify traffic issues and bottlenecks to implement more effective countermeasures. This also allows the Village to avoid making changes that will push traffic towards routes operating near capacity. TEG modeled a new signalized intersection within the Crash Analysis and modeled lane changes within the Washington Blvd Corridor Study and Thatcher Ave Speed Study. Results are discussed within those sections of this report.

The model allows TEG to assess the level of service (LOS) at all counted intersections to assure drivers are not waiting too long to pass through an intersection during peak hours. A failing LOS is any intersection with a LOS below D. All intersections with failing LOS within the study area are shown below:

AM Peak Hour:

- Lathrop Ave @ Division St: LOS E

PM Peak Hour:

- None

It was noted that all but one location with a failing LOS was in the NE Quadrant of the Village which is excluded from this Village-Wide Traffic Study. TEG modeled the area using traffic data collected as part of the Northeast Neighborhood Traffic Study (2022). These intersections that are not within TEG's study area are not included in this discussion due to changing conditions in the Northeast Quadrant.

The intersection between Lathrop Ave and Division St was identified within TEG's crash analysis as a top 10% crash location. TEG performed a signal warrant and Warrant Five and Seven were met. Meeting a signal warrant does not require that the Village install a new signalized intersection at this location, but TEG would strongly recommend the Village consider new signal installation based on crashes and surrounding land use with nearby school facilities. A more detailed review of this intersection and corresponding recommendations can be found in the Crash Analysis section of this report.

In the PM peak hour conditions, the intersection between Lathrop Ave and Division St has a LOS of D, which is nearly failing. TEG modeled the intersection using the existing lane configuration as a signalized intersection and found LOS improved to a B (See Appendix C.03: Alternate Volumes & Level of Service – AM and See Appendix C.04: Alternate Volumes & Level of Service - PM).

TEG concluded the analysis of the counted locations determining that most roads in the Village are operating smoothly at existing traffic volumes. There were several locations where individual movements were failing. Generally, failing individual movements were seen at minor leg stop locations or locations with high numbers of left turns, but in these cases the overall intersection was still operating properly.

A full breakdown of all analyzed intersections can be found in Appendix C.01: Volumes & Level of Service – AM and Appendix C.02: Volumes & Level of Service – PM.

CRASH ANALYSIS

Thomas Engineering Group (TEG) was tasked with compiling and analyzing the crash data for every segment and intersection within the Village of River Forest (excluding the NE quadrant where a study has already been conducted). Crash data was originally collected for the years 2016-2020 but as TEG was processing the initial data the 2021 crash year became available. Since the 2016 data was already processed, TEG decided to include the 2021 data and complete the crash analysis using six years as opposed to the standard five. The additional year should only improve the overall analysis, especially since 2020 crash year was skewed by the COVID-19 Pandemic. Crash data during this time is still applicable but crash patterns may be different from pre/post-pandemic crash patterns.

TEG used our proprietary in-house crash processing program to organize crashes based on segment/intersection. Crashes were then compiled and analyzed based on crash type, crash year, injury type, and any on-road conditions such as wet pavement of nighttime crashes. This allows us to observe crash patterns from year to year and cross reference Google Earth imagery to verify the years when changes were made. Sometimes, simple changes like a new sign will result in a high crash rate intersection having a significant reduction in total crashes after the improvement was placed. Spotting these changes is important to prevent recommending unnecessary further improvements to a road that has already implemented countermeasures to address a crash problem. At all intersections, TEG provided a crash diagram showing the direction and orientation of vehicles involved in crashes.

Crashes were analyzed based on raw crash data provided by IDOT. Individual crash reports were not analyzed due to lack of available reports from the state. When analyzing an intersection, TEG looked for recurring crashes or crash patterns. TEG takes any crashes that appear to have a common cause and uses factors like the time of day, driver direction, and drivers stated intention (going straight, turning left, etc.) to link the crashes together and find a common solution. Crash analysis is the first stage in taking locations that may have existing issues and finding the best path forward to identify and eventually address the cause of the recurring crashes.

After crashes were processed each location was given a weighted score based on the number of crashes and the severity of injuries. We utilized a common industry practice of assigning 1, 2, 5, 10 and 25 points, to Property Damage Only, C-injury, B-injury, A-injury and Fatal crashes, respectively. The top 10% of all intersections and segments received a full crash analysis, while the remaining locations only received the initial screening and crash score. This equated to nine segment locations and 12 intersection locations for a total of 21 locations The threshold score for intersections was 27 and for segments was five. Crash summaries and crash diagrams (for intersections) for these top 10% locations are provided in Appendix D.01: Top 10% - Segment Crashes & Appendix D.02: Top 10% - Intersection Crashes.

Just because a location met the minimum threshold for detailed analysis does not indicate any changes will be needed or that there are any crash patterns that need addressing. Elevated crash rates or injury rates are required to meet the threshold for analysis, but they do not inherently indicate a persistent crash pattern.

Segment Crash Analysis

Segments were divided into 3 peer groups: Local, Primary, and Arterial. Arterial roads consist of the segments on Harlem Ave and North Ave. These segments were not included in the analysis due to the routes being owned and maintained by the state which limits improvement options for the Village. Additionally, the speed limit of 30 mph on both roads gave them a different character and faster operating speed than any other road in the Village. Primary and Local roads were identified in the initial phases of the project. A more comprehensive explanation can be found in the Commonly Used Terms section. The peer groups were used to prevent any one segment type from becoming too prevalent in the top 10% locations. When reviewing, we wanted to look at the top 10% of both the Local and Primary segments to gain a better understanding of all Village roads. It can clearly be seen in the table below that Local segments had much lower crash scores compared to the Primary segments.

Route	From	To	# Crashes	PG	Score	PG Rank
Madison St	Forest	Park	9	Primary	29	1
Madison St	Franklin	Ashland	18	Primary	25	2
Thatcher Ave	Augusta	Division	6	Primary	20	3
Division St	Monroe	Bonnie Brae	3	Primary	15	4
Forest Ave	Madison	Vine	1	Local	10	1
Oak Ave	Forest	Park	2	Local	7	2
Edgewood Pl	Lake	Thatcher	1	Local	5	3
Clinton Pl	Quick	Oak	1	Local	5	3
Ashland Ave	Lake	Oak	1	Local	5	3

Table 1. Top 10% segment crash locations.

Individual segment analyses are listed below:

Madison St: Forest Ave to Park Ave: 9 Crashes 1 A-injury, 2 B-injuries, 3 C-injuries

4 Rear End: 2 C-injury

2 Turning Right: 1 C-injury

1 Fixed Object: 1 A-injury

1 Turning Left: 1 B-injury

1 Pedalcyclist: 1 B-injury

This segment of Madison St contains one lane per direction and a center two way left turn lane. Within the segment on the south side of Madison there is an entrance to Concordia Cemetery and Van Buren St intersection. East of the entrances and Van Buren St, there is an at grade train crossing with gates for cars but not pedestrians. Nearby land use is primarily multi-family housing north of Madison St and south of Madison is primarily businesses. On-street parking is not provided in the segment. The areas where parking would be provided currently have diagonal striping and act as an eight foot paved shoulder. The eastern terminus at Park Ave has existing curb extensions.

The segment has multiple points where a driver may stop either for a train or to turn into one of the southern driveways. It is likely the four rear end crashes were a result of drivers stopping to turn or to wait for a train and the driver behind them not reacting quickly enough resulting in a crash.

Two-thirds of all crashes involved an eastbound driver (five crashes exclusively involving eastbound drivers and two including northbound drivers). The remaining two crashes involved either only northbound drivers or northbound and southbound drivers. There were no crashes involving westbound drivers within the segment.

The high rate of injuries in this segment suggests drivers may be colliding at high speeds. Most crashes occurred at the railroad crossing or at Van Buren St (including the pedalcyclist crash). Based on TEG field visits, it was observed Van Buren St traffic has difficulty seeing eastbound traffic while stopped at the stop sign. It is possible that eastbound traffic is either moving too fast for drivers on Van Buren to safely find gaps on Madison St or high vehicle volume is causing drivers to attempt to fit into small gaps in traffic. Since there are only nine total crashes through the segment (one to two crashes per year), it is difficult to establish a definitive pattern. At this tune TEG would not recommend taking any action in this segment.

Madison St: From Franklin St to Ashland Ave: 17 Crashes 1 B-injury, 2 C-injuries

5 Angle: 1 B-injury

4 Turning Right

3 Other Object

2 Turning left: 1 C-injury

2 Sideswipe Same Direction

1 Pedestrian: 1 C-injury

This segment of Madison St is along a business lined corridor and serves as a transition point from the more residential area to the west to a business district in the east. The road runs east and west with one lane per direction and a signalized intersection in the center of the segment. There are several parking lots with driveways entering the road, multiple auxiliary turn lanes, street parking, and curb extensions throughout the corridor. It is a high-volume segment with lots of opportunity for drivers to enter or exit Madison St. South of Madison St (outside the Village) Jackson Blvd is located in the center of the segment and is a signalized intersection. This segment had the most crashes in the Village but had the second highest score due to lower crash severity.

Despite the lack of severe injuries, the segment has seen high rates of angle crashes and crashes involving drivers turning right onto Madison St. It was noted that angle crashes were primarily between northbound and eastbound drivers where the northbound driver was turning left; four of the five angle crashes follow this pattern. These crashes may be occurring away from the signalized intersection involving drivers turning from commercial driveways. Due to the constrained conditions of the corridor with buildings set between 6-15' back from the road, sightlines for drivers sitting at driveways may be compromised. Increasing sightlines without major construction on the buildings may be difficult or impossible. High volumes along Madison St exacerbate the problem as drivers waiting to turn have fewer and shorter gaps between vehicles.

The large number of driveways coupled with poor sight conditions due to buildings too close to the road is an existing condition the Village cannot easily change. Improving visibility of oncoming traffic at the driveways as much as is possible with the nearby buildings or restricting left turns onto Madison St may help to reduce the number of angle crashes within this segment. It seems that crashes peaked in 2018 with eight out of the total 17 crashes occurring in that year. TEG did not see evidence of roadway changes in historical imagery, but it is possible changes downstream impacted traffic along this segment. Since angle crashes primarily occurred between drivers on the south leg (outside the Village), there are limits to what can be done outside of informing Forest Park (responsible municipality) of the situation. At this time TEG recommends no further action along this segment.

Thatcher Ave: From Augusta St to Division St: 6 Crashes 1 A-injury, 1 B-injury, 1 C-injury,

3 Rear End: 1 B-injury

2 Fixed Object: 1 A-injury

1 Other Object: 1 C-injury

This segment of Thatcher Ave was analyzed on its own as part of a speed study in the area. An in depth analysis of this location and its bounding intersections' crashes can be found in the Thatcher Ave Speed Study section of this report.

Division St: From William St to Bonnie Brae: 3 Crashes 3 B-injuries

1 Rear End: 1 B-injury

1 Other Object: 1 B-injury

1 Sideswipe Same Direction: 1 B-injury

This segment of Division St is a two-way street with striped bike markings for shared lane usage (aka 'sharrow') and parking on both sides. The road has center striping and striped parking lanes. Concordia University and Fenwick High School have facilities south and north of Division St respectively. Grace Lutheran school is located at the east end of the segment on Bonnie Brae. Division St is a collector with an average daily traffic (ADT) of 6,500 and ends at Thatcher Ave to the west. Division St also provides access to Dominican University near the intersection with Thatcher Ave. The large number of schools and school facilities (especially high schools and universities where students may have personal vehicles they need to park) will result in high traffic volumes and high parking utilization during specific parts of the day.

Division St has seen three total crashes in the six years of crash data studied suggesting that there are no recurring crash patterns. All three crashes resulting in B-injuries were surprising, considering the speed limit is reasonably low at 25 mph and the types of crashes were not the more dangerous head on or perpendicular crash types (Angle). With the knowledge that this segment of Division St has a considerable number of facilities for kids/young adults who are of driving age, it is possible that more prevalent speeding through the corridor resulted in more severe crashes than would otherwise have occurred. Since crash frequency is relatively low, there is no reason to make any changes or commit to further study. If crash rates along any part of Division St begin to spike, TEG recommends a speed study as a first recourse to see if speed conditions are resulting in more severe crashes or higher crash rates in general.

Forest Ave: From Madison St to Vine St: 1 Crashes 1 A-injury

1 Turning left: 1 A-injury

This segment of Forest Ave is primarily residential with single-family housing on the west side of the road and multi-family units along the east side of the road. There is a business in the southwest portion of the segment and the public works building is in the northeast corner of the segment across from Vine St. The road accommodates one lane of traffic per direction. Parking is allowed on the west side of the road but is not striped. Based on existing conditions in the segment TEG did not spot any apparent deficiencies. The one A-injury crash appears to have happened near the public works building.

While the A-injury is considered serious, it was an isolated instance and does not warrant any changes to the segment.

Oak Ave: From Forest Ave to Park Ave: 2 Crashes 1 B-injury, 1 C-injury

2 Fixed Object: 1 B-injury, 1 C-injury

This section of Oak Ave is a residential road designated as a bike route. The segment is lined with residential driveways, trees, and utility poles in the easement. Only four residences line this segment, but driveways/alleyways appear to give additional access to garages for residents on Forest Ave and Park Ave without frontage on Oak Ave. Directly in the center of the segment there is a rail bridge crossing over the road with 12'-2" of clearance.

Both fixed object crashes occurred at night. It is impossible to determine what was hit due to so many trees and other objects lining the segment. The railroad bridge supports are too close to the traveled way, but it is unlikely that reconstruction of the supports would be economically feasible with the infrequency of crashes along the segment. Shielding the bridge supports with guardrail would result in a fixed object (guardrail end terminal) even closer to the road and extending beyond the bridge supports existing footprint. Additionally, installing a guardrail will need to extend into the traveled way to properly protect the bridge supports located directly behind the back of curb. Based on the two existing fixed object crashes TEG cannot verify what object was struck as mentioned above. Without this verification or more than two fixed object crashes in a 6 year period, TEG recommends no action is taken at this time.

Edgewood Pl: From Lake St to Thatcher Ave: 1 Crash 1 B-injury

1 Fixed Object: 1 B-injury

Clinton Pl: From Quick St to Oak Ave: 1 Crash 1 B-injury

1 Fixed Object: 1 B-injury

Ashland Ave: From Lake St to Oak Ave: 1 Crash 1 B-injury

1 Other Object: 1 B-injury

The final three 10% locations all had a single B-injury crash giving them a score of five. These locations will be discussed together due to similar crash and roadway characteristics between all three. It is impossible to establish a crash pattern with a single crash so no recommendations will be made. The fact that these three locations were within the top 10% of all local roads suggests that overall, the Village's local segments are not experiencing high crash rates.

The segments were located along two-way roads with no pavement markings and parking allowed on both sides. Land usage is primarily residential along Ashland Ave and Clinton Ave. Along Edgewood Pl the east side of the road is residential, and the west side is a forest preserve. There were trees and other various fixed objects along all three roads that could pose a hazard as a fixed object.

Intersection Crash Analysis

The Village's intersections had far more crashes to analyze than the segments. This was expected primarily due to intersections having a lot more conflict points between drivers who are either stopping, turning, or continuing straight at every intersection. Since intersections behave very differently depending on what traffic control is used, TEG broke intersections into four peer groups that were scored using the same severity weighted scoring but ranked separately just like the segment locations. The four peer groups were: All Way Stop (AWS), Minor Stop – 3 leg, Minor Stop – 4 leg, and Signalized. The reason minor leg stop had three leg intersections separated from four leg was because the four leg intersections had an additional stopped leg where drivers are attempting to turn onto the uncontrolled route. This meant a four-leg intersection would have more potential conflict points than the three-leg version. Other intersection types had uniformity of traffic control type on all legs, so the addition or lack of an intersection leg was not considered as important in the scoring. The table below shows the top 10% locations separated by peer group. While all-way stop and signalized intersections generally had higher scores there is more variability between peer groups than what was observed with the segment locations.

On residential roads it is common for local drivers to feel comfortable and not drive as defensively or as alert as they would normally be. As a result, unexpected events may surprise drivers – an intersection that normally has no waiting cross-traffic having a driver entering from the minor road or a road that cyclists don't normally use suddenly having a cyclist taking the lane. These common occurrences may result in crashes simply due to drivers on the main road not expecting conditions different from what they see on most days.

Street 1	Street 2	# Crashes	PG	Score	PG Rank
Thatcher Ave	Washington Blvd	28	AWS	56	1
Ashland Ave	Lake St	26	Minor Stop - 4 Leg	54	1
Thatcher Ave	Chicago Ave	24	Signalized	50	1
Chicago Ave	William St	11	AWS	46	2
Lathrop Ave	Division St	19	AWS	40	3
Washington Blvd	Ashland Ave	21	Minor Stop - 4 Leg	38	2
Thatcher Ave	Greenfield St	8	Minor Stop - 3 Leg	34	1
Thatcher Ave	Division St	18	Minor Stop - 3 Leg	32	2
Hawthorne Ave	Keystone Ave	7	Minor Stop - 3 Leg	31	3
Washington Blvd	Gale Ave	14	Minor Stop - 4 Leg	29	3
Madison St	Lathrop Ave	20	Minor Stop - 3 Leg	29	4
Lake St	Keystone Ave	13	Minor Stop - 4 Leg	27	4
Chicago Ave	Jackson Ave	13	Minor Stop - 4 Leg	27	4

Table 2. Top 10% intersection crash locations.

Individual intersection analyses are listed below:

Thatcher Ave @ Washington Blvd: 28 Crashes 1 A-injury, 4 B-injuries, 3 C-injuries

17 Angle: 1 A-injury, 2 B-injuries, 1 C-injury

4 Sideswipe Same Direction

3 Rear End: 1 B-injury, 1 C-injury

2 Pedalcyclist: 1 B-injury, 1 C-injury

1 Fixed Object

1 Head On

The intersection between Washington Blvd and Thatcher Ave was analyzed as part of the Washington Blvd Corridor Study. For an in-depth analysis of all intersections and segments along Washington Blvd please refer to 'Crash Analysis' portion of the Washington Blvd Corridor Study section of this report.

Ashland Ave @ Lake St: 26 Crashes 1 A-injury, 4 B-injuries, 3 C-injuries

15 Angle: 1 A-injury, 3 B-injuries, 1 C-injury

6 Rear End: 2 C-injuries

3 Other Object: 1 B-injury

2 Sideswipe Same Direction

The intersection between Ashland Ave and Lake St is a minor stop intersection where north-south (Ashland Ave) traffic is stop controlled. The existing roadway has crosswalks on all four legs and centerline striping on Lake St. The east leg has an in-street pedestrian crossing sign telling drivers to stop for pedestrians in the crosswalk. Lake St has curb extensions on the east and west legs of the intersection. South of Lake St, the land usage is primarily mixed use with rental units on the upper floors. North of Lake St it is primarily residential usage with Saint Luke School on the northeast corner. Street parking is permitted on all legs but is restricted in front of the school and business entrances.

The north leg of the intersection is restricted to one-way traffic northbound on school days from 7:00AM-4:30PM. Since the leg is one-way to the north it does not impact any turning movements at the intersection other than eliminating southbound traffic from the north leg during those time periods.

The intersection has elevated angle crash rates (15) with four injury crashes in the six-year study period. This number of angle crashes along a low-speed residential road generally indicates an underlying issue at the intersection. Since there were no apparent geometric deficiencies, TEG started by analyzing whether the temporary one-way was impacting crashes in the area.

Based on field visits TEG was skeptical that drivers followed the one-way designation during the day. This was supported by feedback received in the Village-wide survey. To determine if this was the case TEG looked at all crashes involving southbound vehicles on the north leg and compared the time and date of the crashes to see if they occurred on a school day during the one-way restriction. It was found that in six out of eight instances with a southbound driver it was during the temporary one-way times. TEG felt that enforcing 'school days' (Monday through Friday from early-August to mid-June) was too ambiguous for

drivers without children in school and does not specify if summer programs count as school days. One of the six crashes occurred during temporary one-way times in mid-summer. TEG was uncertain if two-way traffic was allowed during these time periods but felt that the signs were too ambiguous for drivers not familiar with the Village. Even if residents are informed about the exact dates one-way enforcement is applicable it is still potentially confusing to an outsider trying to use Village roads.

Drivers using the north leg to go south during one-way operation times could be disorienting for traffic on Lake St who are not expecting a southbound car to pull out from the intersection. This is supported by the fact that five of the eight southbound crashes were angle crashes including one A-injury and two B-injuries. It seems that while some drivers are following the temporary one-way rules, there are other drivers who either disregard or are unaware that the road is meant to operate as a one-way during school hours. To improve conditions at this intersection TEG would recommend some physical barrier at the entrance to the segment (the intersection of Ashland Ave and Oak Ave) to make it obvious to southbound drivers that continuing straight during these time periods is not allowed. The sign or cones would not need to block northbound drivers from continuing forward but should adequately block the lane southbound drivers would normally use. This barrier should only be in place during school hours (7:00AM-4:30PM), so it is apparent when one-way traffic is in effect. In addition to these changes TEG would recommend changing the temporary one-way dates to be effective on weekdays year-round instead of only on school days. This prevents confusion from outsiders or residents without schoolchildren who are not aware of academic calendars or if one-way restrictions are implemented in the summer months for summer programs. TEG would also recommend enlarging sign panels that display the one-way hours per feedback received as part of the Village-wide survey.

While unexpected southbound drivers may explain some of the angle crashes at the intersection there were nine angle crashes remaining that were all involving drivers headed north from the south leg. Seeing that seven of the nine angle crashes were between drivers heading north being hit by a westbound driver it became clear that westbound traffic was behaving differently from eastbound traffic. Based on traffic volumes collected at the intersection to the east (Lathrop Ave at Lake St) it appears traffic volumes are evenly split both east and west with slightly more drivers headed eastbound during both peak hour time periods. It is possible westbound drivers are speeding more often coming from the more commercial area east of Lathrop Ave, but this is speculation. TEG field engineers noticed that during peak hours eastbound traffic waiting at the signal on Lathrop Ave would periodically back up to the intersection with Ashland Ave and in these cases northbound drivers would weave through standing traffic to go straight or complete their left turn. This greatly limits the visibility of oncoming traffic for the northbound vehicles which may result in angle crashes. It is unclear if these conditions persist throughout the day, but in review it was noted seven of the 15 total angle crashes were during rush hour times. Without more data or an apparent cause for the elevated number of angle crashes (especially between northbound and westbound drivers) TEG does not feel comfortable recommending countermeasures at this time. However, we believe speed data and volume data would give a fuller picture of how the intersection operates and help to enact more effective countermeasures.

Since this intersection is one of the highest scoring crash locations in the Village, TEG recommends further study is conducted to determine the appropriate countermeasures that can be recommended. Knowing driver speeds, as well as vehicle volumes at the intersection – including how many drivers illegally drive south on the north leg during school hours – is vital information since the existing intersection has no

apparent geometric deficiencies. Depending on the findings, either northbound or westbound traffic may need to be modified. For example, high northbound volumes trying to cross lake street during peak hour times for school pickup/drop-off may justify an all-way stop or reconsideration of how school pickup and drop-off operates. In contrast if drivers are excessively speeding westbound from the intersection with Lathrop Ave, then countermeasures may need to be focused towards traffic on Lake St.

The sideswipe same direction, rear end, and fixed object crashes are at low enough rates that TEG does not believe there are any recurring problems. These crashes occurred along Lake St and with only one to two non-angle crashes per year did not present as a pattern.

Thatcher Ave @ Chicago Ave: 24 Crashes 6 B-injuries, 2 C-injuries

10 Rear End: 2 B-injuries, 2 C-injuries

6 Angle: 2 B-injuries

4 Turning Left: 2 B-injuries

2 Fixed Object

1 Pedalcyclist

1 Animal

The intersection between Thatcher Ave and Chicago Ave is a signalized intersection with protected/permissive left turns on Thatcher and unprotected left turns on Chicago Ave. All four legs are striped with one lane per direction and a dedicated left turn lane. Sidewalks and ADA pads are provided on all corners except the northwest corner. The south and east legs have striped crosswalks and corresponding pedestrian signal heads and push buttons. The west leg of the intersection has two westbound receiving lanes even though there is only one westbound through lane east of the intersection. North of the intersection Thatcher Ave has two southbound lanes where the inner lane turns into a dedicated left turn lane at the intersection with minimal warning.

Truck traffic is not permitted to continue east along Chicago Ave and bicycle pavement markings (sharrow) are striped on the east leg in both directions. On-street parking is allowed on the east leg of the intersection only. Land-use is primarily residential and forest preserve. There is a trailside museum southwest of the intersection with a driveway opening onto Thatcher Ave.

Seeing the intersection had six angle crashes with two B-injuries suggested that drivers were running red lights. Since one direction of traffic should always be stopped; to cause an angle crash one of the drivers would have to continue forward while they had a red light. To determine if any one direction was more likely to run the light, TEG looked at the directions of drivers involved in angle crashes and found that five of the six crashes involved a southbound driver. It was noted that southbound traffic is almost 400 vehicles higher when looking at the combined southbound peak hour through movement compared to the combined northbound peak hour through movement. While this may not directly contribute to running red lights, the combination of having more southbound drivers trying to switch into or out of the inner southbound lane/left turn lane at the intersection may create small delays that incentivize drivers to cross the intersection during expiring yellow lights or the start of the red signal phase.

North of this intersection TEG conducted a speed study that found the 85th percentile speed of drivers on Thatcher Ave was 41 mph. Based on this TEG would recommend installing an intersection warning sign for both Thatcher Ave approaches and considering a raised intersection at this location. It would effectively calm southbound traffic on Thatcher Ave, while also addressing drivers who may be speeding eastbound into the Village on Chicago Ave. A raised intersection at this location would be more efficient than placement at a three-legged intersection.

Rear end crashes were the most prevalent crash type at the intersection which is expected at signalized intersections. Looking at the distribution of rear end crashes through the years, there were one to three rear end crashes per year which appeared to be isolated instances occurring in all directions with no apparent directional bias. There were four left turning crashes at the intersection with an even split between north-south and east-west vehicle directions. Since there is no directional bias and there have not been any more left turning crashes since 2018, TEG does not believe there is a recurring pattern of left turn crashes at the intersection.

The remaining crashes (fixed object, animal, and pedalcyclist) were in too few numbers to establish a pattern. The pedalcyclist crash occurred at night, but without further crash details the exact road conditions cannot be determined. Since there have not been any more cyclist crashes since 2017, TEG does not believe the intersection is hazardous for cyclists to navigate.

Chicago Ave @ William St: 11 Crashes 1 A-injury, 6 B-injuries, 2 C-injuries

3 Rear End: 1 B-injury, 1 C-injury

2 Pedalcyclist: 2 B-injury

2 Fixed Object: 2 B-injuries

2 Angle: 1 B-injury

1 Turning Left: 1 A-injury

1 Pedestrian: 1 C-injury

The intersection between Chicago Ave and William St is an all way stop intersection located within a residential section of River Forest. All stop signs are double sided for increased visibility. Chicago Ave is a major collector and William St is a local road. At the intersection there are crosswalks provided on all four legs and parking is permitted along both routes. Along Chicago Ave center striping is provided with additional parking striping and bicycle pavement markings (sharrow). Nearby land use at the intersection is exclusively residential. Based on a recent traffic count, it was observed that Chicago Ave had an ADT of nearly 9,000 and William St had an ADT of roughly 1,000 vehicles. This is a major volume differential between the two roads. Currently, all-way stop control is not warranted per IDOT criteria. Traffic on the minor leg is not sufficient to install a stop sign along Chicago Ave. Installing stop signs in areas where they are not warranted may result in drivers not respecting the traffic control and may cause higher crash rates than not having a stop sign.

No individual crash type occurred with enough frequency to indicate a pattern. The most common crash type, rear end crashes, occurred once every two years which is not frequent enough to establish a pattern. The primary issue at the intersection is that nine of the 11 total crashes resulted in an injury. Having a high severity across all crash types including rear end as well as three pedestrian or cyclist crashes suggests

drivers are driving at high speeds which increases the likelihood a crash will result in severe injury. All four legs coming to a stop should result in any crashes that do occur at the intersection being at lower speeds and less likely to result in an injury, but if it is always the case that there is never or very seldom cross traffic on William St drivers may begin to come to a rolling stop and then accelerate forward unsafely to get back up to speed. All crashes involved drivers along the east-west road with no obvious directional split. Only the two angle crashes included drivers from William St (1 SB vs EB and 1 NB vs WB in each case the far lane).

It is apparent there is a crash problem at the intersection, But the reason for the crash problem is not apparent. Based on the injuries and high number of pedestrian conflicts TEG would suggest gathering speed data on the east and west approaches to the intersection. As an interim (and potentially on-going) solution, TEG suggests providing targeted enforcement in the area. Since the majority of crashes exclusively involve drivers on Chicago Ave, it would suggest that the problem is with how traffic on Chicago Ave interact with the intersection (not obeying stop signs).. Once additional data is gathered TEG would recommend reevaluating the traffic control. From a traffic engineering standpoint, the Village may wish to consider removing the AWS control. However, the Village should consider potential safety and liability implications of "lessening" the traffic control. If traffic control is removed the Village should consider installing traffic calming measures per criteria found in the Traffic Calming Toolbox developed as part of this project.

Lathrop Ave @ Division St: 19 Crashes 5 B-injuries, 1 C-injury

16 Angle: 4 B-injuries, 1 C-injury

3 Rear End: 1 B-injuries

This intersection is currently an all-way stop between two major collector streets. Both roads have one lane per direction without auxiliary turn lanes. The current ADT is 6,500 vehicles for Division St and 4,800 vehicles on Lathrop Ave. The existing conditions include striped crosswalks on all four legs, striped centerlines, and double backed stop signs. The stop signs all currently have flashers installed on them to bring even more attention to the stop location. Both roads have painted bike markings (sharrow) and on-street parking permitted on all legs with parking restrictions on the north leg in front of the school. Adjacent land usage is primarily residential, along with Trinity High School on the northeast corner of the intersection. There are no apparent visibility issues on any of the legs of the intersection.

Based on the excessive number of angle crashes and high rate of injuries, the first step TEG took was to run a signal warrant and all-way stop warrant. These warrants are defined by the Federal Highway Administration (FHWA) and at least one warrant must be met prior to installing new traffic control. Warrants being met does not necessarily require the installation of a signalized intersection, but it gives engineers the opportunity to recommend a new signal. At this intersection, Warrant Five and Seven were met. Warrant Five (School Crossing) was met based on the number of school children crossing in the area. Warrant Seven (Crash Experience) required five 'correctable' crashes in one year and minimum volumes being met for eight hours of the day. In the existing conditions, the minimum crash numbers were met based on the number of correctable crashes in 2017 and 2018, in which there were 5 correctable crashes in each year. The volume component of the warrant required a total of 8 hours where the major road had a volume over 400 vehicles and the minor road had a volume of 120 vehicles. This was met for seven of

the eight required hours. It was noted that two additional hours were within 10% of the required volumes. Based on our engineering judgement, we recommend that Warrant Seven be considered as met.

It was apparent that the intersection had a breakdown in operation seeing that 16 of the 19 total crashes were a single crash type – specifically one that should not be occurring at an AWS intersection. For an angle crash to occur at an all way stop one or both drivers need to disregard the stop sign or perform a 'rolling stop' A rolling stop is dangerous because slowing down makes it appear the driver is complying with the stop sign and immediately accelerating back up to speed does not give oncoming drivers on the cross-street time to react to the lack of a complete stop. Looking at the crash details there is no apparent directional split between intersection legs.

TEG recommends installing a traffic signal at this location – it is apparent the intersection has been identified in the past for crash issues since sometime in 2019 flashers were installed on all four signs. Since that time angle crashes appear to have dropped off (two angle crashes since 2019), but this was in 2020 and 2021 when the pandemic was significantly altering driver behaviors. In 2019 (the year flashing signs were installed) there were 6 angle crashes with 2 B-injuries. Based on this, TEG believes in future years the number of angle crashes will likely return to the numbers seen in 2019 as traffic patterns return to normal.

If the all-way stop is to remain, TEG would recommend targeted police enforcement to address the issue. TEG does not have speed data along Division St or Lathrop Ave, but it is likely drivers on one or both roads are speeding in the approach segments. TEG recommends conducting a speed analysis to determine if more traffic calming is applicable. If drivers are speeding in the segments, it is unlikely a single stop sign (or series of stops) will influence their speed through the corridor. There are three other all way stop locations along the corridor and in all three cases the minor route traffic volumes are substantially below Division St volumes. Drivers may be used to not seeing any cross traffic at other stop signs not realizing that Lathrop Ave and Division St have similar volumes resulting in a much higher chance that there will already be a driver waiting as another approaches. Traffic calming should be implemented throughout the corridors and not just at the intersection.

At this intersection TEG recommends installing a new traffic signal and performing a speed study to verify whether additional traffic calming is justified.

Washington Blvd @ Ashland Ave: 21 Crashes 4 B-injuries, 1 C-injury

13 Angle: 3 B-injuries, 1 C-injury

4 Rear End: 1 B-injury

2 Other Object

1 Fixed Object

1 Turning Left

The intersection between Washington Blvd and Ashland Ave was analyzed as part of the Washington Blvd Corridor Study. For an in-depth analysis of all intersections and segments along Washington Blvd please refer to 'Crash Analysis' portion of the Washington Blvd Corridor Study section of this report.

Thatcher Ave @ Greenfield St: 8 Crashes 1 Fatal, 2 C-injuries

4 Rear End: 2 C-injuries

2 Fixed Object: 1 Fatal

1 Turning Left

1 Angle

The intersection between Thatcher Ave and Greenfield St is a three-leg intersection with minor leg stop control for east-west traffic (Greenfield St). At the intersection, Thatcher Ave has two southbound lanes and one northbound lane. On-street parking is allowed along the east side of Thatcher Ave and there is restricted parking both sides of Greenfield St (no parking 8:00AM – 5:00PM Monday through Friday). There is a striped crosswalk on the east leg crossing Greenfield St and center striping provided along Thatcher Ave. Land use west of Thatcher Ave is Forest Preserve owned land and east of Thatcher Ave is primarily residential with Dominican University southeast of the intersection. Curvature along Thatcher Ave may make it difficult for a waiting driver on Greenfield St to see oncoming traffic.

The reason this location had a high score is due to the fixed object crash resulting in a fatal injury. It is unclear what was hit due to a variety of fixed objects being present in the area. As there was only one other fixed object crash in the study period, TEG does not believe there are any unprotected fixed objects in need of shielding causing a pattern of fixed object crashes.

All other crashes seem to be isolated events and do not present as a pattern that can be addressed. Therefore, TEG does not recommend any improvements at this time.

Thatcher Ave @ Division St: 18 Crashes 1 A-injury, 1 B-injury, 1 C-injury

4 Fixed Object

4 Turning Left

3 Rear End: 1 C-injury

3 Other Object

1 Head On: 1 A-injury

1 Angle: 1 B-injury

1 Turning Right

1 Other Non-Collision

The intersection between Thatcher Ave and Division St was analyzed on its own as part of a speed study in the area. An in-depth analysis of this location along with the segment and intersection to the south can be found in the Thatcher Ave Speed Study section of this report.

Hawthorne Ave @ Keystone Ave: 7 Crashes 1 Fatal

2 Fixed Object: 1 Fatal

2 Other Object

1 Rear End

1 Sideswipe Same Direction

1 Sideswipe Opposite Direction

The intersection between Hawthorne Ave and Keystone Ave is a complex offset intersection consisting of a minor stop along Keystone Ave south of Hawthorne Ave at the east intersection and a three-leg all way stop west intersection where Keystone Ave continues to the north. On-street parking is permitted on the south leg of Keystone Ave and the north side of Hawthorne Ave. Parking along Hawthorne Ave is striped and is paid parking for the Metra line. The north leg of Keystone Ave leads under a rail bridge with a Metra station located on top of the bridge to the west. Stop signs are placed on each side of the bridge and parking is restricted in the underpass. The east intersection has a crosswalk striped across the south leg. The western intersection has two crosswalks striped crossing Hawthorne Ave on the east and west legs.

Despite the complexity of the intersection there is a relatively low number of crashes. Out of the seven crashes, only three involve two vehicles with the rest being either fixed objects or other objects (parked cars). The singular fatal crash is the driving factor bringing this location into the top 10%. Upon reviewing news sources around the time of the crash TEG discovered the concrete bridge embankment is what was struck, and the driver was coming from a local bar at 2AM. Since there were only two fixed object crashes in the area TEG does not feel this constitutes a pattern. The concrete bridge structure is not realistic to move but the Village may want to consider shielding the structure if there are further fixed object injuries at the intersection in the future.

Washington Blvd @ Gale Ave: 14 Crashes 3 B-injuries, 3 C-injuries

11 Angle: 2 B-injuries, 2 C-injuries

1 Rear End: 1 B-injury

1 Pedalcyclist: 1 C-injury

1 Animal

The intersection between Washington Blvd and Gale Ave was analyzed as part of the Washington Blvd Corridor Study. For an in-depth analysis of all intersections and segments along Washington Blvd please refer to ‘Crash Analysis’ portion of the Washington Blvd Corridor Study section of this report.

Madison St @ Lathrop Ave: 20 Crashes 2 B-injuries, 1 C-injuries

7 Rear End

5 Sideswipe Same Direction

3 Other Object

2 Angle: 1 B-injury, 1 C-injury

2 Fixed Object: 1 B-injury

1 Turning Left

The intersection between Madison St and Lathrop Ave is a unique three-leg minor stop intersection where the north leg of Lathrop Ave is the stopped leg. One complicating factor is the presence of a signal-controlled intersection at Madison St and Des Plaines Ave, located approximately 100 feet to the east. This close distance can lead to visibility challenges for drivers on the minor leg. Additionally, it can make it difficult for drivers to find a safe gap in traffic. Cars turning westbound from Des Plaines Ave reach the Lathrop Ave intersection almost immediately, giving drivers at the stop sign limited time to accurately judge the gap and react to approaching vehicles.

On-street parking is allowed on the south side of Madison St. Near the intersection along Lathrop Ave parking is restricted, due to the nearby business entrances. The land use at the intersection is entirely commercial with residences further north. A crosswalk is provided on the north leg and bike facilities are striped on Lathrop Ave (sharrow). Along Madison St, centerline striping is provided. A dedicated left turn lane is striped along Madison St from Thatcher Ave to Des Plaines Ave.

Two intersections in such close proximity may have resulted in crashes at the intersection between Madison St and Des Plaines Ave being attributed to the studied intersection. This would help to explain the seven rear end crashes and five sideswipe same direction crashes (crashes commonplace at signalized intersections). Nine of the 12 total same-direction crashes involved drivers on Madison St heading eastbound and were likely associated with the signalized intersection. In five of those crashes the listed traffic control was the signalized intersection at Des Plaines Ave. Due to the way crashes are reported the remaining four crashes may be associated with intersection traffic but may not be listed as occurring at the traffic signal.

The three other object crashes at the intersection are unclear as to what was being hit. Seeing that there were no injuries associated with the crashes and since they occurred on average less than once per year TEG did not feel they presented a recurring problem at the intersection. In most cases an ‘other object’ is listed when a driver hits a parked car. Due to the close proximity of two parking lots on the east and west corner of Lathrop Ave to the studied intersection TEG theorizes crashes occurring within the lots were picked up within the crash data and attributed to the intersection. The crash data locations that we are able to review are based on how they are plotted in IDOT's GIS system, and there is a margin of error in how accurately the crashes plot. This would help explain the elevated other object collisions in the area compared to other similar intersections. The two angle crashes both resulted in injuries but seeing that there were only two over the course of the six years studied suggested the crashes were isolated occurrences. Due to a number of small, fixed objects near the traveled way TEG is uncertain what was struck in the fixed object crashes. The cramped nature of the corridor limits the ability to move fixed

objects away from the road, and since there were only two fixed object crashes over the six years studied, TEG does not recommend any countermeasures to address this crash type. The remaining left turning crash was an isolated incident and did not justify any countermeasures.

Lake St @ Keystone Ave: 13 Crashes 3 B-injuries, 2 C-injuries

6 Rear End: 1 B-injury, 2 C-injuries

4 Angle: 1 B-injury

1 Turning Left: 1 B-injury

1 Turning Right

1 Other Object

The intersection between Keystone Ave and Lake St is a minor stop-controlled intersection where Keystone Ave is the stopped route. The intersection has striped crosswalks on all four legs and centerline striping along Lake St. Lake St has curb extensions and pedestrian crossing signs equipped with rapid flashing rectangular beacons at the intersection. On-street parking is allowed on all legs but is restricted to three-hour parking on weekdays 6AM-2PM. Keystone Park is located on both the east and west side of the south leg of the intersection. North of the intersection, land use is primarily residential with the Mosaic Montessori Academy on the northwest corner of the intersection. Based on the land use around this intersection, it is expected that there is a large number of pedestrians using the intersection to get to or from the park.

The primary type of crash and injuries at the intersection are rear end crashes. TEG assumed most of these crashes would be on the stopped leg (north-south) but after looking at the directional breakdown it was seen that rear end crashes exclusively happened on Lake St (east-west). This was unexpected because generally rear end crashes are prevalent in areas where cars either stop or slow down. Based on the existing conditions it is likely that drivers get in rear end accidents while stopping for pedestrians in the crosswalks or when preparing to turn left/right from Lake St when the driver behind them is not expecting to stop. Since this crash happened infrequently, on average once per year, countermeasures are not appropriate at this time.

The four angle crashes do not appear to have any obvious directional split. Looking at the years and dates TEG noted that three angle crashes were in 2018 with one in 2019. The three 2018 angle crashes occurred within a three-month period. This may be a result of on-street conditions in that time period (possibly a result of construction that may not show up in historic imagery). It is uncertain if this is the case, but the lack of more recent angle crashes suggests that there is not currently an issue with angle crashes at the intersection. The remaining three crashes are all different types and do not show any recurring pattern in the area.

Chicago Ave @ Jackson Ave: 13 Crashes 3 B-injuries, 2 C-injuries

8 Angle: 2 B-injuries, 2 C-injuries

1 Pedestrian: 1 B-injury

1 Rear End

1 Other Object

1 Fixed Object

1 Turning Left

The intersection between Chicago Ave and Jackson Ave is a minor stop intersection where Jackson Ave is the stopped route. The intersection has continental striped crosswalks on all four legs and along Chicago Ave centerline striping, shared bike markings (sharrow), and striped parking lanes are provided. There is a pavement legend for westbound traffic west of the intersection that says "SCHOOL XING". Parking is permitted on all four legs, but the south leg has permit parking on the west side of the road that is in effect school days 7:30AM-4:00PM and parking on the east side is restricted to three-hour parking during school days near Roosevelt Middle School. Parking lanes on Chicago Ave have landscaped curb extensions provided on both legs. Adjacent land usage is primarily residential with Centennial Park on the southwest corner of the intersection. South of Centennial Park is Roosevelt Middle School. Both facilities serve as a major draw for pedestrians to the area.

The south leg of the intersection is a temporary one-way southbound street during school days from 7:30AM-4:00PM. This should not impact turn movements at the intersection other than removing northbound traffic from the intersection for most of the day. All other legs can continue to operate as they normally would. Knowing that the similar temporary one-way at Ashland Ave and Lake St had issues with drivers improperly using the temporary one-way resulting in large numbers of angle crashes TEG checked the time, day and directions of drivers involved in angle crashes. Upon review there was no directional bias between drivers heading north or south and getting into an angle crash (three drivers headed north, five drivers headed south). If anything, southbound drivers were more at risk of an angle crash than northbound drivers. Of the three northbound crashes two were during temporary one-way times. This suggests that while some drivers are not obeying the one-way times, they are not the primary cause of elevated angle crash rates at the intersection. Despite northbound drivers not being the primary cause of elevated angle crashes at this location the Village should consider the same improvements recommended along other temporary one-way locations to prevent further northbound drivers getting into crashes during the one-way restriction in the future.

Since angle crashes had no clear directional bias TEG began to consider operational characteristics that would impact drivers in all directions. It seems drivers on the minor legs may have compromised sightlines due to large trees in the parkway and on-street parking potentially blocking the view of oncoming traffic. While sight distance may have an effect, TEG feels it is likely that driver speed or high traffic volumes combined with limited sight distance along Chicago Ave result in driver difficulty finding large enough gaps to turn or cross the intersection. The elevated injury rate suggests that drivers are traveling at a high rate of speed at the intersection. TEG would suggest verifying speed issues before using the traffic calming toolbox to guide countermeasure selection. If drivers are speeding along Chicago Ave the intersection

becomes less safe for all drivers. Addressing potential speeding will help reduce the number and severity of injuries for all crash types. A gap study can also be conducted at the same time to establish whether speed or lack of gaps to turn into is the primary issue. If lack of gaps along Chicago Ave is the issue, TEG recommends restricting turn movements allowed from the minor legs.

The remaining crashes do not present as a recurring pattern and two of the five remaining crashes are between drivers and fixed objects/parked cars. The single pedestrian crash which resulted in an injury was between a driver heading westbound and a pedestrian. The lack of further pedestrian crashes suggests the area is generally safe for the pedestrians going to or from the school and park. TEG does suggest upgrading the crosswalk striping from the continental to a more appropriate high-visibility ladder style school crossing for the legs most used by students.

Conclusion

Below, two tables have been assembled with overall recommendations from TEG. In many cases additional study is the recommendation as is beyond the scope of this study. TEG views crash problems as a symptom of a dysfunctional intersection/segment. To make appropriate recommendations the dysfunctional aspect of the location needs to be identified through a combination of field observation and more data acquisition.

TEG hypothesized speed issues may be the primary factor resulting in crashes along streets that had high rates of injuries, or that sight distance issues might be the cause of elevated angle crash rates. While these hypotheses may be proven correct with more data it is important to verify the root cause of the issues before attempting to correct the problem. i.e. installing traffic calming will not help reduce crashes in an area where sight distance is the primary factor resulting in crashes.

Basing project locations off areas with existing crashes is a reactive approach to network improvements. After the Village addresses existing locations with crash problems, TEG recommends incorporating a proactive approach. The next step is identifying similar locations across the Village to perform system-wide improvements. Due to the semi-random nature of crashes some locations did not have enough crashes to be brought to TEG's attention. This does not mean there are no existing issues – crashes are just one symptom of a dysfunctional road, and a lack of crashes may be indicative of lower driver volumes rather than a safe and functional intersection.

Please refer to the tables on the following page as a comprehensive list of all recommendations made within this crash analysis.

Primary Route	From	To	Recommendation(s)
Madison St	Forest Ave	Park Ave	None
Madison St	Franklin Ave	Ashland Ave	None – most crashes are on the non-Village leg.
Thatcher Ave	Augusta St	Division St	Refer to Thatcher Ave Speed Study for recommendations.
Division St	Monroe Ave	Bonnie Brae	Speed Study
Forest Ave	Madison St	Vine St	None
Oak Ave	Forest Ave	Park Ave	None
Edgewood Pl	Lake St	Thatcher Ave	None
Clinton Pl	Quick Ave	Oak Ave	None
Ashland Ave	Lake St	Oak Ave	None

Table 3. Top 10% Segment Recommendations

Street 1	Street 2	Recommendation(s)
Thatcher Ave	Washington Blvd	Refer to Washington Blvd Corridor Study for recommendations.
Ashland Ave	Lake St	Speed & Volume Study
Thatcher Ave	Chicago Ave	Raised intersection – Recommendation is due to the results of the Thatcher Ave speed study.
Chicago Ave	William St	Speed Study
Lathrop Ave	Division St	Speed study – To verify speed issues Signalization – Recommendation is based on the intersection meeting a signal warrant.
Washington Blvd	Ashland Ave	Refer to Washington Blvd Corridor Study for recommendations.
Thatcher Ave	Greenfield St	None
Thatcher Ave	Division St	Refer to Thatcher Ave Speed Study for recommendations.
Hawthorne Ave	Keystone Ave	None
Washington Blvd	Gale Ave	Refer to Washington Blvd Corridor Study for recommendations.
Madison St	Lathrop Ave	None
Lake St	Keystone Ave	None
Chicago Ave	Jackson Ave	Speed Study Upgrade crosswalk striping for crossings associated with the school.

Table 4. Top 10% Intersection Recommendations

INDIVIDUAL STUDIES

As part of the Village-wide study conducted for River Forest, Thomas Engineering Group (TEG) performed more detailed studies for several smaller focus areas. These locations were determined based on problem areas identified by the Village and the results of TEG data acquisition and Village survey input. The overall study includes analysis of the top 10% of all crash locations, capacity analysis at all counted locations along with a working model of the AM and PM peak hour traffic conditions, and a breakdown of survey responses. These locations were along the Two-block uncontrolled spans, the Washington Blvd corridor, and the Thatcher Ave corridor.

Individual reports may reference the overall study or refer to the same data previously seen in other parts of the study.

Two-Block Span Analysis

Introduction

TEG was tasked with determining if any of the uncontrolled stretches of road spanning two blocks were enabling drivers to speed along the routes due to the lack of traffic control. There were also complaints by residents that drivers were using these streets with less traffic control in an attempt to avoid heavy traffic on the main routes.

Traffic naturally begins to use smaller residential streets as backups occur on the mainline routes. As long as volumes are reasonable, and drivers are not engaging in unsafe behavior it is generally accepted that some percentage of drivers will change routes using residential roads. There is a limit to how many of these additional vehicles can be tolerated and at times changes may need to be made along the affected roads to make them less appealing to a driver looking to avoid traffic on the main route.

This report will analyze whether existing two-block spans are experiencing reduced safety, elevated volumes, or high speeds along corridors with uncontrolled two-block spans. The representative corridor used for analysis is Ashland Ave from Madison St to Washington Blvd. In the center of Madison St and Washington Blvd the minor stop intersection with Vine St results in the uncontrolled two-block span.

Selection

TEG began the selection process by identifying all uncontrolled two-block spans in the Village. An analysis of survey data was performed using address/block information that residents provided in their survey response to create a basic heatmap of where residents had the most perceived issues with driver speeding. The survey identified specific perceived issues where drivers use small residential roads to speed between Madison Ave and Washington Blvd. During the Washington Blvd Corridor Study, TEG identified several two-block spans south of Washington Blvd and decided to focus the study at these southern locations to make efficient use of the limited volume count locations available. The southern two-block span locations were at Vine St along Gale Ave, Keystone Ave, Forest Ave, Park Ave, and Ashland Ave (denoted in the table below). In all cases, the north-south movement was the uncontrolled direction. Since Washington Blvd has an ADT that is roughly half that of Madison St (5,700 vs. 12,200) it can be theorized that traffic backs up along Madison St at the signalized intersection at 1st Ave (for westbound traffic) or at Des Plaines Ave (for eastbound traffic) and, as a result, drivers turn northbound to get to Washington Blvd before continuing east/west to their destination.

Speed Complaints	Thatcher Avenue	Gale Avenue	Keystone Avenue	Forest Avenue	Park Avenue	Franklin Avenue	Ashland Avenue	Lathrop Avenue
North Avenue	1	0	0	0	1	0	0	0
Le Moyne Parkway	0	0	0	1	5	4	6	1
Greenfield Street	2	0	2	6	9	3	0	4
Berkshire Street	0	0	0	0	2	2	2	9
Division Street	0	0	0	1	0	1	9	2
Thomas Street	4	0	4	3	1	2	0	1
Augusta Street	8	0	4	4	6	7	1	3
Iowa Street	10	0	4	4	6	1	2	4
Chicago Avenue	1	0	7	6	3	2	5	1
Oak Avenue	1	0	4	2	2	3	8	2
Quick Avenue	9	0	1	5	3	4	4	3
Holly Court	0	0	0	0	0	0	0	0
Lake Street	12	0	4	3	3	6	4	7
Central Avenue	0	0	0	0	1	2	4	4
Hawthorne Avenue	0	0	0	0	0	0	0	0
Linden Street	3	6	5	5	1	9	5	4
Washington Boulevard	5	1	2	1	7	2	4	17
Vine Street	2	**3**	**8**	**4**	**10**	11	**9**	1
Madison Street	4	7	7	2	8	14	5	3

Table 1. Heat map showing speed complaints based on nearest intersection. Numbers represent the number of survey responses to question 3 of the survey: "Do you feel speed is an issue on the street you live on?"

Based on the number of speed complaints, the selection was narrowed down to three locations – Vine St at Keystone Ave, Vine St at Park Ave, and Vine St at Ashland Ave. Once we incorporated crash data and realized Keystone Ave had two crashes in the corridor, Park Ave had only one crash, and Ashland Ave had four crashes within the corridor. It became apparent that the uncontrolled section of Ashland Ave would be the best candidate for study. Out of all the segments initially considered, Ashland Ave had the highest crash rate.

Based on survey and crash data we determined that the study should be conducted along Ashland Ave between Madison Ave and Washington Blvd. As such, data collection (speed and volume) was planned at the uncontrolled intersection of Vine St at Ashland Ave.

Analysis

As long as, speed, safety, and level of service (LOS) were retained in the existing conditions, TEG did not feel any countermeasures were necessary. Some amount of cut-through traffic is expected under normal operating conditions and is not possible to quantify without following drivers through the Village to determine their destinations. Keeping this in mind TEG did not see volumes that would cause deficiencies along the corridor, and we assume cut-through drivers are not causing capacity-related issues.

Volume

TEG collected speed and volume information over a 24-hour period on all four legs of the intersection of Ashland Ave and Vine St. Volume information was compiled and used to run a multi-way stop warrant to determine if new traffic control was required based on volumes alone. The warrant was not met (See Appendix E.03: All-Way Stop Warrant), which means that a 4-way stop is not recommended. Average Daily Traffic (ADT) on Ashland Ave is 1,200 vehicles with an even directional split. Slightly more drivers were heading north than south (52%), but after breaking the volumes down by hour it was noted southbound traffic volumes were higher in 12 out of the 24 hours analyzed. The primary difference was that northbound traffic volumes were slightly higher around rush hour times. If cut through was an issue, it would likely be in the northbound direction resulting in a greater directional split in drivers diverting northbound from Madison St to Washington Blvd, the data collected does not support this hypothesis.

It was viewed as possible that drivers are cutting-through in the southbound direction as well, making the volumes more even in both directions, however, this was seen as unlikely and dismissed after repeated field visits around rush hour revealed that Madison St was heavily congested in both directions while delays along Washington Blvd were far more minimal.

TEG noted that the hourly volumes were well within the range of what a residential road is capable of handling without negative impacts to level of service (LOS).

Crash History

The next step was to analyze crash data in the area to determine if drivers were behaving recklessly or in any way that could compromise resident safety over the course of the 6 years of data reviewed (2016-2021). TEG found that there was one crash in the segment from Madison St to Vine St, four crashes at the intersection of Ashland Ave and Vine St, and no crashes between Vine St and Washington Blvd. The termini intersections had their crashes analyzed as well (21 at Ashland Ave/Washington Blvd and 8 at Ashland Ave/Madison St) but analysis was limited to focus primarily on crashes involving Ashland Ave.

Ashland Ave: From Madison St to Vine St: 1 Crash

1 Sideswipe, Same Direction Crash

This single crash along Ashland Ave does not indicate any unsafe conditions. The incident occurred in 2018 and did not result in any injuries. A sideswipe, same direction crash indicates that a driver was either passing a moving vehicle or going around a stopped vehicle prior to the collision. Currently, there is no reason to believe that this segment of the corridor is unsafe for residents or drivers.

There were four total crashes in the Ashland Ave corridor with one C-injury over the six years studied.

Ashland Ave @ Vine St: 4 Crashes 1 C-injury

3 Angle: 1 C-injury

1 Other Object

The primary crash type being angle is indicative that drivers on Ashland Ave may be approaching at a higher rate of speed than the waiting drivers are expecting. With only three total angle crashes over the 6 years studied, TEG believes that there is not a crash problem caused by chronic speeding. The crash frequency is low enough that modifications are not warranted as the majority of drivers will not experience this issue.

Ashland Ave @ Washington Blvd: 21 Crashes: 4 B-injuries, 1 C-injury

13 Angle: 3 B-injuries, 1 C-injury

4 Rear End: 1 B-injury

2 Other Object

1 Fixed Object

1 Turning Left

Out of 21 total crashes 10 of them involved cars on the south leg of the intersection. Of those 10 crashes nine of them are angle crashes with three B-injuries. The tenth crash on the south leg of the intersection was a rear end due to a driver backing up. Based on the high rate of angle crashes and injuries associated with them there appears to be an issue with drivers turning onto or crossing Washington Blvd from Ashland Ave. Additionally, the existing crashes seem to be more related to the intersection conditions than drivers speeding. As a result, this intersection is being addressed as part of the Washington Blvd Corridor Study and a more detailed review can be found in that section of this report.

Ashland Ave @ Madison St: 8 Crashes: 1 C-injury

2 Other Object

2 Rear End

1 Angle: 1 C-injury

1 Sideswipe Opposite Direction

1 Sideswipe Same Direction

1 Turning Right

Of the eight crashes only three involved drivers on Ashland Ave:

- A right turning crash where a driver was struck while turning right onto Madison St
- An angle crash which involved a driver who was struck turning left onto eastbound Madison St
- An other object crash that appears to have been a parked car based on review

These three crashes are isolated events and do not indicate recurring issues involving the intersection with Ashland Ave.

Speed

TEG gathered speed data in the northbound and southbound directions on Ashland Ave at Vine St. Data was analyzed in using multiple methods to fully understand the area; the first method is finding an overall 85th percentile for both directions, the second method is taking the 85th percentile speed for each hour and comparing those values to the speed limit, and the third method is looking at individual speeds to see if outliers are impacting the analysis. When conducting a speed study or traffic analysis, the 85th percentile speed is often used as a measure of central tendency for the speed distribution of vehicles on a particular road segment or highway. The 85th percentile speed represents the speed at or below which 85% of drivers are traveling. TEG found that the overall 85th percentile was 22 mph for northbound drivers and 25 mph for southbound drivers along Ashland Ave. This indicates that most drivers using Ashland Ave are traveling at or below the posted speed limit. Northbound drivers, who are assumed to include the cut-through movement on this route are traveling below the speed limit in most cases.

Speeds and volumes were taken in the east-west direction as well but are not analyzed here due to those drivers slowing/stopping at the intersection before continuing.

Starting hour	NB Ashland 85th	*SB Ashland 85th*
Wednesday, June 7, 2023 12:00AM	19	18
Wednesday, June 7, 2023 1:00AM	19	23
Wednesday, June 7, 2023 2:00AM	18	0
Wednesday, June 7, 2023 3:00AM	24	23
Wednesday, June 7, 2023 4:00AM	0	0
Wednesday, June 7, 2023 5:00AM	19	0
Wednesday, June 7, 2023 6:00AM	19	26
Wednesday, June 7, 2023 7:00AM	25	24
Wednesday, June 7, 2023 8:00AM	19	23
Wednesday, June 7, 2023 9:00AM	21	24
Wednesday, June 7, 2023 10:00AM	20	25
Wednesday, June 7, 2023 11:00AM	22	21
Tuesday, June 6, 2023 12:00PM	22	31
Tuesday, June 6, 2023 1:00PM	26	28
Tuesday, June 6, 2023 2:00PM	20	24
Tuesday, June 6, 2023 3:00PM	20	32
Tuesday, June 6, 2023 4:00PM	26	24
Tuesday, June 6, 2023 5:00PM	27	23
Tuesday, June 6, 2023 6:00PM	22	23
Tuesday, June 6, 2023 7:00PM	21	28
Tuesday, June 6, 2023 8:00PM	21	22
Tuesday, June 6, 2023 9:00PM	22	24
Tuesday, June 6, 2023 10:00PM	19	29
Tuesday, June 6, 2023 11:00PM	19	22

Table 2. Northbound and Southbound 85th percentile speeds from 6/6 to 6/7

Looking at an hourly breakdown of 85th percentile speeds for northbound drivers showed that speeds surpassed the posted speed limit in three of the 24 hours recorded. In each case, the 85th percentile was 1-2 mph over the posted speed limit. Vehicles headed southbound on Ashland Ave were found to be speeding more often and had a higher 85th percentile compared to the northbound vehicles during same time periods.

Six hours show 85th percentile speeds in the southbound direction greater than the speed limit and half of those hours had an 85th percentile speed at 4 mph or more over the speed limit. This was unexpected based on the hypothesis that cut-through traffic would primarily be coming from Madison St. It is possible that road conditions have caused more drivers to go south on Ashland to avoid traffic on other north-south routes. It is also possible that elevated speeds are coming primarily from residents within the Village instead of non-residents cutting-through.

Southbound traffic seems to have the highest 85th percentile values between the lunch rush hour and the evening rush hour. Traffic during rush hour may force drivers to drive more slowly on average during those time periods. Since southbound speeding seems to primarily occur during the off-peak hours, it is less likely that these drivers are cutting through on their way out of the Village, but rather locals completing trips in and around the Village. The highest 85th percentile speed was 32 mph at 3 PM; 7 mph over the posted limit.

The final part of TEG's speed review was determining how large of an impact outliers had on the 85th percentile speeds. Since most of the hourly 85th percentile speeds were only a few miles per hour over the posted speed limit, TEG decided to check the individual speeds recorded by the counters for any outliers. In

this case outliers were deemed to be any drivers going 40 mph or more (15 mph over the posted limit). For southbound traffic only 4% of all drivers, or 22 total, recorded speeds over 40 mph. Northbound traffic had 16 outliers or 2% of the total volume with recorded speeds over 40 mph. Outliers may cause the 85th percentile to jump up several mph for the hours in which they occurred, but will have minimal impact to the overall speed study. For both northbound and southbound drivers, outliers are infrequent and unlikely to have skewed the results of the overall 85th percentile in any significant manner.

Recommendations

TEG used the Traffic Calming Toolbox developed as part of this project to score the corridor on Ashland Ave between Madison Ave and Washington Blvd. Scoring was conducted as detailed in the Traffic Calming Toolbox explanation – in this case scoring utilized both segments north and south of Vine St including the intersections between Ashland Ave and Madison St and Washington Blvd. The segment had a total score of 34 points which was enough to put the location in level 1 of the improvement tiers. Please refer to Appendix E.04: Traffic Calming Toolbox Scoring Sheets. Based on the findings at the intersection, TEG believes that minimal action would be sufficient in addressing the minor speed problems present along the route.

Available Traffic Calming Measures	Primary Issue Addressed		
	Speed	Volume	Pedestrian Safety
Level 1 - No Traffic Flow Changes (25-40 points)			
Targeted Speed Enforcement	X		
Speed Radar Trailer	X		
Speed Feedback Sign	X		
Centerline/Edgeline Markings	X		
Updated Signage	X		X
Speed Limit Signage	X		
Flashing Stop Signs			X
Pavement Legend	X		X
High Visibility Crosswalks			X
Education/Community Outreach	X		X

Table 3. Level 1 improvement types

Looking at the available improvement types gives guidance for the Village. TEG generally suggests making as few changes as possible to resolve the issue while impacting other road users as little as possible. In this location with moderate speeding during select time periods and low crash rates there is no apparent need to make changes to operation or geometry. For any future improvements, TEG recommends taking a stepped approach where incremental action is taken while the area continues to be monitored. The existing conditions do not appear to be dangerous to residents so a 'wait and see approach' is advisable to prevent causing new problems by installing overly restrictive countermeasures.

Pedestrian safety is always a top priority, however since there are no pedestrian crash issues through the corridor, TEG is recommending improvements to primarily target speeding issues. Beginning with targeted

speed enforcement and a speed radar trailer or Speed Feedback Sign is the first step to see if that resolves the existing outlier speeders. Since most speeding is focused around late afternoon to early rush hour, the Police Department can choose the best times for selective enforcement. If the speed issues persist, TEG would suggest installing updated signing and pavement markings. Looking at the speed breakdown of all drivers throughout the full day, 90% of northbound drivers are at or under the speed limit and 74% of southbound drivers are at or under the speed limit. Northbound drivers are more than 5 mph over the speed limit in 4% of the recorded speeds, and in southbound traffic 9% of drivers are more than 5 mph over the speed limit. While the outlier drivers who were speeding did not significantly change the 85th percentile eliminating these few high-speed drivers using selective enforcement will help improve safety through the corridor and will address the minor amount of speeding that is existing.

Since this location was analyzed as a representative intersection it can be assumed that other nearby two-block span locations will have similar conditions. Once again due to the relatively small number of drivers speeding, it seems that those outliers need to be curtailed to bring speeds along the road back in line.

TEG suggests beginning with targeted enforcement at nearby two-block span locations of either Keystone Ave or Gale Ave, to determine if those roads experience the same or different traffic patterns.

If these nearby two-block spans are found to have similar speed/traffic patterns, we recommend the Police Department and Village staff assess the state of the other roads with two-block spans and whether they follow a similar pattern to Ashland Ave.

The traffic calming toolbox should be used for any future changes along these routes to ensure the Village does not create an overly-restrictive road system that causes drivers not to respect roadway signs due to the overabundance. It is unlikely that an all-way stop warrant will be met on any of the other two- block span locations, but if it is seen that they have significantly higher volumes than Ashland Ave and Vine Ave, TEG would recommend running a stop sign warrant prior to any changes.

From a resident perspective, it is possible that the few drivers excessively speeding give the impression that all drivers are moderately speeding or that the road is unsafe because of the unpredictability. By addressing the drivers speeding along the corridor through enforcement, the overall feel of the road should hopefully return to what residents expect.

WASHINGTON BLVD CORRIDOR STUDY

Introduction

The Village has had many complaints of speeding along the corridor of Washington Blvd and considering a past study's findings that parking was severely underutilized throughout Washington Blvd the Village Traffic and Safety Commission wanted to consider either a road diet or installing other traffic calming measures to mitigate speeding.

Initially TEG assessed existing conditions throughout the corridor. TEG began by collecting traffic volumes on the road at Thatcher Ave, Franklin Ave, and Lathrop Ave to understand how the road operates at peak hour times. TEG then gathered all crash data along the intersections and segments and analyzed it to determine patterns throughout the corridor and to locate segments/intersections that pose a hazard to driver safety. Lastly resident survey data was incorporated into the decision-making process with more emphasis being placed on responses from those living along and/or near the road. These three components were combined to develop overall recommendations for the corridor along with specific recommendations for intersections as TEG deemed necessary.

Existing Conditions Assessment

Washington Blvd is a 2-lane bidirectional Major Collector in the Village of River Forest. The ADT as of 2022 is 5,700 vehicles and the speed limit is 25mph. Speed limit signs are posted for both directions periodically through the corridor including a driver feedback sign for eastbound drivers. There is striped on-street parking provided on both sides of the road throughout the corridor. Washington Blvd is designated as a bike path within the Village. Bike facilities along Washington Blvd include on-street pavement markings for shared lane usage but no dedicated bike lane. In total there are two signalized intersections, two all-way stop intersections, and four minor leg stop intersections where Washington Blvd is the non-stopping route.

The typical cross section of Washington Blvd is two 12' lanes with 8' of parking on either side. The total width of the road is 40'. The road narrows to 36' at a railroad overpass located between Park and Forest Ave with 12'-7" of overhead clearance. The speed along all crossroads is 25 mph.

Notable off-road features include lighting throughout the corridor and sidewalks along both sides of the road with periodic crosswalks at intersections. There are two parks (Washington Square Park and Washington Commons Park) near Forest Ave north and south of Washington Blvd. East of Park Ave there is a third park south of Washington Blvd (Washington Triangle Park). The corridor is primarily residential with no businesses in the area. The road is designated as a bike route per the Village's bike plan and painted bike symbols have been placed throughout the corridor to make drivers aware cyclists may be using the road.

Currently, the Washington Blvd bridge is about to be reconstructed with a two-lane cross section and dedicated bike lanes on either side. – Regardless of the bridge cross section Washington Blvd should have a standardized cross section that ties into the proposed bridge cross section cleanly and does not result in drivers/cyclists/pedestrians crossing into or out of the Village to find their lane/path abruptly ends with no recourse. Any lane addition or subtraction should be done using standard taper lengths and should be signed in advance. As noted above the existing condition at the bridge is a four-lane cross section with no transition to the two-lane cross section used along Washington Blvd in the Village. TEG summarized any notable features we discovered through analyzing each intersection in the corridor:

Washington Blvd @ Thatcher Ave

- All way stop intersection
- The west leg of the intersection is a 4-lane cross section with no transition to the 2-lane cross section on the east leg.
- Ladder style crosswalk on east leg

This is the second highest volume intersection along Washington Blvd and is the highest unsignalized volume. Recent traffic counts at the intersection show lower ADT volumes than what is listed on IDOT's IRoads System. Thatcher Ave was shown to have an ADT over 4,500 from TEG's recent traffic counts vs. an ADT of approximately 11,000 in 2022 IDOT counts. We believe the IRoads count was conducted closer to the intersection between Thatcher Ave and North Ave where volumes are much higher. Washington Blvd ADT matched what IDOT had in their system (5,300 in TEG count and 5,700 on IRoads). The intersection was analyzed with Thatcher Ave as the minor leg.

Washington Blvd @ Gale Ave

- Minor leg stop intersection (North/South legs stop)
- Both northbound and southbound traffic have compromised sightlines of the far lane of traffic due to trees and vegetation
- Ladder style crosswalks on north and south legs

This is a standard minor stop intersection with Washington Blvd as the non-stopping route. There are no apparent geometric issues with the intersection. It appears driver sightlines on the north and south leg may be compromised seeing traffic approaching from the right (far lane). Sidewalk with ADA compliant pads are present on all four corners but there is no corresponding crosswalk leading across Washington Blvd on the east and west legs. Without any crosswalk drivers may not be expecting pedestrians crossing at this location.

Washington Blvd @ Keystone Ave

- All way stop intersection
- Stop sign warning sign on eastbound approach
- Keystone Ave may have slightly compromised visibility of oncoming traffic due to trees near the intersection
- Eastbound and westbound stop signs have spinning reflective markers
- Continental crosswalks on all four legs

Keystone Ave is a standard all way stop intersection. Any sightline issues should be mitigated by the stop warning sign or spinning reflective markers. TEG did not feel stop signs were difficult to see on any of the approaches and saw no reason for operational issues due to geometry or sightlines. All cars at the intersection should be coming to a complete stop and once at the intersection it is not difficult to see drivers on the other three legs regardless of approach direction.

Washington Blvd @ Forest Ave

- 3-leg minor stop intersection (South leg stop
- Ladder style crosswalk on south and east leg with pedestrian crossing sign in each direction for east leg
- Parks are located north and south of the intersection

Forest Ave is a standard 3-leg minor leg stop intersection where drivers on the south leg stop. Due to the proximity of the parks the pedestrian crossing with additional warning signs will help keep drivers aware of pedestrians at this location. The south leg appears to have adequate sightlines in both directions. Trees in the eastbound parkway may block some visibility of oncoming traffic, but in use TEG felt visibility was adequate to safely complete a turn at posted speeds.

Washington Blvd @ Park Ave

- Minor stop intersection (North/South legs stop)
- Park located in the southeast corner of the intersection
- Continental crosswalks on all four legs

Park Ave is a standard minor leg stop intersection where north and south traffic stops. There is a small park in the southeast corner of the intersection. Within the past few years there was a radar speed sign installed behind the crosswalk for eastbound traffic. There is an existing pedestrian crossing warning sign just east of the intersection. This sign appears to apply to the crosswalk at Franklin Ave. TEG felt the sign was unclear as to which crosswalk was being referred to – TEG recommends the Village confirm with their signing and striping plan to relocate this sign as needed.

Washington Blvd @ Franklin Ave

- 5-leg Signalized intersection (Park Dr is fifth leg; One-way southwest)
- Continental crosswalks on all 5 legs

Franklin Ave is a 5-leg signalized intersection. The fifth leg heads southwest and is one-way away from the intersection. It is unclear if the signal was warranted due to traffic volumes, elevated crashes, or as a form of traffic calming. The signal has been in place since at least 2010 based on review of historic imagery. The sidewalk is set back over 40’ from the road southeast of the intersection due to the layout of the fifth leg. The south leg of the intersection does not appear to have any sight distance issues, but cars are stopped over 40’ away from the east-west route. The unique geometry of this intersection may result in a higher risk for crashes involving drivers on the south leg.

Washington Blvd @ Ashland Ave

- Minor Stop intersection (North/South legs stop)
- Ladder style crosswalks on south, east, and west leg with pedestrian crossing warning signs for west leg
- Drivers on Ashland Ave must wait further away from the intersection than is standard

Ashland Ave is a minor leg stop where north and south traffic stops. Due to sidewalks north and south of Washington Blvd being offset ~25’ drivers on the north and south leg need to stop over 25’ from the intersection. This coupled with trees in the area reducing the visibility of oncoming traffic on Washington

Blvd. The sidewalks being offset so far back also reduces the visibility of pedestrians for drivers on Washington Blvd. The intersection is located directly between two signalized intersections and drivers may not be expecting the minor intersection with Ashland Ave.

Washington Blvd @ Lathrop Ave

- Signalized intersection
- Lathrop's ADT is 5,800 (Compared to IDOT's counted 7,700)
- Shared bike line markings on north and south legs
- Ladder style crosswalk on the west leg and standard crosswalks on the other three legs.
- East leg is not under Village jurisdiction

Lathrop Ave is a signalized intersection and is the highest volume intersection in the corridor. The east leg of the intersection is not in Village jurisdiction so all improvements will be targeted at the Village legs. There are crosswalks on all four legs, TEG noted the crosswalks were not consistent; there was one ladder style on the west leg and standard transverse striping on the other three legs. There are no apparent sight distance issues at the intersection. The parking lane striping on the west leg of the intersection may appear to be a second lane to drivers unfamiliar with the area. This is supported by the "No Driving in Parking Lane" sign. Narrowing the west leg may help mitigate these issues.

Volume & Speed Study Assessment

Volumes were gathered for the peak hour times of three intersections throughout the corridor. The intersections were chosen to get a good representation of where drivers enter and exit the road. The three intersections chosen were the two primary intersections (Thatcher Ave and Lathrop Ave) and the third counted intersection was Franklin Ave at Washington Blvd which was chosen due to the signalization and five leg geometry. Please refer to Appendix C.01: Volumes & Level of Service for volume data – AM and Appendix C.02: Volumes & Level of Service for volume data – PM.

Based on an analysis of the Volumes during both AM and PM peak hour TEG came to several conclusions:

- Traffic volumes are highest at the corridor termini at Thatcher Ave and Lathrop Ave
- There is an imbalance between EB and WB traffic volumes with eastbound traffic being greater in both the AM and PM peak hours.
    - Volumes are more balanced in the PM hour potentially from traffic coming from Des Plaines Ave/I-290 heading west into the Village to get home. Eastbound traffic is still the primary direction drivers are heading.
- For drivers traveling east or west there are a limited number of bridge crossings over the Des Plaines River making Washington Blvd appealing to drivers looking to avoid busier streets like North Ave or Madison Ave.
    - backups on Madison Ave (as TEG field engineers observed during both peak hours) is likely causing traffic to spill over to Washington Blvd since it is the next closest road with a river crossing.

Speed data was taken at the midway point of the corridor near the railroad overpass. This location was deliberately analyzed away from stopping intersections to ensure that the speed of drivers in the corridor was not impacted by traffic stopping/slowing to turn onto intersections. In traffic engineering the 85th percentile is expected to be the speed limit of a road. Seeing 85th percentile speeds significantly above the

speed limit could indicate that road conditions do not reflect the posted speed limit. The average 85th percentile speed along Washington Blvd across all time periods was 38 mph. This was 13 mph above the posted speed limit. Based on these speeds TEG would recommend making changes to either geometry or operating conditions to force drivers to travel at safer speeds. At the AM and PM peak hour times the 85th percentile speed was 15 mph above the posted limit. This indicates that even during the peak periods traffic conditions do not slow drivers down. The high speeds coupled with higher volumes at the peak hour make the road much more dangerous for pedestrians, bicyclists and cross-street vehicular traffic. See Appendix F.01: Speed Data for a full breakdown of driver speeds.

85th percentile speeds 15 mph over the posted limit indicate a severe disparity between driver perception of the road and Village perception. We recommend taking steps to mitigate speeding along this route by installing some form of traffic calming.

Crash Analysis

Crashes through the corridor were analyzed over a six-year period from 2016-2021. Due to the higher speeds along the route, there is a higher chance of severe injury in the case a crash does happen. A lack of crashes does not necessarily signify a safe corridor and due to the parks located between Forest Ave and Park Ave (where speed data was gathered) there is a high likelihood for pedestrian interaction with a vehicle at a crosswalk or a mid-block crossing.

Segment Crashes

There was a single fixed object crash on Washington Blvd in the analysis period. It was a fixed object crash on the segment between Forest Ave and Park Ave and did not have any injuries. There were no reported crashes in any of the other segments.

Intersection Crashes

There were 101 total crashes at intersections along Washington Blvd including 1 A-injury, 19 B-injuries, and 10 C-injuries.

Intersections included in this analysis are as follows: Thatcher Ave, Gale Ave, Keystone Ave, Forest Ave, Park Ave, Franklin Ave, Ashland Ave, and Lathrop Ave

Overall Crash Breakdown (All Intersections):

56 Angle: 1 A-injury, 10 B-injuries, 4 C-injuries

20 Rear End: 6 B-injuries, 3 C-injuries

7 Other Object: 2 B-injuries

7 Sideswipe Same Direction

4 Fixed Object: 1 C-injury

3 Pedalcyclist: 1 B-injury, 2 C-injuries

2 Turning Left

1 Head On

1 Animal

Angle crashes are by far the most prominent crash type at the intersections and have a high rate of injury. This is typically seen in cases where drivers misjudge oncoming traffic speed or make risky decisions due to a lack of a gap in traffic.

The intersections between Washington Blvd and Forest Ave, Park Ave, and Franklin Ave had very low crash rates at 2, 3, and 7 crashes, respectively. At Forest Ave and Park Ave no conclusions or patterns could be gathered based on such small numbers of crashes. TEG noted that at both locations there was an injury crash (1 B-injury and 1 C-injury). At Franklin Ave there were 7 crashes including one C-injury and 3 B-injuries. Four of the seven crashes involved either rear end or sideswipe same direction crashes and accounted for two B-injuries and one C-injury. The remaining 3 crashes are all different types and not indicative of a pattern. It is unclear why these intersections have such low crash rates compared to other intersections in the corridor. Perhaps it is due to lower volumes using all three streets, but despite the lack of crashes in this area, it remains true that drivers are exceeding the appropriate speed limits in this corridor. In the event of any crashes occurring, there is a significantly greater chance of severe injuries. This is observed that 50% out of 12 total crashes at the three intersections resulted in an injury.

The remaining five intersections will be analyzed in greater detail due to their higher crash volumes to determine if there are any patterns. Crash patterns are indicative of an underlying problem, either geometric or operational, that can be addressed through new safety measures or changing how the intersection operates.

Thatcher Ave Total: 28 Crashes 1 A-injury, 4 B-injuries, 3 C-injuries

17 Angle: 1 A-injury, 2 B-injuries, 1 C-injury

3 Rear End: 1 B-injury, 1 C-injury

4 Sideswipe Same Direction

2 Pedalcyclist: 1 B-injury, 1 C-injuries

1 Fixed Object

1 Head On

Thatcher Ave at Washington Blvd had by far the most crashes at 28 as well as the most frequent and severe injuries. Due to high volumes and all-way stop control the intersection may have issues handling the daily traffic volumes at peak hours. Delays along the intersection may result in impatient drivers not properly stopping at the intersection. Similar intersections along Thatcher Ave at Lake St and Chicago Ave are both signalized rather than all-way stop.

The non-angle crashes align with typical intersection related crashes primarily consisting of sideswipe same direction and rear end crashes (7). The number of angle crashes is atypical for an all way stop intersection. For an angle crash to occur typically one driver needs to not obey the stop sign. There may be cases where two stopped vehicles both move forward at the same time, but drivers can typically avoid these collisions and the four injuries caused by angle crashes suggests drivers were colliding at a higher rate of speed.

The primary directions of vehicles involved in collisions was between southbound and eastbound drivers (6) and northbound and westbound drivers (8). The collisions appear to primarily be occurring due to

drivers heading eastbound and westbound not stopping or not being seen by drivers headed north and southbound. Based on the existing configuration with drivers on the west leg having two lanes per direction this can be confusing to eastbound approaching drivers not realizing the right lane ends past the intersection. Similarly having two westbound lanes on the west leg encourages drivers to use the parking lane to continue straight onto Washington. Maintaining a consistent cross section up to and past the intersection or providing updated pavement marking/signage would likely help reduce driver confusion and improve safety.

There are Stop Ahead Warning signs on all approaches and there were no sight distance issues observed at the intersection. Since 2019 there has been only one angle crash (*data in 2020 and 2021 were significantly skewed by traffic reductions on all roads during the COVID-19 pandemic*), but a lack of new angle crashes suggests the problem was somewhat resolved with the lower traffic volumes. With traffic returning to pre-pandemic levels, it is possible that there will be a resurgence of angle crashes at this intersection.

A signal warrant was performed for this intersection but not met due to traffic volumes falling below the minimum threshold. This number of angle crashes is uncommon at all way stop intersections and suggests safety measures should be taken. TEG would suggest installing flashers on the Stop Ahead Warning signs to draw further attention to the all-way stop condition. This location is being recommended for a raised intersection due to the number of angle crashes and speed issues in the area.

Gale Ave Total: 14 Crashes 3 B-injuries, 3 C-injuries

11 Angle: 2 B-injuries, 2 C-injuries

1 Rear End: 1 B-injury

1 Pedal cyclist: 1 C-injury

1 Animal

Gale Ave is a minor leg stop intersection where the north and south legs stop. The high rate of angle crashes indicates there is an underlying problem at the intersection. At minor leg stop intersections a high rate of angle crashes is typically caused by drivers moving at a higher rate of speed than the waiting driver expects, drivers feeling pressure to fit in smaller gaps due to high road volumes, and/or sight distance issues for waiting drivers.

Angle crashes accounted for almost 80% of the total crashes at the intersection, which is higher than expected. TEG looked at the directional breakdown of drivers and discovered that drivers from the south and north leg were being struck at similar rates. This indicated that issues at the intersection effected both minor legs equally.

Looking at the intersection from the perspective of a driver on the minor leg, TEG observed that southbound drivers had issues seeing eastbound traffic while sitting at the stop sign and northbound had similar sight distance issues with westbound traffic. Both directions have compromised sightlines due to vegetation blocking visibility. To resolve crash issues TEG recommends removing the vegetation and trees blocking visibility. Other improvements will be implemented at nearby intersections along Washington Blvd that will also improve conditions at this intersection.

Keystone Ave Total: 14 Crashes 2 B-injuries, 1 C-injury

11 Angle: 2 B-injuries

3 Rear End: 1 C-injury

Keystone Ave is an all way stop similar to Thatcher Ave, but with far lower north-south volumes (500 ADT along Keystone Ave per IDOTs 2022 data). The high rate of angle crashes at the intersection is unexpected since all drivers should be coming to a complete stop. The two B-injury angle crashes at this location suggest that drivers are colliding at high rates of speed. There is a Stop Ahead Warning sign placed in the eastbound direction with no matching sign for westbound.

The directional breakdown of angle crashes is the same as at both Thatcher Ave and Gale Ave. TEG has not identified any geometric reasons that would be causing elevated angle crashes. It is possible vehicles approaching from east-west may have difficulty seeing drivers waiting on Keystone, but the stop sign is clearly visible in all directions and is not easily overlooked by drivers. It seems likely that the high speeds in the corridor coincide with a large number of drivers 'rolling' stop signs or not obeying them at all.

Based on the low minor street volumes a signal would not be appropriate, but changes should be made to mitigate both the speed and the lack of driver awareness as they approach intersections. TEG would suggest installing a Stop Ahead Warning sign in both directions, possibly with flashers or flashing LED border. TEG also suggests installing a raised intersection to force drivers to slow down. Placement of multiple raised intersections through the corridor may help to avoid a situation where drivers speed after passing the raised intersection.

Ashland Ave Total: 21 Crashes 4 B-injuries, 1 C-injury

13 Angle: 3 B-injuries, 1 C-injury

4 Rear End: 1 B-injury

2 Other Object

1 Fixed Object

1 Turning Left

Ashland Ave is also seeing elevated rates of angle crashes with multiple injuries for a minor leg stop intersection. Northbound vs westbound is the primary direction impacted (8 of the 13 total angle crashes). The location of the intersection between two signalized intersections may surprise drivers on Washington Blvd who are not expecting drivers to be entering in front of them before they reach the signal at Franklin Ave. The combination of the two signalized intersections with a minor stop-controlled intersection in between is made even worse by the location of stop bars for drivers waiting to turn from Ashland Ave. Both stop bars are set 40' back from the edge of the traveled way due to the location of the sidewalk crossing. This forces drivers to cover more distance before executing their turn than is typical at standard minor stop locations. The large offset makes drivers on Ashland Ave less visible to drivers on Washington Blvd and vice versa.

To improve visibility at the intersection, TEG recommends realigning the sidewalk to bring it closer to the intersection. This will reduce the offset of the stop bar and allow drivers a better view of oncoming traffic. Similar to the rest of the intersections, reducing driver speeds along Washington Blvd would likely decrease

angle crashes by giving waiting drivers more time to react to oncoming traffic. This would also reduce the severity of crashes due to drivers moving at lower speeds at the time of collision.

Lathrop Ave Total: 12 Crashes 2 B-injuries

5 Rear End: 1 B-injury

2 Angle: 1 B-injury

2 Other Object

2 Sideswipe Same Direction

1 Turning Left

Lathrop Ave is a signalized intersection and is the end of the Village owned portion of Washington Blvd. Based on the crash breakdown There are no recurring crash patterns or unexpected crash types. The much lower rate of angle crashes is more in line with what a signalized intersection might experience under normal traffic conditions.

Over the six-year period there were an average of two crashes per year and two injuries in the entire analysis period. Although there is not an existing crash problem, TEG still recommends geometric and operational improvements at the intersection in line with other improvements in the corridor.

Crash Recommendations

It is clear that along with several potential geometric issues, the primary factor causing elevated rates of angle crashes throughout the corridor is the high vehicle speeds along Washington Blvd. Speeding increases the potential to have severe crashes even when both drivers are paying attention. The large number of angle crashes at both of the all-way stop intersections clearly indicates that either drivers are rolling stop signs or not stopping at all even though stop signs are extremely visible through the corridor.

Conditions along the road will need to change to reduce the average speed of drivers. TEG suggests implementing countermeasures from our Traffic Calming Toolbox throughout the corridor to address the high rates of speed. In areas lacking sight distance it may be appropriate for the Village to perform a full sight distance assessment and make modifications as needed.

Survey Response Analysis & Evaluation

As part of the Village-wide survey TEG asked specific questions to gauge residents' feelings about Washington Blvd. These questions have been analyzed along with answers to several other survey questions to create a profile of resident opinions based on their proximity and usage of the road. These responses will be considered in any future improvements. TEG recommendations will not solely be determined based on resident preferences, but all opinions will be given weight when deciding on the optimal solutions. To create a safer road, drastic change will need to be made to effectively alter driver behavior.

Introduction

TEG asked seven questions specifically targeted towards the Washington Blvd corridor. The first question was a screening question to determine how often respondents used the road or if they lived on the road. More weight was given to the responses of residents who lived on the road or used the road often. Any

respondent who said they did not use Washington Blvd in the first question was not presented the following six questions. The frequency of roadway use was also incorporated into analysis of the remaining six questions. Analysis begins at question 2 because usage of the roadway is only applicable when paired with the follow-up questions.

Question 2 Analysis

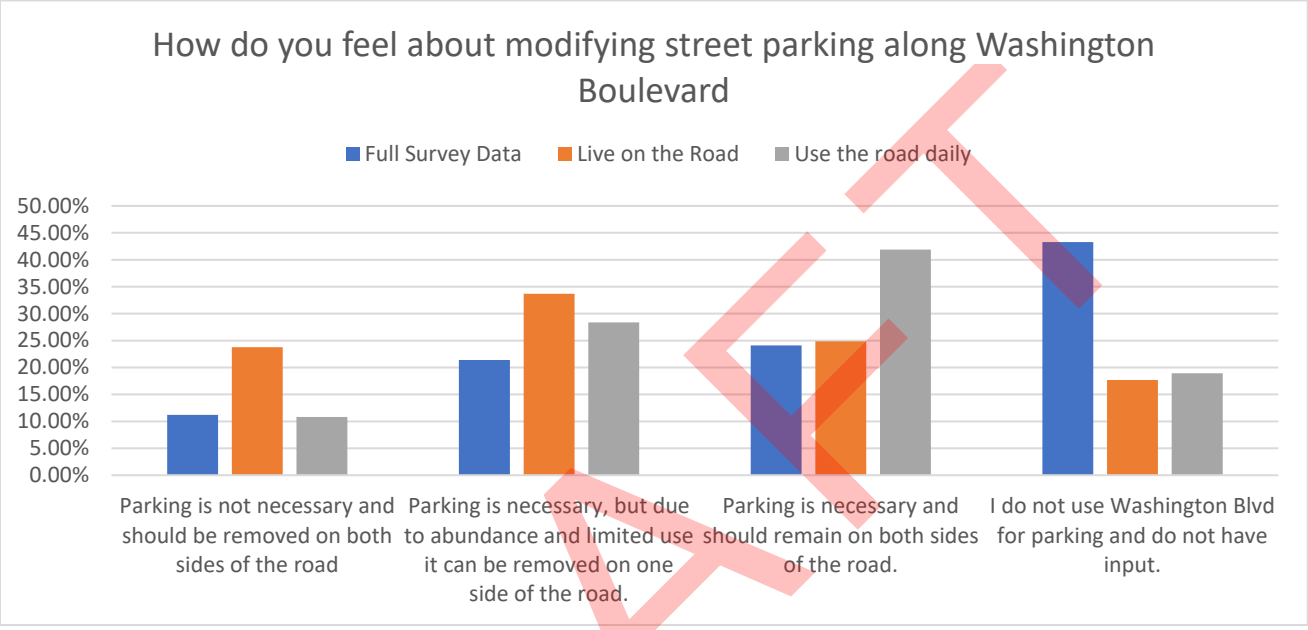


Figure 5. How do you feel about modifying street parking along Washington Boulevard to allow for traffic calming/bike accommodations to be implemented? (Percent Breakdown)

In analyzing data from the second Washington Blvd question, TEG noted that for the overall response data most respondents did not use parking on Washington Blvd and had no input (43%). Of the group who did have input on parking most of those people believe parking is required (45% combined responses that parking is necessary on one or both sides). Of the two groups who say parking is necessary, over half of them feel parking is required on both sides of the road.

The purpose of the question was to follow up from the 2019 parking study that found parking along Washington Blvd was less than 50% utilized from Thatcher Ave to Park Ave, and in some cases was used less than 15%. Unused parking lanes effectively become another lane for drivers trying to bypass traffic backups and creates more danger for cyclists who might want to ride in the open parking lane to avoid taking a full lane of traffic. The surrounding residential streets have less parking overall, but TEG believes the small number of drivers currently parking on Washington Blvd will be able to find nearby spots without issue. When the parking lane is completely empty drivers can illegally use the road as if each direction is a 20' lane which further promotes speeding and unsafe driving.

Looking at the bars representing responses from residents living on Washington Blvd or using it daily it becomes apparent that those residents most effected want to keep at least some parking on Washington Blvd. The figure shows that the percentage of drivers wanting to keep parking is much higher in both cases where drivers regularly use Washington Blvd, but residents who live on Washington Blvd are more open

to removing parking on one or both sides. Knowing this, TEG will try to maintain parking on one side in the recommended alternatives along Washington Blvd. It is likely some parking will be removed to avoid providing an overabundance of parking like in the existing conditions, and to make room for more effective traffic calming improvements.

Question 3 Analysis

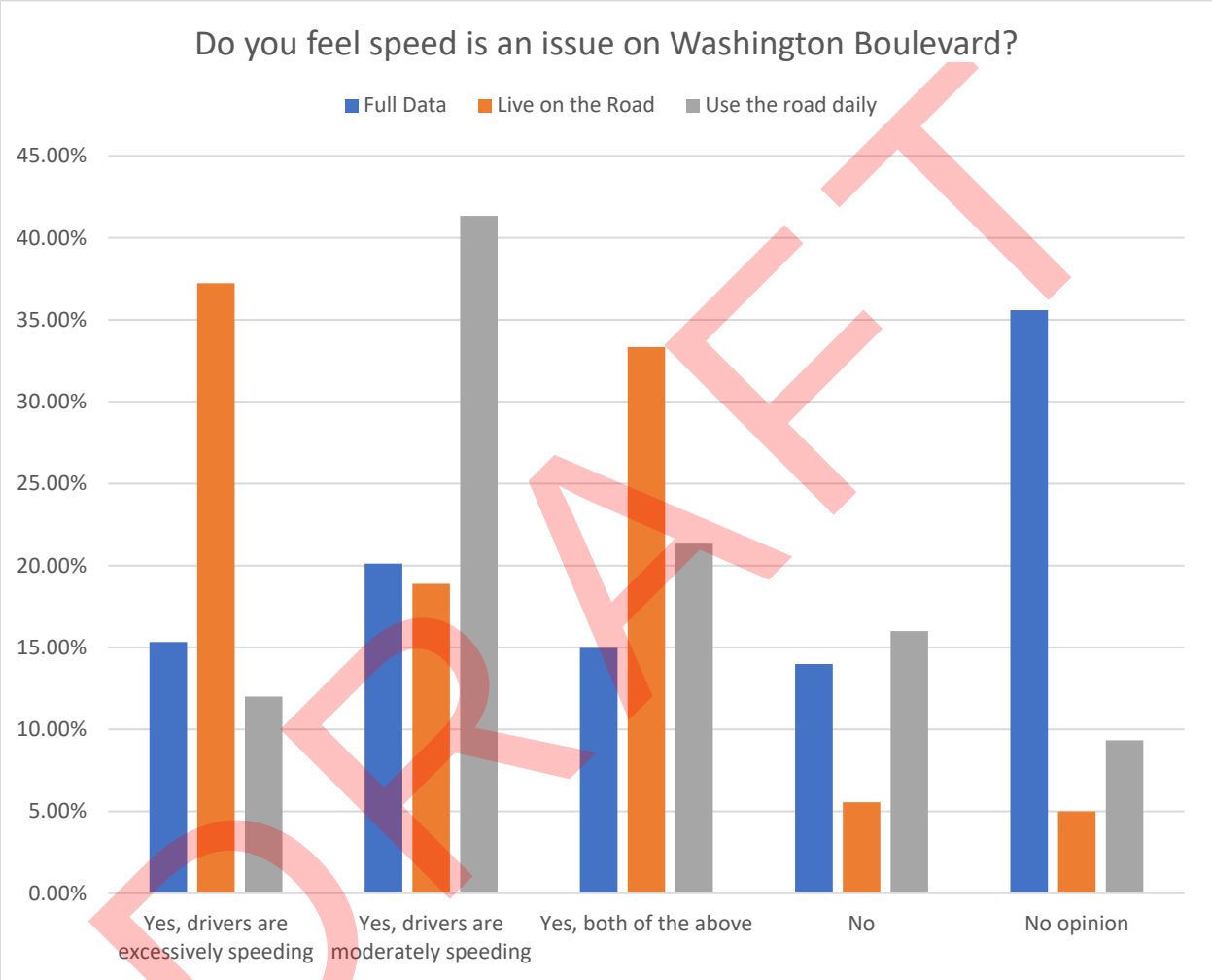


Figure 6. Do you feel speed is an issue on Washington Boulevard? (Percent Breakdown)

When answering this question 50% of respondents (or 75% of those who offered an opinion) felt speed was an issue (moderate and/or excessive) on Washington Blvd. The overwhelming majority of road users feel speeding is an issue or have no opinion on it.

Those residents with more experience with the road feel more strongly that speeding is a significant issue along Washington Blvd. In figure 6 it is apparent that residents using the road daily are more likely to believe drivers are either moderately or excessively speeding compared to the full data set. The residents who live on the road followed a similar trend with the exception that these respondents thought drivers were excessively speeding as opposed to moderately speeding. Residents who live along Washington Blvd

responded “No" or “No opinion” 10% of the time compared to the overall data set where 50% of respondents had no opinion on speeding issues.

It was seen that the 85th percentile speed during the peak hour time periods was 15 mph faster than the posted limit. The survey response data by those familiar with the roadway is supported by the speed data which shows that speeding is prevalent in the area.

Question 4 Analysis

Figure 7. Is traffic regularly not stopping or "rolling" through stop signs an issue on Washington Boulevard? (Percent Breakdown)

When asked about stopping along Washington, 30% of all respondents felt drivers were either not stopping or rolling through stop signs. This is alarming because this perceived behavior might discourage pedestrians and cyclists from using the road or the nearby parks for safety reasons.11% of respondents did not feel lack of stopping was an issue, with over 50% of respondents having no opinion. This is expected because drivers who don’t often use the road have less of a chance to observe this driver behavior compared to drivers regularly using Washington Blvd.

Respondents who live on the road are the most likely to observe non-stopping behavior and make note of it, especially if they live in a household with kids. Based on ~70% of these respondents saying traffic is regularly not stopping, it is clear that there is a problem. TEG felt that the fact that daily road users notice non-stopping at a much lower rate than those who live on the road indicates that either daily road users are part of the problem or they simply have less time to observe improper behavior either due to only

briefly using Washington Blvd or using intersections along Washington Blvd where not stopping isn't as common. The high rate of angle crashes at all-way stop intersections on Washington Blvd caused TEG to believe there is a large number of drivers disregarding stop signs.

The open-ended response section allowed drivers to specify which intersections they believed cars didn't stop the most. TEG only included responses data for intersections along Washington Blvd.

Figure 8. Open ended response data in response to the prior question.

The survey results clearly show that residents believe there are issues at both Thatcher Ave and Keystone Ave. Crash data supports this and indicates that more severe traffic calming may need to be considered at these two intersections.

The moderate spike in residents saying drivers were rolling the stop signs on Ashland Ave (14) may be an effect of the setback geometry of the minor legs. Drivers approaching Washington Blvd from Ashland may go past the stop bar while stopping to get a better view of oncoming traffic. Currently drivers are stopped over 40' away from Washington Blvd which is more than double the setback of intersections in the western half of the corridor. Geometric modifications would improve functionality and driver behavior without requiring further traffic calming.

Question 5, 6, 7 Analysis

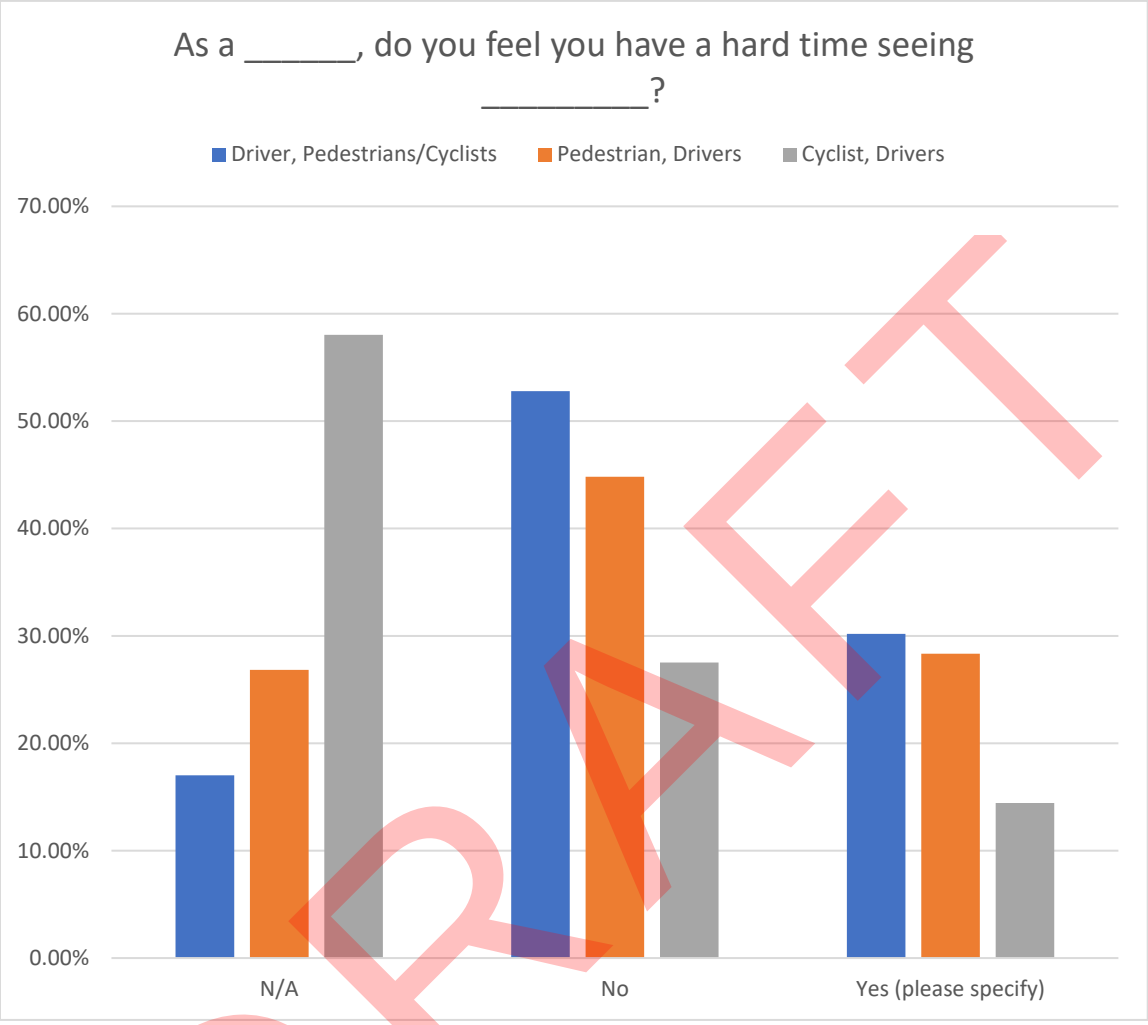


Figure 9. Drivers, Pedestrians, and Cyclists response regarding being seen along Washington Blvd.

The final three questions seek to understand the average experience using Washington Blvd from the perspective of a driver seeing pedestrians and cyclists, a pedestrian seeing oncoming vehicles, and a cyclist seeing oncoming vehicles. All three questions had an open response section to try and narrow down the specific intersections drivers and pedestrians feel most at risk.

In the case of pedestrians and drivers roughly 30% of both groups felt they had a hard time being seen or seeing the other. To get a better idea if pedestrians and drivers have issues on the same streets we looked at the open response data and compared the two questions. Cyclists were not used for this comparison due to the much smaller data set of open ended responses to work with.

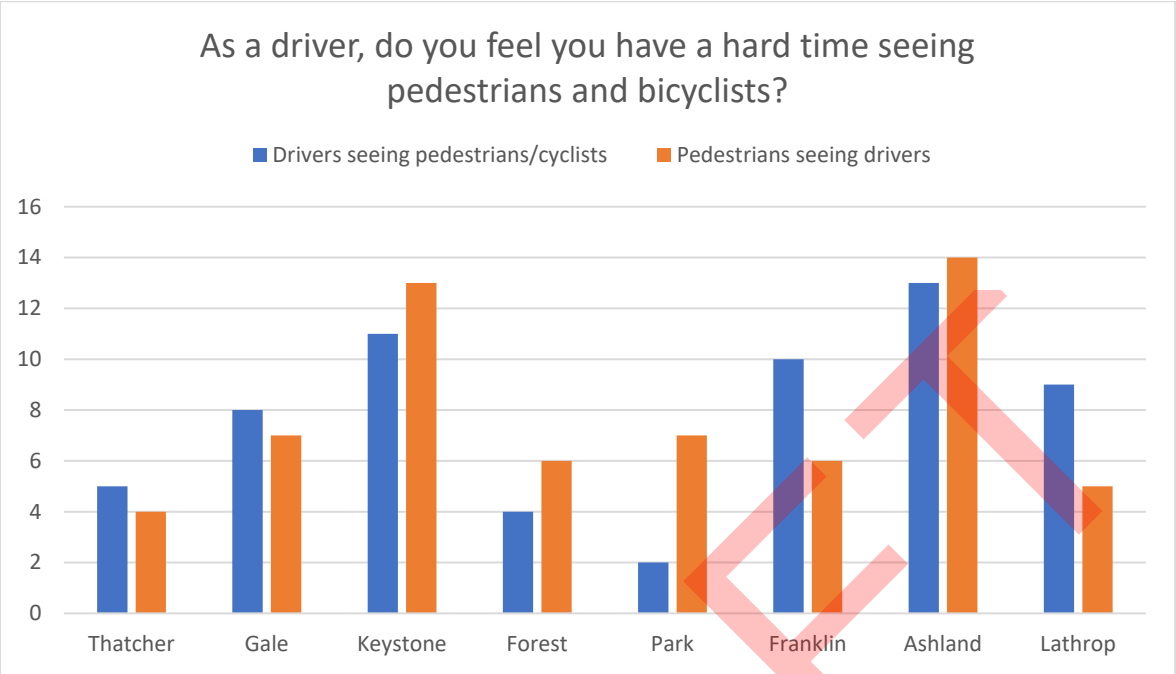


Figure 10. Open ended responses by Drivers and Pedestrians from the previous question.

Based on the side-by-side charts it is clear there is an overlap between pedestrian and driver perception of the areas where sightlines may be compromised. For both open-ended response sections 62 residents left feedback. While the overall distributions may be different the clear pattern is that Keystone and Ashland are perceived as intersections where sight distances are compromised.

At Ashland Ave, this was what we would expect to see based on the extreme setback of the sidewalk from the road. This pattern is more pronounced looking at the drivers responses where both Franklin Ave and Lathrop Ave also had elevated response rates. This was likely due to the odd sidewalk setback continuing at both nearby intersections. From the perspective of pedestrians, the two neighboring signalized intersections may provide a greater sense of safety as they can utilize a marked crosswalk during a pedestrian walk phase. Thus, those roads were not considered as dangerous by pedestrians responding.

The responses claiming Keystone has compromised sightlines were surprising for TEG. Knowing that drivers often roll through the stop at the intersection may explain some of the responses, but TEG did not feel the trees and landscaping around the intersection would impact drivers' ability to spot pedestrians approaching to that extent. This is especially true if a driver came to a complete stop and assessed their surroundings before continuing forward.

The remaining responses were spread across the corridor. The next most mentioned intersection was at Gale Ave with 15 respondents mentioning concerns on Gale between pedestrian and driver responses. This makes sense based on the density of trees and landscaping around the intersection. The fact that drivers on Washington Blvd do not need to stop makes it harder for them to register a pedestrian crossing or waiting to cross amongst the other visual clutter. Currently there is sidewalk crossing Washington Blvd on the east and west legs with no crosswalk to indicate to drivers that pedestrians may be crossing in the area.

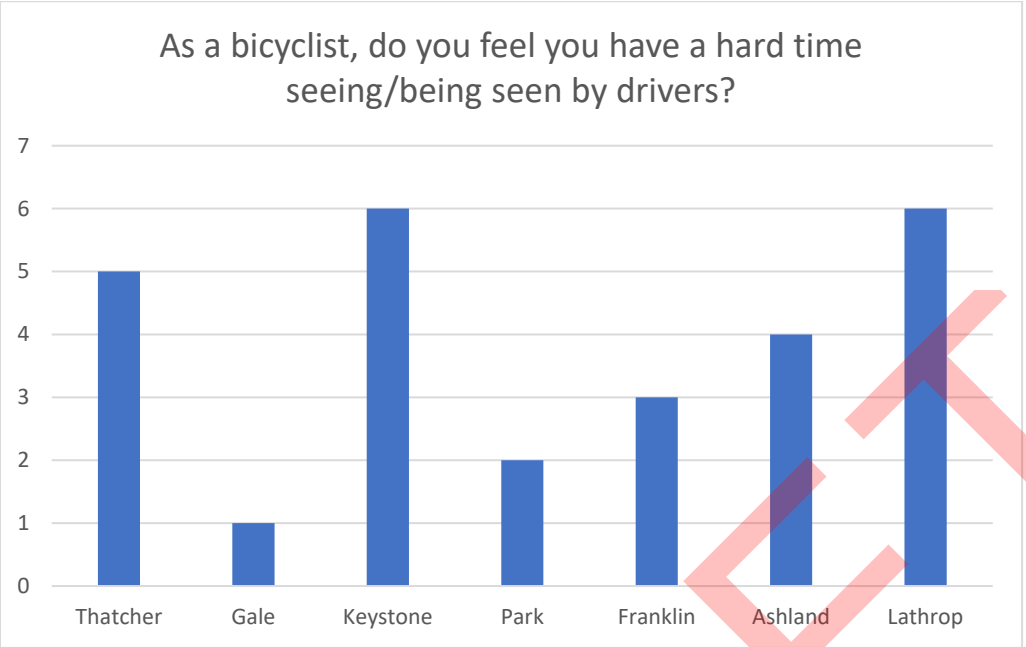


Figure 11. Open ended responses by Cyclists to the previous question.

Cyclists had a much smaller pool of open-ended responses (27) due to less residents regularly cycling on Washington Blvd. Their responses may be from the perspective of a rider entering Washington Blvd from a side street or a rider navigating Washington Blvd. Clearly, the two all-way stop intersections of Thatcher Ave and Keystone Ave are concerning to cyclists. This may correspond with the perception that drivers regularly do not stop at those two intersections. More cyclists felt they couldn't be seen as we head east through the intersections of Park Ave, Franklin Ave, Ashland Ave, and Lathrop Ave. TEG speculates that this is due to the unique geometry in that portion of the corridor and cyclists feeling less safe/seen at signalized intersections generally. Providing protected bike facilities would be the best way to give bicyclists a designated place on the road where drivers can expect cyclists.

In all situations, the majority of residents did not feel they had any issues being seen or seeing oncoming traffic. Breaking data down by how often each respondent uses the road creates a similar distribution as above with the primary difference being a higher percentage of residents feel they are having a hard time being seen the more often they use the road. Summary of data and individual tables can be seen in Appendix B.01: Survey Response Graphs & Data. The primary value in resident responses was to gather which intersections residents feel are most dangerous. This allows us to focus our efforts and suggest changes that will positively impact all road users.

Recommendations/Alternatives

Washington Blvd had all segments scored using the Traffic Calming Toolbox (TCT) designed for the Village as part of this project. Please refer to Appendix F.04: Traffic Calming Toolbox Scoring Sheets for individual scores. Every segment fell into the Level 3 category of improvements, meaning the roadway is eligible for improvements up to Level 3 of the improvement matrix (See below).

Available Traffic Calming Measures	Primary Issue Addressed		
	Speed	Volume	Pedestrian Safety
Level 1 - No Traffic Flow Changes (25-39 points)			
Targeted Speed Enforcement	X		
Speed Radar Trailer	X		
Speed Feedback Sign	X		
Centerline/Edgeline Markings	X		
Updated Signage (New/Larger/Refreshed)	X		X
Speed Limit Signage	X		
Flashing Signs	X		X
Pavement Legend	X		X
High Visibility Crosswalks			X
Education/Community Outreach	X		X
Level 2 - Some Traffic Flow Changes (40-59 points)			
Sign Turn Restrictions/Turn Movement Restrictions		X	
On-street Parking Strategies	X		
Parking Lane Markings	X		
Textured Pavement	X		
Rumble Strip	X		
Rapid Rectangular Flashing Beacon			X
Left-turn Improvements			X
Level 3 - Significant Traffic Flow Changes (60-79 points)			
Curb Extensions	X		X
Mid-Block Chokers	X		X
Center Island Narrowing/Pedestrian Refuge			X
Stop Signage		X	
Traffic Circle	X	X	
Roundabout	X	X	
Realigned Intersection	X	X	
Speed Hump/Speed Cushion	X	X	
Speed Table/Raised intersections	X	X	

Table 5. Traffic Calming Toolbox Levels of Improvement.

Since the corridor is a half mile there are multiple segments with changing characteristics and roadside conditions throughout. Analysis and scoring were done on the segments between each intersection to verify the tier of improvements available at each location. All segments within Washington Blvd had a score of between 65-75 which fell into the tier 3 improvement category.

A typical cross section of the road where parking is removed on one or both sides and protected bike lane(s) are installed would be the preferred option from TEG's perspective. This would allow more room for additional traffic calming features and would make the roadway much more accommodating for bicyclists who are at risk trying to share lanes with cars going 15 mph over the speed limit. At the Washington Blvd bridge there is a road diet project that is reducing the four-lane cross section down to two lanes with a protected bike path. If possible this cross section should be tied into any improvements along Washington Blvd.

Based on conversations with Village staff, as well as survey responses, TEG understands that removing parking will be unpopular with some residents in the area. TEG plans to focus on maintaining parking along one side of the road while eliminating parking on the opposite side to make room for an on-street bike lane. As mentioned previously, parking along the corridor was at 50% or less utilization in the parking and commuter study previously done by the Village. This indicates that while residents feel parking is necessary there is clearly an overabundance in the corridor that may be negatively impacting the roadway. By consolidating parking to one side of the road TEG would like to repurpose the existing southern parking lane for bike facilities while increasing the utilization of the remaining parking.

Alternative 1 (Preferred)

All recommendations discussed above have been compiled and drafted into a proposed exhibit for Washington Blvd and can be seen in Appendix F.05: Washinton Blvd Exhibits. Within the exhibits TEG used the preferred design and cross section as detailed above. TEG is proposing an alternative roadway cross section throughout the corridor. We have developed two new typical sections, one for the east half and one for the west half with the transition point at Park Ave. The western cross section maintains all parking along the north side of Washington Blvd, narrows the lanes to 11' in each direction, and provides a 3' bike lane with 2' buffer on the north and south side of the street (See figure 12 below). The eastern cross section will keep the current lane configuration from Park Ave to Lathrop Ave, but lanes will be reduced to 11' widths and a two-foot striped median will be installed (See figure 13 below). Throughout the eastern section, cyclists will be provided 8' multi-use paths north and south of Washington Blvd. TEG updated our capacity model to function without right-turn slip lanes at the intersections and found only minor changes in the overall capacity of the road (See Appendix C.03: Alternative Volumes & Level of Service – AM and Appendix C.04: Alternative Volumes & Level of Service – PM).

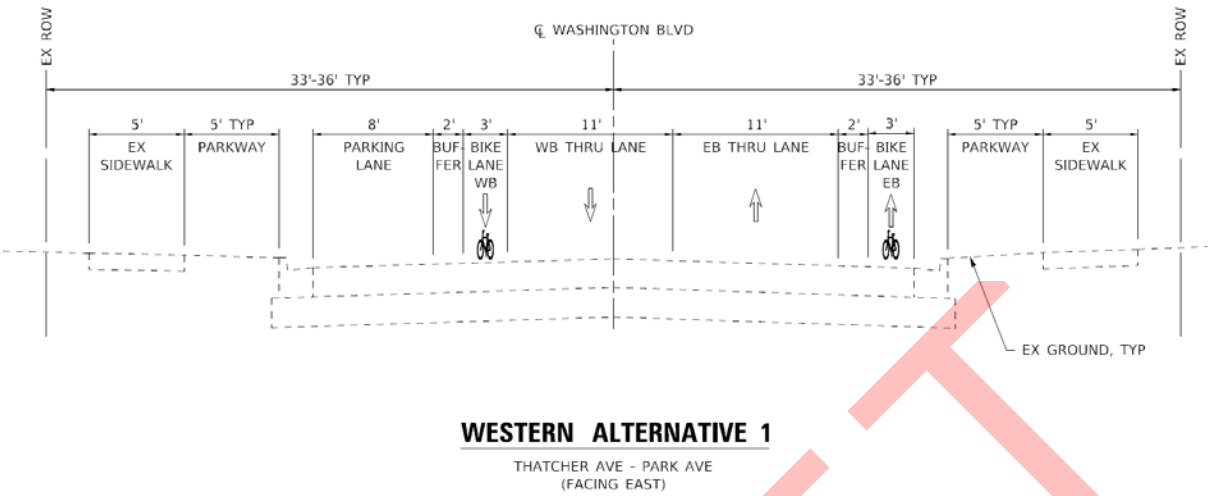


Figure 12. Proposed Western Typical Section Washington Blvd.

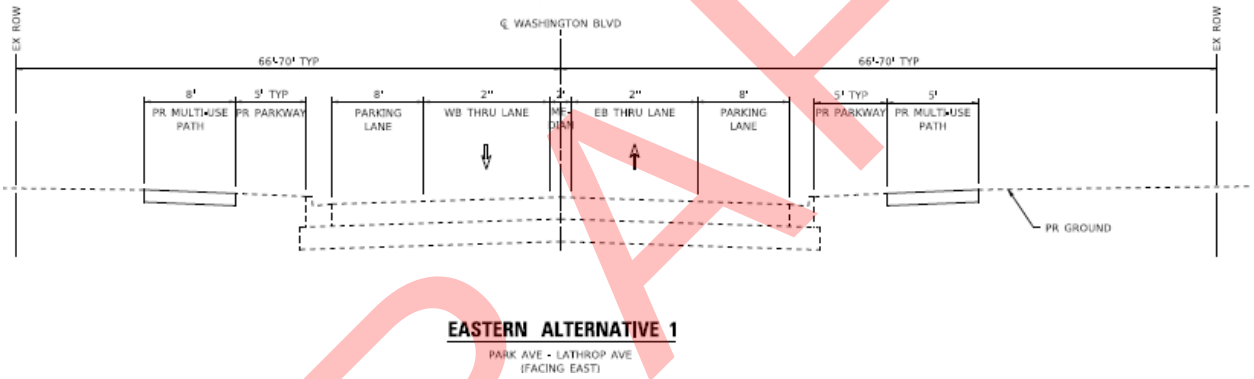


Figure 13. Proposed Eastern Typical Section Washington Blvd.

Speeding is considered an issue throughout the entire project; intersection or segment specific concerns and countermeasures are detailed below:

<u>Thatcher Ave Intersection:</u>

- Install Sign Mounted 8" Flashing Beacon on stop warning signs along Thatcher Ave.
- Install a raised intersection.
- Install curb extensions on the northeast corner.
- Provide dotted lines showing cyclists path from the west leg to the east leg to stay within bike lanes.
- Redesign Existing crosswalk to be a raised crosswalk.

The intersection with Thatcher Ave has an elevated angle crash rate unexpected at an all way stop intersection. Speed is likely a contributing factor increasing the severity of all crash types. Residents have stated that drivers often do not stop at the stop signs at this intersection. While TEG did not feel the stop signs on any approach were hard to see it is possible that speeding drivers don't notice the stop warning signs prior to the intersection and also miss the stop signs at the intersection. To combat this 8" flashing

beacons should be placed on the Stop Ahead Warning signs or the signs should be replaced with flashing LED bordered warning signs

TEG also proposes to install a raised intersection. This physical obstacle forces drivers to slow down and creates more awareness at the intersection. Since this intersection is a gateway to the rest of the Village and speeding appears to be common TEG felt aggressive countermeasures were necessary at this location.

The east leg of the intersection should be restriped using the new proposed cross section. This will provide facilities for cyclists that can tie into the new cross section west of Thatcher Ave.

Gale Ave:

- Install curb extensions along the north side of the road.
- Provide dotted lines showing cyclists path from the west leg to the east leg to stay within bike lanes.
- Provide striped crosswalks across Washington Blvd.

Gale Ave suffers from the same elevated angle crash rate as Thatcher Ave including one pedalcyclist crash. Since Washington Blvd is not stopping at this intersection TEG theorizes that sight distance issues and speeding are the primary causes of the angle crashes. Residents verified this in survey response data. To increase visibility while decreasing visual clutter at the intersection parking on the south side of the road should be removed in favor of bike lanes. Curb extensions should be provided along the north side of Washington Blvd to bring pedestrians closer to oncoming traffic. Parking is available on Gale Ave and the north side of Washington Blvd for residents who can no longer park on the south side.

Crosswalks are currently striped on the north and south legs at Gale Ave. To create more visibility for the intersection and to connect existing sidewalks, crosswalks should be striped on the east and west legs. Pedestrian warning signs should be installed with the crosswalks for consistency with other parts of the corridor.

Keystone Ave:

- Install a raised intersection.
- Install curb extensions along the north side of the road.
- Provide dotted lines showing cyclists' path from the west leg to the east leg to stay within bike lanes.
- Redesign Existing crosswalks to be raised crosswalks.

Keystone Ave saw the same elevated angle crash rate as both Thatcher Ave and Gale Ave. Since this location is an all way stop similar improvements were recommended to those at Thatcher Ave. Sight distance seems to be worse for all legs of the intersection than Thatcher Ave due to large trees and landscaping near the intersection. TEG recommend installing a raised intersection to provide multiple points of traffic calming as a driver moves along Washington Blvd.

TEG recommends removing street parking along the south side of the road to provide bike lanes. Curb extensions should be provided along the north side of Washington Blvd to bring pedestrians closer to oncoming traffic. Signs to not drive in the parking lane are a result of unused parking in the area and evidence that drivers attempt to improperly use the parking lane as a second lane. At the all way stop intersection this can be dangerous if drivers on the other legs are not expecting a second lane of traffic.

This behavior is even more dangerous at Keystone Ave due to the compromised sightlines. Removing parking and adding curb extensions will eliminate the possibility for drivers to incorrectly use the intersection.

Forest Ave:

- Install a curb bump out along the north side of the road.
- Provide dotted lines showing cyclists path from the west leg to the east leg to stay within bike lanes.
- Redesign Existing east crosswalk to be a raised crosswalk.

While this intersection has not seen many crashes, it is the crossing point between two parks. High speed traffic may discourage residents from using the area as it was intended. To slow drivers down while continuing to allow parking along the north side of Washington Blvd, TEG suggests installing a raised crosswalk on the east leg. This will provide greater safety for pedestrians and will force drivers to slow down even though there is no traffic control at this location. Since the parks may have residents visiting by car, parking will remain in the area with the exception that parking on the south side of Washington Blvd which will be removed to install a bike lane.

Due to the number of parks in the area TEG feels prioritizing pedestrian access in this area will benefit the corridor and community.

Park Ave:

- Transition on-street bike lanes to off-street multi-use paths.
- Provide restriped crosswalks using zebra striping to signify any bike crossing locations.
- Fix pedestrian crossing sign location.
    - Move closer to the Franklin Ave crosswalk.
- Install curb extensions on all four corners.

Park Ave has a low crash rate similar to Forest Ave and in this case, TEG recommends transitioning away from the cross section starting at Thatcher Ave to a new cross section that matches the existing conditions with the addition of narrower 11’ lanes and a 2’ striped median. All four legs should have their crosswalk striping updated to zebra striping. Signing in the area includes a “Stop here for pedestrians” sign for the crosswalk on Franklin Ave. It is unclear that the sign is referring to the crosswalk on Franklin Ave based on how far it is placed from that intersection. TEG suggests relocating the sign consistent with other areas of the Village.

The park in the southeast corner along with the two parks at Forest Ave may attract more pedestrians than other portions of the corridor, so ensuring safe pathways in this area is a priority. Sightlines are adequate up to the intersection in all directions and the lack of crashes even with drivers speeding in the area supports this analysis. TEG suggests maintaining some form of cycling infrastructure through the intersection using a multi-use path along the north and south side of Washington Blvd. The path should be located closer to the existing roadway consistent with sidewalk offsets west of Park Ave.

Franklin Ave:

- Install a raised intersection.
- Remove existing sidewalk and install multi-use path closer to Washington Blvd.
    - Restripe south crosswalk and move stop bar closer to Washington Blvd.
    - Remove unnecessary sidewalk and existing crossings along north and south side of Washington Blvd.
- Install curb extensions on all four corners.
- Redesign Existing crosswalks to be raised crosswalks.
    - Use zebra striping as applicable.

Franklin Ave is a relatively safe intersection with the main crash type being rear ends. Both drivers and cyclists complained about sight distance issues at Franklin Ave in the resident survey. This may be due to the unique 5-leg intersection geometry and the 40' set back of the sidewalk beginning in the southeast. TEG suggests replacing the sidewalk in the area with a multi-use path setback a maximum of 10' from Washington Blvd. This will ensure pedestrians don't feel disconnected from the street. When drivers can't see pedestrians, they can't make alterations to their driving patterns to account for the possibility a person on foot could come into the road from any angle.

Providing off-street bicycle accommodations will encourage more residents to cycle. It is important to provide facilities considered Level of Traffic Stress 1 (LTS1) by IDOT to allow beginners a safe place to avoid riding in traffic. LTS1 facilities are typically off-road and can comfortably be used by all residents including children, unlike some on-street facilities.

Ashland Ave:

- Remove existing sidewalk and install multi-use path closer to Washington Blvd.
    - Restripe south crosswalk and move stop bar closer to Washington Blvd.
    - Remove unnecessary sidewalk and existing crossings along north and south side of Washington Blvd.
- Install curb extensions on all four corners.
- Provide restriped crosswalks using zebra striping to signify any bike crossing locations.

Ashland Ave saw an extreme number of angle crashes over the analysis period. All groups surveyed agreed that visibility at Ashland Ave is lacking. TEG believes this is primarily due to the large offset of the sidewalks along the north and south side of Washington Blvd that push back the stop bars for drivers waiting to turn onto Washington Blvd.

To correct the problems at this intersection TEG suggests maintaining the on-street cross section and multi-use paths installed beginning at Park Ave. This will relocate the crosswalk closer to Washington Blvd and allow the Village to move the existing stop bar closer to the traveled way. Installing curb extensions on all four corners will make it apparent to drivers on Washington Blvd that there is an intersection at this location.

Lathrop Ave:

- TEG recommend as few changes as possible that will impact the eastern leg
- Install a raised intersection.
- Install curb extensions on the northwest and southwest corners.
- Redesign Existing crosswalks to be raised crosswalks.

The intersection is high volume, and all crash types correspond to what is standard for a signalized intersection. TEG would suggest installing curb extensions to make it clear the road is one-lane per direction as drivers enter the Village. Cyclist considerations should include the termination of the MUP into the existing sidewalk network.

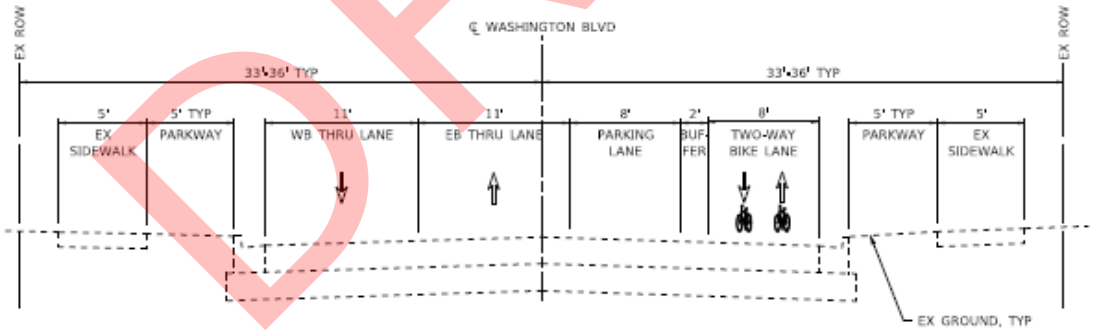
TEG recommends installing a raised intersection at this location as well to slow drivers as they enter the Village. Additionally, multiple raised intersections throughout the corridor are more effective than a single placement. In this case raised intersections at Thatcher Ave and Lathrop Ave will address speeding as drivers enter the Village and the raised intersection at Keystone Ave will help to address speeding within the corridor.

Other Alternative Designs

TEG is proposing alternative cross sections in addition to the preferred alternative. These include both alternative cross-sections that may be implemented throughout the corridor. Below is a listing of these alternative options along with how they fit into the corridor wide improvement.

Western Alternative 2

The Western Alternative 2 proposes two 11’ through lanes along the north side of the road, an 8’ parking lane, 2’ buffer, and an 8’ bi-directional bike lane. At Park Ave the cross section would transition to an off-street multi-use path and lanes would shift back to the south. Curb extensions may not be compatible with this cross-section design.



WESTERN ALTERNATIVE 2

THATCHER AVE • PARK AVE
(FACING EAST)

Figure 14. Western Typical Section Alternative 2 Washington Blvd.

Western Alternative 3

The Western Alternative 3 proposes an 8’ parking lane along the north side of the road, two 11’ through lanes, a 2’ buffer, and an 8’ bi-directional bike lane. At Park Ave the cross section would transition to an off-street multi-use path. Curb extensions can still be provided at the northern corners using this design.

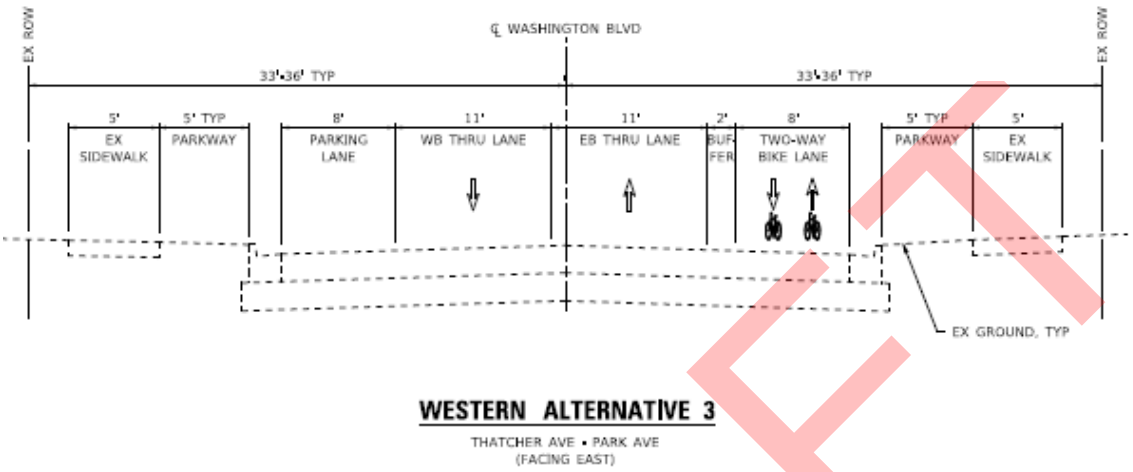


Figure 15. Western Typical Section Alternative 3 Washington Blvd.

Eastern Alternative 2

Eastern Alternative 2 is identical to West Alternative 1. Parking will remain in place along the north side of the road and will be removed from the south side of the road. The cross section provides 8’ of parking along the north side of the road, a 2' buffer, a 3’ westbound bike lane, two 11’ through lanes, a 2’ buffer, and 3’ eastbound bike lane. Curb extensions will still be provided along the north side of the road and sidewalks will still be realigned at the intersections to be closer to Washington Blvd.

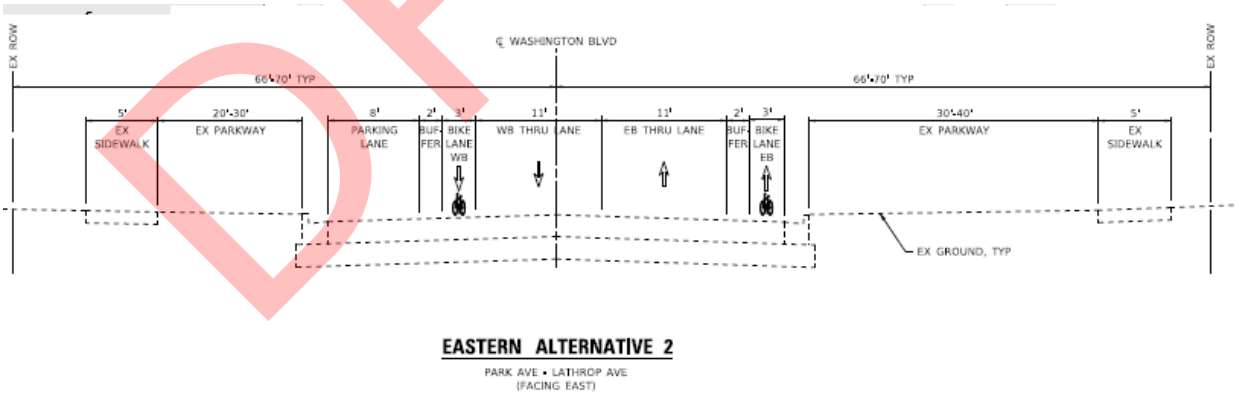


Figure 16. Eastern Typical Section Alternative 2 Washington Blvd.

The intention of providing multiple lane configurations is to allow the Village to select the design they feel is most appropriate in the area. Sample exhibits using alternative cross sections are provided and drafted at sample intersections (Washington Blvd and Gale Ave, Washington Blvd and Ashland Ave) and can be viewed in Appendix F.05: Washinton Blvd Exhibits.

THATCHER AVE SPEED STUDY

Introduction

Thatcher Ave was identified as an area of interest due to its imbalanced lane configuration and observed speeding during initial field assessments. The Village confirmed the location was known to have speed issues, and this was further supported upon reviewing the results of the Village-wide survey. In the corridor from Division St to Chicago Ave, 21 residents complained that drivers were speeding along Thatcher Ave.

TEG's analysis focuses on a single representative section of the corridor including one segment and its two bounding intersections. While it is likely speed conditions will apply to the areas south and north of the studied corridor, a more in-depth study of the full corridor will need to be completed at a different time or as an extension of the findings in this report. TEG is aware that the Village would like to provide bike infrastructure through the corridor in the future. TEG noted this portion of Thatcher Ave has already been identified to receive a bike lane within the Village's Comprehensive Plan approved in 2019. All recommendations will take future bike accommodations into account. Knowing this, TEG will use this study as a starting point to determine existing issues that need to be addressed in conjunction with new bike facilities that make cyclists feel safe on the road.

Existing Conditions Analysis

The existing road is designed with an imbalanced lane configuration with two southbound lanes and one northbound lane. Center striping is provided throughout the corridor with parking lanes striped along the east side of the road. The width of the road is approximately 41' with three 11' lanes and one 8' parking lane. A curb and gutter is provided along both sides of the road with lighting throughout the corridor. The east side of Thatcher is all residential and is lined with driveways, while the west side of the road is Cook County Forest Preserve. There is a railroad track running northwest to southeast crossing Thatcher Ave at the mid-point between Division St and Augusta St. The train crossing is fully equipped with flashing lights and gates for crossing vehicles. There are currently no gates for the sidewalk crossing.

The posted limit on Thatcher Ave is 25 mph and there are multiple speed limit signs posted for north and southbound traffic. This includes a driver feedback sign north and south of the study area for northbound traffic only. The speed limit of both side roads included in this analysis are also 25 mph.

At the termini intersections, Thatcher Ave maintains the same cross section with a break in the center striping to allow southbound traffic to turn left. The second southbound lane along Thatcher Ave allows drivers not turning left to go around the driver waiting to complete their left turn. TEG believes this was the intention of striping two southbound through lanes even though the directional split of traffic volumes along Thatcher Ave are close enough that an imbalanced lane configuration would not normally be considered. In this case TEG does not feel the imbalanced lanes are an issue unless they result in unsafe conditions along the segment or at either intersection.

The northern intersection with Division St is a minor stop-controlled tee-intersection with Thatcher Ave. The north leg of the intersection differs from the standard Thatcher Ave cross-section by restricting parking on the east side of the road using diagonal striping. North of the study terminus the road curves to the northeast. At the intersection, Division St has a two-lane cross section with a striped bike lane running along the outside of the travel lane north and south of the road. Parking is striped along the north side of

the road. Sidewalk is provided along the east side of Thatcher Ave from the south with a standard crosswalk striped across Division St. Sidewalk continues east along the north side of Division St, but does not continue along Thatcher Ave. There are two universities and a high school sports facility located along Division St and may serve as a trip destination for many drivers turning onto Division St.

There is potential for a high pedestrian demand in the corridor due to access for the Des Plaines River Trail requiring a theoretical cyclist to navigate the intersection between North Ave and Thatcher Ave before reaching the trail. Currently, there is no way for a cyclist to avoid this intersection without leaving River Forest and taking an indirect route to reach the trail. This indirect route is unnecessary assuming a cyclist could safely travel on Thatcher Ave. In the existing conditions with potential speeding along Thatcher Ave and no protected bike lane, most casual cyclists will feel unsafe sharing a lane with vehicles. This is the case along all roads with no striped/protected bike lanes, but especially when the route being entered is high volume (see next section) and along a curve where cyclists may be hard to see like Thatcher Ave. Making the corridor along Thatcher Ave from Chicago Ave to North Ave more cyclist friendly will promote multi-modality and address a lapse in the cycling network. TEG noted the potential for connectivity between the Des Plaines River Trail and the Illinois Prairie Path by installing bike lanes along Thatcher Ave and Madison Ave, but that goes beyond the scope of this study.

It is unclear if sight distances are acceptable for drivers waiting to turn from Division St. The curve north of the intersection does impair vision, but it appears minor. At a design speed of 25 mph the required intersection sight distance is 280'. It appears the existing sight distance on Division St is between 300'-400' looking north which is over the minimum. Speeding southbound drivers on Thatcher Ave may result in an insufficient sight distance based on the real-world speeds.

The southern intersection between Thatcher Ave and Augusta St is also a minor stop-controlled tee-intersection entering Thatcher Ave from the east side. Thatcher Ave maintains its standard cross-section north and south of the intersection. Augusta St is a two-lane two-way street with 12' lanes, center striping, and no on-street parking permitted. Sidewalk runs along the north and south side of Augusta St and along the east side of Thatcher Ave. There is a ladder-style crosswalk striped across Augusta St. Based on roadway features Augusta St appears to be lower volume than Division St (see next section), this may be due to the presence of multiple universities along Division St drawing traffic. Drivers on southbound Thatcher Ave cannot turn left onto Augusta St due to a sign restricting the movement.

The intersection between Thatcher Ave and Augusta St does not appear to have any geometric deficiencies in the existing condition. The left turn restriction at the intersection seemed unnecessary for capacity reasons, but it may have been implemented to improve safety. TEG sees no reason to restrict left turns at Augusta St in the existing condition. If a southbound driver was taking time to make a left turn the drivers behind them would have the option to go around using the outside southbound lane. From a safety standpoint there is clear vision of oncoming traffic for a driver waiting to turn left. It is unclear why the left turn restriction was initially put in place, but TEG recommends reconsidering how necessary this turn restriction is prior to implementing any countermeasures in the area.

Volume Analysis

Knowing the volumes along all studied routes and how they interact with each other is important to understanding the operation of the corridor and focusing on potential deficiencies. Based on traffic volume counts performed in December 2022, TEG found that average daily traffic (ADT) is roughly 10,000 vehicles

along Thatcher Ave, 5,200 vehicles along Division St, and 1,500 vehicles along Augusta St. Thatcher Ave has the highest north-south ADT in the Village other than Harlem Ave. Division St represents a moderately busy collector street and Augusta St functions as a residential road. This corridor gives a good sample of intersection volumes along Thatcher Ave to determine how the road interacts with small and large side-streets.

Along Thatcher Ave the primary concern is whether existing capacity during the peak hours is adequate to process the number of vehicles travelling through the corridor and entering from both intersections. Under free flow conditions approximately 1,900 vehicles can be processed per hour per lane. Based on peak hour volumes along Thatcher Ave, the roadway would be more than adequate for the existing peak hour volumes along Thatcher Ave of approximately 1,200 total vehicles including both directions of traffic. This is reflected in the Village-wide Synchro Traffic analysis in which Thatcher has an LOS of A or better at each intersection.

Based on these values the road should not experience traffic due to reaching capacity. Any traffic delays will be a result of drivers stopping at intersections to turn or to obey traffic control. Since the road is operating under capacity in both directions there is no reason to believe a secondary southbound lane would be required except. TEG's recommendation would be to install an auxiliary lane at the intersections instead of providing a second southbound lane for the extent of the corridor. In between the intersections, this center lane could either be a striped median or a two-way left turn lane to provide driveway access.

Currently the Level of Service (LOS) on Division St is an E which is failing, but both the northbound and southbound lanes on Thatcher Ave have a LOS of A. This means minimal delays for drivers turning off Thatcher Ave and long delays for drivers waiting to turn off Division St. This may encourage drivers on Division St to find other routes out of the Village that avoid the intersection between Division St and Thatcher Ave to avoid delays. More vehicles entered Division St than exited throughout the day and at both the AM and PM peak hour times. The imbalance is roughly 400 more vehicles per day entering than exiting and may be evidence of drivers attempting to avoid the delays while exiting using Division St.

The opposite pattern was observed at the intersection between Thatcher Ave and Augusta St where approximately 50% more drivers (300) exited Augusta St than drivers who turned from Thatcher Ave. The pattern is consistent throughout the day. TEG noted that most drivers at the intersection (~70%) turn right to go north on Thatcher Ave. Using the same roads the return trip would involve a left turn back onto Augusta St which is illegal at the intersection. This makes a return trip reversing the route originally taken impossible for 70% of drivers who are turning right off Augusta St. This may help to explain why so many drivers turned left at Division St. In a way this causes Division St and Augusta St to operate as a couplet where drivers turning right to leave Augusta St end up returning by turning left onto Division St to avoid the turn restriction at Augusta St. The result of this configuration is more traffic exiting Augusta St onto Thatcher Ave and more traffic reentering the Village by taking Thatcher Ave south and turning left onto Division St.

The LOS on Augusta St at the intersection is a C which is acceptable. Total traffic at the intersection is significantly less than at Division St and TEG expects that most drivers at Augusta St will wait in a short queue before turning onto Thatcher Ave. Knowing that traffic during the peak hour periods is roughly ~120 westbound vehicles it is unlikely that drivers experience pressure to turn quickly while waiting at the

intersection with Thatcher Ave. In most cases drivers waiting at the intersection will be in a queue of at most one to three vehicles.

Speed Analysis

TEG conducted a speed study along the segment of Thatcher Ave between Division St and Augusta St over a 24-hour period to determine the presence and extent of any existing speed issue in the area. When analyzing speed data, it is commonplace to look at the 85th percentile speeds as a representative sample of the speed that most drivers feel comfortable traveling at through the corridor. Typically, the speed limit and the 85th percentile speed are within a few miles per hour of each other. Along Thatcher Ave this is not the case. The 85th percentile speed was 41 mph – along a road posted with a speed limit of 25 mph. This is a significant speed differential that may result in drivers on Thatcher Ave feeling unsafe when attempting to follow the speed limit (other drivers honking or riding too closely).

Looking closer at the 85th percentile speeds broken down by lane TEG noticed that northbound drivers 85th percentile was 38 mph, the southbound inside lane 85th percentile was 42 mph, and the southbound outside lane 85th percentile was 44 mph. This could be indicative that the unbalanced lane configuration makes southbound drivers feel they can drive faster without feeling unsafe. This is expected because southbound drivers on the outside leg can speed without worrying about other drivers stopping to turn left. This explains the higher 85th percentile speed in the outside lane compared to the inside. Other factors for northbound traffic such as striped parking lanes making the lane appear narrower and multiple entering driveways likely work as a minor form of traffic calming reducing speeds for northbound traffic.

Compiling the 85th percentile for all lanes and breaking the data down by hour revealed that drivers were traveling anywhere between 9-21 mph over the speed limit in any given hour without exception. This is clearly a roadway with severe speed issues.

TEG noted that the Village does not currently have a road with a speed posted above 25 mph to cross the Village north-south other than Harlem Ave (30 mph). This may leave drivers looking for an efficient route to traverse north-south across the Village without going to the opposite end of the Village to use Harlem Ave. In its current state Thatcher Ave fills this niche operating as a perimeter road allowing drivers to use a route with minimal stops to get north-south efficiently. While filling its role as a perimeter road there are some design aspects of Thatcher Ave that may mislead drivers into thinking the road has a speed limit between 35-40 mph. These features include:

- Multiple southbound lanes
  - More than one lane per direction is not typical on low-speed roads.
- Road width
  - Similar to having multiple lanes per direction having a wide road-way signals to drivers it is a more major street and typically has higher speeds.
- Turning restrictions
  - Generally low-speed residential roads do not restrict turns onto other residential roads like at the intersection with Augusta St.
- Lack of pedestrian and cycling facilities
  - While there is a sidewalk along the east side of Thatcher Ave it is not continuous up to North Ave and there is no matching sidewalk along the west side of the road.
  - There are currently no bike facilities along Thatcher Ave.

- This might give drivers the impression that pedestrians/cyclists are not expected along the road.

These issues become worse if drivers are not paying attention to the posted limits or miss seeing a sign. Due to the severity of speeding, TEG feels that changes to the entire corridor may be warranted to correct the issue. These changes would include:

- reducing southbound traffic to one through-lane as a form of natural traffic calming
- Installing the bike lane along Thatcher Ave as described in the 2019 Comprehensive Plan
- Periodic raised intersections
  - This improvement would be most beneficial at entrances to the Village to address traffic along Thatcher Ave and drivers entering the Village from the west with the same improvement.

These improvements should effectively change the character of the road, which should in effect reduce driver speed. Due to the severity of the existing speed issue more countermeasures may be required in the future, but the current recommendations will change so much about the operation of the road that a reevaluation will be required before suggesting additional future countermeasures.

Crash Analysis

TEG analyzed crash data within the Village over a six-year period from 2016-2021 for Thatcher Ave from Division St to Augusta St

Higher speed crashes tend to result in more severe injuries, so addressing the speed will be key for improving safety in the corridor. Within the study area there has been two A-injuries and one cyclist crash. The studied segment has the highest crash rate along Thatcher Ave while the two studied intersection are the 4th and 6th highest scoring intersections along Thatcher Ave. TEG believes this is a good representative area for study including a segment, an all-way stop, and a minor leg stop.

Thatcher @ Division St: 18 Crashes 1 A-injury, 1 B-injury, 1 C-injury

4 Fixed Object

4 Turning Left: 1 B-injury

3 Rear End: 1 C-injury

3 Other Object

1 Head On: 1 A-injury

1 Angle

1 Turning Right

This intersection has seen several severe injuries and has had three crashes per year on average. No individual crash type stood out as a recurring crash pattern. Seeing a moderate crash rate coupled with a high injury rate where no one crash type stands out is more common at locations with existing speed issues. Since drivers are using the road at faster speeds than what was designed for, this has a significant impact on the curves, sight distances, and stopping distances. There is a higher likelihood of error or a driver losing control resulting in a variety of crash types with more injuries. This explanation makes sense

for the eight lane departure crashes (fixed object, other object, and head on) and accounts for the A-injury crash. Decreasing speeds along the road makes it less likely that drivers will lose control of their vehicle resulting in fewer lane departure crashes. The four crashes involving southbound left turning drivers and the two angle/turning right crashes are also less likely when oncoming traffic is slower. Slower oncoming vehicles gives waiting drivers more time to judge their turn. If a driver expects oncoming traffic to be moving at 25 mph this could also result in crashes when oncoming traffic is traveling over 60% faster than expected through the corridor.

Two of the three rear end crashes occurred between southbound drivers. In theory, if southbound traffic on Thatcher Ave was reduced to one lane of traffic the number of rear end crashes between drivers slowing down to turn right and drivers going straight would likely increase. TEG's goal at the intersection and through the corridor is safety. A reduction in perpendicular crashes and crash severity would provide significant safety improvements even if there was a moderate increase in the comparatively much less dangerous rear end crash type.

The lack of angle crashes suggests that sight distance is adequate at the intersection or drivers have adapted their driving to avoid turning southbound from Division St. This may explain why 70% of drivers on Division St turn right – it is unclear if the directional split is due to more drivers needing to go north to North Ave or if drivers who would want to turn southbound have changed their route to avoid turning left across Thatcher Ave.

Thatcher Ave @ Augusta St: 5 Crashes 2 B-injuries

2 Rear End

2 Angle: 1 B-injury

1 Pedalcyclist: 1 B-injury

While there is only about one crash per year at this intersection, there has been a high rate of injuries with 40% of the crashes that did occur resulting in B-injuries. Since this intersection has considerably lower volume than Division St it is expected that crash rates would also be lower. Despite this, seeing two angle crashes and a cyclist crash indicates the intersection may not be operating safely.

Due to only five total crashes occurring at the intersection, it is hard to establish a crash pattern. At this point, TEG feels that lower speeds in the corridor would have resulted in fewer injuries and may have resulted in several of the crashes not occurring at all. If traffic calming along the road is effective, TEG expects crash and injury rates to go down naturally at the intersection. The location should be reevaluated in the future to verify this is the case. Less than one crash per year would not generally warrant crash specific countermeasures. Unless one crash type becomes dominant, injuries remain common, or crash rates go up, TEG does not believe any crash specific countermeasures should be implemented at this intersection.

Thatcher Ave: From Division St to Augusta St: 6 Crash 1 A-injury, 1 B-injury, 1 C-injury

2 Fixed Object:1 A-injury

3 Rear End: 1 B-injury

1 Other Object: 1 C-injury

The six crashes did not exhibit any patterns but did display a high rate of injuries, similar to the intersections. 50% of all crashes resulted in injuries with the most severe injury being an A-injury fixed object crash. Three of the six crashes involved a driver hitting a non-moving object due to lane departure. Generally, these types of crashes are exacerbated by higher speeds. The same can be said for the three northbound rear end crashes. TEG assumes these are vehicles stopping for a train or drivers turning into driveways since no other stop points are present. In these situations, both drivers going the speed limit would give the rear driver enough time to react to the lead driver braking.

Recommendations/Conclusion

There are severe speed issues throughout the study area; and it is likely these speed conditions extend beyond the studied location. Verification of these issues would need to be part of a more focused corridor study. The crash patterns in the area are also indicative of speeding. An 85th percentile speed of 41 mph on a 25 mph speed demonstrates a serious discrepancy between posted limit and the speed most drivers travel along the road at. To bring speeds in line with the existing speed limit, TEG believes changes would need to be made throughout the corridor not just the study area.

TEG noted that the road had the character of a higher speed road than the 25 mph posted speed. When this is the case and when the 85th percentile of drivers is significantly above the posted speed limit, it is important to consider if a speed limit adjustment is appropriate. Without studying the full corridor TEG would not make a specific recommendation for a new limit, but adjusting the limit up by even five miles per hour gives drivers the ability to go fast compared to other Village roads without going 40 mph in a residential area. Regardless of speed limit changes. TEG would recommend some traffic calming to bring speeds in line with what is safe for the roadway. TEG would strongly advise considering the Village's future goals for the Thatcher Ave corridor before making any changes. Since drivers have been driving 40 mph though the area for a while and are used to these speeds; reducing the speed in the corridor may have unintended consequences for the rest of the road network.

If the Village would like to follow through with traffic calming along the road TEG would advise using a variety of countermeasures and spacing countermeasures out through the corridor. Since this study found speed issues in the segment between Division St and Augusta St, these speed issues cannot necessarily be applied to the entire corridor without further study. These recommendations are given under the assumption that speed continues to be an issue south of the study area to Chicago Ave where the dual southbound lanes end. Similarly, TEG assumes speeds remain consistent to North Ave, since no major changes in roadway cross-section are present north of the Division St intersection. Past these intersections the road cross section changes and it is unclear if speeding would continue.

TEG recommends making the following changes to the corridor bounded by the signalized intersections of North Ave and Chicago Ave:

- Consider removing the second southbound lane or repurposing the lane for southbound left turns into driveways.
    - This lane is not needed for capacity reasons and if an auxiliary lane is necessary at an intersection it should not also be used as a through-lane (See Appendix C.03: Alternative Volumes & Level of Service – AM and Appendix C.04: Alternative Volumes & Level of Service – PM).
    - Having dual southbound lanes gives the impression the road is higher speed than what is posted.
    - If maintaining the secondary lane it should be changed from a through lane to a shared left turn lane for residents turning left into driveways along Thatcher Ave.
- Install bike facilities along the road
    - Following the 2019 Comprehensive Plan, TEG suggests providing bike facilities to promote connectivity to the Des Plaines River Trail to the north.
    - The existing condition with drivers traveling 40 mph is unsafe for a cyclist to try and share the lane.
- Install raised intersection(s) at the Chicago Ave (signalized) intersection and The Division St (minor-stop) intersection.
    - Since the road is posted 25 mph the slowdowns caused by raised intersections would be minimal (the raised intersection can be designed based on a desired speed).
    - Since it is a physical installation, drivers risk damaging their vehicle if they continue to speed at the current rates.
    - Evenly spacing the raised intersections helps to prevent drivers from immediately speeding up after passing the countermeasure.
        - Raised intersection planned at Division St benefits cyclists entering Thatcher Ave from the bike lane.
        - Raised intersection planned at Chicago Ave slows drivers on Thatcher Ave and drivers heading eastbound into the Village.

From a geometric and operational standpoint, the existing issues seem to be caused by the severe speeding in the corridor. TEG feels that resolving speed issues would mitigate the high rate of injury for crashes in the corridor. Slowing traffic down will have impacts to the road network and TEG believes a more in-depth corridor study would be beneficial to help ensure changes along the corridor do not result in unforeseen consequences for other nearby roads.

APPENDIX A: TRAFFIC CALMING TOOLBOX

01. Traffic Calming Toolbox Memo
02. Scoring Matrix
03. Matrix of Improvements
04. Cost Matrix
05. Summary of Improvements w/ Pictures

Traffic Calming Toolbox Memo

TRAFFIC CALMING TOOLBOX

"The primary purpose of traffic calming is to support the livability and vitality of residential and commercial areas through improvements in non-motorist safety, mobility, and comfort. These objectives are typically achieved by reducing vehicle speeds or volumes on a single street or a street network. Traffic calming measures consist of horizontal, vertical, lane narrowing, roadside, and other features that use self-enforcing physical or psycho-perception means to produce desired effects."

- Federal Highway Administration definition of traffic calming

Introduction

Having a standardized roadway system is imperative to the safety of residents and drivers alike. Predictability on a road increases safety and decreases variability when traveling to different parts of the Village. The goal of this traffic calming toolbox and scoring sheet is to assist the Village in identifying locations for further study, choose from a list of appropriate countermeasures, and maintain consistency of traffic improvements throughout the Village.

The process will begin with either an internal initiation by the Traffic and Safety Commission identifying a location with potential traffic problems, or a resident petition being presented to the Traffic and Safety Commission. From there the scoring document will be used to evaluate the location and determine what improvement categories apply. The improvement type used will be left to the discretion of the Traffic and Safety Commission in conjunction with resident and Village Staff input. In addition to the "Improvement Matrix" which lists the improvement types that may be considered, this document also includes a "Cost Matrix" to further inform the reader of potential cost implications and to identify ideal locations for each improvement type.

The improvement types are taken from the Federal Highway Administration's (FHWA) recommendations for traffic calming along with Thomas Engineering's own experience completing traffic studies around the state. The scoring sheet and matrix are meant to serve as guidelines for the Village. All improvements should rely on site specific criteria to determine the optimal countermeasures at each location. The relevant application of each improvement will ultimately be up to the Traffic and Safety Commission and Village Board.

Scoring Criteria

The Scoring Matrix will be the first step after identifying a location for potential traffic calming. The location will be analyzed based on recent crash history, vehicle speed (using speed study), average daily traffic, and nearby pedestrian traffic generators (school, library, park, church, or public transit). Additional points will be awarded for locations identified as a bike route per the Village Bicycle Plan implemented in 2019 and/or if the interest in the location was created through a resident petition.

The maximum score a location can get will be 100 points with a minimum threshold of 25 points to proceed with review and potential improvements. Points from this section will be used to determine what level of improvements can be used in the Improvement Matrix.

Scoring Process

The scoring process will utilize two intersections and one connecting segment for each scoring category. This means, for example, the crash score will utilize the total crashes at both intersections and the joining segment. While there are some intersection-specific traffic calming measures TEG assumes most studies will be based along a specific road which will then have a suitable segment chosen for study.

For full corridor studies including multiple segments along a road each segment + its two termini intersection will be used to score all segments through a corridor. In the end each segment & intersection combo will have a final score and corresponding level of improvement. In testing scores through a corridor were generally similar, but in the case of segments falling into different improvement levels TEG recommends using engineering judgement to choose the level of improvement most appropriate for the corridor.

Improvement Matrix

After scoring a location the Traffic and Safety Commission should look at the Improvement Matrix to determine what "Level" of improvements should be considered. Using the score from the Scoring Matrix, the Levels are as follows:

Level 1 = 25-39 points – Locations that may have speed and safety concerns not apparent without further review; minimal impact to traffic.

Level 2 = 40-59 points – Locations with minor speed and safety problems; no new physical barriers or traffic control.

Level 3 = 60-79 points – Locations with moderate speed and safety problems; physical barriers or new traffic control may be justified.

Level 4 = 80-100 points – Locations with major speed and safety problems; roadway may be in need of substantial improvements to correct traffic conditions on the road.

Traffic improvements are categorized by how much of an impact each improvement has on drivers using the road. As the impacts to drivers become greater, the effectiveness of the improvement also increases. For this reason, the level 3 and 4 traffic calming measures should be used sparingly to correct areas with clear deficiencies. Some of the level 3 and 4 improvements have secondary criteria that must be met prior to considering the improvement, which are listed in the "Usage Notes" column. For example, in order to install a new all-way stop sign, the intersection must first fulfill an all-way stop warrant.

In general, when considering a location for traffic calming improvements, even if there are enough points to justify a level 3 or 4 intervention, it is recommended that the Village adopt a conservative approach. Starting with a level 1 or 2 improvement is recommended to assess whether or not the existing issues are effectively resolved without significantly impacting drivers' road usage. However, if level 1 or 2 improvements are already in place, it may be appropriate to proceed with a level 3 or 4 intervention.

The Improvement Matrix includes a table which shows the primary issues addressed by each improvement. While all suggested improvements will help calm traffic on the road, each improvement type will primarily impact one to two aspects of road safety. For ease-of-use, the table lists whether the improvements primarily impact speed on the roadway, volume of vehicles, or pedestrian safety. Level 1 and 2 improvements primarily target speed and pedestrian safety. As the impact to the roadway increases

in level 3 and 4, the improvements make the roadway less appealing to travel on due to physical barriers or new traffic control. Slowing down the speed to navigate a corridor will reduce traffic coming from major routes but will also inconvenience residents.

Cost Matrix

The Village can also use the Cost Matrix to consider the approximate cost for each improvement and review a brief description of how/where the improvement should be used in order to determine what changes should be made to the studied locations.

Survey Results

As part of the Village-Wide Traffic Study Survey, Village residents were asked about their preferences for traffic calming measures. This section is intended to provide insight into the current preferences of residents in order to be able to better anticipate potential responses to proposed traffic calming measures.

The following table shows the results of a survey question in which Village residents were asked to indicate which improvements they would like to see more of in the Village:

Improvement Type	% Respondents in favor of improvement
Speed Humps	39%
Mounted Flashing Beacons	39%
Curb Extensions	34%
Driver Feedback Speed Sign	41%
Raised Intersection	26%
None	9%
Other	27%

Table 1

As shown in Table 1, only 9% of respondents did not want to see any new traffic calming in the Village. The three most-supported improvement types were driver feedback speed signs (41%), mounted flashing beacons (39%), and speed humps (39%). Overall, there was generally an even distribution of support across all listed improvement types, with the exception of raised intersections. This, however, may be due to a lack of experience with raised intersections. Therefore, if the Village ever chooses to use this improvement type it may be helpful to provide an education campaign about the benefits and effectiveness of raised intersections.

A total of 27% (238) of respondents listed other forms of traffic calming they would like to see – many of these responses were reaffirming the boxes they checked or did not check in the first portion of the question. When looking into the open-ended responses further, the following trends were identified:

1. Many residents expressed dislike for speed humps due to potential damage to vehicle undercarriages
2. Residents expressed dislike of flashing beacons because the flashing lights could shine in windows of nearby homes

3. Bicyclists complained that curb extensions are dangerous because they force bicyclists into traffic lanes at intersections
4. Driver feedback signs are seen as ineffective
5. Raised intersections were mentioned in several responses as an improvement, but one that residents are uncertain as to how they would be used

The remaining 238 open-ended survey responses were reviewed and divided into six categories of improvement:

1. Additional stop signs (35 responses)
2. Roundabouts (13 responses)
3. Street closures (16 responses)
4. Crosswalk improvements (13 responses)
5. More police enforcement (58 responses)
6. Speed cameras (19 responses)

From these initial categories the categories were further divided into 'new traffic control' and 'more enforcement' groups. Within the 'new traffic control' group the categories of additional stop signs, roundabouts, and street closures were combined with 64 total respondents preferring new traffic control. New traffic control will not be suggested unless it is warranted by existing traffic conditions. Traffic control improvements are included within the traffic calming toolbox, but these are not to be used without proper justification which is why none were included within the survey. The 'more enforcement' group includes the categories of more police enforcement and speed cameras, which total 77 responses. More police enforcement or auto-ticketing speed cameras are at the discretion of the Village and beyond the scope of this study. The 13 people who suggested some form of crosswalk improvements focused mainly on roadway features to make crosswalks more visible and their suggestions were incorporated into the Traffic Control Toolbox.

Conclusion

Ultimately, many Village residents appear to be open to traffic calming improvements. There seems to be a preference for improvements that would have low driver impact and road treatments with which residents are already familiar. This would explain why speed humps were picked 13% more than raised intersections, even though they are similar treatment types. Only 9% of respondents indicated that they would not want to see any new traffic calming measures implemented. This suggests that there is a demand for well-planned traffic calming measures, even if there is indecision on which measures would be most effective. A Village led information campaign to inform residents of the potential advantages of each improvement type, as well as, outlining how the Village will handle the concerns residents have with things like the flashing beacons or speed humps (such as restricting locations where improvements can be implemented). As the Village's road system continues to evolve with increased traffic volumes and multi-modal transportation options, residents will likely adapt and realize the benefits of introducing a wide range of traffic calming methods.

Scoring Matrix

Scoring Matrix

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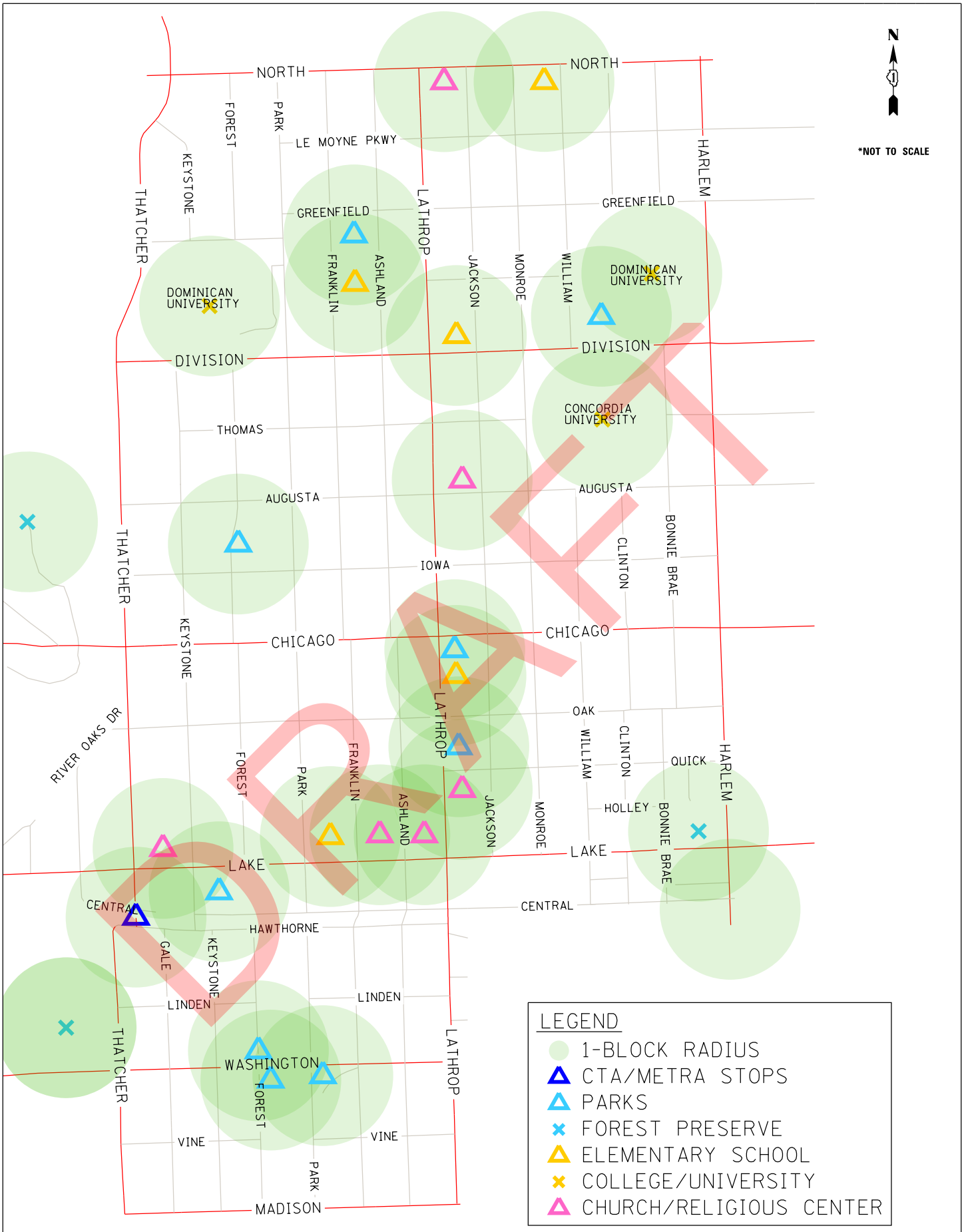
Measure	Criteria for assigning a numerical score to traffic problems	Points
Crash History	1-3 crashes in a 5 year period = 5 points 4-10 crashes in a 5 year period = 10 points More than 10 crashes in a 5 year period = 15 points any crash involving a pedestrian/cyclist = +5 points	0-20 pts. **Score:**
Vehicle Speed	85th percentile speed is not over the speed limit = 0 points 85th percentile speed is 2 mph over the speed limit = 3 points 85th percentile speed is 4 mph over the speed limit = 6 points 85th percentile speed is 6 mph over the speed limit = 9 points 85th percentile speed is 8 mph over the speed limit = 12 points 85th percentile speed is 10 mph over the speed limit = 15 points Outlier Speed 20+ mph above posted speed limit = +5 points	0-20 pts. **Score:**
Vehicle Volume	ADT < 750 = 0 points ADT = 751 - 1,350 = 5 points ADT = 1,351 - 1,950 = 10 points ADT = 1,951 - 2,550 = 15 points ADT > 2,550 = 20 points	0-20 pts. **Score:**
Pedestrian Traffic Generators	Any school, park, library, church, CTA station more than 2 blocks (1,320 ft.) away = 0 points Any school, park, library, church, CTA station 1-2 blocks (1,320 ft.) away = 5 points Any school, park, library, church, CTA station 1 block (660 ft.) or less away = 10 points Three or more overlapping 1-block areas = +10 points Three or more overlapping 2-block areas = +5 points	0-20 pts. **Score:**
Bike Routes / Non-Bike Routes	Not identified as a proposed bike route = 0 points Identified as a Marked Shared Lane = 5 points Identified as a Dedicated Bike Lane = 10 points *Per Village Bicycle Plan published in 2019	0-10 pts. **Score:**
Community Interest	No Petition = 0 points Local Petition (0-75% residents on block) = 5 points Local Petition (75%+ of residents on block) = 10 points Village Petition (0-10% of Village population) = 5 points Village Petition (10%+ of Village population) = 10 points	0-10 pts. **Score:**
Intersection 1: _____ Segment: _____ Intersection 2: _____		**Total:**



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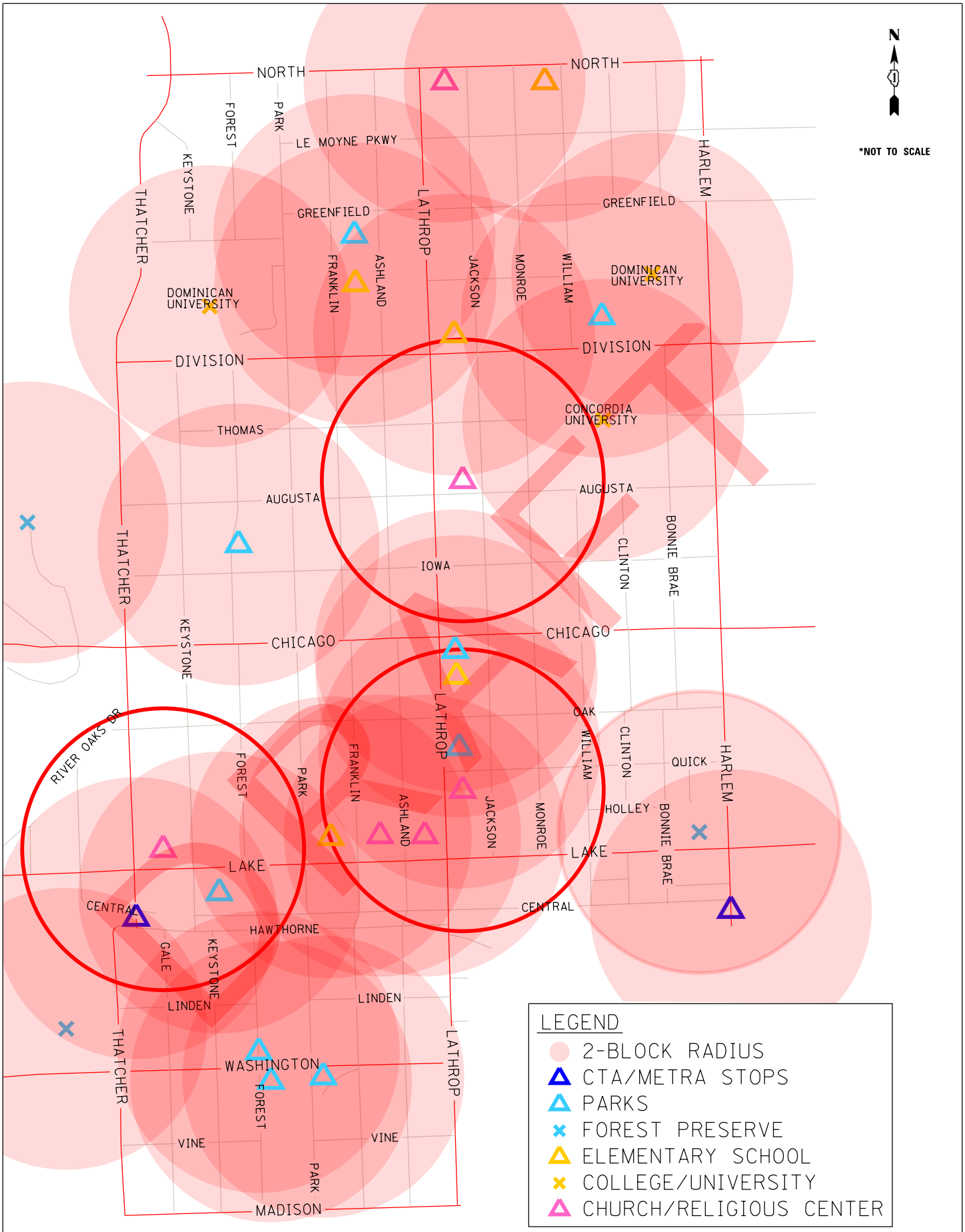
PEDESTRIAN TRAFFIC GENERATORS
ONE-BLOCK RADIUS

SHEET NO. 02
DRAWING NO. 02 OF 03



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PEDESTRIAN TRAFFIC GENERATORS
TWO–BLOCK RADIUS

SHEET NO. 03
DRAWING NO. 03 OF 03

Matrix of Improvements

Improvement Matrix

Available Traffic Calming Measures	Primary Issue Addressed			Usage Notes
	Speed	Volume	Pedestrian Safety	
Level 1 - No Traffic Flow Changes (25-39 points)				
Targeted Speed Enforcement	X			
Speed Radar Trailer	X			
Speed Feedback Sign	X			
Centerline/Edgeline Markings	X			
Updated Signage (New/Larger/Refreshed)	X		X	
Speed Limit Signage	X			If not already existing
Flashing Signs	X		X	
Pavement Legend	X		X	
High Visibility Crosswalks			X	
Education/Community Outreach	X		X	
Level 2 - Some Traffic Flow Changes (40-59 points)				
Sign Turn Restrictions/Turn Movement Restrictions		X		
On-street Parking Strategies	X			
Parking Lane Markings	X			
Textured Pavement	X			
Rumble Strip	X			
Rapid Rectangular Flashing Beacon			X	Motion Activated - Less intrusive
Left-turn Improvements			X	
Level 3 - Significant Traffic Flow Changes (60-79 points)				
Curb Extensions	X		X	Intersections
Mid-Block Chokers	X		X	Segments
Center Island Narrowing/Pedestrian Refuge			X	
Stop Signage		X		If stop sign warrant is met
Traffic Circle	X	X		
Roundabout	X	X		
Realigned Intersection	X	X		
Speed Hump/Speed Cushion	X	X		Segments
Speed Table/Raised intersections	X	X		Intersections
Level 4 - Street Closures (80-100 points)				
Median & Partial Medians	X			
Median Barrier		X		Cut-through traffic
Forced Turn Island		X		Cut-through traffic
One-Way to Two-Way Street Conversion		X		
Two-Way to One-Way Street Conversion		X		

Cost Matrix

Cost Matrix

Available Traffic Calming Measures	Approximate Cost			Notes on Implementation
	Low (<$6k)	Medium ($6k-$15k)	High (>$15k)	
Level 1 - No Traffic Flow Changes (25-40 points)				
Targeted Speed Enforcement	X	X		This can involve 1-2 officers posted at select locations with high rates of speeding. Generally this is best if there are certain time frames where speeding is occurring.
Speed Radar Trailer	X			A temporary movable option for the Village to discourage speeding. The village can use the speed data collected by the trailer to determine the effectiveness of the measure.
Speed Feedback Sign	X			A more permanent version of the speed trailer. If success is seen with the usage of the speed trailer along a route then this may be justified. Can be set up to give tickets automatically combining the effectiveness of targeted speed enforcement and a speed radar trailer.
Centerline/Edgeline Markings	X			Centerline and edgeline markings can be used to clearly delineate where a vehicle should be driving. They can be used alongside on-street parking to visually narrow the lane a driver has access to. This is effective in areas where drivers consistently use parking lanes as through lanes.
Updated Signage (New/Larger/Refreshed)	X			In areas with old faded signs a simple signing upgrade may be enough to get drivers attention who may not have seen the older signs.
Speed Limit Signage	X			Used in cases where speeding is an issue and no speed limit sign is existing.
Flashing Signs	X			An improvement for locations with existing signs that are being ignored. Motion activated to cause as little disturbance for residents as possible.
Pavement Legend	X			Should be used sparingly to help combat inattentional blindness. Best used in locations where off-street signage is already present and being ignored. Using consistently at locations like schools will create a consistent roadway and make It clear to drivers to be cautious in those areas.
High Visibility Crosswalks	X			Any location with pedestrian accidents or high volumes of pedestrian crossings is a good candidate. Can be used with mid-block crossing to make it more visible to drivers not expecting to see a crosswalk away from an intersection.
Educations Community Involvement	X	X		Community education programs will passively improve the roadway by teaching drivers, bicyclists, and pedestrians how best to use the road together.

Cost Matrix

Available Traffic Calming Measures	Approximate Cost			Notes on Implementation
	Low (<$6k)	Medium ($6k-$15k)	High (>$15k)	
Level 2 - Some Traffic Flow Changes (41-60 points)				
Sign Turn Restrictions/Turn Movement Restrictions	X			Restricting who can turn onto or off of routes is an effective way of reducing traffic volumes. Whenever this improvement is implemented the Village should consider whether nearby roadways can handle the increase traffic volumes on neighboring roads. Restricting turns can be used strategically to funnel drivers away from pedestrian areas and towards larger roads capable of handling increased volumes.
On-street Parking Strategies	X	X		Adding parking along a residential route can create a visually narrower lane which forces drivers to slow down. One concern is that if parking is added along a route without any demand for street parking the lane may be left open for drivers to use it as a second through lane or use the road as if it was one wide lane.
Parking Lane Markings	X			This can be implemented along street parking to delineate the parking zone from the through lane. On routes with unused street parking this may be effective.
Textured Pavement	X	X		Textured pavement indicates to drivers to pay more attention to the roadway. Best used with pavement legends or near crosswalks. Helps combat inattentional blindness in drivers.
Rumble Strip	X			Used along rural routes as a physical indication a driver is leaving the travel lane.
Rapid Rectangular Flashing Beacon	X			Rapid flashing beacons activated by a push button to help pedestrians cross. This is best used at busy roadways with high rates of pedestrian crossings. Also applicable in locations with pedestrian related accidents or locations with mid-block crossings.
Left-turn Improvements	X	X		A newer traffic calming technique being used in Chicago at signalized intersections with high rates of left turners and pedestrians. Forces drivers to take a wider left turn giving all parties at the intersection more time to react to the turn.

Cost Matrix

Available Traffic Calming Measures	Approximate Cost			Notes on Implementation
	Low (<$6k)	Medium ($6k-$15k)	High (>$15k)	
Level 3 - Significant Traffic Flow Changes (61-80 points)				
Curb Extensions		X	X	Best used at locations with on-street parking where pedestrians have difficulty being seen at intersections. This improvement prevents cars from using the parking lane as a through lane.
Mid-Block Chokers		X	X	Similar to curb extensions, but used mid-block. Best for mid-block crossings to get pedestrians within drivers line of sight.
Center Island Narrowing/Pedestrian Refuge		X	X	Best suited to larger roads with high volumes. Gives pedestrians the opportunity to cross in two stages and puts a physical hazard near drivers through lanes causing slowdown.
Stop/Yield Signage	X			Should only be used when justified by a stop sign warrant. Creates an additional stopping point along a corridor and may make the road less appealing to traffic coming from primary routes. Can also increase pedestrian safety by making a safe crossing point along a route without any other stop locations.
Traffic Circle		X	X	Can be added to locations to help reduce the number of angle or turning collisions. Forces drivers to slow down without any other traffic control device. Due to the obstruction drivers are forced to take a longer left turn route to negotiate the intersection giving oncoming traffic more time to react.
Roundabout			X	Can be used in a variety of locations. Generally best when applied to high volume stop control locations or signalized intersections. The improvement requires a larger footprint than a normal intersection to accommodate the circular movement of vehicles.
Realigned Intersection		X		Best used on T-intersections on residential roads. By placing an obstruction in the path of vehicles that would be continuing straight drivers are forced to slow down to evaluate the area around them.
Speed Hump/Speed Cushion	X			Used on low volume segments to regulate speed. Spacing should follow FHWA criteria. Should only be used along residential roads experiencing high volumes of through traffic not associated with residents along the road.
Speed Table/Raised intersections		X	X	Best used at intersections with high pedestrian volumes or mid-block crossings. The longer the flat portion of the speed table the gentler the effect on a vehicle will be.

Cost Matrix

Available Traffic Calming Measures	Approximate Cost			Notes on Implementation
	Low (<$6k)	Medium ($6k-$15k)	High (>$15k)	
Level 4 - Street Closures (81-100 points)				
Median & Partial Medians		X	X	Can be used to narrow certain turn movements at intersections. Causes drivers to navigate the intersections at a slower rate. Best used in conjunction with pedestrian islands at locations with large numbers of pedestrian crossings.
Median Barrier		X	X	Used to prevent cars on the minor road from going straight through an intersection. Results in a forced right turn for the minor road and makes left turns from the major road. Used to prevent cut-through traffic.
Forced Turn Island		X		Physically blocks drivers from performing other turn movement (generally left turns). Should only be used in areas where drivers have disregarded signs. Can be more dangerous if the illegal turn movement is attempted.
One-Way to Two-Way Street Conversion		X	X	This can be implemented along wide one-way streets with speeding issues. Introducing a second direction of traffic and narrower lanes results in a speed reduction. The roadway may become more hazardous for pedestrians who are now looking for traffic in both directions.
Two-Way to One-Way Street Conversion		X	X	An extreme measure that creates a safer street for pedestrians reducing the number of directions cars can approach from, but drivers tend to drive faster on one-way streets. The potential to introduce new speed problems should be considered prior to conversion. Access for safety vehicles and convenient access for residents is another potential concern.

Summary of Improvements w/ Pictures

Level 1

Targeted Speed Enforcement

Overview

Targeted speed enforcement is best used in areas with persistent speed problems during certain parts of the day i.e. morning or evening rush hour, or in areas where speeding has already been identified as an issue as a first measure to see if targeted enforcement could mitigate the problem without more costly improvements. In areas where speeding is likely to be a recurring issue it is not recommended to use this traffic calming measure on its own.

Photo Example

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Speed Radar Trailer

Overview

Speed monitoring trailers - sign boards on trailers that display the speed of passing vehicles - are used by police departments as educational tools that can enhance enforcement efforts directed at speed compliance. Speed radar trailers are best used in residential areas and may be used in conjunction with Neighborhood Speed Watch or other neighborhood safety education programs. They can help raise residents' awareness of how they themselves are often those speeding, not just "outsiders." Speed trailers are not substitutes for permanent actions such as traffic calming treatments to address neighborhood speeding issues.

Speed trailers can be used at several locations and should have occasional police monitoring and enforcement to maintain driver respect.

Photo Example

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Speed Feedback Sign

Overview

Where a speed radar trailer is more suitable for temporary enforcement, data collection, and community engagement purposes, a speed feedback sign is more appropriate for addressing persistent speeding issues in specific areas and promoting ongoing speed limit compliance. The choice between the two depends on the specific goals and conditions of the location where they will be deployed. To maintain driver respect for the sign it is necessary to periodically place police enforcement in the area.

Photo Example

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Centerline/Edgeline Markings

Overview

Centerline/Edgeline markings help to direct drivers to follow the path of the road. Striping the centerline of the road helps to reduce head on and sideswipe same direction collisions by keeping vehicles from drifting into oncoming traffic. Edgelines define the edge of the road and help to prevent run-off road crashes. Edgelines can also be used to visually narrow a road and affect driver behavior.

Photo Example

Updated Signage (New/Larger/Refreshed)

Overview

Locations where visibility of signs may be a concern or locations with existing faded signs should consider updating signs. Either replacing old, faded signs with new retro-reflective signs, installing larger signs, or installing new signs (when applicable) creates a safer roadway by being more visible to drivers.

Consistent use of signs throughout the Village creates a predictable roadway for drivers – all new sign installations should conform with MUTCD requirements.

Photo Example

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Speed Limit Signage

Overview

The purpose of speed limit signs is to maintain compliance and make the speed limits enforceable. These signs should be located where there are noticeable changes in the roadside development.

In some cases placing a speed limit sign is enough to remind drivers the speed is reduced or lower than the road the driver may have come from. Adequate signing is the first step in making drivers more aware of the speed they are traveling.

Photo Example

Flashing Signs

Overview

This treatment can be applied on regulatory and warning signs. The improvement involves installing signs that contain flashing LED's around the outline of the sign. This helps to grab the attention of the driver and they can be seen from a greater distance.

Can be implemented at locations where sign visibility is a concern or where drivers are not obeying existing signs. All new signs should conform with MUTCD criteria.

Photo Example

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Pavement Legend

Overview

A pavement legend refers to the various symbols, markings, and notations that are painted or applied onto the pavement or roadways to convey specific instructions, information, or warnings to drivers, pedestrians, and other road users.

A Pavement Legend is generally used in conjunction with other traffic calming measures and appropriate signage. In the provided example a speed limit legend is provided to reinforce the existing speed limit sign (not pictured). Drivers are more likely to follow the speed seeing it in a unique place, or slow down to assess the area and potential reasoning for the pavement marking.

Photo Example

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High Visibility Crosswalks

Overview

High-visibility crosswalks use patterns (i.e., bar pairs, continental, ladder) that are visible to both the driver and pedestrian from farther away compared to traditional transverse line crosswalks. They should be considered at all midblock pedestrian crossings and uncontrolled intersections. High pedestrian areas such as schools and parks should consider installing crosswalks at common mid-block crossing locations

High visibility crosswalks are best used with enhanced signing ("Stop here for pedestrians" signs 20'-50' in advance of a marked crosswalk or pedestrian/school crossing signs at the crosswalk). Drivers will generally drive slower when there is the possibility of pedestrians crossing.

Photo Example

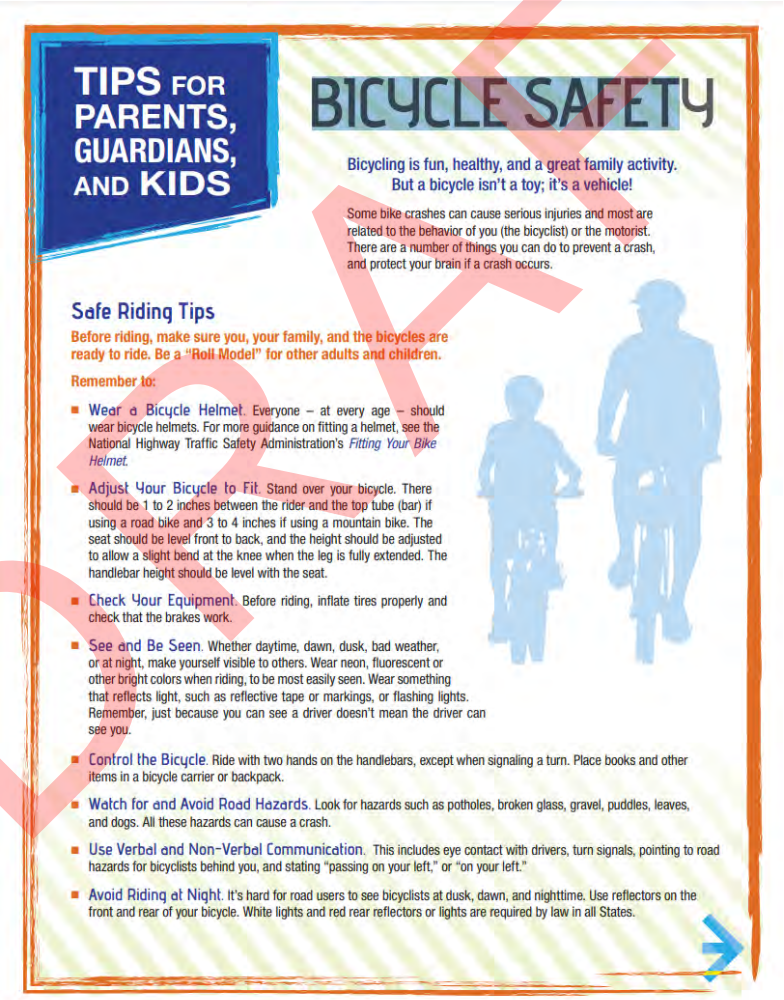
Education/Community Involvement

Overview

Increasing resident knowledge about plans for the road network and how traffic calming measures are meant to operate increases the chances of success. Oftentimes residents are unknowingly guilty of behaviors that amplify the roadway behaviors they don't want to see in the Village.

Teaching drivers, pedestrians, and cyclists how to best navigate multi-modal roads in the Village will create a safer road system for all users. Road features like traffic circles may be completely new to some drivers/residents and proactive education campaigns using flyers and Village information meetings can prevent drivers from being surprised and panicking when faced with a new road feature. This also applies to older drivers who may not know what rules of the road have changed since their driver's education class.

Photo Example



TIPS FOR PARENTS, GUARDIANS, AND KIDS

BICYCLE SAFETY

Bicycling is fun, healthy, and a great family activity. But a bicycle isn't a toy; it's a vehicle!

Some bike crashes can cause serious injuries and most are related to the behavior of you (the bicyclist) or the motorist. There are a number of things you can do to prevent a crash, and protect your brain if a crash occurs.

Safe Riding Tips

Before riding, make sure you, your family, and the bicycles are ready to ride. Be a "Roll Model" for other adults and children.

Remember to:

- Wear a Bicycle Helmet. Everyone – at every age – should wear bicycle helmets. For more guidance on fitting a helmet, see the National Highway Traffic Safety Administration's *Fitting Your Bike Helmet.*
- Adjust Your Bicycle to Fit. Stand over your bicycle. There should be 1 to 2 inches between the rider and the top tube (bar) if using a road bike and 3 to 4 inches if using a mountain bike. The seat should be level front to back, and the height should be adjusted to allow a slight bend at the knee when the leg is fully extended. The handlebar height should be level with the seat.
- Check Your Equipment. Before riding, inflate tires properly and check that the brakes work.
- See and Be Seen. Whether daytime, dawn, dusk, bad weather, or at night, make yourself visible to others. Wear neon, fluorescent or other bright colors when riding, to be most easily seen. Wear something that reflects light, such as reflective tape or markings, or flashing lights. Remember, just because you can see a driver doesn't mean the driver can see you.
- Control the Bicycle. Ride with two hands on the handlebars, except when signaling a turn. Place books and other items in a bicycle carrier or backpack.
- Watch for and Avoid Road Hazards. Look for hazards such as potholes, broken glass, gravel, puddles, leaves, and dogs. All these hazards can cause a crash.
- Use Verbal and Non-Verbal Communication. This includes eye contact with drivers, turn signals, pointing to road hazards for bicyclists behind you, and stating "passing on your left," or "on your left."
- Avoid Riding at Night. It's hard for road users to see bicyclists at dusk, dawn, and nighttime. Use reflectors on the front and rear of your bicycle. White lights and red rear reflectors or lights are required by law in all States.

Level 2

Sign Turn Restrictions/Turn Movement Restrictions

Overview

Turning movement restrictions serve as an access management strategy to enhance the safety of stop-controlled intersections and driveways. By restricting specific turn movements, the number of turning conflict points at intersections is reduced, which lowers the risk of crashes.

This improvement is specifically intended to reduce cut-through traffic or traffic from specific roads from entering smaller routes. Restricting a turning movement will impact the entire road system as drivers who weren't cutting- though find new paths to get to their destinations.

Photo Example

On-street Parking Strategies

Overview

On-street parking provides road uses access to locations along a street, increases friction between vehicles parked along the street and drivers which aids in speed reductions, and provides a barrier between moving traffic and the sidewalk edge. This can create an increase in pedestrians using the roadway.

Parallel and angle are two types of on street parking that have different operational effects. On street parking can be on one or both sides of the road.

Photo Example

RIVER FOREST
Proud Heritage · Bright Future

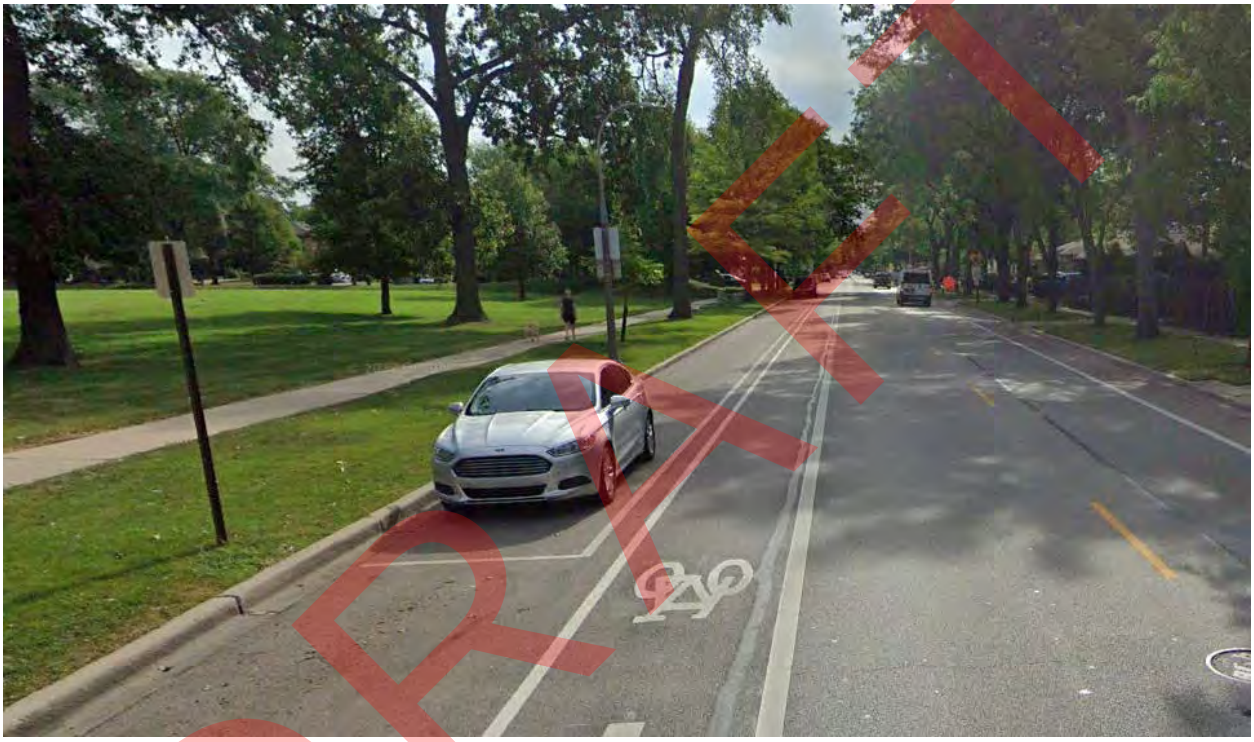
Parking Lane Markings

Overview

Parking lane markings on urban roads are designed to optimize parking efficiency and prevent encroachment on critical areas such as fire hydrant zones, bus stops, loading/unloading zones, and other parking locations that are undesirable.

This can be used in conjunction with on-street parking strategies to designate the locations drivers should use when parking.

Photo Example



Textured Pavement

Overview

A textured surface such as brick or pavers may be used to emphasize pedestrian crossing movement. Substituting this for the normal roadway surface material may also help to impress upon motorists that lower speeds are intended.

Photo Example

RIVER FOREST
Proud Heritage · Bright Future

Rumble Strip

Overview

Rumble strips prove effective in reducing roadway departure crashes. Rumble strips create both noise and vibration, warning road users when they veer off the road. When they are coated with retroreflective material, they are called “rumble stripes,” which enhances the pavement edge’s visibility at night and during inclement weather conditions. To reduce head-on collisions and opposite direction sideswipe, center line rumble strips are often used. They warn vehicle users whose vehicles are crossing the center lines of roads.

Transverse rumble strips are placed in the travel lane perpendicular to the direction of travel. Transverse rumble strips are used to notify drivers to slow down, come to a stop, or anticipate other upcoming changes that might catch an inattentive driver off guard. Locations where they are most often used are on approaches to intersections, toll plazas, horizontal curves, and work zones.

Photo Example

Rapid Rectangular Flashing Beacon

Overview

Rapid Rectangular Flashing Beacons (RRFBs) are pedestrian-actuated enhancements designed to improve safety at uncontrolled, marked crosswalks. The device consists of two rectangular-shaped yellow indications, featuring LED-array-based light sources that flash with a high frequency when activated. When there is a high number of traffic lanes, this can create many challenges for pedestrians crossing at unsignalized locations. RRFBs prove to enhance visibility at a marked crosswalk.

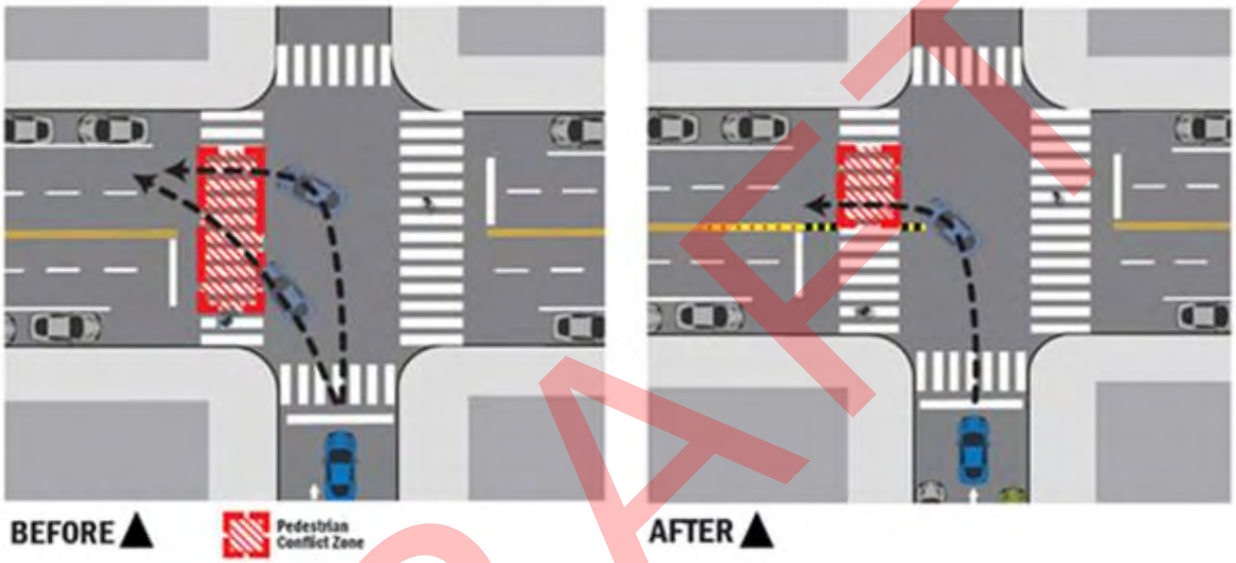
Photo Example

Left-turn Improvements

Overview

Left turn improvements are a more recent improvement type that had their pilot program in Chicago in 2019. To prevent drivers from taking a diagonal path across crosswalks rubber speed bumps, vertical posts, and hardened centerlines are installed along the centerline at intersections that encourage drivers to take turns at safer speeds. This is best used at locations with pedestrian crashes or areas where drivers speeding through turns is seen as a prominent issue.

Photo Example



Level 3

Curb Extensions

Overview

Curb extensions, also referred to as bulb-outs or neckdowns, involve extending the sidewalk or curb line into the parking lane, initially narrowing the street width. Curb extensions play a vital role in improving pedestrian crossings by reducing the distance pedestrians need to traverse, improving visibility, and minimizing the time pedestrians spend in the street. When placed at an intersection, curb extensions prove to prevent motorists from parking in or too close to a crosswalk or from blocking a curb ramp. Vehicles that are parked at corners are a threat to pedestrian safety since they block sight lines, hide pedestrian visibility, and can create a challenge for emergency vehicles when turning. Curb extensions prove to reduce turning speeds at intersections. Curb extensions are only suitable in areas where there is an on-street parking lane and it is essential that they do not extend into travel lanes, bicycle lanes, or shoulders.

This improvement is also suitable for areas where drivers may attempt to use the parking lane as a second through lane.

Photo Example

Mid-Block Chokers

Overview

Mid-Block chokers are curb extensions designed to narrow a street by expanding the sidewalks or planting strips, creating a pinch point along the roadway. This can be achieved by bringing in both curbs, or by widening one side, especially at midblock locations. Chockers can be used at intersections, creating a gateway effect when entering a street. They can also yield a striking impact as they transform a two-lane street into a single lane at the choker point, making motorists yield to each other.

Creating a visually and physically narrower roadway will cause drivers to slow down to assess the new cross section. Drivers will generally lower their speed when the travelled lane becomes narrower.

Photo Example

RIVER FOREST
Proud Heritage · Bright Future

Center Island Narrowing/Pedestrian Refuge

Overview

A median island narrowing refers to a raised island positioned along the centerline of a street which allows the travel lanes to narrow at that specific point. The visual effect of these narrowed lanes encourages a motorist to slow down. This specific type of median separates opposing vehicle travel lanes, creates opportunities for landscaping or visual enhancements, and offers a safe place for pedestrians to cross a multi-lane street. These features that a median island possesses are designed to enhance and ensure a safer traffic flow.

Photo Example

Stop Signage

Overview

Stop signs are an effective form of traffic calming when used properly. Forcing vehicles to fully stop while navigating a corridor limits the maximum speed they can travel due to acceleration and deceleration times. Since stop signs are a form of traffic control they should not be used unless a stop sign warrant is met. Overuse of traffic control may result in drivers no longer respecting the signage and either 'rolling' stop signs or not stopping at all.

Modifier plaques should be placed below stop signs to give drivers additional information about the intersection such as "Cross Traffic does Not Stop" or "ALL-WAY".

Photo Example

Traffic Circle

Overview

Traffic circles are used at unsignalized intersections, creating a circular movement within traffic. While they appear similar to roundabouts they are different in that they create a circular traffic movement at a much smaller scale and roundabouts utilize yield signs on all legs. The design allows road users to reduce speed when crossing an intersection. A traffic circle can either have stop signs or yield signs. The primary purpose of a traffic circle is a reduction of angle and turning collisions as well as reducing speeds at the intersection. The design of one can be a painted area but it is recommended for it to be a raised curb and landscaped.

Photo Example

RIVER FOREST
Proud Heritage · Bright Future

Roundabout

Overview

The modern roundabout is a circular intersection designed to direct safe movement of traffic. Its features include channelized, curved approaches that slow down vehicles, entry yield control that grants right-of-way to circulating traffic, and counterclockwise flow around a central island, which minimizes conflict points. The design results in lower speeds and fewer conflicts, creating an environment where injuries or fatalities are significantly reduced.

Roundabouts stand out as a safer and more efficient type of intersection, maintaining traffic flow. They can also reduce delays and queues compared to other intersection options. The lower vehicle speeds and reduced potential for conflicts make roundabouts a more suitable environment for walking and bicycling.

Roundabouts can replace signals, two-way stop controls, and all-way stop controls. They are often used for managing speed and transitioning traffic from high speed to low-speed environments.

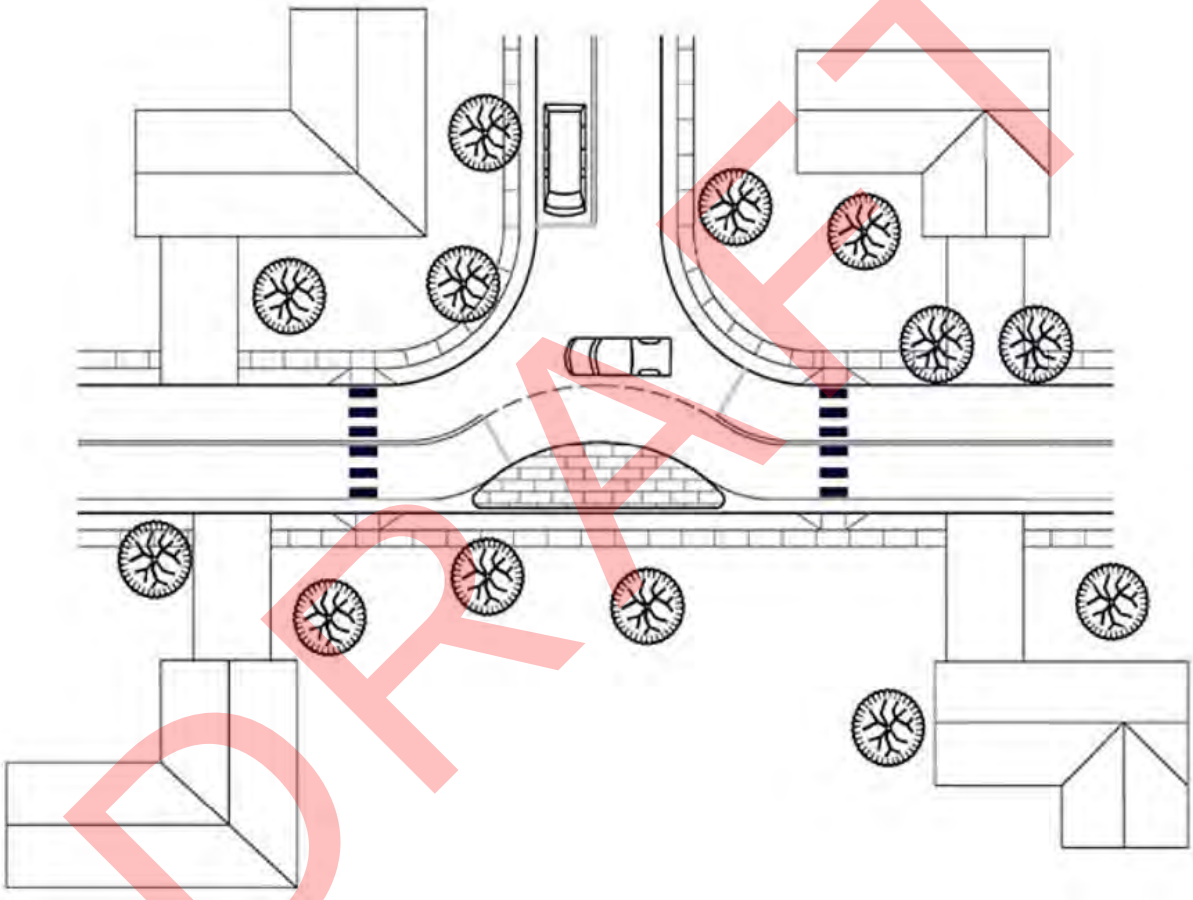
Photo Example

Realigned Intersection

Overview

A realigned intersection involves reconfiguring an intersection with perpendicular angles, transforming it into one with skewed approaches or travel paths. Realigned intersections help to deter or completely remove fast vehicle movements through the intersection by introducing new physical features. The typical approach is to convert a T-intersection with straight approaches into curving streets meeting at right angles. This removes all straight paths through the intersection, creating a slower traffic flow.

Photo Example



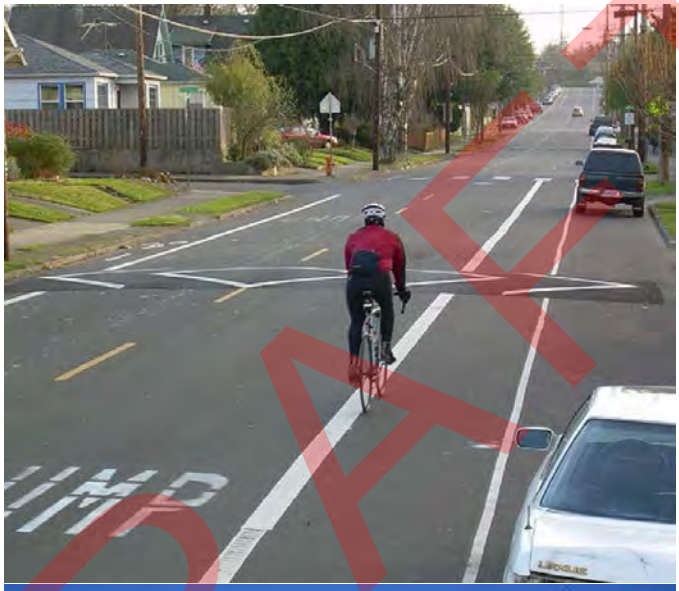
RIVER FOREST
Proud Heritage · Bright Future

Speed Hump/Speed Cushion

Overview

A speed hump is a raised elongated mound on the pavement, positioned across the travel way at a right angle to the traffic flow. When road users drive over the speed limit in residential areas, a speed hump can help reduce speeds by creating discomfort for the user. Speed humps cause drivers to move at slower speeds both before and after passing over the speed hump. A speed cushion is two or more raised areas placed across a road. There are cutouts positioned that allow the driver to travel over a portion of the raised pavement.

Photo Example



RIVER FOREST
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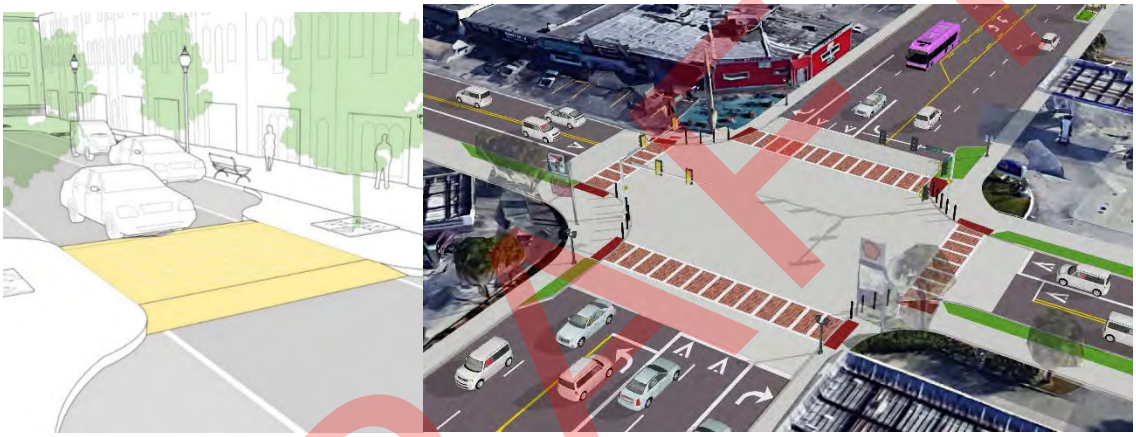
Speed Table/Raised Intersections

Overview

A speed table is a raised area on top of a road to physically limit the speed of a vehicle. It can be installed away from intersections and consists of two ramps leading up to a raised section of road. Crosswalks may be installed on top of a speed table.

A raised intersection is a flat, elevated area that spans the entire intersection with ramps on all approaches. It functions as a speed table covering an entire intersection and crosswalks (if applicable). The objective of a raised intersection is to reduce vehicle speed and to enhance pedestrian safety. They are commonly installed at signal-controlled or all-way stop-controlled intersections with high numbers of street-crossing pedestrians.

Photo Example



RIVER FOREST
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Level 4

Median & Partial Medians

Overview

A center median prevents left turns while creating a narrower lane for drivers. A partial median serves the same purpose but may have gaps where drivers can turn left either from the through-lane or a dedicated turn lane. A median can help separate traffic to prevent head on collisions and depending on width can be used by drivers as a refuge from oncoming traffic while turning left.

Medians operate similar to a median island or pedestrian refuge listed above but tend to extend further along a corridor. Medians may be used as pedestrian refuges at crossings if width allows.

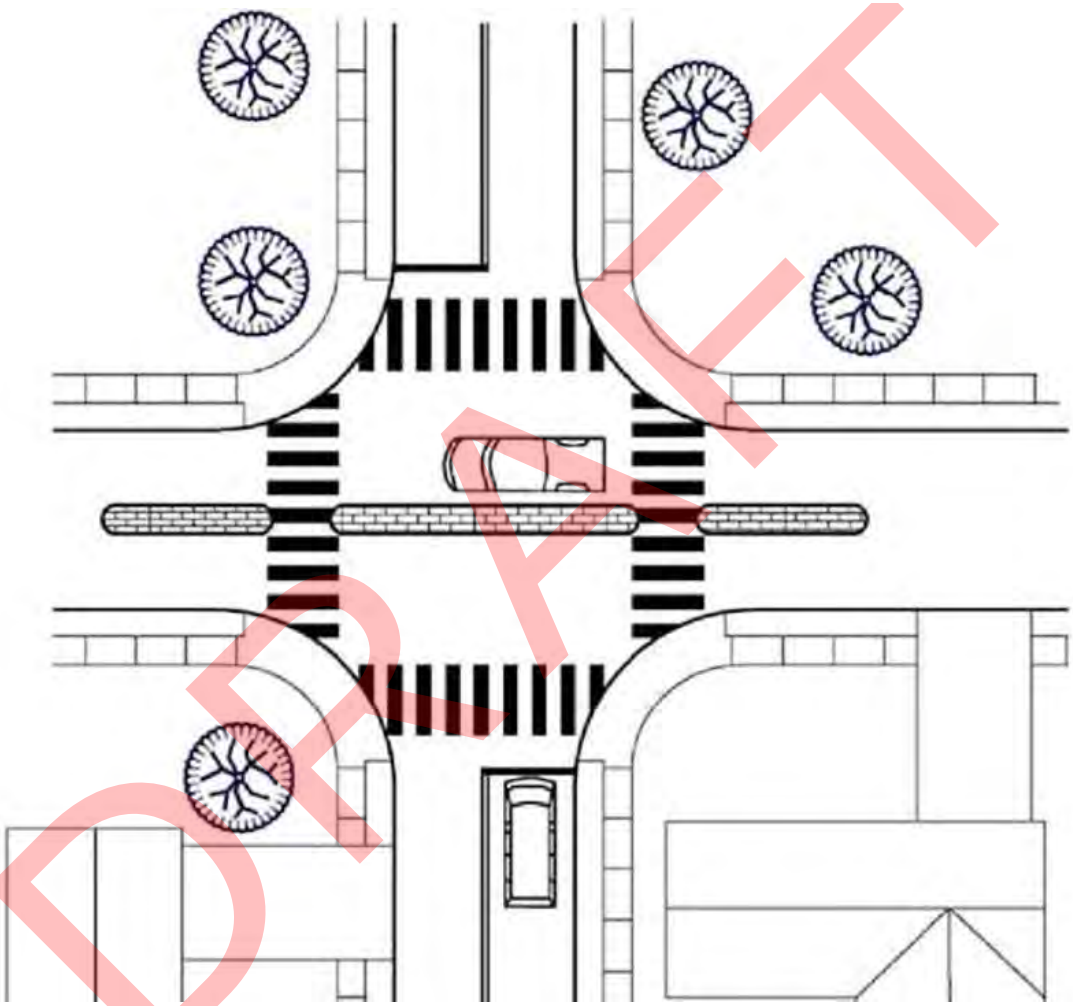
Photo Example

Median Barrier

Overview

A median barrier, a raised island, is placed throughout an intersection, near the centerline of a road which prevents road users from moving straight through the intersection on the side street. Median barriers prevent side street traffic from crossing the main roadway, prevent left turn movements, but allow right turns to and from the main street.

Photo Example

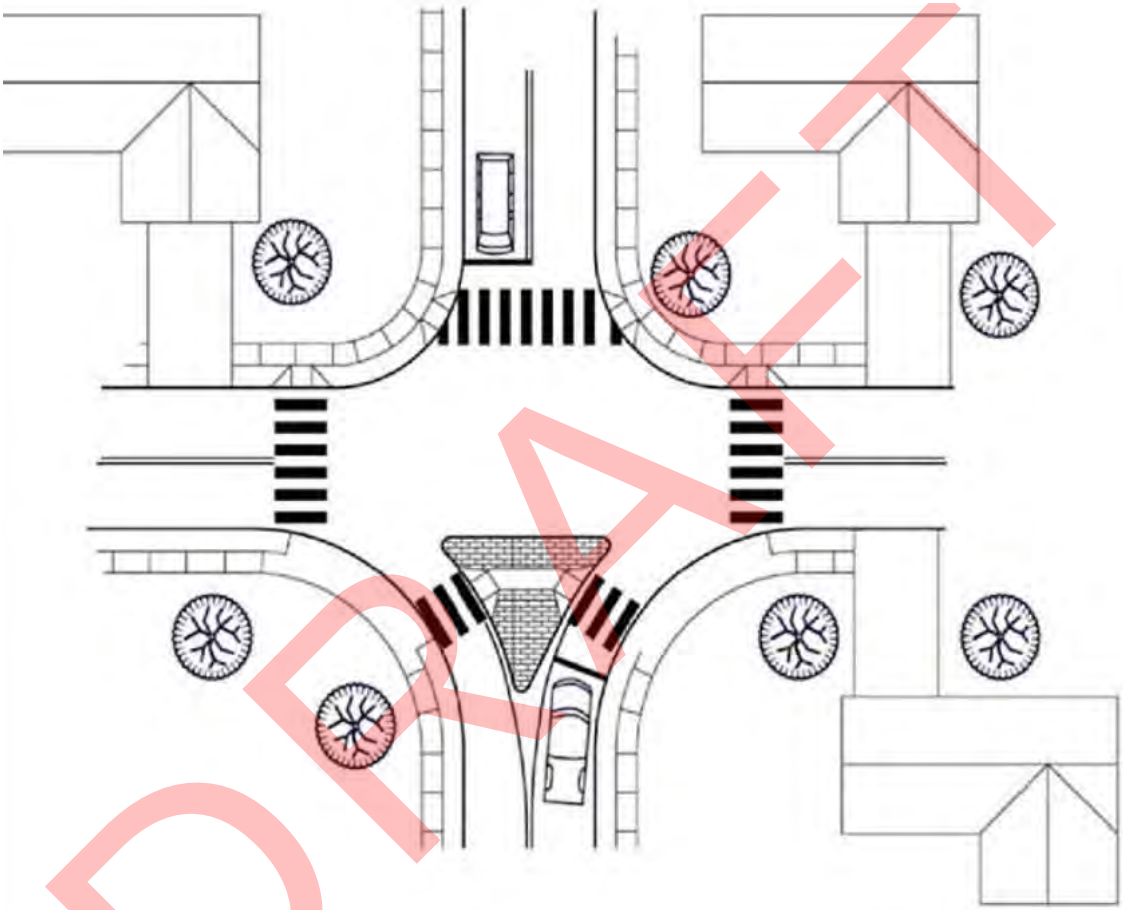


Forced Turn Island

Overview

A forced turn island is placed at the mouth of an intersection, usually seen triangular. It restricts specific movements on approaches to an intersection. It forces a road user to turn right from the side street and blocks any left turn/through movements.

Photo Example



RIVER FOREST
Proud Heritage · Bright Future

One-Way to Two-Way Street Conversion

Overview

Converting a one-way street back to two-way will allow better local access and slow traffic. Two-way streets tend to be slower due to driver "friction", especially on residential streets without a marked center line. This improvement is best for streets where speeding is a common issue and there are complaints from drivers about the distance to access certain properties or businesses.

This is also a good solution to roads that are far too wide for a single lane of traffic in one direction. A narrower lane controls driver speed and raises driver awareness while on the road. The example below shows how a 4-lane cross section with parking was converted into a 2-lane cross section with a left turn lane, bike facilities, and parking.

Photo Example

RIVER FOREST
Proud Heritage · Bright Future

Two-Way to One-Way Street Conversion

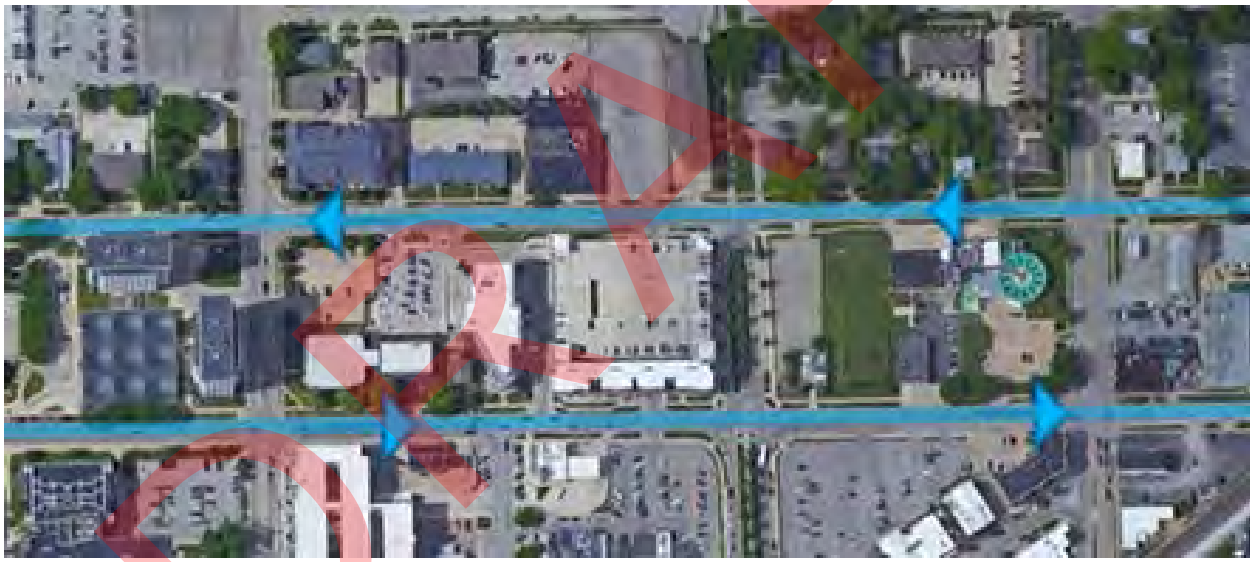
Overview

Converting a two-way road to a one-way streets has a number of benefits, but comes with a number of challenges to the road network that need to be considered prior to any action.

One-way streets can simplify crossings for pedestrians, who must look for traffic in only one direction. While studies have shown that conversion of two-way streets to one-way generally reduces pedestrian crashes, one-way streets tend to have higher speeds which creates new problems. If a street is converted to one-way, it should be evaluated to see if additional changes should be made, especially if the street or lanes are overly wide. Also, traffic circulation in the broader area must be carefully considered before conversion to one-way streets.

One-way streets can be implemented as a system where neighboring streets are both converted to one-ways in opposite directions. This is called a one-way couplet and helps to resolve some of the volume issues caused by removing a direction of traffic from one road. One-way couplets operate best in "pairs", separated by a block to no more than one-quarter mile.

Photo Example



APPENDIX B: VILLAGE-WIDE SURVEY

01. Survey Response Graphs and Data

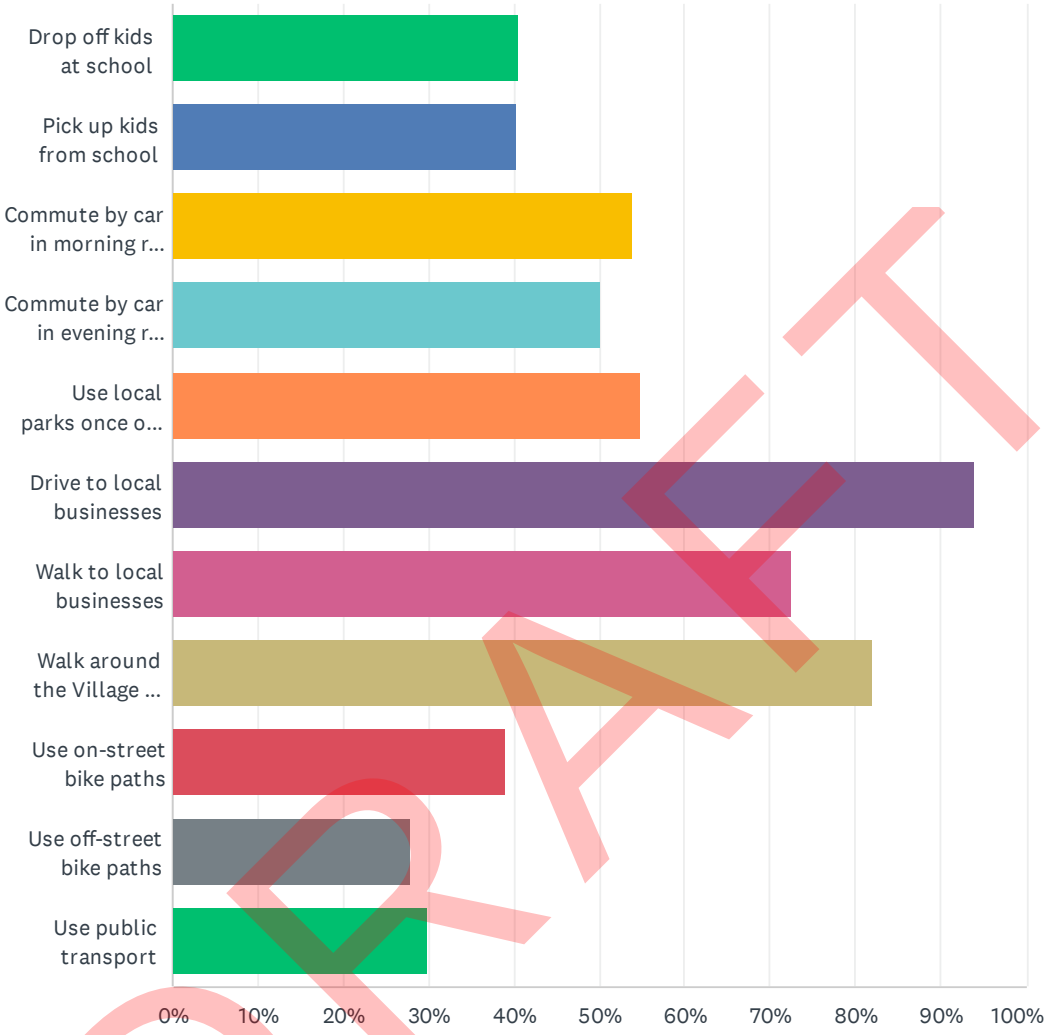
Survey Response Graphs and Data

Q1 Please type your home address or block number and street name. This will be used to accurately locate areas of concern for future study.

Answered: 1,032 Skipped: 0

Q2 Select all that apply to your household:

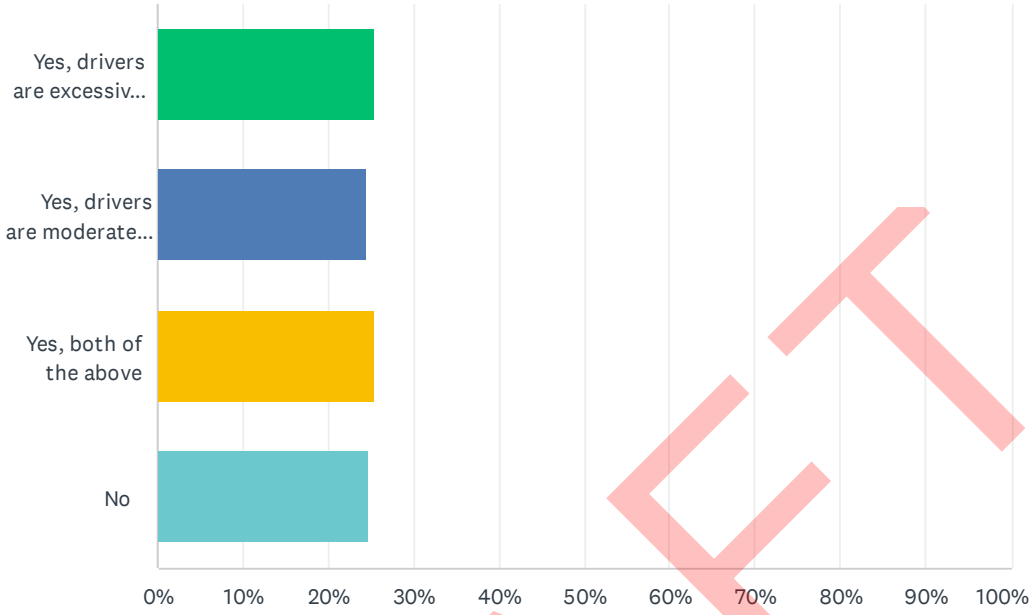
Answered: 1,020 Skipped: 12



ANSWER CHOICES	RESPONSES	
Drop off kids at school	40.49%	413
Pick up kids from school	40.29%	411
Commute by car in morning rush hour	53.92%	550
Commute by car in evening rush hour	50.10%	511
Use local parks once or more per week	54.90%	560
Drive to local businesses	94.02%	959
Walk to local businesses	72.55%	740
Walk around the Village for pleasure	82.06%	837
Use on-street bike paths	38.92%	397
Use off-street bike paths	27.94%	285
Use public transport	29.80%	304
Total Respondents: 1,020		

Q3 Do you feel speed is an issue on the street you live on?

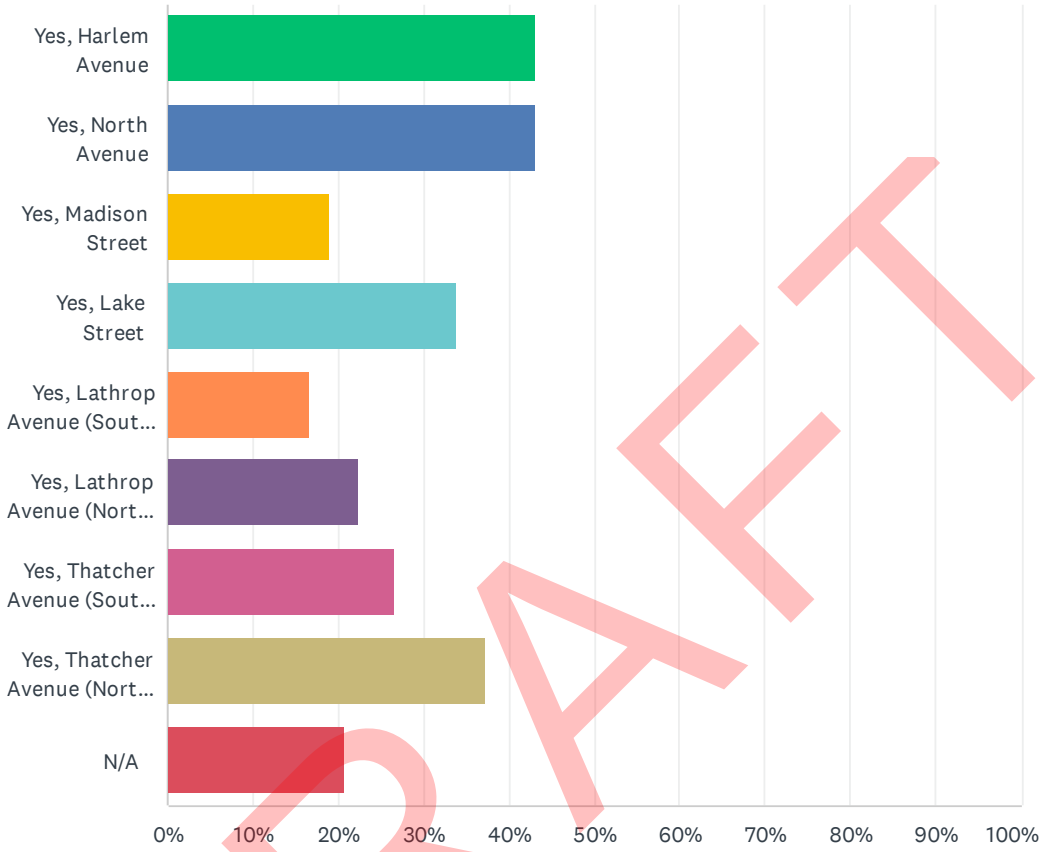
Answered: 1,011 Skipped: 21



ANSWER CHOICES	RESPONSES	
Yes, drivers are excessively speeding	25.32%	256
Yes, drivers are moderately speeding	24.53%	248
Yes, both of the above	25.32%	256
No	24.83%	251
TOTAL		1,011

Q4 Do you feel speed is an issue on any of the major roadways within the Village? (Select all that apply)

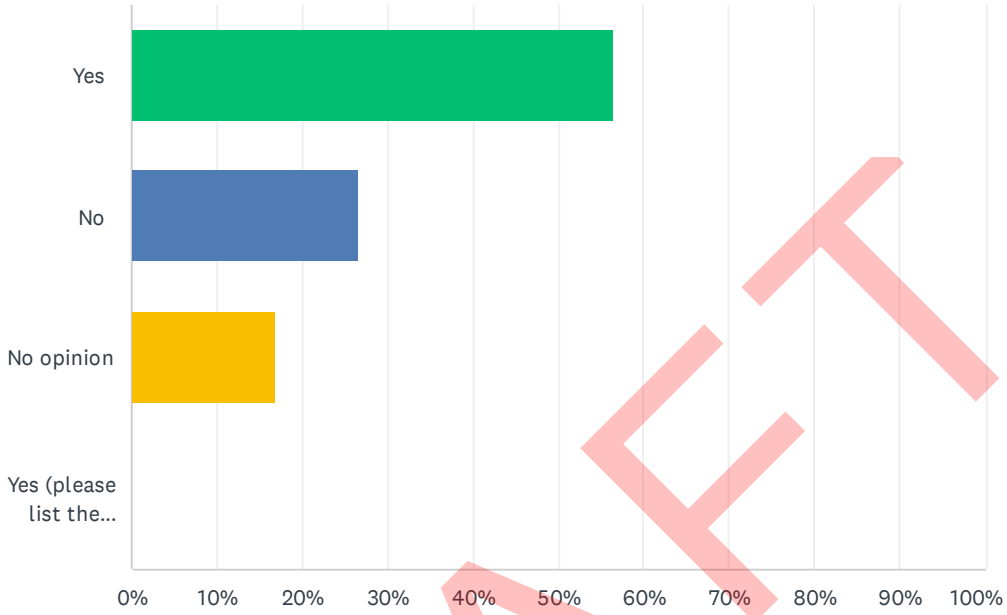
Answered: 962 Skipped: 70



ANSWER CHOICES	RESPONSES	
Yes, Harlem Avenue	43.04%	414
Yes, North Avenue	43.14%	415
Yes, Madison Street	19.02%	183
Yes, Lake Street	33.89%	326
Yes, Lathrop Avenue (South of the railroad tracks)	16.63%	160
Yes, Lathrop Avenue (North of the railroad tracks)	22.35%	215
Yes, Thatcher Avenue (South of the railroad tracks)	26.61%	256
Yes, Thatcher Avenue (North of the railroad tracks)	37.21%	358
N/A	20.69%	199
Total Respondents: 962		

Q5 On your street, is through traffic regularly not stopping or "rolling" through stop signs?

Answered: 986 Skipped: 46



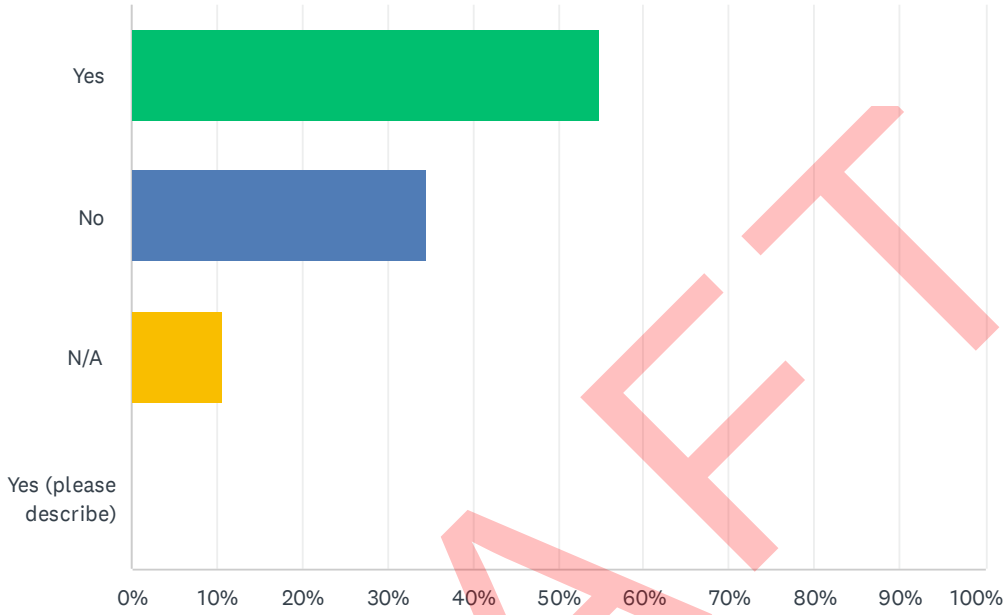
ANSWER CHOICES	RESPONSES	
Yes	56.49%	557
No	26.67%	263
No opinion	16.84%	166
Yes (please list the observed driver behavior and intersection of occurrence)	0.00%	0
TOTAL		986

Q6 If applicable please list observed driver behavior and intersection of occurrence below.

Answered: 539 Skipped: 493

Q7 Do you feel drivers on major roadways (Madison Street, Harlem Avenue, North Avenue, or Thatcher) frequently use your street to avoid traffic?

Answered: 983 Skipped: 49



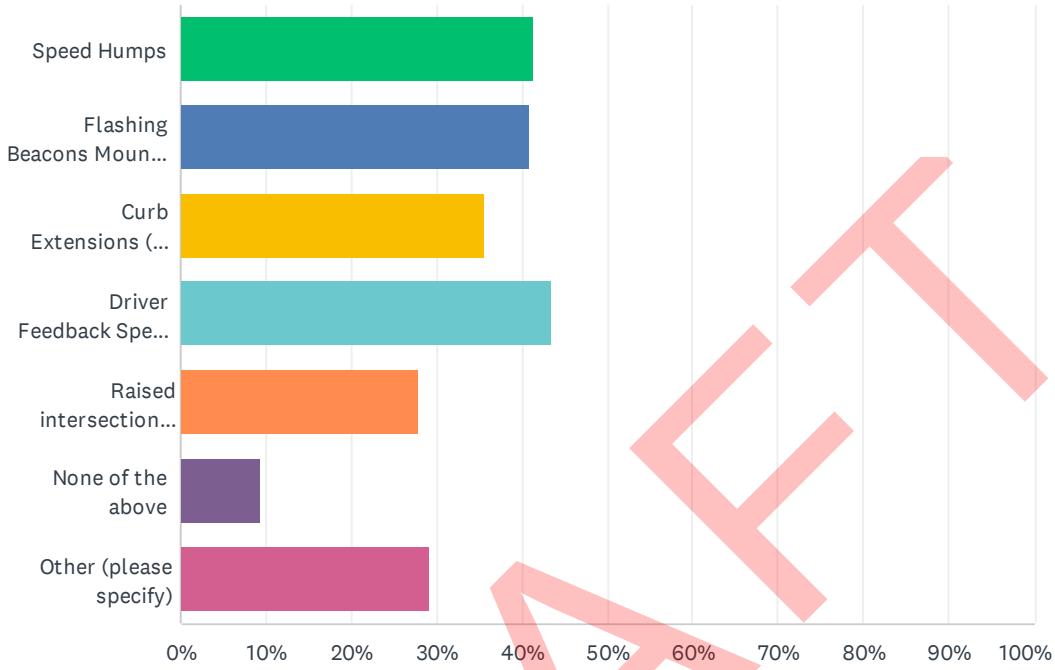
ANSWER CHOICES	RESPONSES	
Yes	54.83%	539
No	34.49%	339
N/A	10.68%	105
Yes (please describe)	0.00%	0
TOTAL		983

Q8 If you answered yes to the above please describe driver behavior.

Answered: 482 Skipped: 550

Q9 What (if any) traffic calming measures would you like to see used more within the Village? Select all that apply.

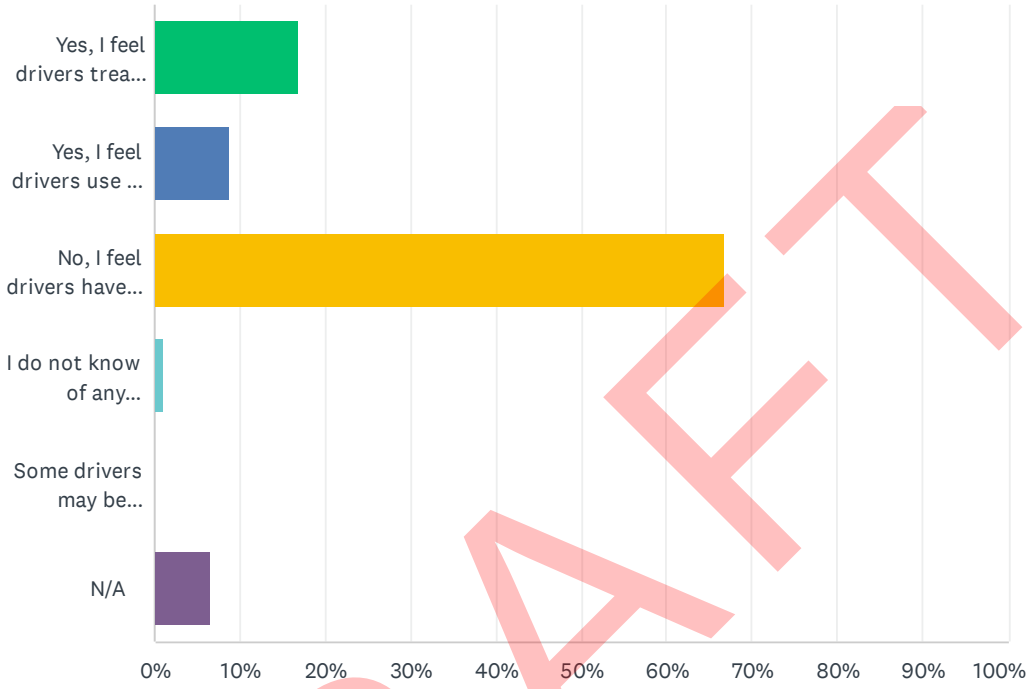
Answered: 972 Skipped: 60



ANSWER CHOICES	RESPONSES	
 Speed Humps	41.36%	402
 Flashing Beacons Mounted on Sign Posts	40.84%	397
 Curb Extensions (As shown here: Gateway Bumpouts)	35.70%	347
 Driver Feedback Speed Sign (Digital Speed Limit Sign)	43.42%	422
 Raised intersection (As shown here: Raised Intersection Sample)	27.88%	271
None of the above	9.47%	92
Other (please specify)	29.12%	283
Total Respondents: 972		

Q10 Several Village roads near schools are marked as one-way roads during school hours. Do you feel there is confusion around when two-way traffic is allowed on these roads?

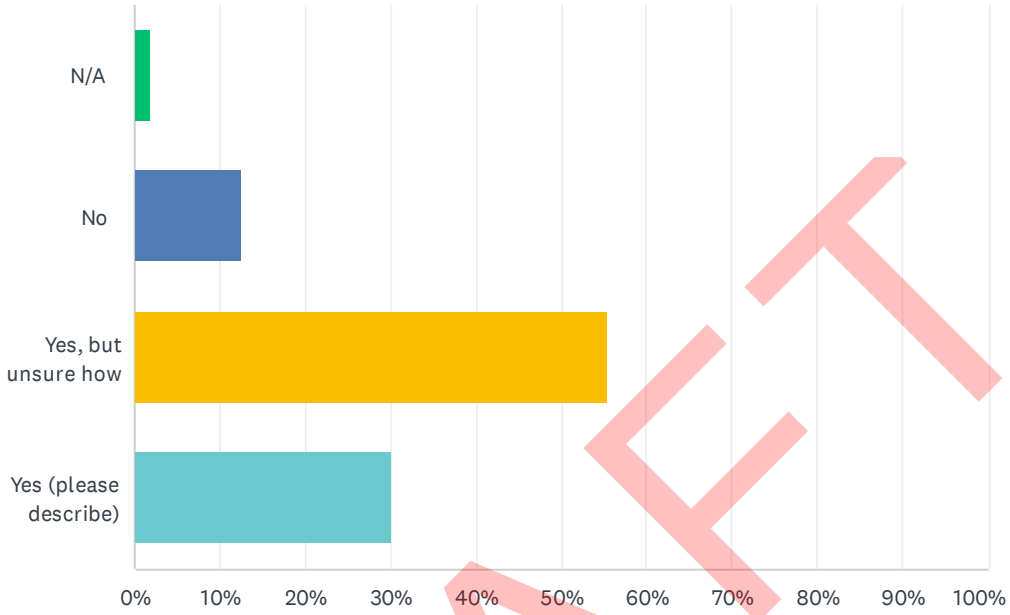
Answered: 976 Skipped: 56



ANSWER CHOICES	RESPONSES	
Yes, I feel drivers treat the temporary one-way locations as if they were permanent one-ways.	16.80%	164
Yes, I feel drivers use the temporary one-way locations as two-way streets at all times.	8.81%	86
No, I feel drivers have adapted to the temporary one-way locations and use them as intended.	66.70%	651
I do not know of any temporary one-way streets in the Village.	1.02%	10
Some drivers may be confused, but I have not encountered them and I use the temporary one-ways as posted.	0.00%	0
N/A	6.66%	65
TOTAL		976

Q11 At temporary one-way locations do you feel signage could be improved to make it more clear when the roads are operating as one-ways

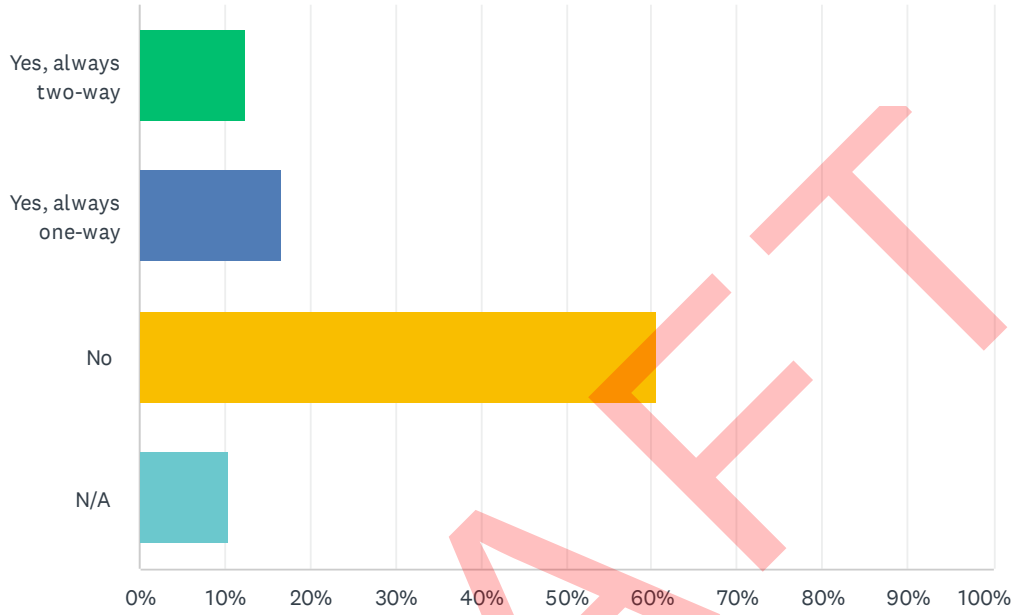
Answered: 253 Skipped: 779



ANSWER CHOICES	RESPONSES	
N/A	1.98%	5
No	12.65%	32
Yes, but unsure how	55.34%	140
Yes (please describe)	30.04%	76
TOTAL		253

Q12 Do you feel temporary one-ways should be updated to be permanent one-ways or always allow two directions of traffic to prevent driver confusion?

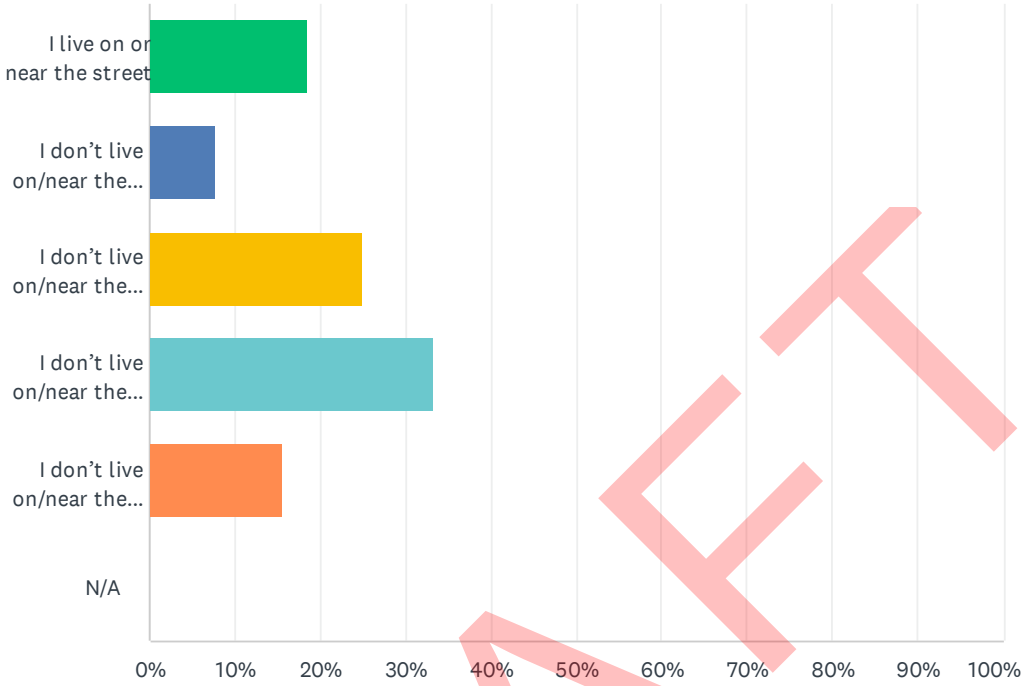
Answered: 973 Skipped: 59



ANSWER CHOICES	RESPONSES	
Yes, always two-way	12.44%	121
Yes, always one-way	16.55%	161
No	60.64%	590
N/A	10.38%	101
TOTAL		973

Q13 How regularly do you use Washington Boulevard?

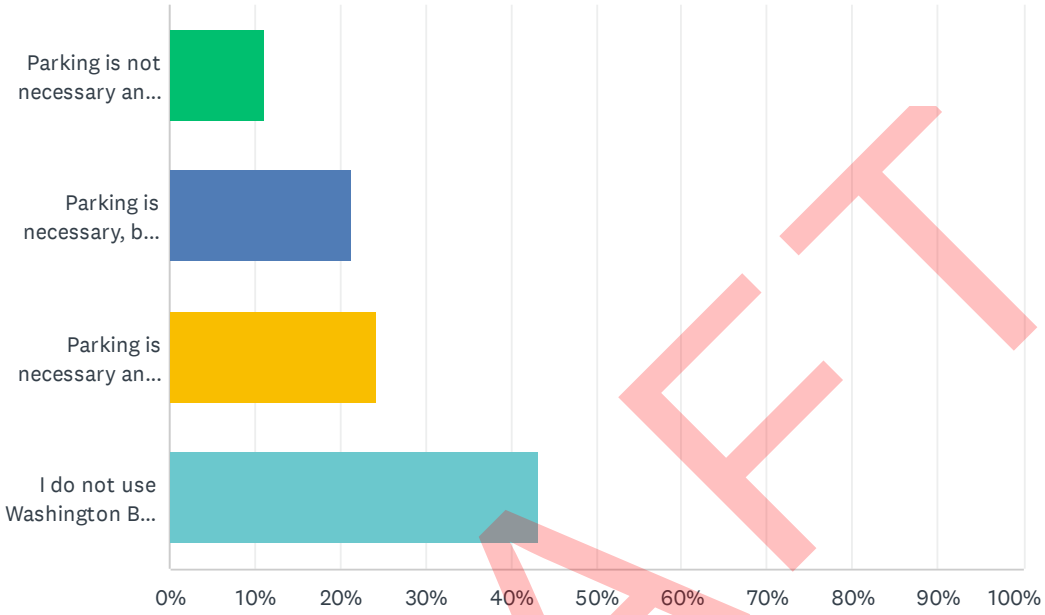
Answered: 975 Skipped: 57



ANSWER CHOICES	RESPONSES	
I live on or near the street	18.56%	181
I don't live on/near the road, but I use the road almost daily	7.69%	75
I don't live on/near the road, but I use the road 1-2 times per week	24.92%	243
I don't live on/near the road, but I use the road 1-2 times per month	33.23%	324
I don't live on/near the road, and I never use Washington Boulevard	15.59%	152
N/A	0.00%	0
TOTAL		975

Q14 How do you feel about modifying street parking along Washington Boulevard to allow for traffic calming/bike accommodations to be implemented.

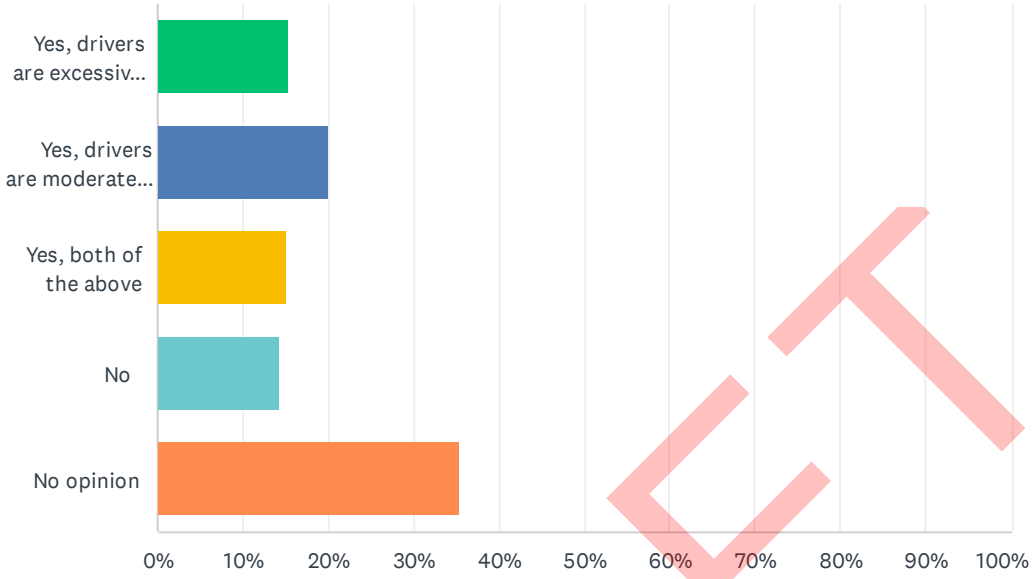
Answered: 816 Skipped: 216



ANSWER CHOICES	RESPONSES	
Parking is not necessary and should be removed on both sides of the road	11.15%	91
Parking is necessary, but due to abundance and limited use it can be removed on one side of the road.	21.32%	174
Parking is necessary and should remain on both sides of the road.	24.26%	198
I do not use Washington Blvd for parking and do not have input.	43.26%	353
TOTAL		816

Q15 Do you feel speed is an issue on Washington Boulevard?

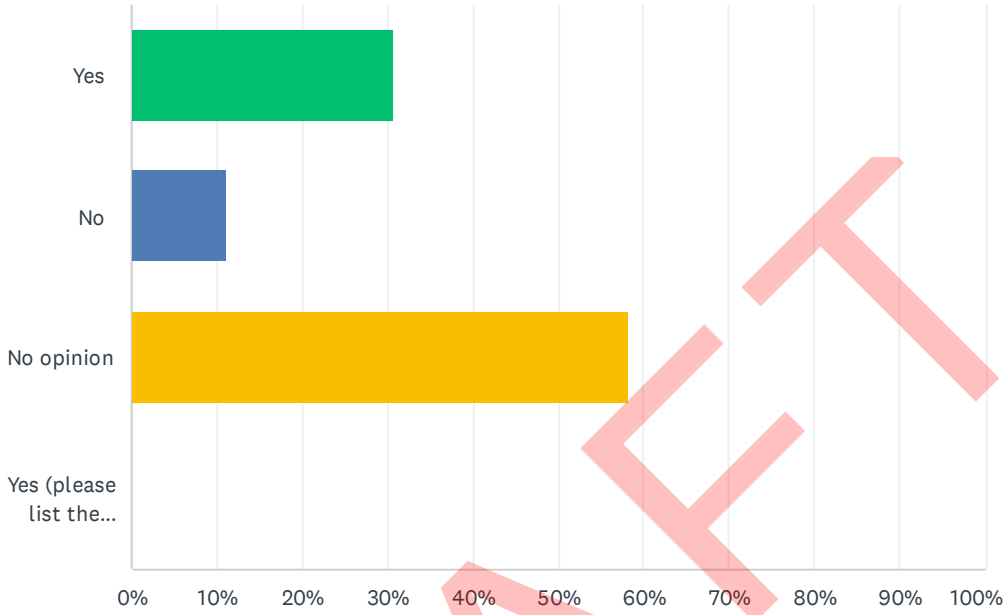
Answered: 818 Skipped: 214



ANSWER CHOICES	RESPONSES	
Yes, drivers are excessively speeding	15.28%	125
Yes, drivers are moderately speeding	20.05%	164
Yes, both of the above	15.04%	123
No	14.18%	116
No opinion	35.45%	290
TOTAL		818

Q16 Is traffic regularly not stopping or "rolling" through stop signs an issue on Washington Boulevard?

Answered: 815 Skipped: 217



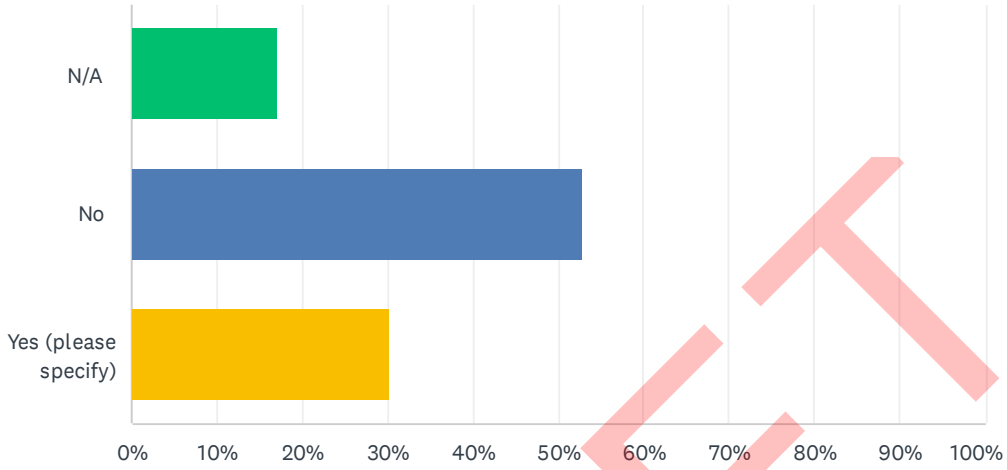
ANSWER CHOICES	RESPONSES	
Yes	30.80%	251
No	11.04%	90
No opinion	58.16%	474
Yes (please list the observed driver behavior and intersection of occurrence)	0.00%	0
TOTAL		815

Q17 If you answered yes to the above please describe driver behavior and intersection of occurrence.

Answered: 204 Skipped: 828

Q18 As a driver, do you feel you have a hard time seeing pedestrians and bicyclists? (If yes specify the intersection/area you experienced issues.)

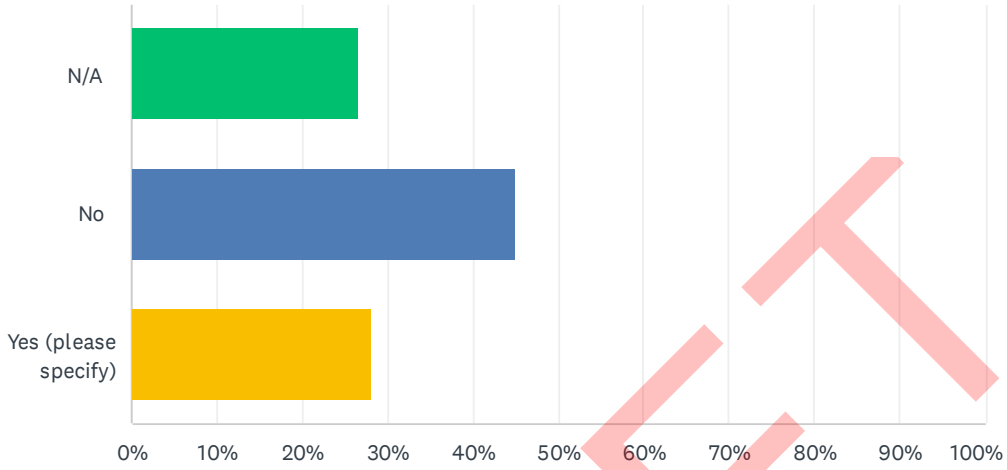
Answered: 808 Skipped: 224



ANSWER CHOICES	RESPONSES	
N/A	16.96%	137
No	52.85%	427
Yes (please specify)	30.20%	244
TOTAL		808

Q19 As a pedestrian, do you feel you have a hard time seeing/being seen by drivers? (If yes specify the intersection/area you experienced issues.)

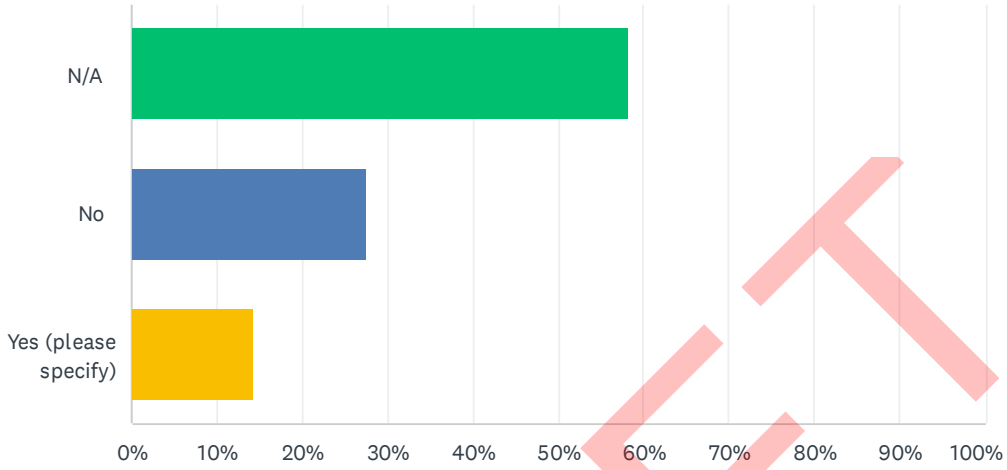
Answered: 804 Skipped: 228



ANSWER CHOICES	RESPONSES	
N/A	26.74%	215
No	45.02%	362
Yes (please specify)	28.23%	227
TOTAL		804

Q20 As a bicyclist, do you feel you have a hard time seeing/being seen by drivers? (If yes specify the intersection/area you experienced issues.)

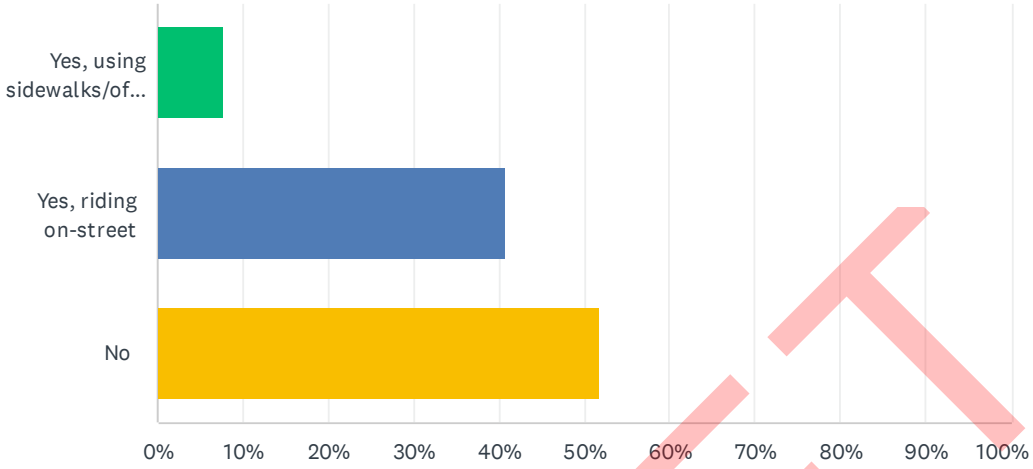
Answered: 806 Skipped: 226



ANSWER CHOICES	RESPONSES	
N/A	58.19%	469
No	27.42%	221
Yes (please specify)	14.39%	116
TOTAL		806

Q21 Do you regularly bike on Village roads?

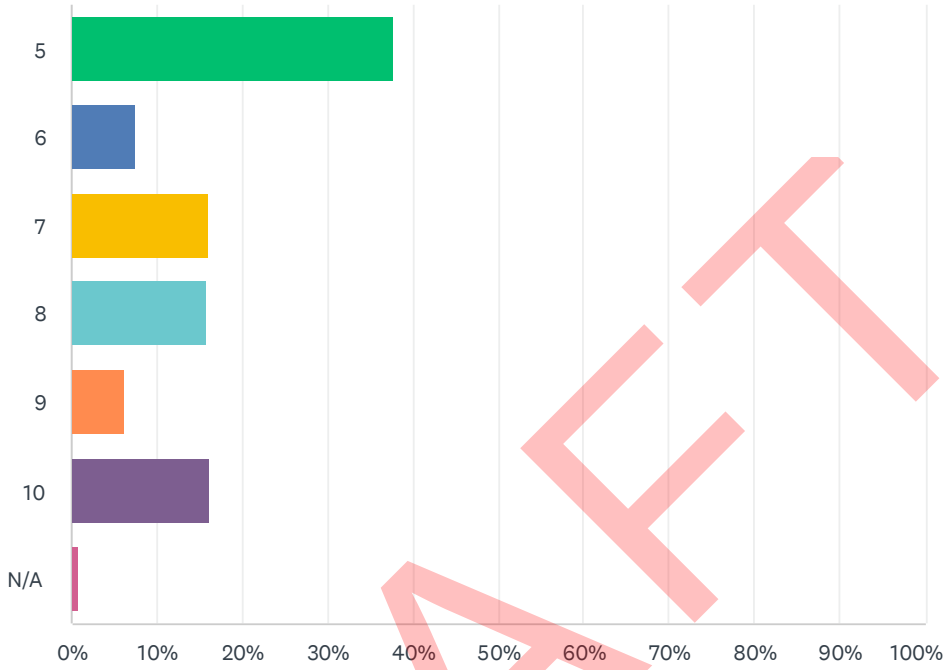
Answered: 964 Skipped: 68



ANSWER CHOICES	RESPONSES	
Yes, using sidewalks/off-street paths	7.57%	73
Yes, riding on-street	40.66%	392
No	51.76%	499
TOTAL		964

Q22 How comfortable do you feel using roads without marked bike facilities to get around the Village?

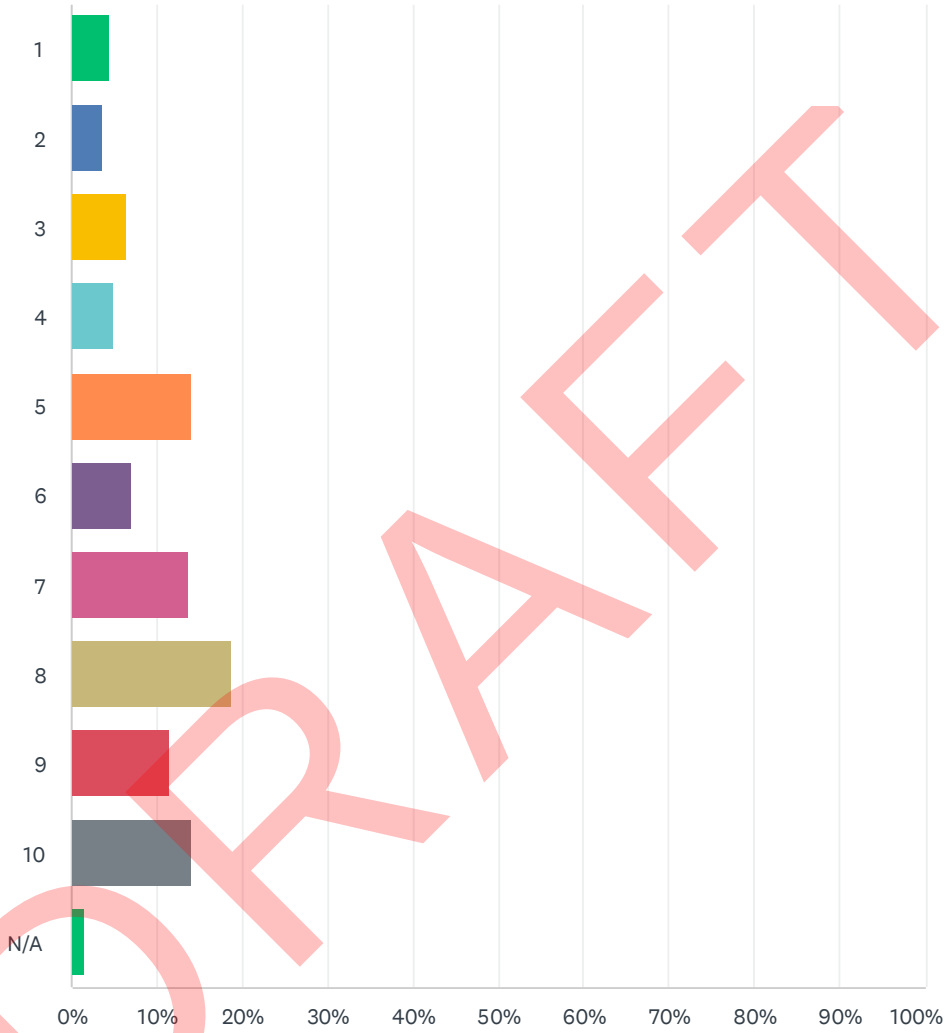
Answered: 457 Skipped: 575



ANSWER CHOICES	RESPONSES	
5	37.64%	172
6	7.44%	34
7	15.97%	73
8	15.75%	72
9	6.13%	28
10	16.19%	74
N/A	0.88%	4
TOTAL		457

Q23 How comfortable do you feel using roads with marked bike facilities to get around the Village? (See attached picture; streets with a striped shared bike lane count as marked.)

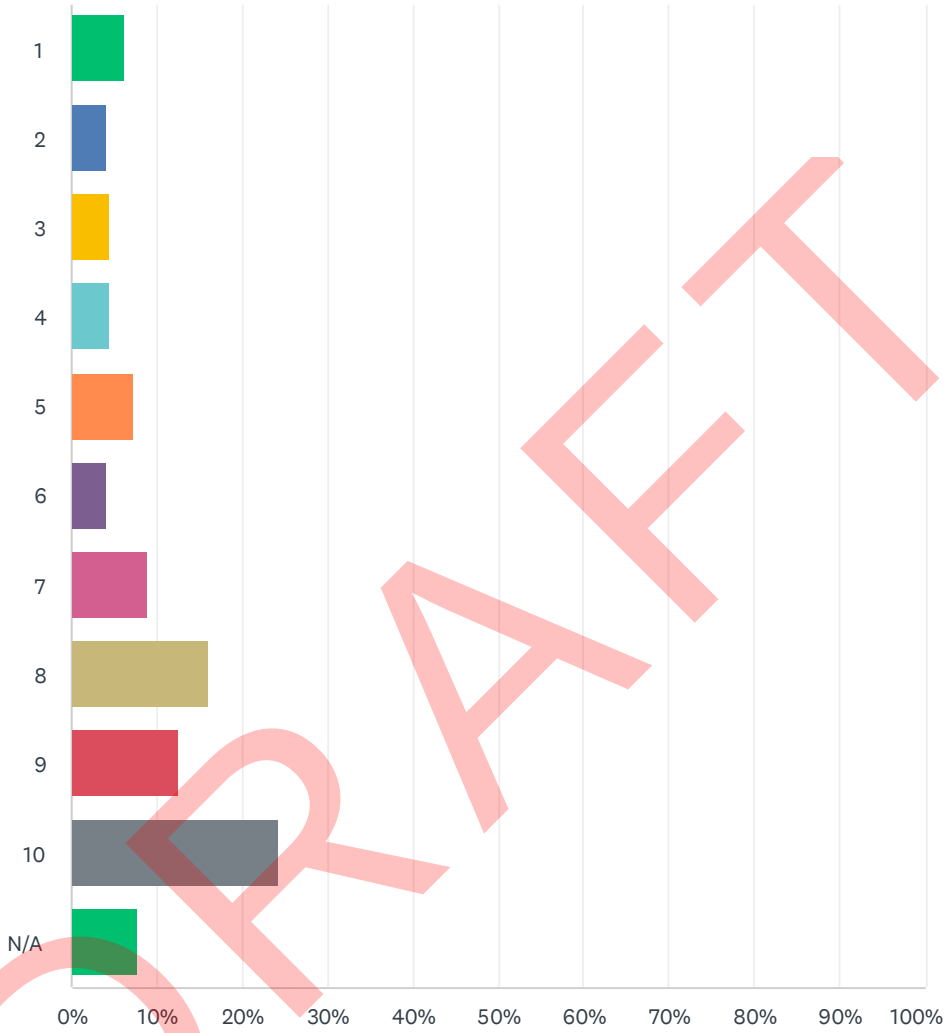
Answered: 451 Skipped: 581



ANSWER CHOICES	RESPONSES	
1	4.43%	20
2	3.55%	16
3	6.43%	29
4	4.88%	22
5	13.97%	63
6	7.10%	32
7	13.75%	62
8	18.85%	85
9	11.53%	52
10	13.97%	63
N/A	1.55%	7
TOTAL		451

Q24 How comfortable do you feel using sidewalks/off-street paths to get around the Village?

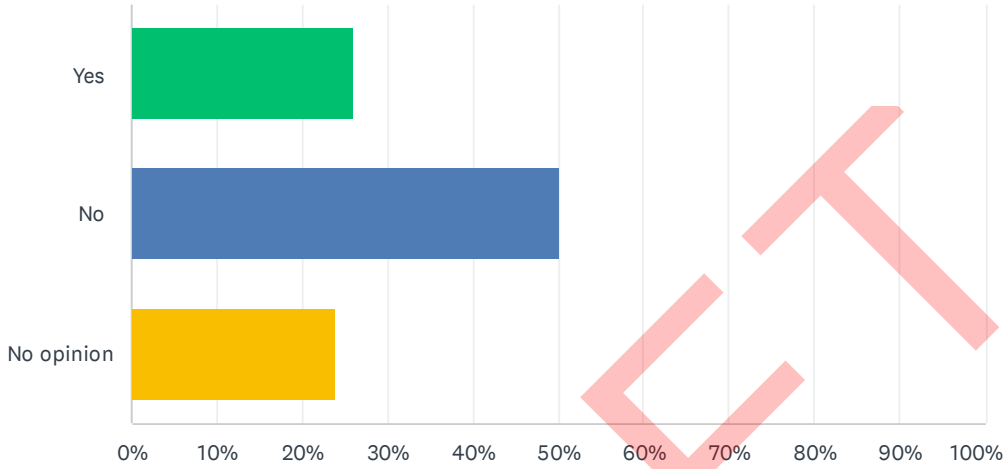
Answered: 450 Skipped: 582



ANSWER CHOICES	RESPONSES	
1	6.22%	28
2	4.00%	18
3	4.44%	20
4	4.44%	20
5	7.33%	33
6	4.00%	18
7	8.89%	40
8	16.00%	72
9	12.67%	57
10	24.22%	109
N/A	7.78%	35
TOTAL		450

Q25 Do you feel you have issues seeing oncoming traffic at any railroad underpasses? (Either when turning onto or off of the frontage roads on either side of the elevated railway)

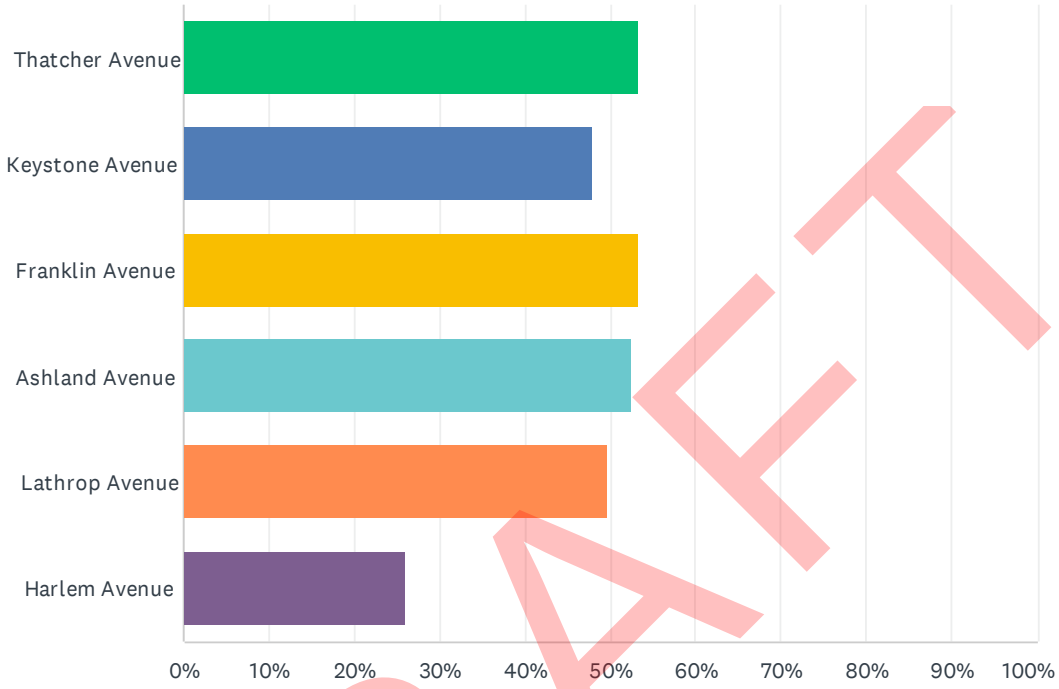
Answered: 960 Skipped: 72



ANSWER CHOICES	RESPONSES	
Yes	25.94%	249
No	50.10%	481
No opinion	23.96%	230
TOTAL		960

Q26 The north-south roads with tunnels underneath the rail road tracks are listed below. Please specify which intersection you experienced issues seeing oncoming traffic at.

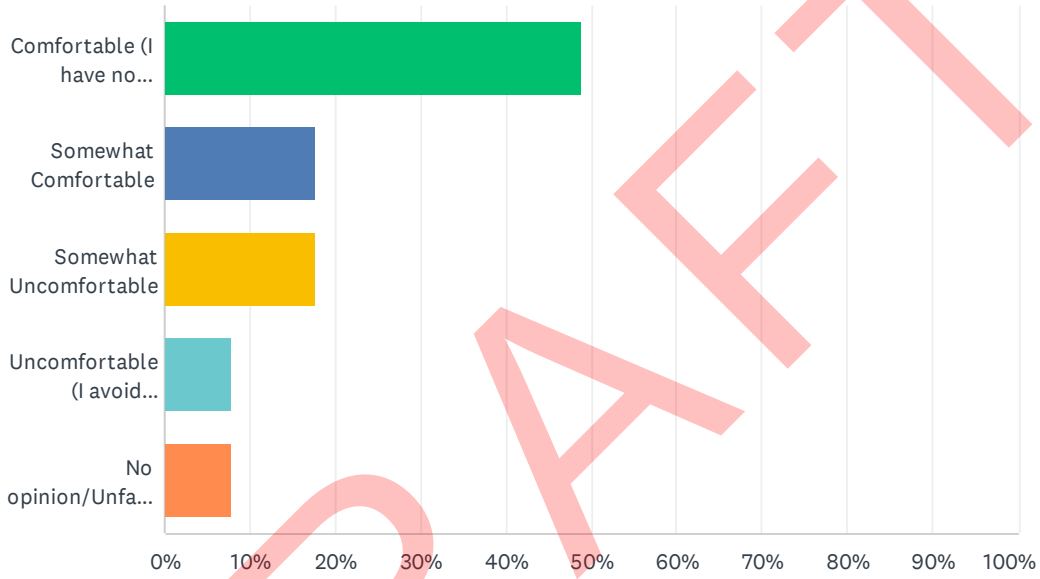
Answered: 250 Skipped: 782



ANSWER CHOICES	RESPONSES	
Thatcher Avenue	53.20%	133
Keystone Avenue	48.00%	120
Franklin Avenue	53.20%	133
Ashland Avenue	52.40%	131
Lathrop Avenue	49.60%	124
Harlem Avenue	26.00%	65
Total Respondents: 250		

Q27 Thatcher Avenue north of Chicago Avenue has an imbalanced lane configuration with two southbound lanes and one northbound lane. Due to the unique lane configuration, the curving road, and speed issues reported in the past, the Village would like to get an idea of how safe drivers feel turning onto Thatcher Avenue from the side roads. Please rate your level of comfort turning onto Thatcher Avenue in the section between North Avenue and Chicago Avenue?

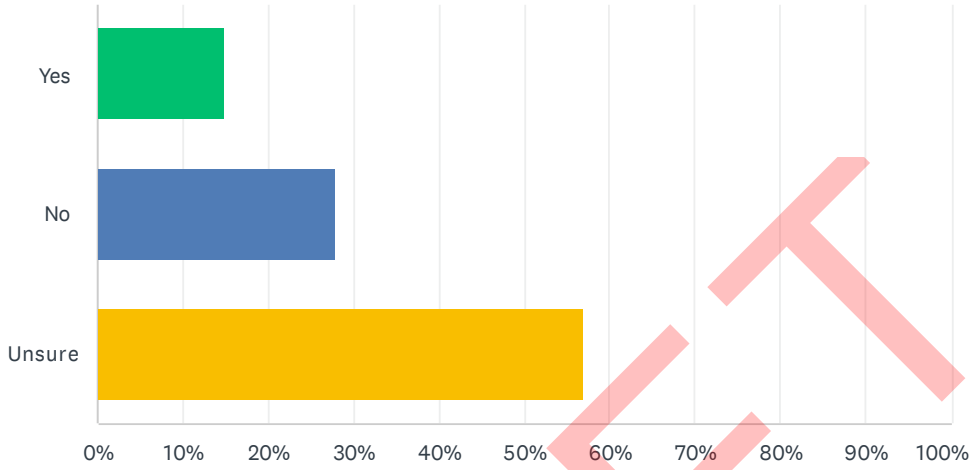
Answered: 960 Skipped: 72



ANSWER CHOICES	RESPONSES	
Comfortable (I have no problems turning onto Thatcher)	48.85%	469
Somewhat Comfortable	17.71%	170
Somewhat Uncomfortable	17.60%	169
Uncomfortable (I avoid turning onto Thatcher between Chicago Ave and North Ave)	7.92%	76
No opinion/Unfamiliar with the area	7.92%	76
TOTAL		960

Q28 Do you feel that the recent changes in the northeast corner of the Village have had a positive impact on traffic patterns in the area?

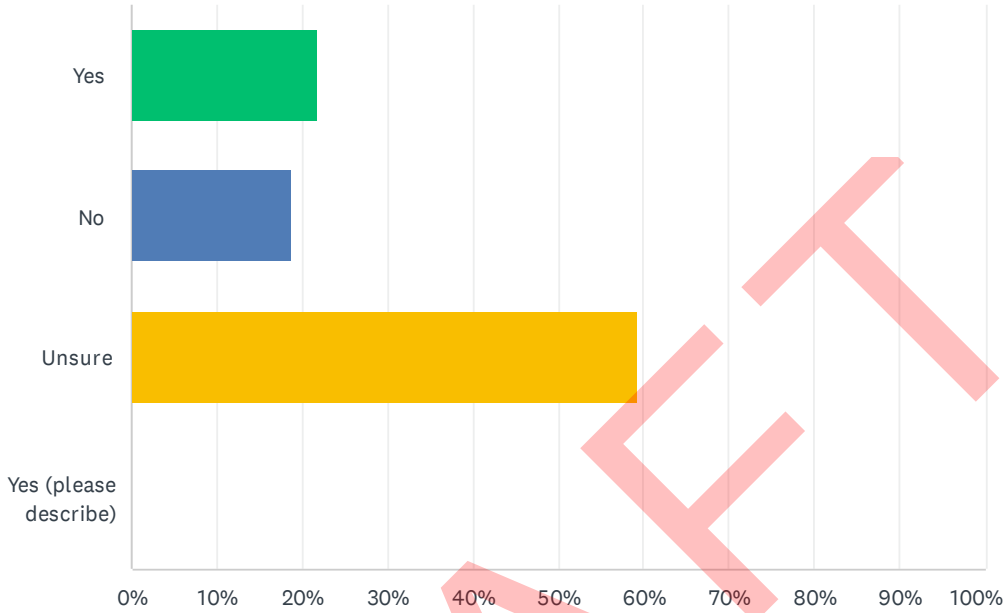
Answered: 953 Skipped: 79



ANSWER CHOICES	RESPONSES	
Yes	15.01%	143
No	28.02%	267
Unsure	56.98%	543
TOTAL		953

Q29 Do you feel that additional changes in the northeast corner of the Village are needed to address remaining issues?

Answered: 950 Skipped: 82



ANSWER CHOICES	RESPONSES	
Yes	21.79%	207
No	18.84%	179
Unsure	59.37%	564
Yes (please describe)	0.00%	0
TOTAL		950

Q30 If you answered yes above please describe how the changes have impacted you and any further changes you would like to see.

Answered: 290 Skipped: 742

Q31 Do you have any feedback regarding Village roads not reflected in this survey?

Answered: 555 Skipped: 477

APPENDIX C: CAPACITY ANALYSIS

01. Volumes & Level of Service – AM
02. Volumes & Level of Service – PM
03. Alternative Volumes & Level of Service – AM
04. Alternative Volumes & Level of Service – PM

Volumes & Level of Service – AM

Intersection	
Intersection Delay, s/veh	15.6
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	91	268	21	10	196	23	20	219	11	12	184	85
Future Vol, veh/h	91	268	21	10	196	23	20	219	11	12	184	85
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	97	285	22	11	209	24	21	233	12	13	196	90
Number of Lanes	0	2	0	0	1	1	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	2
HCM Control Delay	14.9	15.1	16.1	16.7
HCM LOS	B	C	C	C

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	8%	40%	0%	5%	0%	4%
Vol Thru, %	88%	60%	86%	95%	0%	65%
Vol Right, %	4%	0%	14%	0%	100%	30%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	250	225	155	206	23	281
LT Vol	20	91	0	10	0	12
Through Vol	219	134	134	196	0	184
RT Vol	11	0	21	0	23	85
Lane Flow Rate	266	239	165	219	24	299
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.493	0.477	0.315	0.443	0.044	0.535
Departure Headway (Hd)	6.672	7.174	6.869	7.273	6.528	6.439
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	540	500	523	493	547	559
Service Time	4.733	4.934	4.629	5.036	4.29	4.498
HCM Lane V/C Ratio	0.493	0.478	0.315	0.444	0.044	0.535
HCM Control Delay	16.1	16.4	12.8	15.7	9.6	16.7
HCM Lane LOS	C	C	B	C	A	C
HCM 95th-tile Q	2.7	2.5	1.3	2.2	0.1	3.1

Intersection	
Intersection Delay, s/veh	16.8
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	165	12	35	217	31	11	276	42	20	233	4
Future Vol, veh/h	0	165	12	35	217	31	11	276	42	20	233	4
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	181	13	38	238	34	12	303	46	22	256	4
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	13.6	17.2	18.9	15.9
HCM LOS	B	C	C	C

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	3%	0%	12%	8%
Vol Thru, %	84%	93%	77%	91%
Vol Right, %	13%	7%	11%	2%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	329	177	283	257
LT Vol	11	0	35	20
Through Vol	276	165	217	233
RT Vol	42	12	31	4
Lane Flow Rate	362	195	311	282
Geometry Grp	1	1	1	1
Degree of Util (X)	0.62	0.362	0.553	0.503
Departure Headway (Hd)	6.174	6.702	6.401	6.414
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	582	535	563	559
Service Time	4.235	4.776	4.466	4.479
HCM Lane V/C Ratio	0.622	0.364	0.552	0.504
HCM Control Delay	18.9	13.6	17.2	15.9
HCM Lane LOS	C	B	C	C
HCM 95th-tile Q	4.2	1.6	3.4	2.8

Intersection	
Intersection Delay, s/veh	37.3
Intersection LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	24	248	33	67	244	82	21	236	50	22	157	14
Future Vol, veh/h	24	248	33	67	244	82	21	236	50	22	157	14
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	30	306	41	83	301	101	26	291	62	27	194	17
Number of Lanes	0	1	1	0	1	1	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	2
HCM Control Delay	34.9	43.3	41.2	22.9
HCM LOS	D	E	E	C

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	7%	9%	0%	22%	0%	11%
Vol Thru, %	77%	91%	0%	78%	0%	81%
Vol Right, %	16%	0%	100%	0%	100%	7%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	307	272	33	311	82	193
LT Vol	21	24	0	67	0	22
Through Vol	236	248	0	244	0	157
RT Vol	50	0	33	0	82	14
Lane Flow Rate	379	336	41	384	101	238
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.842	0.799	0.088	0.9	0.214	0.574
Departure Headway (Hd)	7.999	8.569	7.794	8.44	7.6	8.679
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	451	423	459	430	472	415
Service Time	6.056	6.327	5.551	6.197	5.357	6.75
HCM Lane V/C Ratio	0.84	0.794	0.089	0.893	0.214	0.573
HCM Control Delay	41.2	37.8	11.3	51.5	12.4	22.9
HCM Lane LOS	E	E	B	F	B	C
HCM 95th-tile Q	8.3	7.1	0.3	9.6	0.8	3.5

Intersection	
Intersection Delay, s/veh	7.5
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	48	4	5	25	3	3	4	3	27	18	5
Future Vol, veh/h	5	48	4	5	25	3	3	4	3	27	18	5
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	6	59	5	6	30	4	4	5	4	33	22	6
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.5	7.3	7.2	7.6
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	30%	9%	15%	54%
Vol Thru, %	40%	84%	76%	36%
Vol Right, %	30%	7%	9%	10%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	10	57	33	50
LT Vol	3	5	5	27
Through Vol	4	48	25	18
RT Vol	3	4	3	5
Lane Flow Rate	12	70	40	61
Geometry Grp	1	1	1	1
Degree of Util (X)	0.014	0.079	0.046	0.071
Departure Headway (Hd)	4.052	4.067	4.09	4.182
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	874	876	869	851
Service Time	2.119	2.115	2.144	2.237
HCM Lane V/C Ratio	0.014	0.08	0.046	0.072
HCM Control Delay	7.2	7.5	7.3	7.6
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0	0.3	0.1	0.2

Intersection	
Intersection Delay, s/veh	7.4
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	70	6	4	27	5	1	6	4	5	8	5
Future Vol, veh/h	2	70	6	4	27	5	1	6	4	5	8	5
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	89	8	5	34	6	1	8	5	6	10	6
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.5	7.3	7.1	7.3
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	9%	3%	11%	28%
Vol Thru, %	55%	90%	75%	44%
Vol Right, %	36%	8%	14%	28%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	11	78	36	18
LT Vol	1	2	4	5
Through Vol	6	70	27	8
RT Vol	4	6	5	5
Lane Flow Rate	14	99	46	23
Geometry Grp	1	1	1	1
Degree of Util (X)	0.015	0.109	0.051	0.026
Departure Headway (Hd)	4.002	3.99	4.01	4.084
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	885	897	890	869
Service Time	2.067	2.016	2.046	2.146
HCM Lane V/C Ratio	0.016	0.11	0.052	0.026
HCM Control Delay	7.1	7.5	7.3	7.3
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0	0.4	0.2	0.1

Intersection	
Int Delay, s/veh	4.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	135	426	437	115	31	184
Future Vol, veh/h	135	426	437	115	31	184
Conflicting Peds, #/hr	10	0	0	10	10	10
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	5	5	2	2	2
Mvmt Flow	142	448	460	121	33	194

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	591	0	-	0	1273	541
Stage 1	-	-	-	-	531	-
Stage 2	-	-	-	-	742	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	985	-	-	-	185	541
Stage 1	-	-	-	-	590	-
Stage 2	-	-	-	-	471	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	976	-	-	-	155	531
Mov Cap-2 Maneuver	-	-	-	-	291	-
Stage 1	-	-	-	-	499	-
Stage 2	-	-	-	-	466	-

Approach	EB	WB	SB
HCM Control Delay, s	2.2	0	19.3
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	976	-	-	-	475
HCM Lane V/C Ratio	0.146	-	-	-	0.476
HCM Control Delay (s)	9.3	-	-	-	19.3
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0.5	-	-	-	2.5

Intersection	
Int Delay, s/veh	5.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	32	425	475	180	90	77
Future Vol, veh/h	32	425	475	180	90	77
Conflicting Peds, #/hr	10	0	0	10	10	10
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	65	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	4	4	2	2	2
Mvmt Flow	35	462	516	196	98	84

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	722	0	-	0	1166	634
Stage 1	-	-	-	-	624	-
Stage 2	-	-	-	-	542	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	880	-	-	-	214	479
Stage 1	-	-	-	-	534	-
Stage 2	-	-	-	-	583	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	872	-	-	-	201	470
Mov Cap-2 Maneuver	-	-	-	-	201	-
Stage 1	-	-	-	-	507	-
Stage 2	-	-	-	-	577	-

Approach	EB	WB	SB
HCM Control Delay, s	0.7	0	40.9
HCM LOS			E

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	872	-	-	-	273
HCM Lane V/C Ratio	0.04	-	-	-	0.665
HCM Control Delay (s)	9.3	-	-	-	40.9
HCM Lane LOS	A	-	-	-	E
HCM 95th %tile Q(veh)	0.1	-	-	-	4.3

Intersection	
Int Delay, s/veh	2.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	65	71	351	52	10	500
Future Vol, veh/h	65	71	351	52	10	500
Conflicting Peds, #/hr	10	10	0	10	10	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	76	84	413	61	12	588

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	782	464	0	0	484	0
Stage 1	454	-	-	-	-	-
Stage 2	328	-	-	-	-	-
Critical Hdwy	6.63	6.23	-	-	4.13	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.83	-	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	2.219	-
Pot Cap-1 Maneuver	347	597	-	-	1077	-
Stage 1	639	-	-	-	-	-
Stage 2	703	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	334	586	-	-	1067	-
Mov Cap-2 Maneuver	334	-	-	-	-	-
Stage 1	633	-	-	-	-	-
Stage 2	685	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	18.2	0	0.3
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	431	1067	-
HCM Lane V/C Ratio	-	-	0.371	0.011	-
HCM Control Delay (s)	-	-	18.2	8.4	0.1
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	1.7	0	-

Intersection	
Int Delay, s/veh	7.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	60	115	316	106	175	450
Future Vol, veh/h	60	115	316	106	175	450
Conflicting Peds, #/hr	10	10	0	10	10	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	70	134	367	123	203	523

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1117	449	0	0	500	0
Stage 1	439	-	-	-	-	-
Stage 2	678	-	-	-	-	-
Critical Hdwy	6.63	6.23	-	-	4.13	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.83	-	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	2.219	-
Pot Cap-1 Maneuver	215	609	-	-	1062	-
Stage 1	649	-	-	-	-	-
Stage 2	467	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	154	597	-	-	1052	-
Mov Cap-2 Maneuver	154	-	-	-	-	-
Stage 1	643	-	-	-	-	-
Stage 2	337	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	38.7	0	3.1
HCM LOS	E		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	301	1052	-
HCM Lane V/C Ratio	-	-	0.676	0.193	-
HCM Control Delay (s)	-	-	38.7	9.2	0.7
HCM Lane LOS	-	-	E	A	A
HCM 95th %tile Q(veh)	-	-	4.6	0.7	-

Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	8	107	62	2	10	17
Future Vol, veh/h	8	107	62	2	10	17
Conflicting Peds, #/hr	10	0	0	10	10	10
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	10	127	74	2	12	20

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	86	0	-	0	242	95
Stage 1	-	-	-	-	85	-
Stage 2	-	-	-	-	157	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1510	-	-	-	746	962
Stage 1	-	-	-	-	938	-
Stage 2	-	-	-	-	871	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1496	-	-	-	726	944
Mov Cap-2 Maneuver	-	-	-	-	726	-
Stage 1	-	-	-	-	922	-
Stage 2	-	-	-	-	862	-

Approach	EB	WB	SB
HCM Control Delay, s	0.5	0	9.4
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1496	-	-	-	850
HCM Lane V/C Ratio	0.006	-	-	-	0.038
HCM Control Delay (s)	7.4	0	-	-	9.4
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	9	101	7	0	57	1	0	1	0	5	6	7
Future Vol, veh/h	9	101	7	0	57	1	0	1	0	5	6	7
Conflicting Peds, #/hr	10	0	10	10	0	10	10	0	10	10	0	10
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	10	110	8	0	62	1	0	1	0	5	7	8

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	73	0	0	128	0	0	224	217	134	218	221	83
Stage 1	-	-	-	-	-	-	144	144	-	73	73	-
Stage 2	-	-	-	-	-	-	80	73	-	145	148	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1527	-	-	1458	-	-	732	681	915	738	678	976
Stage 1	-	-	-	-	-	-	859	778	-	937	834	-
Stage 2	-	-	-	-	-	-	929	834	-	858	775	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1512	-	-	1444	-	-	703	663	898	720	660	957
Mov Cap-2 Maneuver	-	-	-	-	-	-	703	663	-	720	660	-
Stage 1	-	-	-	-	-	-	845	765	-	922	826	-
Stage 2	-	-	-	-	-	-	906	826	-	843	762	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.6	0	10.4	9.8
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	663	1512	-	-	1444	-	-	771
HCM Lane V/C Ratio	0.002	0.006	-	-	-	-	-	0.025
HCM Control Delay (s)	10.4	7.4	0	-	0	-	-	9.8
HCM Lane LOS	B	A	A	-	A	-	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.1

Intersection	
Int Delay, s/veh	9.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	3	25	78	6	29	24	5	897	14	14	1111	24
Future Vol, veh/h	3	25	78	6	29	24	5	897	14	14	1111	24
Conflicting Peds, #/hr	10	0	10	10	0	10	10	0	10	10	0	10
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	99	99	99	99	99	99	99	99	99	99	99	99
Heavy Vehicles, %	2	2	2	2	2	2	2	4	2	2	4	2
Mvmt Flow	3	25	79	6	29	24	5	906	14	14	1122	24

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1660	2112	593	1545	2117	480	1156	0	0	930	0	0
Stage 1	1172	1172	-	933	933	-	-	-	-	-	-	-
Stage 2	488	940	-	612	1184	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	64	50	449	78	50	532	600	-	-	731	-	-
Stage 1	204	264	-	286	343	-	-	-	-	-	-	-
Stage 2	530	340	-	447	261	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	28	46	440	34	46	522	594	-	-	724	-	-
Mov Cap-2 Maneuver	28	46	-	34	46	-	-	-	-	-	-	-
Stage 1	199	247	-	279	334	-	-	-	-	-	-	-
Stage 2	449	331	-	309	245	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	105.6	172.2	0.2	0.4
HCM LOS	F	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	594	-	-	128	69	724	-	-
HCM Lane V/C Ratio	0.009	-	-	0.836	0.864	0.02	-	-
HCM Control Delay (s)	11.1	0.1	-	105.6	172.2	10.1	0.3	-
HCM Lane LOS	B	A	-	F	F	B	A	-
HCM 95th %tile Q(veh)	0	-	-	5.2	4.2	0.1	-	-

Intersection	
Int Delay, s/veh	4.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↕			↕	
Traffic Vol, veh/h	3	13	63	13	17	18	4	905	15	13	1073	15
Future Vol, veh/h	3	13	63	13	17	18	4	905	15	13	1073	15
Conflicting Peds, #/hr	10	0	10	10	0	10	10	0	10	10	0	10
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	99	99	99	99	99	99	99	99	99	99	99	99
Heavy Vehicles, %	2	2	2	2	2	2	2	4	2	2	4	2
Mvmt Flow	3	13	64	13	17	18	4	914	15	13	1084	15

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1612	2075	570	1525	2075	485	1109	0	0	939	0	0
Stage 1	1128	1128	-	940	940	-	-	-	-	-	-	-
Stage 2	484	947	-	585	1135	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	69	53	465	81	53	528	625	-	-	726	-	-
Stage 1	218	278	-	283	340	-	-	-	-	-	-	-
Stage 2	533	338	-	464	275	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	46	49	456	52	49	518	619	-	-	719	-	-
Mov Cap-2 Maneuver	46	49	-	52	49	-	-	-	-	-	-	-
Stage 1	213	262	-	277	332	-	-	-	-	-	-	-
Stage 2	477	330	-	358	259	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	44	113.2	0.1	0.3
HCM LOS	E	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	619	-	-	169	76	719	-	-
HCM Lane V/C Ratio	0.007	-	-	0.472	0.638	0.018	-	-
HCM Control Delay (s)	10.9	0.1	-	44	113.2	10.1	0.2	-
HCM Lane LOS	B	A	-	E	F	B	A	-
HCM 95th %tile Q(veh)	0	-	-	2.2	2.9	0.1	-	-

Intersection	
Int Delay, s/veh	4.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1500	100	48	1608	8	26
Future Vol, veh/h	1500	100	48	1608	8	26
Conflicting Peds, #/hr	0	10	10	0	26	10
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	4	2	2	4	2	2
Mvmt Flow	1613	108	52	1729	9	28

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1731	0	2672	881
Stage 1	-	-	-	-	1677	-
Stage 2	-	-	-	-	995	-
Critical Hdwy	-	-	4.14	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.22	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	360	-	18	290
Stage 1	-	-	-	-	137	-
Stage 2	-	-	-	-	318	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	357	-	0	285
Mov Cap-2 Maneuver	-	-	-	-	0	-
Stage 1	-	-	-	-	136	-
Stage 2	-	-	-	-	0	-

Approach	EB	WB	NB
HCM Control Delay, s	0	8.2	19.5
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	285	-	-	357	-
HCM Lane V/C Ratio	0.128	-	-	0.145	-
HCM Control Delay (s)	19.5	-	-	16.8	7.9
HCM Lane LOS	C	-	-	C	A
HCM 95th %tile Q(veh)	0.4	-	-	0.5	-

Intersection	
Int Delay, s/veh	4.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1501	25	55	1648	8	18
Future Vol, veh/h	1501	25	55	1648	8	18
Conflicting Peds, #/hr	0	10	10	0	10	10
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	4	2	2	4	2	2
Mvmt Flow	1580	26	58	1735	8	19

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1616	0	2597	823
Stage 1	-	-	-	-	1603	-
Stage 2	-	-	-	-	994	-
Critical Hdwy	-	-	4.14	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.22	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	399	-	20	317
Stage 1	-	-	-	-	150	-
Stage 2	-	-	-	-	319	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	395	-	0	311
Mov Cap-2 Maneuver	-	-	-	-	0	-
Stage 1	-	-	-	-	149	-
Stage 2	-	-	-	-	0	-

Approach	EB	WB	NB
HCM Control Delay, s	0	7.6	17.7
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	311	-	-	395	-
HCM Lane V/C Ratio	0.088	-	-	0.147	-
HCM Control Delay (s)	17.7	-	-	15.7	7.3
HCM Lane LOS	C	-	-	C	A
HCM 95th %tile Q(veh)	0.3	-	-	0.5	-

Intersection	
Int Delay, s/veh	4.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	9	1500	10	31	1668	13	10	10	23	7	0	25
Future Vol, veh/h	9	1500	10	31	1668	13	10	10	23	7	0	25
Conflicting Peds, #/hr	10	0	10	10	0	10	10	0	10	10	0	10
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	2	4	2	2	4	2	2	2	2	2	2	2
Mvmt Flow	9	1546	10	32	1720	13	10	10	24	7	0	26

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1743	0	0	1566	0	0	2513	3386	798	2607	3385	887
Stage 1	-	-	-	-	-	-	1579	1579	-	1801	1801	-
Stage 2	-	-	-	-	-	-	934	1807	-	806	1584	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	357	-	-	418	-	-	14	~ 7	329	12	7	287
Stage 1	-	-	-	-	-	-	114	168	-	83	130	-
Stage 2	-	-	-	-	-	-	286	129	-	342	167	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	354	-	-	414	-	-	-	0	323	-	0	282
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	0	-	-	0	-
Stage 1	-	-	-	-	-	-	91	135	-	67	0	-
Stage 2	-	-	-	-	-	-	-	0	-	235	134	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.5	7.1		
HCM LOS			-	-

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	354	-	-	414	-	-	-
HCM Lane V/C Ratio	-	0.026	-	-	0.077	-	-	-
HCM Control Delay (s)	-	15.4	1.4	-	14.4	7	-	-
HCM Lane LOS	-	C	A	-	B	A	-	-
HCM 95th %tile Q(veh)	-	0.1	-	-	0.2	-	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	0.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1518	12	38	1707	5	7
Future Vol, veh/h	1518	12	38	1707	5	7
Conflicting Peds, #/hr	0	10	10	0	10	10
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	4	2	2	4	2	2
Mvmt Flow	1632	13	41	1835	5	8

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1655	0	2475	843
Stage 1	-	-	-	-	1649	-
Stage 2	-	-	-	-	826	-
Critical Hdwy	-	-	4.14	-	6.29	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	6.04	-
Follow-up Hdwy	-	-	2.22	-	3.67	3.32
Pot Cap-1 Maneuver	-	-	386	-	36	307
Stage 1	-	-	-	-	140	-
Stage 2	-	-	-	-	363	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	382	-	35	301
Mov Cap-2 Maneuver	-	-	-	-	35	-
Stage 1	-	-	-	-	139	-
Stage 2	-	-	-	-	359	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	65.6
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	72	-	-	382	-
HCM Lane V/C Ratio	0.179	-	-	0.107	-
HCM Control Delay (s)	65.6	-	-	15.6	0
HCM Lane LOS	F	-	-	C	A
HCM 95th %tile Q(veh)	0.6	-	-	0.4	-

Intersection	
Int Delay, s/veh	0.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1507	18	0	1745	0	13
Future Vol, veh/h	1507	18	0	1745	0	13
Conflicting Peds, #/hr	0	10	10	0	10	10
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	4	2	2	4	2	2
Mvmt Flow	1554	19	0	1799	0	13

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	807
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	-	-	0	-	0	324
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	318
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	16.8
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	318	-	-	-
HCM Lane V/C Ratio	0.042	-	-	-
HCM Control Delay (s)	16.8	-	-	-
HCM Lane LOS	C	-	-	-
HCM 95th %tile Q(veh)	0.1	-	-	-

Intersection	
Int Delay, s/veh	2.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	12	461	20	50	420	20	8	11	28	7	26	38
Future Vol, veh/h	12	461	20	50	420	20	8	11	28	7	26	38
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	13	501	22	54	457	22	9	12	30	8	28	41

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	479	0	0	523	0	0	1149	1125	512	1135	1125	468
Stage 1	-	-	-	-	-	-	538	538	-	576	576	-
Stage 2	-	-	-	-	-	-	611	587	-	559	549	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1083	-	-	1043	-	-	176	205	562	179	205	595
Stage 1	-	-	-	-	-	-	527	522	-	503	502	-
Stage 2	-	-	-	-	-	-	481	497	-	513	516	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1083	-	-	1043	-	-	136	188	562	151	188	595
Mov Cap-2 Maneuver	-	-	-	-	-	-	136	188	-	151	188	-
Stage 1	-	-	-	-	-	-	521	516	-	497	466	-
Stage 2	-	-	-	-	-	-	391	462	-	468	510	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0.9	20.6	22.2
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	281	1083	-	-	1043	-	-	286
HCM Lane V/C Ratio	0.182	0.012	-	-	0.052	-	-	0.27
HCM Control Delay (s)	20.6	8.4	-	-	8.6	0	-	22.2
HCM Lane LOS	C	A	-	-	A	A	-	C
HCM 95th %tile Q(veh)	0.7	0	-	-	0.2	-	-	1.1

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	24	296	358	72	26	25
Future Vol, veh/h	24	296	358	72	26	25
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	26	322	389	78	28	27

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	467	0	-	0	802	428
Stage 1	-	-	-	-	428	-
Stage 2	-	-	-	-	374	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1094	-	-	-	353	627
Stage 1	-	-	-	-	657	-
Stage 2	-	-	-	-	696	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1094	-	-	-	343	627
Mov Cap-2 Maneuver	-	-	-	-	343	-
Stage 1	-	-	-	-	638	-
Stage 2	-	-	-	-	696	-

Approach	EB	WB	SB
HCM Control Delay, s	0.6	0	14.3
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1094	-	-	-	441
HCM Lane V/C Ratio	0.024	-	-	-	0.126
HCM Control Delay (s)	8.4	0	-	-	14.3
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.4

Intersection	
Int Delay, s/veh	5.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	25	14	11	39	5	8	20	6	17	51	12
Future Vol, veh/h	1	25	14	11	39	5	8	20	6	17	51	12
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	27	15	12	42	5	9	22	7	18	55	13

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	47	0	0	42	0	0	140	108	35	120	113	45
Stage 1	-	-	-	-	-	-	37	37	-	69	69	-
Stage 2	-	-	-	-	-	-	103	71	-	51	44	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1560	-	-	1567	-	-	830	782	1038	855	777	1025
Stage 1	-	-	-	-	-	-	978	864	-	941	837	-
Stage 2	-	-	-	-	-	-	903	836	-	962	858	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1560	-	-	1567	-	-	769	775	1038	826	770	1025
Mov Cap-2 Maneuver	-	-	-	-	-	-	769	775	-	826	770	-
Stage 1	-	-	-	-	-	-	977	863	-	940	830	-
Stage 2	-	-	-	-	-	-	825	829	-	931	857	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	1.5	9.7	10
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	810	1560	-	-	1567	-	-	812
HCM Lane V/C Ratio	0.046	0.001	-	-	0.008	-	-	0.107
HCM Control Delay (s)	9.7	7.3	0	-	7.3	0	-	10
HCM Lane LOS	A	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.4

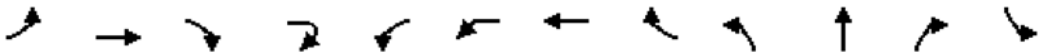
Intersection	
Int Delay, s/veh	6.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	25	18	1	28	4	6	34	7	25	44	21
Future Vol, veh/h	5	25	18	1	28	4	6	34	7	25	44	21
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	27	20	1	30	4	7	37	8	27	48	23

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	34	0	0	47	0	0	117	83	37	104	91	32
Stage 1	-	-	-	-	-	-	47	47	-	34	34	-
Stage 2	-	-	-	-	-	-	70	36	-	70	57	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1578	-	-	1560	-	-	859	807	1035	876	799	1042
Stage 1	-	-	-	-	-	-	967	856	-	982	867	-
Stage 2	-	-	-	-	-	-	940	865	-	940	847	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1578	-	-	1560	-	-	799	804	1035	837	796	1042
Mov Cap-2 Maneuver	-	-	-	-	-	-	799	804	-	837	796	-
Stage 1	-	-	-	-	-	-	964	853	-	979	866	-
Stage 2	-	-	-	-	-	-	868	864	-	890	844	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.8	0.2	9.6	9.8
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	831	1578	-	-	1560	-	-	855
HCM Lane V/C Ratio	0.061	0.003	-	-	0.001	-	-	0.114
HCM Control Delay (s)	9.6	7.3	0	-	7.3	0	-	9.8
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0.4



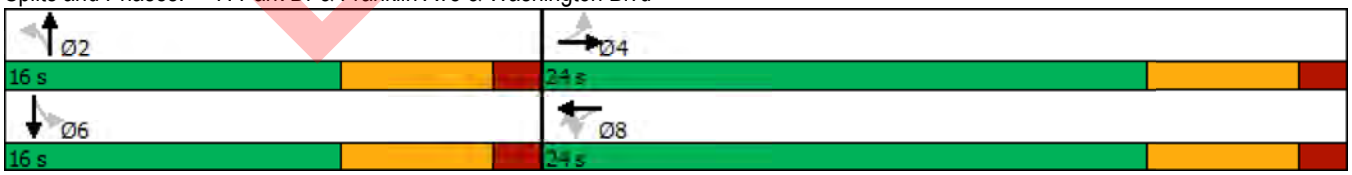
Lane Group	EBL	EBT	EBR	EBR2	WBL2	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (vph)	7	316	5	1	12	3	216	17	3	28	13	15
Future Volume (vph)	7	316	5	1	12	3	216	17	3	28	13	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00					1.00			0.99		
Frt		0.998					0.991			0.960		
Flt Protected		0.999					0.997			0.997		
Satd. Flow (prot)	0	1856	0	0	0	0	1837	0	0	1766	0	0
Flt Permitted		0.989					0.964			0.988		
Satd. Flow (perm)	0	1837	0	0	0	0	1774	0	0	1749	0	0
Right Turn on Red				Yes				Yes			Yes	
Satd. Flow (RTOR)							12			14		
Link Speed (mph)		25					25			25		
Link Distance (ft)		458					415			336		
Travel Time (s)		12.5					11.3			9.2		
Confl. Peds. (#/hr)	10		10	10	10	10		10	10		10	10
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	8	343	5	1	13	3	235	18	3	30	14	16
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	357	0	0	0	0	269	0	0	47	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Right	Left	Left	Left	Right	Left	Left	Right	Left
Median Width(ft)		0					0			0		
Link Offset(ft)		0					0			0		
Crosswalk Width(ft)		16					16			16		
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	9	15	15		9	15		9	15
Number of Detectors	1	2			1	1	2		1	2		1
Detector Template	Left	Thru			Left	Left	Thru		Left	Thru		Left
Leading Detector (ft)	20	100			20	20	100		20	100		20
Trailing Detector (ft)	0	0			0	0	0		0	0		0
Detector 1 Position(ft)	0	0			0	0	0		0	0		0
Detector 1 Size(ft)	20	6			20	20	6		20	6		20
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0	0.0	0.0		0.0	0.0		0.0
Detector 1 Queue (s)	0.0	0.0			0.0	0.0	0.0		0.0	0.0		0.0
Detector 1 Delay (s)	0.0	0.0			0.0	0.0	0.0		0.0	0.0		0.0
Detector 2 Position(ft)		94					94			94		
Detector 2 Size(ft)		6					6			6		
Detector 2 Type		Cl+Ex					Cl+Ex			Cl+Ex		
Detector 2 Channel												
Detector 2 Extend (s)		0.0					0.0			0.0		
Turn Type	Perm	NA			Perm	Perm	NA		Perm	NA		Perm
Protected Phases		4					8			2		
Permitted Phases	4				8	8			2			6
Detector Phase	4	4			8	8	8		2	2		6

Lane Group	SBT	SBR	SBR2
Lane Configurations			
Traffic Volume (vph)	21	1	10
Future Volume (vph)	21	1	10
Ideal Flow (vphpl)	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00
Ped Bike Factor	0.99		
Frt	0.968		
Flt Protected	0.985		
Satd. Flow (prot)	1759	0	0
Flt Permitted	0.927		
Satd. Flow (perm)	1650	0	0
Right Turn on Red			Yes
Satd. Flow (RTOR)	11		
Link Speed (mph)	25		
Link Distance (ft)	350		
Travel Time (s)	9.5		
Confl. Peds. (#/hr)		10	10
Peak Hour Factor	0.92	0.92	0.92
Adj. Flow (vph)	23	1	11
Shared Lane Traffic (%)			
Lane Group Flow (vph)	51	0	0
Enter Blocked Intersection	No	No	No
Lane Alignment	Left	Right	Right
Median Width(ft)	0		
Link Offset(ft)	0		
Crosswalk Width(ft)	16		
Two way Left Turn Lane			
Headway Factor	1.00	1.00	1.00
Turning Speed (mph)		9	9
Number of Detectors	2		
Detector Template	Thru		
Leading Detector (ft)	100		
Trailing Detector (ft)	0		
Detector 1 Position(ft)	0		
Detector 1 Size(ft)	6		
Detector 1 Type	Cl+Ex		
Detector 1 Channel			
Detector 1 Extend (s)	0.0		
Detector 1 Queue (s)	0.0		
Detector 1 Delay (s)	0.0		
Detector 2 Position(ft)	94		
Detector 2 Size(ft)	6		
Detector 2 Type	Cl+Ex		
Detector 2 Channel			
Detector 2 Extend (s)	0.0		
Turn Type	NA		
Protected Phases	6		
Permitted Phases			
Detector Phase	6		

Lane Group	EBL	EBT	EBR	EBR2	WBL2	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0	5.0	5.0		5.0	5.0		5.0
Minimum Split (s)	14.0	14.0			14.0	14.0	14.0		14.0	14.0		14.0
Total Split (s)	24.0	24.0			24.0	24.0	24.0		16.0	16.0		16.0
Total Split (%)	60.0%	60.0%			60.0%	60.0%	60.0%		40.0%	40.0%		40.0%
Maximum Green (s)	18.0	18.0			18.0	18.0	18.0		10.0	10.0		10.0
Yellow Time (s)	4.5	4.5			4.5	4.5	4.5		4.5	4.5		4.5
All-Red Time (s)	1.5	1.5			1.5	1.5	1.5		1.5	1.5		1.5
Lost Time Adjust (s)		0.0					0.0			0.0		
Total Lost Time (s)		6.0					6.0			6.0		
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0			3.0	3.0	3.0		3.0	3.0		3.0
Recall Mode	None	None			None	None	None		Max	Max		None
Walk Time (s)	7.0	7.0			7.0	7.0	7.0		7.0	7.0		7.0
Flash Dont Walk (s)	11.0	11.0			11.0	11.0	11.0		11.0	11.0		11.0
Pedestrian Calls (#/hr)	0	0			0	0	0		0	0		0
Act Effct Green (s)		13.2					13.2			18.1		
Actuated g/C Ratio		0.30					0.30			0.42		
v/c Ratio		0.64					0.49			0.06		
Control Delay		18.6					14.8			7.6		
Queue Delay		0.0					0.0			0.0		
Total Delay		18.6					14.8			7.6		
LOS		B					B			A		
Approach Delay		18.6					14.8			7.6		
Approach LOS		B					B			A		

Intersection Summary			
Area Type:	Other		
Cycle Length: 40			
Actuated Cycle Length: 43.4			
Natural Cycle: 40			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.64			
Intersection Signal Delay: 15.7		Intersection LOS: B	
Intersection Capacity Utilization 54.7%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 7: Park Dr & Franklin Ave & Washington Blvd



Lane Group	SBT	SBR	SBR2
Switch Phase			
Minimum Initial (s)	5.0		
Minimum Split (s)	14.0		
Total Split (s)	16.0		
Total Split (%)	40.0%		
Maximum Green (s)	10.0		
Yellow Time (s)	4.5		
All-Red Time (s)	1.5		
Lost Time Adjust (s)	0.0		
Total Lost Time (s)	6.0		
Lead/Lag			
Lead-Lag Optimize?			
Vehicle Extension (s)	3.0		
Recall Mode	None		
Walk Time (s)	7.0		
Flash Dont Walk (s)	11.0		
Pedestrian Calls (#/hr)	0		
Act Effct Green (s)	18.1		
Actuated g/C Ratio	0.42		
v/c Ratio	0.07		
Control Delay	8.1		
Queue Delay	0.0		
Total Delay	8.1		
LOS	A		
Approach Delay	8.1		
Approach LOS	A		

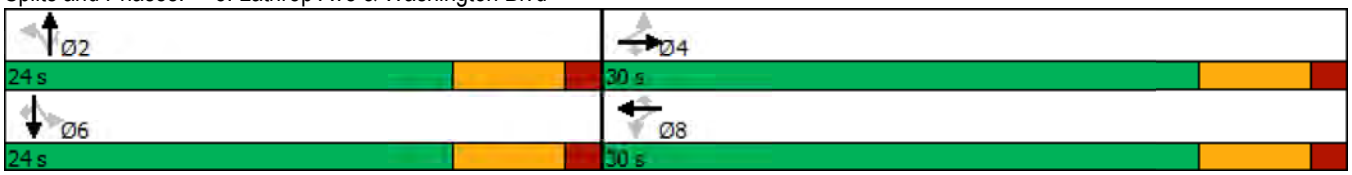
Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	53	256	12	5	169	90	7	190	15	20	150	78
Future Volume (vph)	53	256	12	5	169	90	7	190	15	20	150	78
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		75	0		75	0		75	0		75
Storage Lanes	0		1	0		1	0		1	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00	0.97		1.00	0.97		1.00	0.96		1.00	0.97
Frt			0.850			0.850			0.850			0.850
Flt Protected		0.992			0.999			0.998			0.994	
Satd. Flow (prot)	0	1848	1583	0	1861	1583	0	1859	1583	0	1852	1583
Flt Permitted		0.903			0.986			0.988			0.949	
Satd. Flow (perm)	0	1679	1528	0	1836	1528	0	1840	1521	0	1765	1528
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			61			99			61			86
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		450			2667			1328			1233	
Travel Time (s)		12.3			72.7			36.2			33.6	
Confl. Peds. (#/hr)	10		10	10		10	10		13	13		10
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	58	281	13	5	186	99	8	209	16	22	165	86
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	339	13	0	191	99	0	217	16	0	187	86
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (ft)	20	100	20	20	100	20	20	100	20	20	100	20
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0	0	0	0	0	0	0
Detector 1 Size(ft)	20	6	20	20	6	20	20	6	20	20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA	Perm	Perm	NA	Perm

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2		2	6		6
Detector Phase	4	4	4	8	8	8	2	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	1.0	1.0	1.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0
Total Split (s)	30.0	30.0	30.0	30.0	30.0	30.0	24.0	24.0	24.0	24.0	24.0	24.0
Total Split (%)	55.6%	55.6%	55.6%	55.6%	55.6%	55.6%	44.4%	44.4%	44.4%	44.4%	44.4%	44.4%
Maximum Green (s)	24.0	24.0	24.0	24.0	24.0	24.0	18.0	18.0	18.0	18.0	18.0	18.0
Yellow Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
All-Red Time (s)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Lost Time Adjust (s)		0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0
Total Lost Time (s)		6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	None	None	None	Max	Max	Max	Max	Max	Max
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Act Effct Green (s)		14.0	14.0		14.0	14.0		18.2	18.2		18.2	18.2
Actuated g/C Ratio		0.32	0.32		0.32	0.32		0.41	0.41		0.41	0.41
v/c Ratio		0.64	0.02		0.33	0.18		0.29	0.02		0.26	0.13
Control Delay		18.6	0.1		12.7	3.7		11.5	0.1		11.3	3.9
Queue Delay		0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0
Total Delay		18.6	0.1		12.7	3.7		11.5	0.1		11.3	3.9
LOS		B	A		B	A		B	A		B	A
Approach Delay		18.0			9.6			10.7			9.0	
Approach LOS		B			A			B			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 54			
Actuated Cycle Length: 44.3			
Natural Cycle: 40			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.64			
Intersection Signal Delay: 12.2		Intersection LOS: B	
Intersection Capacity Utilization 66.9%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 8: Lathrop Ave & Washington Blvd



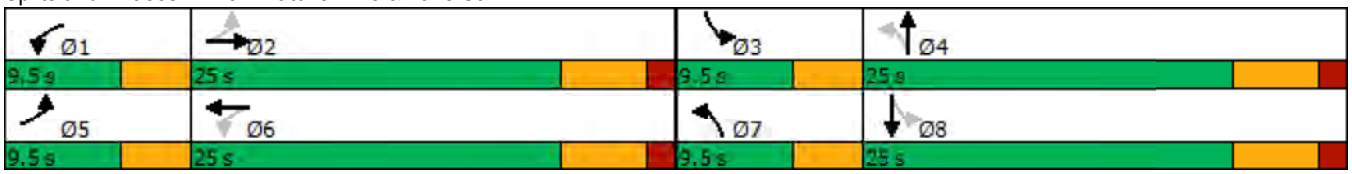
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	28	388	56	56	342	80	68	276	42	93	315	60
Future Volume (vph)	28	388	56	56	342	80	68	276	42	93	315	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	100		0	85		0	85		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	115			115			100			70		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.99	0.99		0.99	0.99		0.99	0.99		0.98	0.99	
Frt		0.981			0.972			0.980			0.976	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1787	0	1770	1769	0	1770	1813	0	1770	1807	0
Flt Permitted	0.337			0.262			0.355			0.367		
Satd. Flow (perm)	623	1787	0	484	1769	0	656	1813	0	672	1807	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		10			17			11			14	
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		824			2952			527			2095	
Travel Time (s)		18.7			67.1			14.4			57.1	
Confl. Peds. (#/hr)	10		11	11		10	10		16	16		10
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	4%	2%	2%	4%	2%	2%	2%	2%	2%	2%	2%
Adj. Flow (vph)	29	408	59	59	360	84	72	291	44	98	332	63
Shared Lane Traffic (%)												
Lane Group Flow (vph)	29	467	0	59	444	0	72	335	0	98	395	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	5	2		1	6		7	4		3	8	
Permitted Phases	2			6			4			8		
Detector Phase	5	2		1	6		7	4		3	8	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	9.5	11.0		9.5	11.0		9.5	11.0		9.5	11.0	
Total Split (s)	9.5	25.0		9.5	25.0		9.5	25.0		9.5	25.0	
Total Split (%)	13.8%	36.2%		13.8%	36.2%		13.8%	36.2%		13.8%	36.2%	
Maximum Green (s)	6.0	19.0		6.0	19.0		6.0	19.0		6.0	19.0	
Yellow Time (s)	3.5	4.5		3.5	4.5		3.5	4.5		3.5	4.5	
All-Red Time (s)	0.0	1.5		0.0	1.5		0.0	1.5		0.0	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.5	6.0		3.5	6.0		3.5	6.0		3.5	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	Max		None	Max		None	None		None	None	
Walk Time (s)		7.0			7.0			7.0			7.0	
Flash Dont Walk (s)		11.0			11.0			11.0			11.0	
Pedestrian Calls (#/hr)		0			0			0			0	
Act Effct Green (s)	25.6	19.8		26.2	21.5		23.0	15.8		23.8	18.0	
Actuated g/C Ratio	0.42	0.33		0.43	0.36		0.38	0.26		0.39	0.30	
v/c Ratio	0.08	0.79		0.17	0.69		0.20	0.69		0.26	0.72	
Control Delay	11.2	34.4		12.1	27.6		12.2	29.1		12.8	29.6	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	11.2	34.4		12.1	27.6		12.2	29.1		12.8	29.6	
LOS	B	C		B	C		B	C		B	C	
Approach Delay		33.0			25.8			26.1			26.3	
Approach LOS		C			C			C			C	

Intersection Summary

Area Type: Other
Cycle Length: 69
Actuated Cycle Length: 60.3
Natural Cycle: 70
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.79
Intersection Signal Delay: 27.9 Intersection LOS: C
Intersection Capacity Utilization 69.3% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 13: Thatcher Ave & Lake St



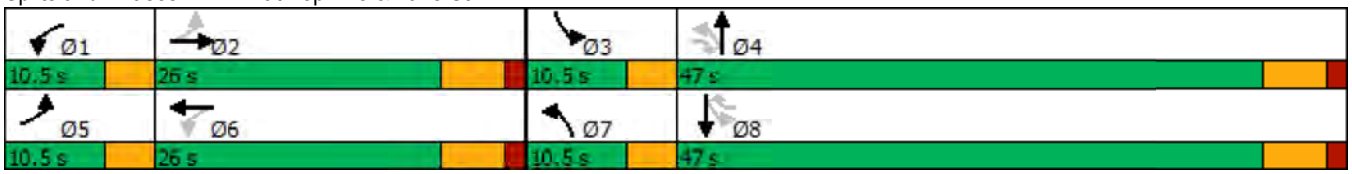
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	40	408	75	120	317	29	100	227	31	54	216	61
Future Volume (vph)	40	408	75	120	317	29	100	227	31	54	216	61
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		120	75		120	75		0	75		0
Storage Lanes	1		1	1		1	1		0	1		0
Taper Length (ft)	105			105			60			75		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.99		0.92	0.98		0.95	0.98	1.00		0.99	0.99	
Frt			0.850			0.850		0.982			0.967	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1827	1583	1770	1827	1583	1770	1823	0	1770	1782	0
Flt Permitted	0.555			0.311			0.421			0.558		
Satd. Flow (perm)	1020	1827	1458	568	1827	1507	771	1823	0	1029	1782	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			116			116		9			19	
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		2952			1318			470			1333	
Travel Time (s)		67.1			30.0			12.8			36.4	
Confl. Peds. (#/hr)	11		23	23		11	11		10	10		11
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Heavy Vehicles (%)	2%	4%	2%	2%	4%	2%	2%	2%	2%	2%	2%	2%
Adj. Flow (vph)	40	412	76	121	320	29	101	229	31	55	218	62
Shared Lane Traffic (%)												
Lane Group Flow (vph)	40	412	76	121	320	29	101	260	0	55	280	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1	1	2		1	2	
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	
Leading Detector (ft)	20	100	20	20	100	20	20	100		20	100	
Trailing Detector (ft)	0	0	0	0	0	0	0	0		0	0	
Detector 1 Position(ft)	0	0	0	0	0	0	0	0		0	0	
Detector 1 Size(ft)	20	6	20	20	6	20	20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

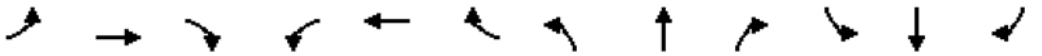
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	pm+pt	NA	custom	pm+pt	NA	custom	pm+pt	NA		pm+pt	NA	
Protected Phases	5	2		1	6		7	4		3	8	
Permitted Phases	2		4	6		8	4			8		
Detector Phase	5	2	4	1	6	8	7	4		3	8	
Switch Phase												
Minimum Initial (s)	4.0	5.0	5.0	4.0	5.0	5.0	4.0	5.0		4.0	5.0	
Minimum Split (s)	10.0	14.0	14.0	10.0	14.0	14.0	10.0	14.0		10.0	14.0	
Total Split (s)	10.5	26.0	47.0	10.5	26.0	47.0	10.5	47.0		10.5	47.0	
Total Split (%)	11.2%	27.7%	50.0%	11.2%	27.7%	50.0%	11.2%	50.0%		11.2%	50.0%	
Maximum Green (s)	7.0	20.0	41.0	7.0	20.0	41.0	7.0	41.0		7.0	41.0	
Yellow Time (s)	3.5	4.5	4.5	3.5	4.5	4.5	3.5	4.5		3.5	4.5	
All-Red Time (s)	0.0	1.5	1.5	0.0	1.5	1.5	0.0	1.5		0.0	1.5	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.5	6.0	6.0	3.5	6.0	6.0	3.5	6.0		3.5	6.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	None	Max	None	None	Max	None	None	None		None	None	
Walk Time (s)		7.0	7.0		7.0	7.0		7.0			7.0	
Flash Dont Walk (s)		11.0	11.0		11.0	11.0		11.0			11.0	
Pedestrian Calls (#/hr)		0	0		0	0		0			0	
Act Effct Green (s)	28.3	21.0	17.2	30.1	25.0	15.1	23.6	17.2		22.7	15.1	
Actuated g/C Ratio	0.44	0.33	0.27	0.47	0.39	0.24	0.37	0.27		0.35	0.24	
v/c Ratio	0.08	0.69	0.16	0.30	0.45	0.07	0.26	0.52		0.12	0.65	
Control Delay	11.4	30.7	2.6	13.4	21.1	0.3	13.9	25.1		12.4	29.2	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	11.4	30.7	2.6	13.4	21.1	0.3	13.9	25.1		12.4	29.2	
LOS	B	C	A	B	C	A	B	C		B	C	
Approach Delay		25.2			17.8			22.0			26.5	
Approach LOS		C			B			C			C	

Intersection Summary

Area Type: Other
Cycle Length: 94
Actuated Cycle Length: 64.1
Natural Cycle: 60
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.69
Intersection Signal Delay: 22.7 Intersection LOS: C
Intersection Capacity Utilization 65.7% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 14: Lathrop Ave & Lake St





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	100	230	149	82	192	50	183	1050	68	40	1170	115
Future Volume (vph)	100	230	149	82	192	50	183	1050	68	40	1170	115
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	240		195	140		0	230		0	220		600
Storage Lanes	1		1	1		0	1		0	1		1
Taper Length (ft)	110			60			90			90		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Ped Bike Factor	0.97		0.93	0.97	0.98			1.00				0.86
Frt			0.850		0.969			0.991				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1827	1583	1770	1749	0	1736	3397	0	1736	3438	1553
Flt Permitted	0.289			0.320			0.134			0.184		
Satd. Flow (perm)	521	1827	1477	579	1749	0	245	3397	0	336	3438	1339
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			157		9			7				121
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		562			578			877			703	
Travel Time (s)		12.8			13.1			19.9			16.0	
Confl. Peds. (#/hr)	30		25	25		30	32		10	10		32
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	4%	2%	2%	4%	2%	4%	5%	4%	4%	5%	4%
Adj. Flow (vph)	105	242	157	86	202	53	193	1105	72	42	1232	121
Shared Lane Traffic (%)												
Lane Group Flow (vph)	105	242	157	86	255	0	193	1177	0	42	1232	121
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2		1	2		1	2	1
Detector Template	Left	Thru	Right	Left	Thru		Left	Thru		Left	Thru	Right
Leading Detector (ft)	20	100	20	20	100		20	100		20	100	20
Trailing Detector (ft)	0	0	0	0	0		0	0		0	0	0
Detector 1 Position(ft)	0	0	0	0	0		0	0		0	0	0
Detector 1 Size(ft)	20	6	20	20	6		20	6		20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8			2			6		6
Detector Phase	7	4	4	3	8		5	2		1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	10.0	14.0	14.0	10.0	14.0		10.0	14.0		10.0	14.0	14.0
Total Split (s)	10.5	36.0	36.0	10.5	36.0		15.5	73.0		15.5	73.0	73.0
Total Split (%)	7.8%	26.7%	26.7%	7.8%	26.7%		11.5%	54.1%		11.5%	54.1%	54.1%
Maximum Green (s)	7.0	30.0	30.0	7.0	30.0		12.0	67.0		12.0	67.0	67.0
Yellow Time (s)	3.5	4.5	4.5	3.5	4.5		3.5	4.5		3.5	4.5	4.5
All-Red Time (s)	0.0	1.5	1.5	0.0	1.5		0.0	1.5		0.0	1.5	1.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	3.5	6.0	6.0	3.5	6.0		3.5	6.0		3.5	6.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None	None	None	None		None	C-Max		None	C-Max	C-Max
Walk Time (s)		7.0	7.0		7.0			7.0			7.0	7.0
Flash Dont Walk (s)		11.0	11.0		11.0			11.0			11.0	11.0
Pedestrian Calls (#/hr)		0	0		0			0			0	0
Act Effct Green (s)	33.3	23.8	23.8	33.3	23.8		91.2	80.4		83.3	74.1	74.1
Actuated g/C Ratio	0.25	0.18	0.18	0.25	0.18		0.68	0.60		0.62	0.55	0.55
v/c Ratio	0.54	0.75	0.40	0.42	0.81		0.67	0.58		0.15	0.65	0.15
Control Delay	48.3	67.1	9.6	42.8	70.5		22.9	19.7		10.1	24.6	3.5
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.8	0.0
Total Delay	48.3	67.1	9.6	42.8	70.5		22.9	19.7		10.1	25.4	3.5
LOS	D	E	A	D	E		C	B		B	C	A
Approach Delay		45.3			63.5			20.1			23.0	
Approach LOS		D			E			C			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 135			
Actuated Cycle Length: 135			
Offset: 59 (44%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 75			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.81			
Intersection Signal Delay: 28.8		Intersection LOS: C	
Intersection Capacity Utilization 79.2%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 16: Harlem Ave & Lake St

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	118	280	52	34	250	35	80	250	54	88	382	95
Future Volume (vph)	118	280	52	34	250	35	80	250	54	88	382	95
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	75		0	75		0	100		0	0		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	180			50			125			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.99	0.99		0.99	1.00		0.99	0.99		0.99	0.99	
Frt		0.977			0.982			0.974			0.970	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1809	0	1770	1820	0	1770	1801	0	1770	1793	0
Flt Permitted	0.438			0.350			0.300			0.499		
Satd. Flow (perm)	807	1809	0	646	1820	0	555	1801	0	919	1793	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		12			9			16			18	
Link Speed (mph)		35			25			25			25	
Link Distance (ft)		923			1595			2095			1328	
Travel Time (s)		18.0			43.5			57.1			36.2	
Confl. Peds. (#/hr)	10		10	10		10	10		10	10		10
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	130	308	57	37	275	38	88	275	59	97	420	104
Shared Lane Traffic (%)												
Lane Group Flow (vph)	130	365	0	37	313	0	88	334	0	97	524	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	14.0	14.0		14.0	14.0		11.0	14.0		11.0	14.0	
Total Split (s)	26.0	26.0		26.0	26.0		16.5	31.0		16.5	31.0	
Total Split (%)	35.4%	35.4%		35.4%	35.4%		22.4%	42.2%		22.4%	42.2%	
Maximum Green (s)	20.0	20.0		20.0	20.0		13.0	25.0		13.0	25.0	
Yellow Time (s)	4.5	4.5		4.5	4.5		3.5	4.5		3.5	4.5	
All-Red Time (s)	1.5	1.5		1.5	1.5		0.0	1.5		0.0	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		3.5	6.0		3.5	6.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		None	Max		None	Max	
Walk Time (s)	7.0	7.0		7.0	7.0			7.0			7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0			11.0			11.0	
Pedestrian Calls (#/hr)	0	0		0	0			0			0	
Act Effct Green (s)	16.5	16.5		16.5	16.5		33.6	25.5		33.9	25.6	
Actuated g/C Ratio	0.26	0.26		0.26	0.26		0.54	0.41		0.54	0.41	
v/c Ratio	0.61	0.75		0.22	0.64		0.20	0.45		0.16	0.70	
Control Delay	34.9	31.9		22.4	27.2		7.7	17.3		7.2	23.8	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	34.9	31.9		22.4	27.2		7.7	17.3		7.2	23.8	
LOS	C	C		C	C		A	B		A	C	
Approach Delay		32.7			26.7			15.3			21.2	
Approach LOS		C			C			B			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 73.5			
Actuated Cycle Length: 62.6			
Natural Cycle: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.75			
Intersection Signal Delay: 23.9		Intersection LOS: C	
Intersection Capacity Utilization 71.1%		ICU Level of Service C	
Analysis Period (min) 15			

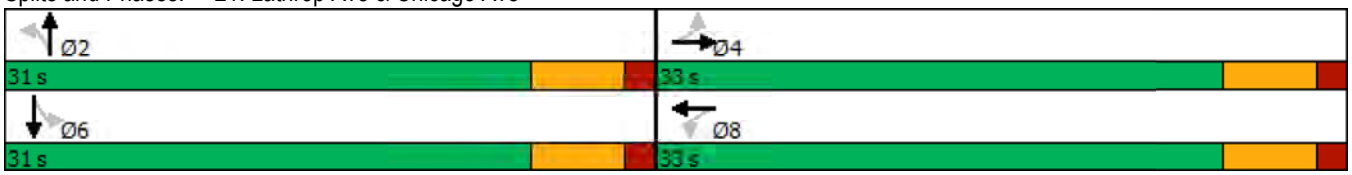
Splits and Phases: 19: Thatcher Ave & Chicago Ave

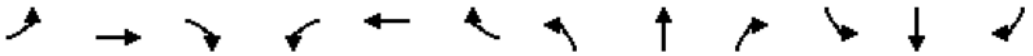
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	72	333	68	37	300	34	45	223	57	39	226	15
Future Volume (vph)	72	333	68	37	300	34	45	223	57	39	226	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	90		0	90		0	75		0	75		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	90			100			115			115		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.99	0.99		0.99	1.00		0.99	0.99		0.98	1.00	
Frt		0.975			0.985			0.969			0.991	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1805	0	1770	1828	0	1770	1784	0	1770	1842	0
Flt Permitted	0.453			0.356			0.601			0.578		
Satd. Flow (perm)	835	1805	0	658	1828	0	1106	1784	0	1051	1842	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		20			11			24			6	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		1322			1339			747			1341	
Travel Time (s)		36.1			36.5			20.4			36.6	
Confl. Peds. (#/hr)	10		10	10		10	10		21	21		10
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	77	354	72	39	319	36	48	237	61	41	240	16
Shared Lane Traffic (%)												
Lane Group Flow (vph)	77	426	0	39	355	0	48	298	0	41	256	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	14.0	14.0		14.0	14.0		14.0	14.0		14.0	14.0	
Total Split (s)	33.0	33.0		33.0	33.0		31.0	31.0		31.0	31.0	
Total Split (%)	51.6%	51.6%		51.6%	51.6%		48.4%	48.4%		48.4%	48.4%	
Maximum Green (s)	27.0	27.0		27.0	27.0		25.0	25.0		25.0	25.0	
Yellow Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
All-Red Time (s)	1.5	1.5		1.5	1.5		1.5	1.5		1.5	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	18.1	18.1		18.1	18.1		25.3	25.3		25.3	25.3	
Actuated g/C Ratio	0.33	0.33		0.33	0.33		0.46	0.46		0.46	0.46	
v/c Ratio	0.28	0.71		0.18	0.59		0.10	0.36		0.09	0.30	
Control Delay	16.0	22.2		14.7	18.9		11.5	12.1		11.5	12.2	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	16.0	22.2		14.7	18.9		11.5	12.1		11.5	12.2	
LOS	B	C		B	B		B	B		B	B	
Approach Delay		21.3			18.5			12.0			12.1	
Approach LOS		C			B			B			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 64			
Actuated Cycle Length: 55.5			
Natural Cycle: 40			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.71			
Intersection Signal Delay: 16.7		Intersection LOS: B	
Intersection Capacity Utilization 65.8%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 21: Lathrop Ave & Chicago Ave





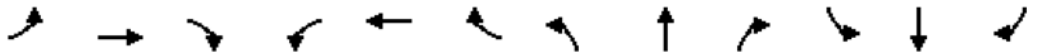
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	50	303	77	138	275	90	67	1017	71	88	1110	24
Future Volume (vph)	50	303	77	138	275	90	67	1017	71	88	1110	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	115		115	95		60	195		0	115		0
Storage Lanes	1		1	1		1	1		0	1		0
Taper Length (ft)	120			85			95			170		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor	0.99		0.97	0.99		0.97		1.00			1.00	
Frt			0.850			0.850		0.990			0.997	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	3429	0	1770	3458	0
Flt Permitted	0.367			0.200			0.149			0.149		
Satd. Flow (perm)	677	1863	1532	370	1863	1532	278	3429	0	278	3458	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			87			87		8			2	
Link Speed (mph)		25			25			30			30	
Link Distance (ft)		1317			461			1347			1346	
Travel Time (s)		35.9			12.6			30.6			30.6	
Confl. Peds. (#/hr)	10		10	10		10	10		10	10		10
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	4%	2%	2%	4%	2%
Adj. Flow (vph)	52	316	80	144	286	94	70	1059	74	92	1156	25
Shared Lane Traffic (%)												
Lane Group Flow (vph)	52	316	80	144	286	94	70	1133	0	92	1181	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1	1	2		1	2	
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	
Leading Detector (ft)	20	100	20	20	100	20	20	100		20	100	
Trailing Detector (ft)	0	0	0	0	0	0	0	0		0	0	
Detector 1 Position(ft)	0	0	0	0	0	0	0	0		0	0	
Detector 1 Size(ft)	20	6	20	20	6	20	20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8	2			6		
Detector Phase	7	4	4	3	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Minimum Split (s)	11.0	14.0	14.0	11.0	14.0	14.0	11.0	14.0		11.0	14.0	
Total Split (s)	13.5	33.0	33.0	13.5	33.0	33.0	13.5	66.0		13.5	66.0	
Total Split (%)	10.7%	26.2%	26.2%	10.7%	26.2%	26.2%	10.7%	52.4%		10.7%	52.4%	
Maximum Green (s)	10.0	27.0	27.0	10.0	27.0	27.0	10.0	60.0		10.0	60.0	
Yellow Time (s)	3.5	4.5	4.5	3.5	4.5	4.5	3.5	4.5		3.5	4.5	
All-Red Time (s)	0.0	1.5	1.5	0.0	1.5	1.5	0.0	1.5		0.0	1.5	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.5	6.0	6.0	3.5	6.0	6.0	3.5	6.0		3.5	6.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	None	None	None	None	None	None	None	C-Max		None	C-Max	
Walk Time (s)		7.0	7.0		7.0	7.0		7.0			7.0	
Flash Dont Walk (s)		11.0	11.0		11.0	11.0		11.0			11.0	
Pedestrian Calls (#/hr)		0	0		0	0		0			0	
Act Effct Green (s)	35.2	24.8	24.8	38.9	28.4	28.4	74.4	64.4		76.2	66.8	
Actuated g/C Ratio	0.28	0.20	0.20	0.31	0.23	0.23	0.59	0.51		0.60	0.53	
v/c Ratio	0.20	0.86	0.22	0.65	0.68	0.23	0.28	0.65		0.35	0.64	
Control Delay	30.7	71.7	8.6	45.6	54.3	11.0	13.0	25.2		13.9	24.4	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	30.7	71.7	8.6	45.6	54.3	11.0	13.0	25.2		13.9	24.4	
LOS	C	E	A	D	D	B	B	C		B	C	
Approach Delay		55.7			44.1			24.5			23.7	
Approach LOS		E			D			C			C	

Intersection Summary

Area Type: Other
Cycle Length: 126
Actuated Cycle Length: 126
Offset: 59 (47%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.86
Intersection Signal Delay: 31.2 Intersection LOS: C
Intersection Capacity Utilization 75.9% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 23: Harlem Ave & Chicago Ave

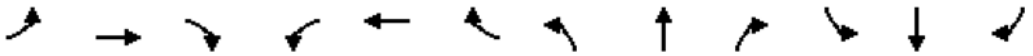


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	18	184	34	54	173	48	79	996	82	99	1134	31
Future Volume (vph)	18	184	34	54	173	48	79	996	82	99	1134	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	150		0	150		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			75			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor		0.99			0.99			1.00			1.00	
Frt		0.980			0.976			0.989			0.996	
Flt Protected		0.996			0.990		0.950			0.950		
Satd. Flow (prot)	0	1810	0	0	1789	0	1770	3424	0	1770	3454	0
Flt Permitted		0.943			0.745		0.156			0.171		
Satd. Flow (perm)	0	1712	0	0	1343	0	291	3424	0	319	3454	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		7			8			11			3	
Link Speed (mph)		25			25			30			30	
Link Distance (ft)		1777			369			1346			1322	
Travel Time (s)		48.5			10.1			30.6			30.0	
Confl. Peds. (#/hr)	12		10	10		12	10		10	10		10
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	4%	2%	2%	4%	2%
Adj. Flow (vph)	19	198	37	58	186	52	85	1071	88	106	1219	33
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	254	0	0	296	0	85	1159	0	106	1252	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			-15			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	14.0	14.0		14.0	14.0		11.0	14.0		11.0	14.0	
Total Split (s)	36.0	36.0		36.0	36.0		12.5	73.0		12.5	73.0	
Total Split (%)	29.6%	29.6%		29.6%	29.6%		10.3%	60.1%		10.3%	60.1%	
Maximum Green (s)	30.0	30.0		30.0	30.0		9.0	67.0		9.0	67.0	
Yellow Time (s)	4.5	4.5		4.5	4.5		3.5	4.5		3.5	4.5	
All-Red Time (s)	1.5	1.5		1.5	1.5		0.0	1.5		0.0	1.5	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		6.0			6.0		3.5	6.0		3.5	6.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		None	C-Max		None	C-Max	
Walk Time (s)	7.0	7.0		7.0	7.0			7.0			7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0			11.0			11.0	
Pedestrian Calls (#/hr)	0	0		0	0			0			0	
Act Effct Green (s)		27.8			27.8		80.3	70.4		81.7	72.6	
Actuated g/C Ratio		0.23			0.23		0.66	0.58		0.67	0.60	
v/c Ratio		0.64			0.95		0.30	0.58		0.35	0.61	
Control Delay		48.7			83.3		9.4	18.1		9.8	18.1	
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	
Total Delay		48.7			83.3		9.4	18.1		9.8	18.1	
LOS		D			F		A	B		A	B	
Approach Delay		48.7			83.3			17.5			17.5	
Approach LOS		D			F			B			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 121.5			
Actuated Cycle Length: 121.5			
Offset: 45 (37%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.95			
Intersection Signal Delay: 26.2		Intersection LOS: C	
Intersection Capacity Utilization 78.7%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 30: Harlem Ave & Augusta St



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	60	182	80	128	230	18	130	838	94	69	1056	70
Future Volume (vph)	60	182	80	128	230	18	130	838	94	69	1056	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	110		0	90		0	180		0	140		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	75			115			95			90		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor	0.99	0.99		0.99	1.00			0.99			1.00	
Frt		0.954			0.989			0.985			0.991	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1760	0	1770	1838	0	1770	3408	0	1770	3433	0
Flt Permitted	0.335			0.222			0.120			0.211		
Satd. Flow (perm)	618	1760	0	410	1838	0	224	3408	0	393	3433	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		17			3			15			8	
Link Speed (mph)		25			25			30			30	
Link Distance (ft)		1311			467			1322			1352	
Travel Time (s)		35.8			12.7			30.0			30.7	
Confl. Peds. (#/hr)	10		10	10		10	10		10	10		10
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	4%	2%	2%	4%	2%
Adj. Flow (vph)	66	200	88	141	253	20	143	921	103	76	1160	77
Shared Lane Traffic (%)												
Lane Group Flow (vph)	66	288	0	141	273	0	143	1024	0	76	1237	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			-15			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	11.0	14.0		11.0	14.0		11.0	14.0		11.0	14.0	
Total Split (s)	11.5	26.0		11.5	26.0		13.5	63.0		13.5	63.0	
Total Split (%)	10.1%	22.8%		10.1%	22.8%		11.8%	55.3%		11.8%	55.3%	
Maximum Green (s)	8.0	20.0		8.0	20.0		10.0	57.0		10.0	57.0	
Yellow Time (s)	3.5	4.5		3.5	4.5		3.5	4.5		3.5	4.5	
All-Red Time (s)	0.0	1.5		0.0	1.5		0.0	1.5		0.0	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.5	6.0		3.5	6.0		3.5	6.0		3.5	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		None	C-Max		None	C-Max	
Walk Time (s)		7.0			7.0			7.0			7.0	
Flash Dont Walk (s)		11.0			11.0			11.0			11.0	
Pedestrian Calls (#/hr)		0			0			0			0	
Act Effct Green (s)	29.4	19.5		30.8	21.9		72.0	62.1		68.6	58.8	
Actuated g/C Ratio	0.26	0.17		0.27	0.19		0.63	0.54		0.60	0.52	
v/c Ratio	0.28	0.92		0.68	0.77		0.55	0.55		0.23	0.70	
Control Delay	32.7	77.9		49.8	59.7		17.2	18.8		9.6	23.7	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	32.7	77.9		49.8	59.7		17.2	18.8		9.6	23.7	
LOS	C	E		D	E		B	B		A	C	
Approach Delay		69.4			56.3			18.6			22.9	
Approach LOS		E			E			B			C	

Intersection Summary

Area Type: Other
Cycle Length: 114
Actuated Cycle Length: 114
Offset: 72 (63%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.92
Intersection Signal Delay: 30.7 Intersection LOS: C
Intersection Capacity Utilization 77.3% ICU Level of Service D
Analysis Period (min) 15

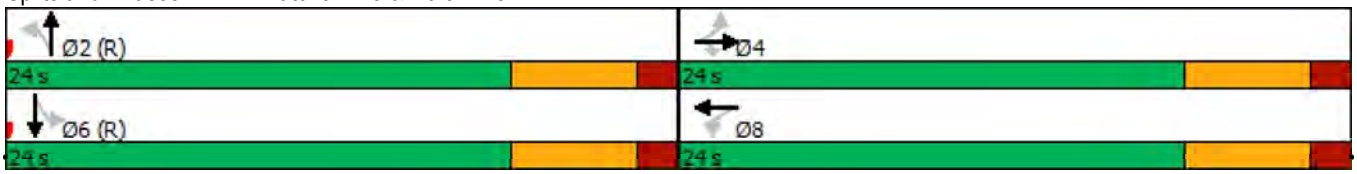
Splits and Phases: 36: Harlem Ave & Division St

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	58	1310	300	125	1591	58	244	121	66	180	200	72
Future Volume (vph)	58	1310	300	125	1591	58	244	121	66	180	200	72
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	300		0	115		0	200		0	165		0
Storage Lanes	1		1	1		0	1		0	1		0
Taper Length (ft)	180			125			85			70		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.91	0.91	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor	1.00		0.98	1.00	1.00		0.99	0.99		0.99	0.99	
Frt			0.850		0.995			0.947			0.960	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3471	1583	1770	4962	0	1770	3328	0	1770	3380	0
Flt Permitted	0.222			0.222			0.578			0.629		
Satd. Flow (perm)	413	3471	1552	413	4962	0	1071	3328	0	1165	3380	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			313		13			7			2	
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		1334			336			347			340	
Travel Time (s)		30.3			7.6			9.5			9.3	
Confl. Peds. (#/hr)	10		10	10		10	10		10	10		10
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Growth Factor	130%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	4%	2%	2%	4%	2%	2%	2%	2%	2%	2%	2%
Adj. Flow (vph)	79	1365	313	130	1657	60	254	126	69	188	208	75
Shared Lane Traffic (%)												
Lane Group Flow (vph)	79	1365	313	130	1717	0	254	195	0	188	283	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2		1	2		1	2	
Detector Template	Left	Thru	Right	Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100	20	20	100		20	100		20	100	
Trailing Detector (ft)	0	0	0	0	0		0	0		0	0	
Detector 1 Position(ft)	0	0	0	0	0		0	0		0	0	
Detector 1 Size(ft)	20	6	20	20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA	Perm	Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8			2			6		
Detector Phase	4	4	4	8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	14.0	14.0	14.0	14.0	14.0		14.0	14.0		14.0	14.0	
Total Split (s)	24.0	24.0	24.0	24.0	24.0		24.0	24.0		24.0	24.0	
Total Split (%)	50.0%	50.0%	50.0%	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Maximum Green (s)	18.0	18.0	18.0	18.0	18.0		18.0	18.0		18.0	18.0	
Yellow Time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5		4.5	4.5	
All-Red Time (s)	1.5	1.5	1.5	1.5	1.5		1.5	1.5		1.5	1.5	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0		6.0	6.0		6.0	6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None	None	None	None		C-Max	C-Max		C-Max	C-Max	
Walk Time (s)	7.0	7.0	7.0	7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0	0	0	0		0	0		0	0	
Act Effct Green (s)	18.0	18.0	18.0	18.0	18.0		18.0	18.0		18.0	18.0	
Actuated g/C Ratio	0.38	0.38	0.38	0.38	0.38		0.38	0.38		0.38	0.38	
v/c Ratio	0.51	1.05	0.40	0.84	0.92		0.63	0.16		0.43	0.22	
Control Delay	27.6	57.6	3.5	63.6	24.7		21.7	10.0		15.1	10.8	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	27.6	57.6	3.5	63.6	24.7		21.7	10.0		15.1	10.8	
LOS	C	E	A	E	C		C	B		B	B	
Approach Delay		46.6			27.5			16.6			12.5	
Approach LOS		D			C			B			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 48			
Actuated Cycle Length: 48			
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 45			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.05			
Intersection Signal Delay: 32.3		Intersection LOS: C	
Intersection Capacity Utilization 91.7%		ICU Level of Service F	
Analysis Period (min) 15			

Splits and Phases: 47: Thatcher Ave & North Ave



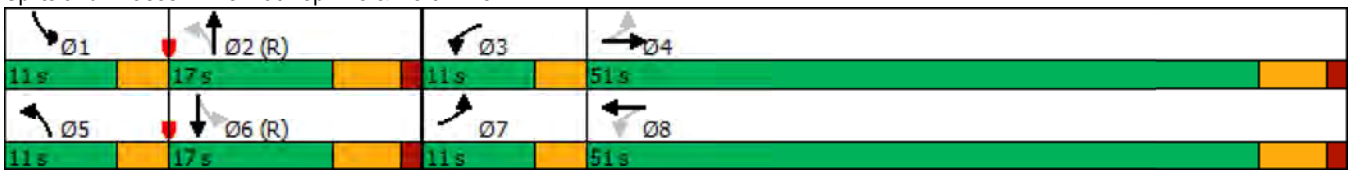
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	25	1505	26	18	1528	70	142	86	55	40	106	104
Future Volume (vph)	25	1505	26	18	1528	70	142	86	55	40	106	104
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	100		0	80		0	60		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	170			115			110			55		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00			1.00		0.99	0.99		0.99	0.99	
Frt		0.997			0.993			0.942			0.926	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3459	0	1770	3443	0	1770	1737	0	1770	1702	0
Flt Permitted	0.077			0.077			0.333			0.659		
Satd. Flow (perm)	143	3459	0	143	3443	0	615	1737	0	1213	1702	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3			7			29			45	
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		860			438			660			264	
Travel Time (s)		19.5			10.0			18.0			7.2	
Confl. Peds. (#/hr)	10		10	10		10	10		10	10		10
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	2%	4%	2%	2%	4%	2%	2%	2%	2%	2%	2%	2%
Adj. Flow (vph)	27	1654	29	20	1679	77	156	95	60	44	116	114
Shared Lane Traffic (%)												
Lane Group Flow (vph)	27	1683	0	20	1756	0	156	155	0	44	230	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	11.0	14.0		11.0	14.0		11.0	14.0		11.0	14.0	
Total Split (s)	11.0	51.0		11.0	51.0		11.0	17.0		11.0	17.0	
Total Split (%)	12.2%	56.7%		12.2%	56.7%		12.2%	18.9%		12.2%	18.9%	
Maximum Green (s)	7.5	45.0		7.5	45.0		7.5	11.0		7.5	11.0	
Yellow Time (s)	3.5	4.5		3.5	4.5		3.5	4.5		3.5	4.5	
All-Red Time (s)	0.0	1.5		0.0	1.5		0.0	1.5		0.0	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.5	6.0		3.5	6.0		3.5	6.0		3.5	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		None	C-Max		None	C-Max	
Walk Time (s)		7.0			7.0			7.0			7.0	
Flash Dont Walk (s)		11.0			11.0			11.0			11.0	
Pedestrian Calls (#/hr)		0			0			0			0	
Act Effct Green (s)	57.2	52.1		57.0	52.0		22.5	15.5		20.3	11.0	
Actuated g/C Ratio	0.64	0.58		0.63	0.58		0.25	0.17		0.23	0.12	
v/c Ratio	0.14	0.84		0.10	0.88		0.63	0.48		0.14	0.93	
Control Delay	7.2	22.0		6.8	24.6		39.4	35.2		25.8	75.7	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	7.2	22.0		6.8	24.6		39.4	35.2		25.8	75.7	
LOS	A	C		A	C		D	D		C	E	
Approach Delay		21.8			24.4			37.3			67.7	
Approach LOS		C			C			D			E	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.93
Intersection Signal Delay: 27.2 Intersection LOS: C
Intersection Capacity Utilization 80.7% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 48: Lathrop Ave & North Ave



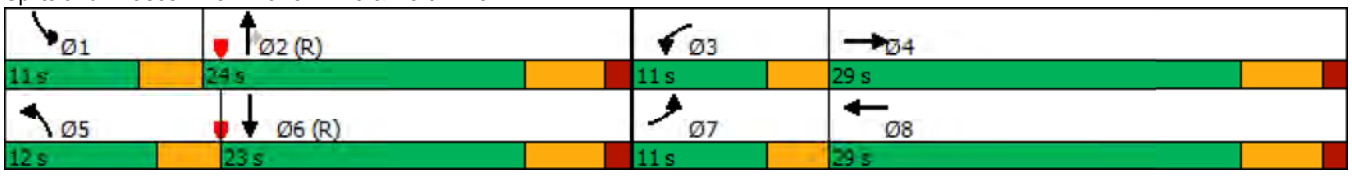
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	89	1131	300	164	1457	47	188	540	198	100	637	100
Future Volume (vph)	89	1131	300	164	1457	47	188	540	198	100	637	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	245		0	165		0	145		145	100		0
Storage Lanes	1		0	1		0	1		1	1		0
Taper Length (ft)	135			180			135			160		
Lane Util. Factor	1.00	0.91	0.91	1.00	0.91	0.91	1.00	0.95	1.00	1.00	0.95	0.95
Ped Bike Factor	1.00	0.99		1.00	1.00		1.00		0.98	0.99	1.00	
Frt		0.969			0.995				0.850		0.980	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	4828	0	1770	4962	0	1770	3471	1583	1770	3399	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1767	4828	0	1767	4962	0	1762	3471	1545	1759	3399	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		92			6				202		22	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		425			797			667			513	
Travel Time (s)		9.7			18.1			15.2			11.7	
Confl. Peds. (#/hr)	10		10	10		10	10		10	10		10
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	2%	4%	2%	2%	4%	2%	2%	4%	2%	2%	4%	2%
Adj. Flow (vph)	91	1154	306	167	1487	48	192	551	202	102	650	102
Shared Lane Traffic (%)												
Lane Group Flow (vph)	91	1460	0	167	1535	0	192	551	202	102	752	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2	1	1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100	20	20	100	
Trailing Detector (ft)	0	0		0	0		0	0	0	0	0	
Detector 1 Position(ft)	0	0		0	0		0	0	0	0	0	
Detector 1 Size(ft)	20	6		20	6		20	6	20	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Prot	NA		Prot	NA		Prot	NA	Perm	Prot	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases									2			
Detector Phase	7	4		3	8		5	2	2	1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	11.0	14.0		11.0	14.0		11.0	14.0	14.0	11.0	14.0	
Total Split (s)	11.0	29.0		11.0	29.0		12.0	24.0	24.0	11.0	23.0	
Total Split (%)	14.7%	38.7%		14.7%	38.7%		16.0%	32.0%	32.0%	14.7%	30.7%	
Maximum Green (s)	7.5	23.0		7.5	23.0		8.5	18.0	18.0	7.5	17.0	
Yellow Time (s)	3.5	4.5		3.5	4.5		3.5	4.5	4.5	3.5	4.5	
All-Red Time (s)	0.0	1.5		0.0	1.5		0.0	1.5	1.5	0.0	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	3.5	6.0		3.5	6.0		3.5	6.0	6.0	3.5	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	None		None	None		None	C-Max	C-Max	None	C-Max	
Walk Time (s)		7.0			7.0			7.0	7.0		7.0	
Flash Dont Walk (s)		11.0			11.0			11.0	11.0		11.0	
Pedestrian Calls (#/hr)		0			0			0	0		0	
Act Effct Green (s)	7.1	23.0		7.5	25.2		8.5	20.2	20.2	7.2	17.0	
Actuated g/C Ratio	0.09	0.31		0.10	0.34		0.11	0.27	0.27	0.10	0.23	
v/c Ratio	0.54	0.95		0.94	0.92		0.96	0.59	0.36	0.60	0.96	
Control Delay	44.7	38.1		92.1	35.9		91.2	27.8	5.9	48.3	52.6	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay	44.7	38.1		92.1	35.9		91.2	27.8	5.9	48.3	52.6	
LOS	D	D		F	D		F	C	A	D	D	
Approach Delay		38.5			41.4			36.0			52.1	
Approach LOS		D			D			D			D	

Intersection Summary

Area Type: Other
Cycle Length: 75
Actuated Cycle Length: 75
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.96
Intersection Signal Delay: 41.3 Intersection LOS: D
Intersection Capacity Utilization 85.9% ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 54: Harlem Ave & North Ave



Volumes & Level of Service – PM

Intersection	
Intersection Delay, s/veh	15.6
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	114	241	19	10	243	23	11	155	31	13	148	89
Future Vol, veh/h	114	241	19	10	243	23	11	155	31	13	148	89
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	125	265	21	11	267	25	12	170	34	14	163	98
Number of Lanes	0	2	0	0	1	1	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	2
HCM Control Delay	15.1	17.1	14.3	15.7
HCM LOS	C	C	B	C

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	6%	49%	0%	4%	0%	5%
Vol Thru, %	79%	51%	86%	96%	0%	59%
Vol Right, %	16%	0%	14%	0%	100%	36%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	197	235	140	253	23	250
LT Vol	11	114	0	10	0	13
Through Vol	155	121	121	243	0	148
RT Vol	31	0	19	0	23	89
Lane Flow Rate	216	258	153	278	25	275
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.405	0.507	0.287	0.541	0.044	0.493
Departure Headway (Hd)	6.737	7.078	6.731	7.011	6.272	6.465
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	533	508	533	514	569	555
Service Time	4.795	4.831	4.484	4.766	4.027	4.52
HCM Lane V/C Ratio	0.405	0.508	0.287	0.541	0.044	0.495
HCM Control Delay	14.3	16.9	12.2	17.8	9.3	15.7
HCM Lane LOS	B	C	B	C	A	C
HCM 95th-tile Q	1.9	2.8	1.2	3.2	0.1	2.7

Intersection	
Intersection Delay, s/veh	13.7
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	135	11	45	171	29	7	268	23	20	184	7
Future Vol, veh/h	3	135	11	45	171	29	7	268	23	20	184	7
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	153	13	51	194	33	8	305	26	23	209	8
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	11.8	13.9	15.2	12.9
HCM LOS	B	B	C	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	2%	2%	18%	9%
Vol Thru, %	90%	91%	70%	87%
Vol Right, %	8%	7%	12%	3%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	298	149	245	211
LT Vol	7	3	45	20
Through Vol	268	135	171	184
RT Vol	23	11	29	7
Lane Flow Rate	339	169	278	240
Geometry Grp	1	1	1	1
Degree of Util (X)	0.534	0.293	0.456	0.399
Departure Headway (Hd)	5.782	6.222	6.004	5.997
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	626	581	604	604
Service Time	3.782	4.234	4.004	3.997
HCM Lane V/C Ratio	0.542	0.291	0.46	0.397
HCM Control Delay	15.2	11.8	13.9	12.9
HCM Lane LOS	C	B	B	B
HCM 95th-tile Q	3.2	1.2	2.4	1.9

Intersection	
Intersection Delay, s/veh	26.8
Intersection LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	22	342	24	44	215	54	25	229	46	28	143	22
Future Vol, veh/h	22	342	24	44	215	54	25	229	46	28	143	22
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	24	380	27	49	239	60	28	254	51	31	159	24
Number of Lanes	0	1	1	0	1	1	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	2
HCM Control Delay	38	20.9	24.6	17.5
HCM LOS	E	C	C	C

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	8%	6%	0%	17%	0%	15%
Vol Thru, %	76%	94%	0%	83%	0%	74%
Vol Right, %	15%	0%	100%	0%	100%	11%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	300	364	24	259	54	193
LT Vol	25	22	0	44	0	28
Through Vol	229	342	0	215	0	143
RT Vol	46	0	24	0	54	22
Lane Flow Rate	333	404	27	288	60	214
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.678	0.848	0.05	0.628	0.117	0.464
Departure Headway (Hd)	7.326	7.545	6.792	7.85	7.038	7.796
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	493	481	526	460	508	461
Service Time	5.39	5.301	4.548	5.613	4.801	5.873
HCM Lane V/C Ratio	0.675	0.84	0.051	0.626	0.118	0.464
HCM Control Delay	24.6	39.9	9.9	23	10.7	17.5
HCM Lane LOS	C	E	A	C	B	C
HCM 95th-tile Q	5	8.6	0.2	4.2	0.4	2.4

Intersection	
Intersection Delay, s/veh	7.5
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	86	0	1	34	5	2	10	2	15	20	15
Future Vol, veh/h	2	86	0	1	34	5	2	10	2	15	20	15
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	93	0	1	37	5	2	11	2	16	22	16
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.6	7.3	7.3	7.4
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	14%	2%	3%	30%
Vol Thru, %	71%	98%	85%	40%
Vol Right, %	14%	0%	12%	30%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	14	88	40	50
LT Vol	2	2	1	15
Through Vol	10	86	34	20
RT Vol	2	0	5	15
Lane Flow Rate	15	96	43	54
Geometry Grp	1	1	1	1
Degree of Util (X)	0.018	0.109	0.049	0.061
Departure Headway (Hd)	4.16	4.093	4.058	4.067
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	850	872	876	871
Service Time	2.238	2.135	2.113	2.136
HCM Lane V/C Ratio	0.018	0.11	0.049	0.062
HCM Control Delay	7.3	7.6	7.3	7.4
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.4	0.2	0.2

Intersection	
Intersection Delay, s/veh	7.5
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	94	4	4	29	1	4	4	4	6	5	7
Future Vol, veh/h	5	94	4	4	29	1	4	4	4	6	5	7
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	102	4	4	32	1	4	4	4	7	5	8
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.6	7.3	7.2	7.2
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	33%	5%	12%	33%
Vol Thru, %	33%	91%	85%	28%
Vol Right, %	33%	4%	3%	39%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	12	103	34	18
LT Vol	4	5	4	6
Through Vol	4	94	29	5
RT Vol	4	4	1	7
Lane Flow Rate	13	112	37	20
Geometry Grp	1	1	1	1
Degree of Util (X)	0.015	0.125	0.042	0.022
Departure Headway (Hd)	4.074	4.005	4.081	4.036
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	869	896	875	877
Service Time	2.144	2.028	2.118	2.104
HCM Lane V/C Ratio	0.015	0.125	0.042	0.023
HCM Control Delay	7.2	7.6	7.3	7.2
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0	0.4	0.1	0.1

Intersection	
Int Delay, s/veh	3.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	125	500	402	72	65	112
Future Vol, veh/h	125	500	402	72	65	112
Conflicting Peds, #/hr	10	0	0	10	10	10
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	3	3	3	2	2	2
Mvmt Flow	137	549	442	79	71	123

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	531	0	-	0	1325	502
Stage 1	-	-	-	-	492	-
Stage 2	-	-	-	-	833	-
Critical Hdwy	4.13	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.227	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1031	-	-	-	172	569
Stage 1	-	-	-	-	615	-
Stage 2	-	-	-	-	427	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1021	-	-	-	146	558
Mov Cap-2 Maneuver	-	-	-	-	280	-
Stage 1	-	-	-	-	527	-
Stage 2	-	-	-	-	423	-

Approach	EB	WB	SB
HCM Control Delay, s	1.8	0	21.5
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1021	-	-	-	409
HCM Lane V/C Ratio	0.135	-	-	-	0.476
HCM Control Delay (s)	9.1	-	-	-	21.5
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0.5	-	-	-	2.5

Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	20	545	394	185	13	80
Future Vol, veh/h	20	545	394	185	13	80
Conflicting Peds, #/hr	14	0	0	14	10	10
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	65	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	22	586	424	199	14	86

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	637	0	-	0	1178	548
Stage 1	-	-	-	-	538	-
Stage 2	-	-	-	-	640	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	947	-	-	-	211	536
Stage 1	-	-	-	-	585	-
Stage 2	-	-	-	-	525	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	934	-	-	-	201	524
Mov Cap-2 Maneuver	-	-	-	-	201	-
Stage 1	-	-	-	-	563	-
Stage 2	-	-	-	-	518	-

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	16
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	934	-	-	-	428
HCM Lane V/C Ratio	0.023	-	-	-	0.234
HCM Control Delay (s)	8.9	-	-	-	16
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	0.9

Intersection	
Int Delay, s/veh	2.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	44	130	452	56	20	564
Future Vol, veh/h	44	130	452	56	20	564
Conflicting Peds, #/hr	10	10	0	10	10	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	48	141	491	61	22	613

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	893	542	0	0	562	0
Stage 1	532	-	-	-	-	-
Stage 2	361	-	-	-	-	-
Critical Hdwy	6.63	6.23	-	-	4.13	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.83	-	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	2.219	-
Pot Cap-1 Maneuver	296	539	-	-	1007	-
Stage 1	588	-	-	-	-	-
Stage 2	677	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	281	529	-	-	997	-
Mov Cap-2 Maneuver	281	-	-	-	-	-
Stage 1	582	-	-	-	-	-
Stage 2	649	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	19.7	0	0.4
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	432	997	-
HCM Lane V/C Ratio	-	-	0.438	0.022	-
HCM Control Delay (s)	-	-	19.7	8.7	0.1
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	2.2	0.1	-

Intersection	
Int Delay, s/veh	24

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	68	183	488	94	240	516
Future Vol, veh/h	68	183	488	94	240	516
Conflicting Peds, #/hr	10	10	0	10	10	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	71	191	508	98	250	538

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1346	577	0	0	616	0
Stage 1	567	-	-	-	-	-
Stage 2	779	-	-	-	-	-
Critical Hdwy	6.63	6.23	-	-	4.13	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.83	-	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	2.219	-
Pot Cap-1 Maneuver	154	515	-	-	962	-
Stage 1	567	-	-	-	-	-
Stage 2	414	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	95	505	-	-	953	-
Mov Cap-2 Maneuver	95	-	-	-	-	-
Stage 1	561	-	-	-	-	-
Stage 2	257	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	140.4	0	3.9
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	233	953	-
HCM Lane V/C Ratio	-	-	1.122	0.262	-
HCM Control Delay (s)	-	-	140.4	10.1	1
HCM Lane LOS	-	-	F	B	A
HCM 95th %tile Q(veh)	-	-	11.8	1.1	-

Intersection	
Int Delay, s/veh	2.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	12	65	27	2	10	11
Future Vol, veh/h	12	65	27	2	10	11
Conflicting Peds, #/hr	10	0	0	10	10	10
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	13	71	29	2	11	12

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	41	0	-	0	147	50
Stage 1	-	-	-	-	40	-
Stage 2	-	-	-	-	107	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1568	-	-	-	845	1018
Stage 1	-	-	-	-	982	-
Stage 2	-	-	-	-	917	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1553	-	-	-	820	999
Mov Cap-2 Maneuver	-	-	-	-	820	-
Stage 1	-	-	-	-	963	-
Stage 2	-	-	-	-	908	-

Approach	EB	WB	SB
HCM Control Delay, s	1.1	0	9.1
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1553	-	-	-	905
HCM Lane V/C Ratio	0.008	-	-	-	0.025
HCM Control Delay (s)	7.3	0	-	-	9.1
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	10	62	3	2	24	2	1	0	1	9	0	4
Future Vol, veh/h	10	62	3	2	24	2	1	0	1	9	0	4
Conflicting Peds, #/hr	10	0	10	10	0	10	10	0	10	10	0	10
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	67	3	2	26	2	1	0	1	10	0	4

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	38	0	0	80	0	0	144	143	89	142	143	47
Stage 1	-	-	-	-	-	-	101	101	-	41	41	-
Stage 2	-	-	-	-	-	-	43	42	-	101	102	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1572	-	-	1518	-	-	825	748	969	828	748	1022
Stage 1	-	-	-	-	-	-	905	811	-	974	861	-
Stage 2	-	-	-	-	-	-	971	860	-	905	811	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1557	-	-	1504	-	-	801	727	951	806	727	1003
Mov Cap-2 Maneuver	-	-	-	-	-	-	801	727	-	806	727	-
Stage 1	-	-	-	-	-	-	891	797	-	958	852	-
Stage 2	-	-	-	-	-	-	957	851	-	889	797	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1	0.5	9.1	9.3
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	870	1557	-	-	1504	-	-	858
HCM Lane V/C Ratio	0.002	0.007	-	-	0.001	-	-	0.016
HCM Control Delay (s)	9.1	7.3	0	-	7.4	0	-	9.3
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.1

Intersection	
Int Delay, s/veh	18

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	23	45	6	13	34	8	1089	16	22	1010	7
Future Vol, veh/h	4	23	45	6	13	34	8	1089	16	22	1010	7
Conflicting Peds, #/hr	10	0	10	10	0	10	10	0	10	10	0	10
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	25	49	7	14	37	9	1184	17	24	1098	8

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1787	2389	573	1841	2385	621	1116	0	0	1211	0	0
Stage 1	1160	1160	-	1221	1221	-	-	-	-	-	-	-
Stage 2	627	1229	-	620	1164	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	51	33	463	47	34	430	622	-	-	572	-	-
Stage 1	208	268	-	191	251	-	-	-	-	-	-	-
Stage 2	438	248	-	442	267	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	25	28	454	9	28	422	616	-	-	567	-	-
Mov Cap-2 Maneuver	25	28	-	9	28	-	-	-	-	-	-	-
Stage 1	197	236	-	181	237	-	-	-	-	-	-	-
Stage 2	356	235	-	311	235	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	268.8	$ 386.7	0.3	0.8
HCM LOS	F	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	616	-	-	67	44	567	-	-
HCM Lane V/C Ratio	0.014	-	-	1.168	1.309	0.042	-	-
HCM Control Delay (s)	10.9	0.2	-	268.8	$ 386.7	11.6	0.6	-
HCM Lane LOS	B	A	-	F	F	B	A	-
HCM 95th %tile Q(veh)	0	-	-	6.2	5.6	0.1	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	26.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	6	44	54	20	10	40	6	1096	25	20	965	18
Future Vol, veh/h	6	44	54	20	10	40	6	1096	25	20	965	18
Conflicting Peds, #/hr	10	0	10	10	0	10	10	0	10	10	0	10
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	48	59	22	11	43	7	1191	27	22	1049	20

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1738	2355	555	1832	2352	629	1079	0	0	1228	0	0
Stage 1	1113	1113	-	1229	1229	-	-	-	-	-	-	-
Stage 2	625	1242	-	603	1123	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	56	~ 35	475	47	35	425	642	-	-	563	-	-
Stage 1	222	282	-	188	248	-	-	-	-	-	-	-
Stage 2	439	245	-	453	279	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	32	~ 30	466	-	30	417	636	-	-	558	-	-
Mov Cap-2 Maneuver	32	~ 30	-	-	30	-	-	-	-	-	-	-
Stage 1	212	252	-	180	237	-	-	-	-	-	-	-
Stage 2	359	234	-	287	249	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	$ 580.5		0.3	0.8
HCM LOS	F	-		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	636	-	-	59	-	558	-	-
HCM Lane V/C Ratio	0.01	-	-	1.916	-	0.039	-	-
HCM Control Delay (s)	10.7	0.2	-	$ 580.5	-	11.7	0.6	-
HCM Lane LOS	B	A	-	F	-	B	A	-
HCM 95th %tile Q(veh)	0	-	-	10.7	-	0.1	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	4.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1530	55	40	1517	1	27
Future Vol, veh/h	1530	55	40	1517	1	27
Conflicting Peds, #/hr	0	10	10	0	26	10
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1663	60	43	1649	1	29

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1733	0	2640	882
Stage 1	-	-	-	-	1703	-
Stage 2	-	-	-	-	937	-
Critical Hdwy	-	-	4.14	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.22	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	360	-	19	289
Stage 1	-	-	-	-	133	-
Stage 2	-	-	-	-	342	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	357	-	0	284
Mov Cap-2 Maneuver	-	-	-	-	0	-
Stage 1	-	-	-	-	132	-
Stage 2	-	-	-	-	0	-

Approach	EB	WB	NB
HCM Control Delay, s	0	8	19.2
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	284	-	-	357	-
HCM Lane V/C Ratio	0.107	-	-	0.122	-
HCM Control Delay (s)	19.2	-	-	16.5	7.8
HCM Lane LOS	C	-	-	C	A
HCM 95th %tile Q(veh)	0.4	-	-	0.4	-

Intersection	
Int Delay, s/veh	4.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1530	27	35	1543	14	29
Future Vol, veh/h	1530	27	35	1543	14	29
Conflicting Peds, #/hr	0	10	10	0	10	10
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1663	29	38	1677	15	32

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1702	0	2613	866
Stage 1	-	-	-	-	1688	-
Stage 2	-	-	-	-	925	-
Critical Hdwy	-	-	4.14	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.22	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	370	-	20	297
Stage 1	-	-	-	-	135	-
Stage 2	-	-	-	-	347	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	366	-	0	291
Mov Cap-2 Maneuver	-	-	-	-	0	-
Stage 1	-	-	-	-	134	-
Stage 2	-	-	-	-	0	-

Approach	EB	WB	NB
HCM Control Delay, s	0	7.8	19.7
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	291	-	-	366	-
HCM Lane V/C Ratio	0.161	-	-	0.104	-
HCM Control Delay (s)	19.7	-	-	16	7.6
HCM Lane LOS	C	-	-	C	A
HCM 95th %tile Q(veh)	0.6	-	-	0.3	-

Intersection	
Int Delay, s/veh	5.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	49	1480	30	10	1515	12	4	25	14	19	1	59
Future Vol, veh/h	49	1480	30	10	1515	12	4	25	14	19	1	59
Conflicting Peds, #/hr	10	0	10	10	0	10	10	0	10	10	0	10
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	53	1609	33	11	1647	13	4	27	15	21	1	64

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1670	0	0	1652	0	0	2598	3434	841	2620	3444	850
Stage 1	-	-	-	-	-	-	1742	1742	-	1686	1686	-
Stage 2	-	-	-	-	-	-	856	1692	-	934	1758	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	381	-	-	387	-	-	12	~ 7	308	~ 12	7	304
Stage 1	-	-	-	-	-	-	90	139	-	98	149	-
Stage 2	-	-	-	-	-	-	319	147	-	286	137	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	377	-	-	383	-	-	-	0	302	-	0	298
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	0	-	-	0	-
Stage 1	-	-	-	-	-	-	90	0	-	98	92	-
Stage 2	-	-	-	-	-	-	153	91	-	-	0	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	7.7	2.8		
HCM LOS			-	-

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	377	-	-	383	-	-	-
HCM Lane V/C Ratio	-	0.141	-	-	0.028	-	-	-
HCM Control Delay (s)	-	16.1	7.6	-	14.7	2.7	-	-
HCM Lane LOS	-	C	A	-	B	A	-	-
HCM 95th %tile Q(veh)	-	0.5	-	-	0.1	-	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	10.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1488	25	25	1535	2	15
Future Vol, veh/h	1488	25	25	1535	2	15
Conflicting Peds, #/hr	0	10	10	0	10	10
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1617	27	27	1668	2	16

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1654	0	2372	842
Stage 1	-	-	-	-	1641	-
Stage 2	-	-	-	-	731	-
Critical Hdwy	-	-	4.14	-	6.29	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	6.04	-
Follow-up Hdwy	-	-	2.22	-	3.67	3.32
Pot Cap-1 Maneuver	-	-	386	-	41	308
Stage 1	-	-	-	-	141	-
Stage 2	-	-	-	-	408	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	382	-	~ 1	302
Mov Cap-2 Maneuver	-	-	-	-	~ 1	-
Stage 1	-	-	-	-	140	-
Stage 2	-	-	-	-	13	-

Approach	EB	WB	NB
HCM Control Delay, s	0	4.9	$ 1494.4
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	8	-	-	382	-
HCM Lane V/C Ratio	2.31	-	-	0.071	-
HCM Control Delay (s)	$ 1494.4	-	-	15.1	4.7
HCM Lane LOS	F	-	-	C	A
HCM 95th %tile Q(veh)	3.4	-	-	0.2	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	0.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1485	18	0	1560	0	10
Future Vol, veh/h	1485	18	0	1560	0	10
Conflicting Peds, #/hr	0	10	10	0	10	10
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1614	20	0	1696	0	11

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	837
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	-	-	0	-	0	310
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	304
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	17.3
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	304	-	-	-
HCM Lane V/C Ratio	0.036	-	-	-
HCM Control Delay (s)	17.3	-	-	-
HCM Lane LOS	C	-	-	-
HCM 95th %tile Q(veh)	0.1	-	-	-

Intersection	
Int Delay, s/veh	2.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	33	525	31	21	521	14	6	12	26	6	18	31
Future Vol, veh/h	33	525	31	21	521	14	6	12	26	6	18	31
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	36	571	34	23	566	15	7	13	28	7	20	34

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	581	0	0	605	0	0	1307	1287	588	1301	1297	574
Stage 1	-	-	-	-	-	-	660	660	-	620	620	-
Stage 2	-	-	-	-	-	-	647	627	-	681	677	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	993	-	-	973	-	-	137	164	509	138	162	518
Stage 1	-	-	-	-	-	-	452	460	-	476	480	-
Stage 2	-	-	-	-	-	-	460	476	-	440	452	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	993	-	-	973	-	-	109	153	509	115	151	518
Mov Cap-2 Maneuver	-	-	-	-	-	-	109	153	-	115	151	-
Stage 1	-	-	-	-	-	-	436	443	-	459	463	-
Stage 2	-	-	-	-	-	-	397	459	-	389	436	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.5	0.3	23.9	25.1
HCM LOS			C	D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	238	993	-	-	973	-	-	238
HCM Lane V/C Ratio	0.201	0.036	-	-	0.023	-	-	0.251
HCM Control Delay (s)	23.9	8.8	-	-	8.8	0	-	25.1
HCM Lane LOS	C	A	-	-	A	A	-	D
HCM 95th %tile Q(veh)	0.7	0.1	-	-	0.1	-	-	1

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	14	426	297	35	35	18
Future Vol, veh/h	14	426	297	35	35	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	15	463	323	38	38	20

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	361	0	-	0	835	342
Stage 1	-	-	-	-	342	-
Stage 2	-	-	-	-	493	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1198	-	-	-	338	701
Stage 1	-	-	-	-	719	-
Stage 2	-	-	-	-	614	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1198	-	-	-	332	701
Mov Cap-2 Maneuver	-	-	-	-	332	-
Stage 1	-	-	-	-	707	-
Stage 2	-	-	-	-	614	-

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	15.4
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1198	-	-	-	404
HCM Lane V/C Ratio	0.013	-	-	-	0.143
HCM Control Delay (s)	8	0	-	-	15.4
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0.5

Intersection	
Int Delay, s/veh	5.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	47	5	5	47	9	7	32	11	27	20	15
Future Vol, veh/h	2	47	5	5	47	9	7	32	11	27	20	15
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	51	5	5	51	10	8	35	12	29	22	16

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	61	0	0	56	0	0	143	129	54	147	126	56
Stage 1	-	-	-	-	-	-	58	58	-	66	66	-
Stage 2	-	-	-	-	-	-	85	71	-	81	60	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1542	-	-	1549	-	-	826	762	1013	821	764	1011
Stage 1	-	-	-	-	-	-	954	847	-	945	840	-
Stage 2	-	-	-	-	-	-	923	836	-	927	845	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1542	-	-	1549	-	-	792	759	1013	781	761	1011
Mov Cap-2 Maneuver	-	-	-	-	-	-	792	759	-	781	761	-
Stage 1	-	-	-	-	-	-	953	846	-	944	837	-
Stage 2	-	-	-	-	-	-	882	833	-	878	844	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	0.6	9.8	9.8
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	808	1542	-	-	1549	-	-	819
HCM Lane V/C Ratio	0.067	0.001	-	-	0.004	-	-	0.082
HCM Control Delay (s)	9.8	7.3	0	-	7.3	0	-	9.8
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0.3

Intersection	
Int Delay, s/veh	4.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	7	70	8	10	36	5	10	31	6	12	14	15
Future Vol, veh/h	7	70	8	10	36	5	10	31	6	12	14	15
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	8	76	9	11	39	5	11	34	7	13	15	16

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	44	0	0	85	0	0	176	163	81	181	165	42
Stage 1	-	-	-	-	-	-	97	97	-	64	64	-
Stage 2	-	-	-	-	-	-	79	66	-	117	101	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1564	-	-	1512	-	-	786	729	979	781	728	1029
Stage 1	-	-	-	-	-	-	910	815	-	947	842	-
Stage 2	-	-	-	-	-	-	930	840	-	888	811	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1564	-	-	1512	-	-	754	720	979	741	719	1029
Mov Cap-2 Maneuver	-	-	-	-	-	-	754	720	-	741	719	-
Stage 1	-	-	-	-	-	-	905	811	-	942	836	-
Stage 2	-	-	-	-	-	-	892	834	-	841	807	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.6	1.5	10.1	9.7
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	753	1564	-	-	1512	-	-	816
HCM Lane V/C Ratio	0.068	0.005	-	-	0.007	-	-	0.055
HCM Control Delay (s)	10.1	7.3	0	-	7.4	0	-	9.7
HCM Lane LOS	B	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0.2

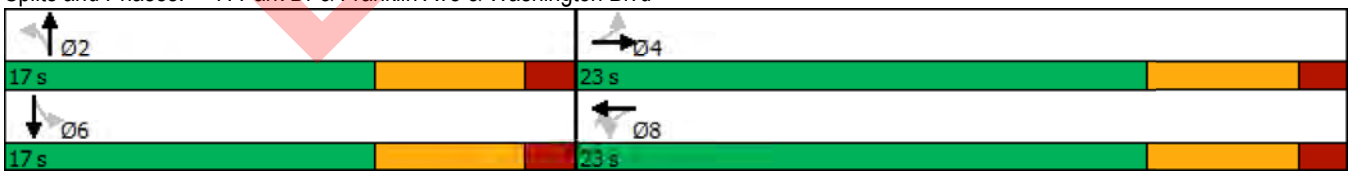
Lane Group	EBL	EBT	EBR	WBL2	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	10	330	5	5	15	224	13	5	29	33	10	35
Future Volume (vph)	10	330	5	5	15	224	13	5	29	33	10	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00				1.00			0.98			0.98
Frt		0.998				0.993			0.933			0.949
Flt Protected		0.999				0.996			0.997			0.993
Satd. Flow (prot)	0	1856	0	0	0	1839	0	0	1706	0	0	1728
Flt Permitted		0.989				0.961			0.967			0.937
Satd. Flow (perm)	0	1837	0	0	0	1773	0	0	1654	0	0	1628
Right Turn on Red							Yes			Yes		
Satd. Flow (RTOR)						8			36			22
Link Speed (mph)		25				25			25			25
Link Distance (ft)		458				415			336			350
Travel Time (s)		12.5				11.3			9.2			9.5
Confl. Peds. (#/hr)	10		10	10	10		10	10		10	10	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	11	359	5	5	16	243	14	5	32	36	11	38
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	375	0	0	0	278	0	0	73	0	0	79
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Left	Right	Left	Left	Right	Left	Left
Median Width(ft)		0				0			0			0
Link Offset(ft)		0				0			0			0
Crosswalk Width(ft)		16				16			16			16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15	15		9	15		9	15	
Number of Detectors	1	2		1	1	2		1	2		1	2
Detector Template	Left	Thru		Left	Left	Thru		Left	Thru		Left	Thru
Leading Detector (ft)	20	100		20	20	100		20	100		20	100
Trailing Detector (ft)	0	0		0	0	0		0	0		0	0
Detector 1 Position(ft)	0	0		0	0	0		0	0		0	0
Detector 1 Size(ft)	20	6		20	20	6		20	6		20	6
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0		0.0	0.0		0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0		0.0	0.0		0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0		0.0	0.0		0.0	0.0
Detector 2 Position(ft)		94				94			94			94
Detector 2 Size(ft)		6				6			6			6
Detector 2 Type		Cl+Ex				Cl+Ex			Cl+Ex			Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)		0.0				0.0			0.0			0.0
Turn Type	Perm	NA		Perm	Perm	NA		Perm	NA		Perm	NA
Protected Phases		4				8			2			6
Permitted Phases	4			8	8			2			6	
Detector Phase	4	4		8	8	8		2	2		6	6

Lane Group	SBR	SBR2
Lane Configurations		
Traffic Volume (vph)	7	20
Future Volume (vph)	7	20
Ideal Flow (vphpl)	1900	1900
Lane Util. Factor	1.00	1.00
Ped Bike Factor		
Frt		
Flt Protected		
Satd. Flow (prot)	0	0
Flt Permitted		
Satd. Flow (perm)	0	0
Right Turn on Red		Yes
Satd. Flow (RTOR)		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Confl. Peds. (#/hr)	10	10
Peak Hour Factor	0.92	0.92
Adj. Flow (vph)	8	22
Shared Lane Traffic (%)		
Lane Group Flow (vph)	0	0
Enter Blocked Intersection	No	No
Lane Alignment	Right	Right
Median Width(ft)		
Link Offset(ft)		
Crosswalk Width(ft)		
Two way Left Turn Lane		
Headway Factor	1.00	1.00
Turning Speed (mph)	9	9
Number of Detectors		
Detector Template		
Leading Detector (ft)		
Trailing Detector (ft)		
Detector 1 Position(ft)		
Detector 1 Size(ft)		
Detector 1 Type		
Detector 1 Channel		
Detector 1 Extend (s)		
Detector 1 Queue (s)		
Detector 1 Delay (s)		
Detector 2 Position(ft)		
Detector 2 Size(ft)		
Detector 2 Type		
Detector 2 Channel		
Detector 2 Extend (s)		
Turn Type		
Protected Phases		
Permitted Phases		
Detector Phase		

Lane Group	EBL	EBT	EBR	WBL2	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0		5.0	5.0		5.0	5.0
Minimum Split (s)	14.0	14.0		14.0	14.0	14.0		14.0	14.0		14.0	14.0
Total Split (s)	23.0	23.0		23.0	23.0	23.0		17.0	17.0		17.0	17.0
Total Split (%)	57.5%	57.5%		57.5%	57.5%	57.5%		42.5%	42.5%		42.5%	42.5%
Maximum Green (s)	17.0	17.0		17.0	17.0	17.0		11.0	11.0		11.0	11.0
Yellow Time (s)	4.5	4.5		4.5	4.5	4.5		4.5	4.5		4.5	4.5
All-Red Time (s)	1.5	1.5		1.5	1.5	1.5		1.5	1.5		1.5	1.5
Lost Time Adjust (s)		0.0				0.0			0.0			0.0
Total Lost Time (s)		6.0				6.0			6.0			6.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0		3.0	3.0		3.0	3.0
Recall Mode	Max	Max		Max	Max	Max		None	None		None	None
Walk Time (s)	7.0	7.0		7.0	7.0	7.0		7.0	7.0		7.0	7.0
Flash Dont Walk (s)	11.0	11.0		11.0	11.0	11.0		11.0	11.0		11.0	11.0
Pedestrian Calls (#/hr)	0	0		0	0	0		0	0		0	0
Act Effct Green (s)		26.4				26.4			6.9			6.9
Actuated g/C Ratio		0.69				0.69			0.18			0.18
v/c Ratio		0.30				0.23			0.22			0.25
Control Delay		6.3				5.8			9.8			12.2
Queue Delay		0.0				0.0			0.0			0.0
Total Delay		6.3				5.8			9.8			12.2
LOS		A				A			A			B
Approach Delay		6.3				5.8			9.8			12.2
Approach LOS		A				A			A			B

Intersection Summary			
Area Type:	Other		
Cycle Length: 40			
Actuated Cycle Length: 38.4			
Natural Cycle: 40			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.30			
Intersection Signal Delay: 7.0		Intersection LOS: A	
Intersection Capacity Utilization 50.6%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 7: Park Dr & Franklin Ave & Washington Blvd



Lane Group	SBR	SBR2
Switch Phase		
Minimum Initial (s)		
Minimum Split (s)		
Total Split (s)		
Total Split (%)		
Maximum Green (s)		
Yellow Time (s)		
All-Red Time (s)		
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag		
Lead-Lag Optimize?		
Vehicle Extension (s)		
Recall Mode		
Walk Time (s)		
Flash Dont Walk (s)		
Pedestrian Calls (#/hr)		
Act Effct Green (s)		
Actuated g/C Ratio		
v/c Ratio		
Control Delay		
Queue Delay		
Total Delay		
LOS		
Approach Delay		
Approach LOS		

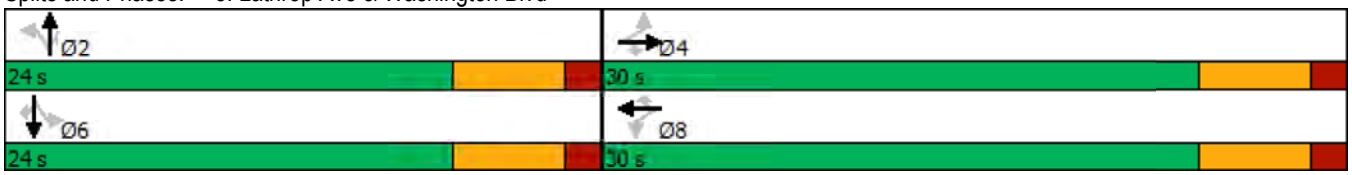
Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	68	276	5	4	189	81	5	184	16	136	84	69
Future Volume (vph)	68	276	5	4	189	81	5	184	16	136	84	69
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		75	0		75	0		75	0		75
Storage Lanes	0		1	0		1	0		1	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00	0.97		1.00	0.97		1.00	0.97		0.99	0.97
Frt			0.850			0.850			0.850			0.850
Flt Protected		0.990			0.999			0.999			0.970	
Satd. Flow (prot)	0	1844	1583	0	1861	1583	0	1861	1583	0	1807	1583
Flt Permitted		0.890			0.990			0.986			0.697	
Satd. Flow (perm)	0	1654	1528	0	1844	1528	0	1836	1528	0	1289	1528
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			61			86			61			73
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		450			2667			1328			1233	
Travel Time (s)		12.3			72.7			36.2			33.6	
Confl. Peds. (#/hr)	10		10	10		10	10		10	10		10
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	72	294	5	4	201	86	5	196	17	145	89	73
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	366	5	0	205	86	0	201	17	0	234	73
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (ft)	20	100	20	20	100	20	20	100	20	20	100	20
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0	0	0	0	0	0	0
Detector 1 Size(ft)	20	6	20	20	6	20	20	6	20	20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA	Perm	Perm	NA	Perm

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2		2	6		6
Detector Phase	4	4	4	8	8	8	2	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0
Total Split (s)	30.0	30.0	30.0	30.0	30.0	30.0	24.0	24.0	24.0	24.0	24.0	24.0
Total Split (%)	55.6%	55.6%	55.6%	55.6%	55.6%	55.6%	44.4%	44.4%	44.4%	44.4%	44.4%	44.4%
Maximum Green (s)	24.0	24.0	24.0	24.0	24.0	24.0	18.0	18.0	18.0	18.0	18.0	18.0
Yellow Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
All-Red Time (s)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Lost Time Adjust (s)		0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0
Total Lost Time (s)		6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	None	None	None	None	None	None	None	None	None
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Act Effct Green (s)		15.3	15.3		15.3	15.3		12.5	12.5		12.9	12.9
Actuated g/C Ratio		0.42	0.42		0.42	0.42		0.34	0.34		0.35	0.35
v/c Ratio		0.53	0.01		0.27	0.13		0.32	0.03		0.52	0.12
Control Delay		13.2	0.0		10.0	3.2		13.1	0.1		17.2	4.5
Queue Delay		0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0
Total Delay		13.2	0.0		10.0	3.2		13.1	0.1		17.2	4.5
LOS		B	A		A	A		B	A		B	A
Approach Delay		13.0			8.0			12.1			14.2	
Approach LOS		B			A			B			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 54			
Actuated Cycle Length: 36.7			
Natural Cycle: 40			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.53			
Intersection Signal Delay: 11.9		Intersection LOS: B	
Intersection Capacity Utilization 74.0%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 8: Lathrop Ave & Washington Blvd

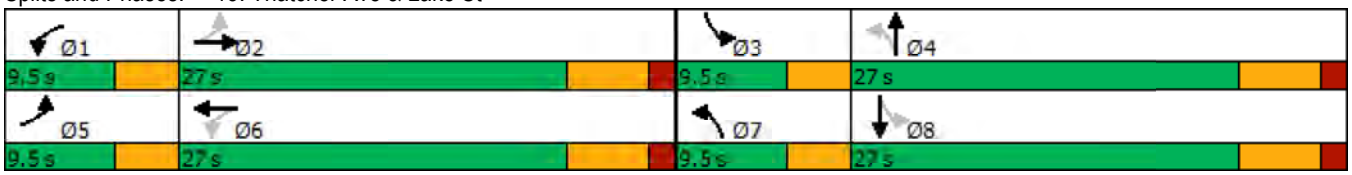


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	25	402	34	39	429	56	46	291	49	146	284	50
Future Volume (vph)	25	402	34	39	429	56	46	291	49	146	284	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	100		0	85		0	85		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	115			115			100			70		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.99	1.00		0.99	1.00		0.99	0.99		0.99	0.99	
Frt		0.988			0.983			0.978			0.978	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1835	0	1770	1823	0	1770	1811	0	1770	1811	0
Flt Permitted	0.286			0.301			0.431			0.343		
Satd. Flow (perm)	529	1835	0	556	1823	0	794	1811	0	632	1811	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		6			9			12			12	
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		824			2952			527			2095	
Travel Time (s)		18.7			67.1			14.4			57.1	
Confl. Peds. (#/hr)	10		10	10		10	10		10	10		10
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	26	410	35	40	438	57	47	297	50	149	290	51
Shared Lane Traffic (%)												
Lane Group Flow (vph)	26	445	0	40	495	0	47	347	0	149	341	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Protected Phases	5	2		1	6		7	4		3	8	
Permitted Phases	2			6			4			8		
Detector Phase	5	2		1	6		7	4		3	8	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	9.0	14.0		9.0	14.0		9.0	14.0		9.0	14.0	
Total Split (s)	9.5	27.0		9.5	27.0		9.5	27.0		9.5	27.0	
Total Split (%)	13.0%	37.0%		13.0%	37.0%		13.0%	37.0%		13.0%	37.0%	
Maximum Green (s)	6.0	21.0		6.0	21.0		6.0	21.0		6.0	21.0	
Yellow Time (s)	3.5	4.5		3.5	4.5		3.5	4.5		3.5	4.5	
All-Red Time (s)	0.0	1.5		0.0	1.5		0.0	1.5		0.0	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.5	6.0		3.5	6.0		3.5	6.0		3.5	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	Max		None	Max		None	None		None	None	
Walk Time (s)		7.0			7.0			7.0			7.0	
Flash Dont Walk (s)		11.0			11.0			11.0			11.0	
Pedestrian Calls (#/hr)		0			0			0			0	
Act Effct Green (s)	27.7	21.9		28.3	23.6		23.5	16.4		24.3	18.6	
Actuated g/C Ratio	0.44	0.35		0.45	0.37		0.37	0.26		0.39	0.30	
v/c Ratio	0.07	0.69		0.11	0.72		0.12	0.72		0.42	0.63	
Control Delay	11.5	28.8		11.7	28.8		12.1	31.1		15.9	26.3	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	11.5	28.8		11.7	28.8		12.1	31.1		15.9	26.3	
LOS	B	C		B	C		B	C		B	C	
Approach Delay		27.8			27.6			28.8			23.1	
Approach LOS		C			C			C			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 73			
Actuated Cycle Length: 63			
Natural Cycle: 65			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.72			
Intersection Signal Delay: 26.7		Intersection LOS: C	
Intersection Capacity Utilization 72.3%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 13: Thatcher Ave & Lake St

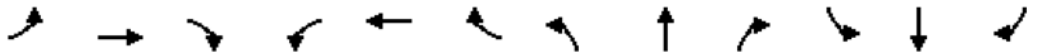


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	33	467	97	115	393	50	127	281	55	67	240	4
Future Volume (vph)	33	467	97	115	393	50	127	281	55	67	240	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		120	75		120	75		0	75		0
Storage Lanes	1		1	1		1	1		0	1		0
Taper Length (ft)	105			105			60			75		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.98		0.95	0.99		0.94	0.98	1.00		0.99	1.00	
Frt			0.850			0.850		0.975			0.998	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	1808	0	1770	1858	0
Flt Permitted	0.443			0.313			0.353			0.226		
Satd. Flow (perm)	811	1863	1507	578	1863	1481	647	1808	0	418	1858	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			106			106		9			1	
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		2952			1318			470			1333	
Travel Time (s)		67.1			30.0			12.8			36.4	
Confl. Peds. (#/hr)	16		10	10		16	10		10	10		10
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	35	502	104	124	423	54	137	302	59	72	258	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	35	502	104	124	423	54	137	361	0	72	262	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1	1	2		1	2	
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	
Leading Detector (ft)	20	100	20	20	100	20	20	100		20	100	
Trailing Detector (ft)	0	0	0	0	0	0	0	0		0	0	
Detector 1 Position(ft)	0	0	0	0	0	0	0	0		0	0	
Detector 1 Size(ft)	20	6	20	20	6	20	20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Protected Phases	5	2		1	6		7	4		3	8	
Permitted Phases	2		2	6		6	4			8		
Detector Phase	5	2	2	1	6	6	7	4		3	8	
Switch Phase												
Minimum Initial (s)	4.0	5.0	5.0	4.0	5.0	5.0	4.0	5.0		4.0	5.0	
Minimum Split (s)	10.0	14.0	14.0	10.0	14.0	14.0	10.0	14.0		10.0	14.0	
Total Split (s)	10.5	53.0	53.0	10.5	53.0	53.0	10.5	29.0		10.5	29.0	
Total Split (%)	10.2%	51.5%	51.5%	10.2%	51.5%	51.5%	10.2%	28.2%		10.2%	28.2%	
Maximum Green (s)	7.0	47.0	47.0	7.0	47.0	47.0	7.0	23.0		7.0	23.0	
Yellow Time (s)	3.5	4.5	4.5	3.5	4.5	4.5	3.5	4.5		3.5	4.5	
All-Red Time (s)	0.0	1.5	1.5	0.0	1.5	1.5	0.0	1.5		0.0	1.5	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.5	6.0	6.0	3.5	6.0	6.0	3.5	6.0		3.5	6.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	None	Max	Max	None	Max	Max	None	None		None	None	
Walk Time (s)		7.0	7.0		7.0	7.0		7.0			7.0	
Flash Dont Walk (s)		11.0	11.0		11.0	11.0		11.0			11.0	
Pedestrian Calls (#/hr)		0	0		0	0		0			0	
Act Effct Green (s)	55.9	47.1	47.1	58.1	51.5	51.5	30.9	22.9		29.9	20.6	
Actuated g/C Ratio	0.56	0.47	0.47	0.58	0.51	0.51	0.31	0.23		0.30	0.20	
v/c Ratio	0.07	0.58	0.14	0.30	0.44	0.07	0.49	0.86		0.34	0.69	
Control Delay	9.6	23.5	3.6	11.5	19.2	0.4	31.1	58.5		27.4	46.8	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	9.6	23.5	3.6	11.5	19.2	0.4	31.1	58.5		27.4	46.8	
LOS	A	C	A	B	B	A	C	E		C	D	
Approach Delay		19.5			15.9			51.0			42.6	
Approach LOS		B			B			D			D	

Intersection Summary			
Area Type:	Other		
Cycle Length: 103			
Actuated Cycle Length: 100.6			
Natural Cycle: 70			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.86			
Intersection Signal Delay: 29.7		Intersection LOS: C	
Intersection Capacity Utilization 69.6%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 14: Lathrop Ave & Lake St



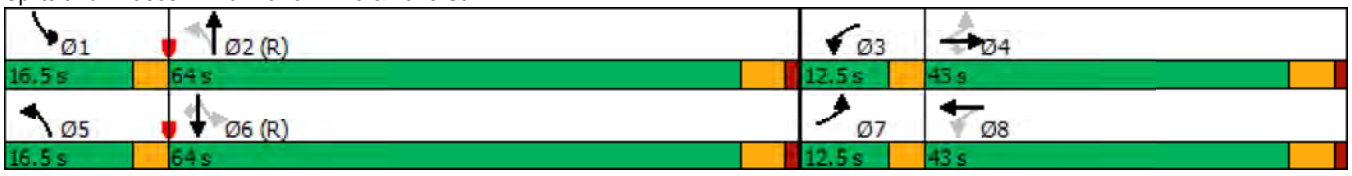
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	196	229	142	93	200	52	200	1031	67	60	1026	190
Future Volume (vph)	196	229	142	93	200	52	200	1031	67	60	1026	190
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	240		195	140		0	230		0	220		600
Storage Lanes	1		1	1		0	1		0	1		1
Taper Length (ft)	110			60			90			90		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Ped Bike Factor	0.95		0.81	0.90	0.98			0.99				0.79
Frt			0.850		0.969			0.991				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1863	1583	1770	1762	0	1770	3443	0	1770	3505	1583
Flt Permitted	0.290			0.356			0.178			0.196		
Satd. Flow (perm)	512	1863	1283	597	1762	0	332	3443	0	365	3505	1253
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			145		9			6				194
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		562			578			877			703	
Travel Time (s)		12.8			13.1			19.9			16.0	
Confl. Peds. (#/hr)	47		80	80		47	51		36	36		51
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	3%	2%	2%	3%	2%
Adj. Flow (vph)	200	234	145	95	204	53	204	1052	68	61	1047	194
Shared Lane Traffic (%)												
Lane Group Flow (vph)	200	234	145	95	257	0	204	1120	0	61	1047	194
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2		1	2		1	2	1
Detector Template	Left	Thru	Right	Left	Thru		Left	Thru		Left	Thru	Right
Leading Detector (ft)	20	100	20	20	100		20	100		20	100	20
Trailing Detector (ft)	0	0	0	0	0		0	0		0	0	0
Detector 1 Position(ft)	0	0	0	0	0		0	0		0	0	0
Detector 1 Size(ft)	20	6	20	20	6		20	6		20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8			2			6		6
Detector Phase	7	4	4	3	8		5	2		1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	11.0	14.0	14.0	11.0	14.0		11.0	14.0		11.0	14.0	14.0
Total Split (s)	12.5	43.0	43.0	12.5	43.0		16.5	64.0		16.5	64.0	64.0
Total Split (%)	9.2%	31.6%	31.6%	9.2%	31.6%		12.1%	47.1%		12.1%	47.1%	47.1%
Maximum Green (s)	9.0	37.0	37.0	9.0	37.0		13.0	58.0		13.0	58.0	58.0
Yellow Time (s)	3.5	4.5	4.5	3.5	4.5		3.5	4.5		3.5	4.5	4.5
All-Red Time (s)	0.0	1.5	1.5	0.0	1.5		0.0	1.5		0.0	1.5	1.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	3.5	6.0	6.0	3.5	6.0		3.5	6.0		3.5	6.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None	None	None	None		None	C-Max		None	C-Max	C-Max
Walk Time (s)		7.0	7.0		7.0			7.0			7.0	7.0
Flash Dont Walk (s)		11.0	11.0		11.0			11.0			11.0	11.0
Pedestrian Calls (#/hr)		0	0		0			0			0	0
Act Effct Green (s)	36.4	24.9	24.9	35.7	24.6		89.4	78.0		80.9	71.2	71.2
Actuated g/C Ratio	0.27	0.18	0.18	0.26	0.18		0.66	0.57		0.59	0.52	0.52
v/c Ratio	0.91	0.69	0.41	0.41	0.79		0.59	0.57		0.21	0.57	0.26
Control Delay	82.6	62.0	10.1	40.1	68.1		17.1	21.3		11.8	25.2	3.9
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.4	0.0
Total Delay	82.6	62.0	10.1	40.1	68.1		17.1	21.3		11.8	25.6	3.9
LOS	F	E	B	D	E		B	C		B	C	A
Approach Delay		56.1			60.5			20.6			21.7	
Approach LOS		E			E			C			C	

Intersection Summary

Area Type: Other
Cycle Length: 136
Actuated Cycle Length: 136
Offset: 59 (43%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 70
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.91
Intersection Signal Delay: 30.7 Intersection LOS: C
Intersection Capacity Utilization 81.9% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 16: Harlem Ave & Lake St



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	140	328	55	45	249	60	44	308	20	122	380	106
Future Volume (vph)	140	328	55	45	249	60	44	308	20	122	380	106
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	75		0	75		0	100		0	0		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	180			50			125			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.99	0.99		0.99	0.99		0.99	1.00		0.99	0.99	
Frt		0.979			0.971			0.991			0.967	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1813	0	1770	1795	0	1770	1842	0	1770	1786	0
Flt Permitted	0.457			0.336			0.368			0.443		
Satd. Flow (perm)	842	1813	0	620	1795	0	681	1842	0	817	1786	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		12			17			5			21	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		923			1595			2095			1328	
Travel Time (s)		25.2			43.5			57.1			36.2	
Confl. Peds. (#/hr)	10		10	10		10	10		10	10		10
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	143	335	56	46	254	61	45	314	20	124	388	108
Shared Lane Traffic (%)												
Lane Group Flow (vph)	143	391	0	46	315	0	45	334	0	124	496	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	14.0	14.0		14.0	14.0		11.0	14.0		11.0	14.0	
Total Split (s)	26.0	26.0		26.0	26.0		16.5	27.0		16.5	27.0	
Total Split (%)	37.4%	37.4%		37.4%	37.4%		23.7%	38.8%		23.7%	38.8%	
Maximum Green (s)	20.0	20.0		20.0	20.0		13.0	21.0		13.0	21.0	
Yellow Time (s)	4.5	4.5		4.5	4.5		3.5	4.5		3.5	4.5	
All-Red Time (s)	1.5	1.5		1.5	1.5		0.0	1.5		0.0	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		3.5	6.0		3.5	6.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		None	Max		None	Max	
Walk Time (s)	7.0	7.0		7.0	7.0			7.0			7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0			11.0			11.0	
Pedestrian Calls (#/hr)	0	0		0	0			0			0	
Act Effct Green (s)	16.8	16.8		16.8	16.8		28.9	21.5		31.9	24.6	
Actuated g/C Ratio	0.28	0.28		0.28	0.28		0.49	0.36		0.54	0.41	
v/c Ratio	0.60	0.75		0.26	0.61		0.10	0.50		0.22	0.66	
Control Delay	31.5	29.8		21.9	23.6		7.5	20.0		8.0	21.5	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	31.5	29.8		21.9	23.6		7.5	20.0		8.0	21.5	
LOS	C	C		C	C		A	C		A	C	
Approach Delay		30.2			23.4			18.5			18.8	
Approach LOS		C			C			B			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 69.5			
Actuated Cycle Length: 59.3			
Natural Cycle: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.75			
Intersection Signal Delay: 22.9		Intersection LOS: C	
Intersection Capacity Utilization 74.1%		ICU Level of Service D	
Analysis Period (min) 15			

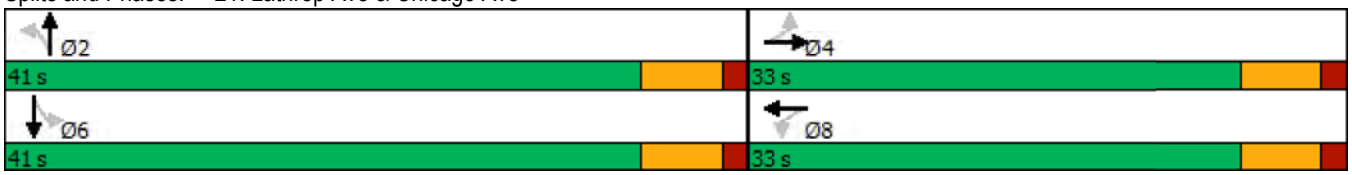
Splits and Phases: 19: Thatcher Ave & Chicago Ave

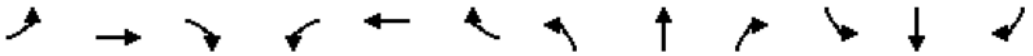
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	17	450	42	45	330	25	42	256	54	20	205	15
Future Volume (vph)	17	450	42	45	330	25	42	256	54	20	205	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	90		0	90		0	75		0	75		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	90			100			115			115		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.99	1.00		0.99	1.00		0.99	0.98		0.94	1.00	
Frt		0.987			0.989			0.974			0.990	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1831	0	1770	1837	0	1770	1777	0	1770	1839	0
Flt Permitted	0.390			0.206			0.613			0.530		
Satd. Flow (perm)	719	1831	0	381	1837	0	1125	1777	0	929	1839	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		7			6			19			7	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		1322			1339			747			1341	
Travel Time (s)		36.1			36.5			20.4			36.6	
Confl. Peds. (#/hr)	10		13	13		10	10		49	49		10
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	18	479	45	48	351	27	45	272	57	21	218	16
Shared Lane Traffic (%)												
Lane Group Flow (vph)	18	524	0	48	378	0	45	329	0	21	234	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	14.0	14.0		14.0	14.0		14.0	14.0		14.0	14.0	
Total Split (s)	33.0	33.0		33.0	33.0		41.0	41.0		41.0	41.0	
Total Split (%)	44.6%	44.6%		44.6%	44.6%		55.4%	55.4%		55.4%	55.4%	
Maximum Green (s)	27.0	27.0		27.0	27.0		35.0	35.0		35.0	35.0	
Yellow Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
All-Red Time (s)	1.5	1.5		1.5	1.5		1.5	1.5		1.5	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	23.8	23.8		23.8	23.8		35.1	35.1		35.1	35.1	
Actuated g/C Ratio	0.34	0.34		0.34	0.34		0.49	0.49		0.49	0.49	
v/c Ratio	0.07	0.85		0.38	0.61		0.08	0.37		0.05	0.26	
Control Delay	16.5	35.9		27.4	23.9		11.2	12.7		10.9	11.8	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	16.5	35.9		27.4	23.9		11.2	12.7		10.9	11.8	
LOS	B	D		C	C		B	B		B	B	
Approach Delay		35.3			24.3			12.5			11.7	
Approach LOS		D			C			B			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 74			
Actuated Cycle Length: 71			
Natural Cycle: 40			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.85			
Intersection Signal Delay: 23.3		Intersection LOS: C	
Intersection Capacity Utilization 72.1%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 21: Lathrop Ave & Chicago Ave



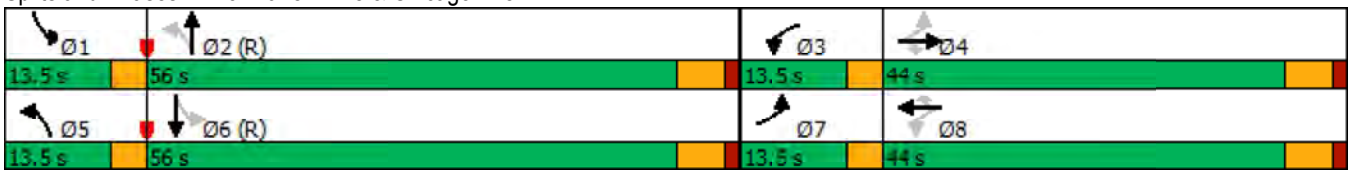


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	56	391	99	147	317	130	80	1005	149	90	1030	19
Future Volume (vph)	56	391	99	147	317	130	80	1005	149	90	1030	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	115		115	95		60	195		0	115		0
Storage Lanes	1		1	1		1	1		0	1		0
Taper Length (ft)	120			85			95			170		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor	0.99		0.96			0.97		0.99			1.00	
Frt			0.850			0.850		0.981			0.997	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	3448	0	1770	3525	0
Flt Permitted	0.358			0.162			0.122			0.085		
Satd. Flow (perm)	662	1863	1525	302	1863	1531	227	3448	0	158	3525	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			86			86		15			2	
Link Speed (mph)		25			25			30			30	
Link Distance (ft)		1317			461			1347			1346	
Travel Time (s)		35.9			12.6			30.6			30.6	
Confl. Peds. (#/hr)	10		12	12		10	10		10	10		10
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	60	420	106	158	341	140	86	1081	160	97	1108	20
Shared Lane Traffic (%)												
Lane Group Flow (vph)	60	420	106	158	341	140	86	1241	0	97	1128	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1	1	2		1	2	
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	
Leading Detector (ft)	20	100	20	20	100	20	20	100		20	100	
Trailing Detector (ft)	0	0	0	0	0	0	0	0		0	0	
Detector 1 Position(ft)	0	0	0	0	0	0	0	0		0	0	
Detector 1 Size(ft)	20	6	20	20	6	20	20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8	2			6		
Detector Phase	7	4	4	3	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Minimum Split (s)	11.0	14.0	14.0	11.0	14.0	14.0	11.0	14.0		11.0	14.0	
Total Split (s)	13.5	44.0	44.0	13.5	44.0	44.0	13.5	56.0		13.5	56.0	
Total Split (%)	10.6%	34.6%	34.6%	10.6%	34.6%	34.6%	10.6%	44.1%		10.6%	44.1%	
Maximum Green (s)	10.0	38.0	38.0	10.0	38.0	38.0	10.0	50.0		10.0	50.0	
Yellow Time (s)	3.5	4.5	4.5	3.5	4.5	4.5	3.5	4.5		3.5	4.5	
All-Red Time (s)	0.0	1.5	1.5	0.0	1.5	1.5	0.0	1.5		0.0	1.5	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.5	6.0	6.0	3.5	6.0	6.0	3.5	6.0		3.5	6.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	None	None	None	None	None	None	None	C-Max		None	C-Max	
Walk Time (s)		7.0	7.0		7.0	7.0		7.0			7.0	
Flash Dont Walk (s)		11.0	11.0		11.0	11.0		11.0			11.0	
Pedestrian Calls (#/hr)		0	0		0	0		0			0	
Act Effct Green (s)	43.7	33.2	33.2	47.4	36.9	36.9	67.2	56.4		67.7	56.6	
Actuated g/C Ratio	0.34	0.26	0.26	0.37	0.29	0.29	0.53	0.44		0.53	0.45	
v/c Ratio	0.20	0.86	0.23	0.70	0.63	0.28	0.39	0.81		0.51	0.72	
Control Delay	24.8	62.4	11.1	42.7	45.0	15.6	19.7	36.5		25.4	33.1	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	24.8	62.4	11.1	42.7	45.0	15.6	19.7	36.5		25.4	33.1	
LOS	C	E	B	D	D	B	B	D		C	C	
Approach Delay		49.2			38.0			35.4			32.5	
Approach LOS		D			D			D			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 127			
Actuated Cycle Length: 127			
Offset: 59 (46%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.86			
Intersection Signal Delay: 37.0		Intersection LOS: D	
Intersection Capacity Utilization 83.0%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 23: Harlem Ave & Chicago Ave

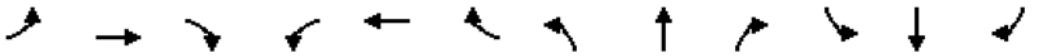


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	15	153	36	58	174	40	43	1070	78	60	1045	16
Future Volume (vph)	15	153	36	58	174	40	43	1070	78	60	1045	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	150		0	150		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			75			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor		0.99			0.99			1.00			1.00	
Frt		0.976			0.980			0.990			0.998	
Flt Protected		0.996			0.989		0.950			0.950		
Satd. Flow (prot)	0	1800	0	0	1796	0	1770	3491	0	1770	3529	0
Flt Permitted		0.952			0.761		0.210			0.181		
Satd. Flow (perm)	0	1720	0	0	1379	0	391	3491	0	337	3529	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		8			7			10			2	
Link Speed (mph)		25			25			30			30	
Link Distance (ft)		1777			369			1346			1322	
Travel Time (s)		48.5			10.1			30.6			30.0	
Confl. Peds. (#/hr)	11		10	10		11	10		10	10		10
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	15	156	37	59	178	41	44	1092	80	61	1066	16
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	208	0	0	278	0	44	1172	0	61	1082	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			-15			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	14.0	14.0		14.0	14.0		11.0	14.0		11.0	14.0	
Total Split (s)	36.0	36.0		36.0	36.0		13.5	76.0		13.5	76.0	
Total Split (%)	28.7%	28.7%		28.7%	28.7%		10.8%	60.6%		10.8%	60.6%	
Maximum Green (s)	30.0	30.0		30.0	30.0		10.0	70.0		10.0	70.0	
Yellow Time (s)	4.5	4.5		4.5	4.5		3.5	4.5		3.5	4.5	
All-Red Time (s)	1.5	1.5		1.5	1.5		0.0	1.5		0.0	1.5	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		6.0			6.0		3.5	6.0		3.5	6.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		None	C-Max		None	C-Max	
Walk Time (s)	7.0	7.0		7.0	7.0			7.0			7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0			11.0			11.0	
Pedestrian Calls (#/hr)	0	0		0	0			0			0	
Act Effct Green (s)		26.9			26.9		85.9	78.0		86.6	78.4	
Actuated g/C Ratio		0.21			0.21		0.68	0.62		0.69	0.62	
v/c Ratio		0.55			0.92		0.13	0.54		0.20	0.49	
Control Delay		47.6			82.5		7.1	15.6		7.7	14.7	
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	
Total Delay		47.6			82.5		7.1	15.6		7.7	14.7	
LOS		D			F		A	B		A	B	
Approach Delay		47.6			82.5			15.3			14.3	
Approach LOS		D			F			B			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 125.5			
Actuated Cycle Length: 125.5			
Offset: 45 (36%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.92			
Intersection Signal Delay: 23.9		Intersection LOS: C	
Intersection Capacity Utilization 79.6%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 30: Harlem Ave & Augusta St

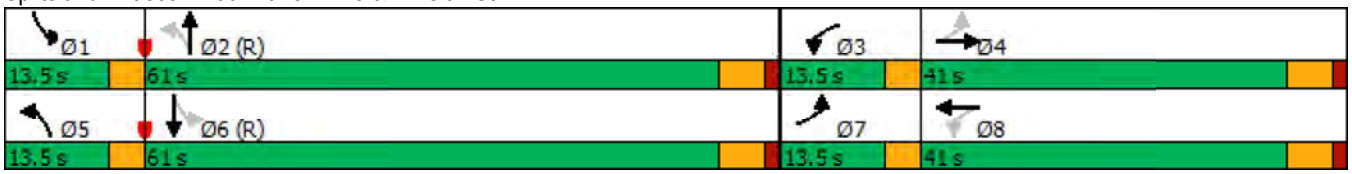


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	67	322	72	119	215	90	79	956	90	93	930	38
Future Volume (vph)	67	322	72	119	215	90	79	956	90	93	930	38
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	110		0	90		0	180		0	140		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	75			115			95			90		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor	0.99	0.99			0.99			1.00			1.00	
Frt		0.973			0.956			0.987			0.994	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1802	0	1770	1763	0	1770	3477	0	1770	3510	0
Flt Permitted	0.368			0.157			0.188			0.144		
Satd. Flow (perm)	680	1802	0	292	1763	0	350	3477	0	268	3510	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		9			16			10			4	
Link Speed (mph)		25			25			30			30	
Link Distance (ft)		1311			467			1322			1352	
Travel Time (s)		35.8			12.7			30.0			30.7	
Confl. Peds. (#/hr)	10		10	10		10	10		10	10		10
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	69	332	74	123	222	93	81	986	93	96	959	39
Shared Lane Traffic (%)												
Lane Group Flow (vph)	69	406	0	123	315	0	81	1079	0	96	998	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			-15			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	11.0	14.0		11.0	14.0		11.0	14.0		11.0	14.0	
Total Split (s)	13.5	41.0		13.5	41.0		13.5	61.0		13.5	61.0	
Total Split (%)	10.5%	31.8%		10.5%	31.8%		10.5%	47.3%		10.5%	47.3%	
Maximum Green (s)	10.0	35.0		10.0	35.0		10.0	55.0		10.0	55.0	
Yellow Time (s)	3.5	4.5		3.5	4.5		3.5	4.5		3.5	4.5	
All-Red Time (s)	0.0	1.5		0.0	1.5		0.0	1.5		0.0	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.5	6.0		3.5	6.0		3.5	6.0		3.5	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		None	C-Max		None	C-Max	
Walk Time (s)		7.0			7.0			7.0			7.0	
Flash Dont Walk (s)		11.0			11.0			11.0			11.0	
Pedestrian Calls (#/hr)		0			0			0			0	
Act Effct Green (s)	42.9	31.9		45.5	35.0		70.6	60.0		72.0	62.3	
Actuated g/C Ratio	0.33	0.25		0.35	0.27		0.55	0.47		0.56	0.48	
v/c Ratio	0.23	0.90		0.58	0.64		0.29	0.67		0.39	0.59	
Control Delay	27.5	68.9		37.9	46.3		15.9	30.0		17.9	27.4	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	27.5	68.9		37.9	46.3		15.9	30.0		17.9	27.4	
LOS	C	E		D	D		B	C		B	C	
Approach Delay		62.9			43.9			29.0			26.5	
Approach LOS		E			D			C			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 129			
Actuated Cycle Length: 129			
Offset: 71 (55%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.90			
Intersection Signal Delay: 35.3		Intersection LOS: D	
Intersection Capacity Utilization 79.3%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 36: Harlem Ave & Division St

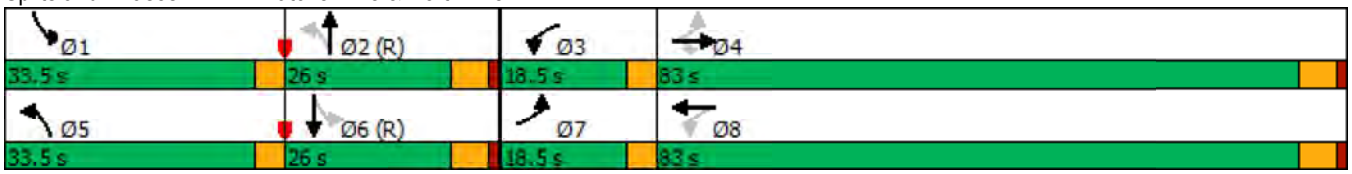


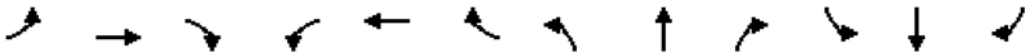
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	196	1408	450	79	1417	82	285	190	196	114	227	80
Future Volume (vph)	196	1408	450	79	1417	82	285	190	196	114	227	80
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	300		0	115		0	200		0	165		0
Storage Lanes	1		1	1		0	1		0	1		0
Taper Length (ft)	180			125			85			70		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.91	0.91	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor			0.96		1.00		0.99	0.98		0.99	0.99	
Frt			0.850		0.992			0.924			0.961	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1583	1770	5034	0	1770	3198	0	1770	3367	0
Flt Permitted	0.071			0.054			0.339			0.509		
Satd. Flow (perm)	132	3539	1523	101	5034	0	623	3198	0	937	3367	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			286		8			135			25	
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		1334			336			347			340	
Travel Time (s)		30.3			7.6			9.5			9.3	
Confl. Peds. (#/hr)	10		10	10		10	10		12	12		10
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	211	1514	484	85	1524	88	306	204	211	123	244	86
Shared Lane Traffic (%)												
Lane Group Flow (vph)	211	1514	484	85	1612	0	306	415	0	123	330	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2		1	2		1	2	
Detector Template	Left	Thru	Right	Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100	20	20	100		20	100		20	100	
Trailing Detector (ft)	0	0	0	0	0		0	0		0	0	
Detector 1 Position(ft)	0	0	0	0	0		0	0		0	0	
Detector 1 Size(ft)	20	6	20	20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA		pm+pt	NA	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8			2			6		
Detector Phase	7	4	4	3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	11.0	14.0	14.0	11.0	14.0		11.0	14.0		11.0	14.0	
Total Split (s)	18.5	83.0	83.0	18.5	83.0		33.5	26.0		33.5	26.0	
Total Split (%)	11.5%	51.6%	51.6%	11.5%	51.6%		20.8%	16.1%		20.8%	16.1%	
Maximum Green (s)	15.0	77.0	77.0	15.0	77.0		30.0	20.0		30.0	20.0	
Yellow Time (s)	3.5	4.5	4.5	3.5	4.5		3.5	4.5		3.5	4.5	
All-Red Time (s)	0.0	1.5	1.5	0.0	1.5		0.0	1.5		0.0	1.5	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.5	6.0	6.0	3.5	6.0		3.5	6.0		3.5	6.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None	None	None	None		None	C-Max		None	C-Max	
Walk Time (s)		7.0	7.0		7.0			7.0			7.0	
Flash Dont Walk (s)		11.0	11.0		11.0			11.0			11.0	
Pedestrian Calls (#/hr)		0	0		0			0			0	
Act Effct Green (s)	94.8	79.7	79.7	86.6	74.5		58.8	39.5		42.9	27.1	
Actuated g/C Ratio	0.59	0.50	0.50	0.54	0.46		0.37	0.25		0.27	0.17	
v/c Ratio	0.93	0.86	0.54	0.56	0.69		0.75	0.47		0.39	0.56	
Control Delay	81.2	42.2	12.7	37.3	35.6		52.4	37.5		40.8	62.8	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	81.2	42.2	12.7	37.3	35.6		52.4	37.5		40.8	62.8	
LOS	F	D	B	D	D		D	D		D	E	
Approach Delay		39.5			35.7			43.8			56.8	
Approach LOS		D			D			D			E	

Intersection Summary			
Area Type:	Other		
Cycle Length: 161			
Actuated Cycle Length: 161			
Offset: 59 (37%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.93			
Intersection Signal Delay: 40.4		Intersection LOS: D	
Intersection Capacity Utilization 90.8%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 47: Thatcher Ave & North Ave





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	125	1523	70	60	1391	67	167	118	26	36	56	20
Future Volume (vph)	125	1523	70	60	1391	67	167	118	26	36	56	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	100		0	80		0	60		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	170			115			110			55		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00			1.00		0.99	1.00		0.99	0.99	
Frt		0.993			0.993			0.973			0.960	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3508	0	1770	3507	0	1770	1804	0	1770	1776	0
Flt Permitted	0.079			0.082			0.457			0.658		
Satd. Flow (perm)	147	3508	0	153	3507	0	840	1804	0	1212	1776	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		8			8			10			16	
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		860			438			660			264	
Travel Time (s)		19.5			10.0			18.0			7.2	
Confl. Peds. (#/hr)	10		10	10		10	10		10	10		10
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	136	1655	76	65	1512	73	182	128	28	39	61	22
Shared Lane Traffic (%)												
Lane Group Flow (vph)	136	1731	0	65	1585	0	182	156	0	39	83	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Protected Phases	5	2		1	6		7	4		3	8	
Permitted Phases	2			6			4			8		
Detector Phase	5	2		1	6		7	4		3	8	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	11.0	14.0		11.0	14.0		11.0	14.0		11.0	14.0	
Total Split (s)	11.0	54.0		11.0	54.0		11.0	14.0		11.0	14.0	
Total Split (%)	12.2%	60.0%		12.2%	60.0%		12.2%	15.6%		12.2%	15.6%	
Maximum Green (s)	7.5	48.0		7.5	48.0		7.5	8.0		7.5	8.0	
Yellow Time (s)	3.5	4.5		3.5	4.5		3.5	4.5		3.5	4.5	
All-Red Time (s)	0.0	1.5		0.0	1.5		0.0	1.5		0.0	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.5	6.0		3.5	6.0		3.5	6.0		3.5	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	C-Max		None	C-Max		None	None		None	None	
Walk Time (s)		7.0			7.0			7.0			7.0	
Flash Dont Walk (s)		11.0			11.0			11.0			11.0	
Pedestrian Calls (#/hr)		0			0			0			0	
Act Effct Green (s)	61.1	52.7		59.3	50.3		17.6	10.6		15.0	7.4	
Actuated g/C Ratio	0.68	0.59		0.66	0.56		0.20	0.12		0.17	0.08	
v/c Ratio	0.60	0.84		0.30	0.81		0.72	0.71		0.16	0.52	
Control Delay	23.4	22.0		13.4	8.9		48.9	56.7		28.6	44.4	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	23.4	22.0		13.4	8.9		48.9	56.7		28.6	44.4	
LOS	C	C		B	A		D	E		C	D	
Approach Delay		22.1			9.1			52.5			39.3	
Approach LOS		C			A			D			D	

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 90			
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.84			
Intersection Signal Delay: 19.8		Intersection LOS: B	
Intersection Capacity Utilization 81.9%		ICU Level of Service D	
Analysis Period (min) 15			

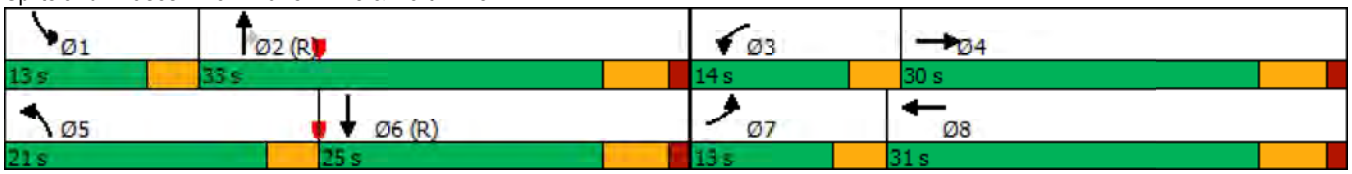
Splits and Phases: 48: Lathrop Ave & North Ave

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	178	1107	210	189	1138	127	320	667	155	90	604	102
Future Volume (vph)	178	1107	210	189	1138	127	320	667	155	90	604	102
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	245		0	165		0	145		145	100		0
Storage Lanes	1		0	1		0	1		1	1		0
Taper Length (ft)	135			180			135			160		
Lane Util. Factor	1.00	0.91	0.91	1.00	0.91	0.91	1.00	0.95	1.00	1.00	0.95	0.95
Ped Bike Factor	1.00	1.00		1.00	1.00		0.99		0.97	0.99	1.00	
Frt		0.976			0.985				0.850		0.978	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	4942	0	1770	4996	0	1770	3539	1583	1770	3448	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1766	4942	0	1766	4996	0	1760	3539	1541	1760	3448	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		42			21				168		19	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		425			797			667			513	
Travel Time (s)		9.7			18.1			15.2			11.7	
Confl. Peds. (#/hr)	10		10	10		10	10		10	10		10
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	193	1203	228	205	1237	138	348	725	168	98	657	111
Shared Lane Traffic (%)												
Lane Group Flow (vph)	193	1431	0	205	1375	0	348	725	168	98	768	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2	1	1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100	20	20	100	
Trailing Detector (ft)	0	0		0	0		0	0	0	0	0	
Detector 1 Position(ft)	0	0		0	0		0	0	0	0	0	
Detector 1 Size(ft)	20	6		20	6		20	6	20	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA		Prot	NA		Prot	NA	Perm	Prot	NA	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases									2			
Detector Phase	7	4		3	8		5	2	2	1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	11.0	14.0		11.0	14.0		11.0	14.0	14.0	11.0	14.0	
Total Split (s)	13.0	30.0		14.0	31.0		21.0	33.0	33.0	13.0	25.0	
Total Split (%)	14.4%	33.3%		15.6%	34.4%		23.3%	36.7%	36.7%	14.4%	27.8%	
Maximum Green (s)	9.5	24.0		10.5	25.0		17.5	27.0	27.0	9.5	19.0	
Yellow Time (s)	3.5	4.5		3.5	4.5		3.5	4.5	4.5	3.5	4.5	
All-Red Time (s)	0.0	1.5		0.0	1.5		0.0	1.5	1.5	0.0	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	3.5	6.0		3.5	6.0		3.5	6.0	6.0	3.5	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	None		None	None		None	C-Max	C-Max	None	C-Max	
Walk Time (s)		7.0			7.0			7.0	7.0		7.0	
Flash Dont Walk (s)		11.0			11.0			11.0	11.0		11.0	
Pedestrian Calls (#/hr)		0			0			0	0		0	
Act Effct Green (s)	9.5	24.0		10.5	25.0		17.5	29.8	29.8	8.7	19.0	
Actuated g/C Ratio	0.11	0.27		0.12	0.28		0.19	0.33	0.33	0.10	0.21	
v/c Ratio	1.04	1.06		1.00	0.98		1.01	0.62	0.27	0.58	1.04	
Control Delay	103.2	80.8		104.0	52.6		89.7	29.1	5.2	52.5	77.8	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay	103.2	80.8		104.0	52.6		89.7	29.1	5.2	52.5	77.8	
LOS	F	F		F	D		F	C	A	D	E	
Approach Delay		83.5			59.3			42.9			74.9	
Approach LOS		F			E			D			E	

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 90			
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.06			
Intersection Signal Delay: 65.4		Intersection LOS: E	
Intersection Capacity Utilization 91.2%		ICU Level of Service F	
Analysis Period (min) 15			

Splits and Phases: 54: Harlem Ave & North Ave



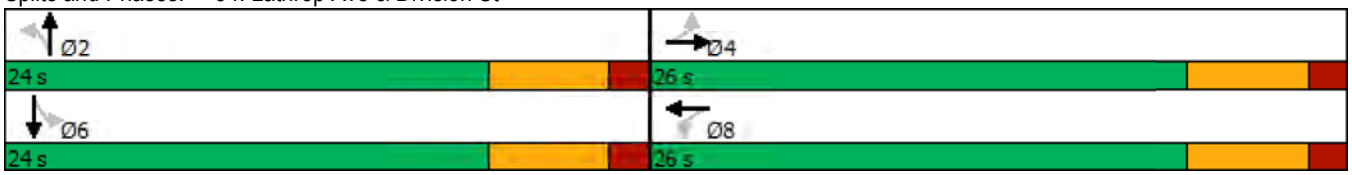
Alternative Volumes & Level of Service – AM

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	24	248	33	67	244	82	21	236	50	22	157	14
Future Volume (vph)	24	248	33	67	244	82	21	236	50	22	157	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		40	0		200	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00			0.99			0.99			1.00	
Frt		0.985			0.972			0.978			0.990	
Flt Protected		0.996			0.992			0.997			0.994	
Satd. Flow (prot)	0	1821	0	0	1784	0	0	1805	0	0	1828	0
Flt Permitted		0.938			0.878			0.961			0.931	
Satd. Flow (perm)	0	1714	0	0	1577	0	0	1738	0	0	1710	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		15			32			22			9	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		890			879			670			677	
Travel Time (s)		24.3			24.0			18.3			18.5	
Confl. Peds. (#/hr)	10		10	10		10	15		14	14		15
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Adj. Flow (vph)	30	306	41	83	301	101	26	291	62	27	194	17
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	377	0	0	485	0	0	379	0	0	238	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	24.0	24.0		24.0	24.0		24.0	24.0		24.0	24.0	
Total Split (s)	26.0	26.0		26.0	26.0		24.0	24.0		24.0	24.0	
Total Split (%)	52.0%	52.0%		52.0%	52.0%		48.0%	48.0%		48.0%	48.0%	
Maximum Green (s)	20.0	20.0		20.0	20.0		18.0	18.0		18.0	18.0	
Yellow Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
All-Red Time (s)	1.5	1.5		1.5	1.5		1.5	1.5		1.5	1.5	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		6.0			6.0			6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Min	Min		Min	Min	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)		16.4			16.4			13.6			13.6	
Actuated g/C Ratio		0.39			0.39			0.32			0.32	
v/c Ratio		0.56			0.77			0.66			0.43	
Control Delay		14.2			21.9			18.6			14.2	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		14.2			21.9			18.6			14.2	
LOS		B			C			B			B	
Approach Delay		14.2			21.9			18.6			14.2	
Approach LOS		B			C			B			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 50			
Actuated Cycle Length: 42.5			
Natural Cycle: 55			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.77			
Intersection Signal Delay: 17.8		Intersection LOS: B	
Intersection Capacity Utilization 67.6%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 34: Lathrop Ave & Division St



Intersection	
Int Delay, s/veh	3.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	65	71	351	52	10	500
Future Vol, veh/h	65	71	351	52	10	500
Conflicting Peds, #/hr	10	10	0	10	10	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	76	84	413	61	12	588

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1076	464	0	0	484	0
Stage 1	454	-	-	-	-	-
Stage 2	622	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	243	598	-	-	1079	-
Stage 1	640	-	-	-	-	-
Stage 2	535	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	234	587	-	-	1069	-
Mov Cap-2 Maneuver	234	-	-	-	-	-
Stage 1	634	-	-	-	-	-
Stage 2	521	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	24.6	0	0.2
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	341	1069	-
HCM Lane V/C Ratio	-	-	0.469	0.011	-
HCM Control Delay (s)	-	-	24.6	8.4	0
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	2.4	0	-

Intersection	
Int Delay, s/veh	10.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	60	115	316	106	175	450
Future Vol, veh/h	60	115	316	106	175	450
Conflicting Peds, #/hr	10	10	0	10	10	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	70	134	367	123	203	523

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1378	449	0	0	500	0
Stage 1	439	-	-	-	-	-
Stage 2	939	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	160	610	-	-	1064	-
Stage 1	650	-	-	-	-	-
Stage 2	380	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	114	598	-	-	1054	-
Mov Cap-2 Maneuver	114	-	-	-	-	-
Stage 1	644	-	-	-	-	-
Stage 2	274	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	65.7	0	2.6
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	244	1054	-
HCM Lane V/C Ratio	-	-	0.834	0.193	-
HCM Control Delay (s)	-	-	65.7	9.2	0
HCM Lane LOS	-	-	F	A	A
HCM 95th %tile Q(veh)	-	-	6.6	0.7	-

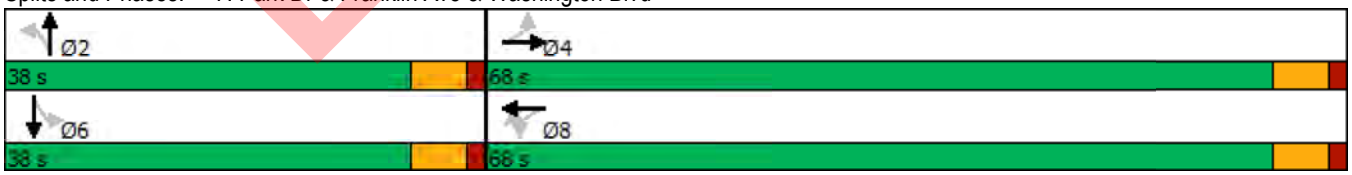
Lane Group	EBL	EBT	EBR	EBR2	WBL2	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (vph)	7	316	5	1	12	3	216	17	3	28	13	15
Future Volume (vph)	7	316	5	1	12	3	216	17	3	28	13	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00					0.99			0.98		
Frt		0.998					0.991			0.960		
Flt Protected		0.999					0.997			0.997		
Satd. Flow (prot)	0	1855	0	0	0	0	1834	0	0	1757	0	0
Flt Permitted		0.990					0.969			0.991		
Satd. Flow (perm)	0	1837	0	0	0	0	1780	0	0	1743	0	0
Right Turn on Red				Yes				Yes			Yes	
Satd. Flow (RTOR)							6			14		
Link Speed (mph)		25					25			25		
Link Distance (ft)		458					415			336		
Travel Time (s)		12.5					11.3			9.2		
Confl. Peds. (#/hr)	10		10	10	10	10		10	10		10	10
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	8	343	5	1	13	3	235	18	3	30	14	16
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	357	0	0	0	0	269	0	0	47	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Right	Left	Left	Left	Right	Left	Left	Right	Left
Median Width(ft)		0					0			0		
Link Offset(ft)		0					0			0		
Crosswalk Width(ft)		16					16			16		
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	9	15	15		9	15		9	15
Number of Detectors	1	2			1	1	2		1	2		1
Detector Template	Left	Thru			Left	Left	Thru		Left	Thru		Left
Leading Detector (ft)	20	100			20	20	100		20	100		20
Trailing Detector (ft)	0	0			0	0	0		0	0		0
Detector 1 Position(ft)	0	0			0	0	0		0	0		0
Detector 1 Size(ft)	20	6			20	20	6		20	6		20
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0	0.0	0.0		0.0	0.0		0.0
Detector 1 Queue (s)	0.0	0.0			0.0	0.0	0.0		0.0	0.0		0.0
Detector 1 Delay (s)	0.0	0.0			0.0	0.0	0.0		0.0	0.0		0.0
Detector 2 Position(ft)		94					94			94		
Detector 2 Size(ft)		6					6			6		
Detector 2 Type		Cl+Ex					Cl+Ex			Cl+Ex		
Detector 2 Channel												
Detector 2 Extend (s)		0.0					0.0			0.0		
Turn Type	Perm	NA			Perm	Perm	NA		Perm	NA		Perm
Protected Phases		4					8			2		
Permitted Phases	4				8	8			2			6
Detector Phase	4	4			8	8	8		2	2		6

Lane Group	SBT	SBR	SBR2
Lane Configurations			
Traffic Volume (vph)	21	1	10
Future Volume (vph)	21	1	10
Ideal Flow (vphpl)	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00
Ped Bike Factor	0.97		
Frt	0.968		
Flt Protected	0.985		
Satd. Flow (prot)	1744	0	0
Flt Permitted	0.938		
Satd. Flow (perm)	1646	0	0
Right Turn on Red			Yes
Satd. Flow (RTOR)	11		
Link Speed (mph)	25		
Link Distance (ft)	350		
Travel Time (s)	9.5		
Confl. Peds. (#/hr)		10	10
Peak Hour Factor	0.92	0.92	0.92
Adj. Flow (vph)	23	1	11
Shared Lane Traffic (%)			
Lane Group Flow (vph)	51	0	0
Enter Blocked Intersection	No	No	No
Lane Alignment	Left	Right	Right
Median Width(ft)	0		
Link Offset(ft)	0		
Crosswalk Width(ft)	16		
Two way Left Turn Lane			
Headway Factor	1.00	1.00	1.00
Turning Speed (mph)		9	9
Number of Detectors	2		
Detector Template	Thru		
Leading Detector (ft)	100		
Trailing Detector (ft)	0		
Detector 1 Position(ft)	0		
Detector 1 Size(ft)	6		
Detector 1 Type	Cl+Ex		
Detector 1 Channel			
Detector 1 Extend (s)	0.0		
Detector 1 Queue (s)	0.0		
Detector 1 Delay (s)	0.0		
Detector 2 Position(ft)	94		
Detector 2 Size(ft)	6		
Detector 2 Type	Cl+Ex		
Detector 2 Channel			
Detector 2 Extend (s)	0.0		
Turn Type	NA		
Protected Phases	6		
Permitted Phases			
Detector Phase	6		

Lane Group	EBL	EBT	EBR	EBR2	WBL2	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0	5.0	5.0		5.0	5.0		5.0
Minimum Split (s)	14.0	14.0			14.0	14.0	14.0		14.0	14.0		14.0
Total Split (s)	68.0	68.0			68.0	68.0	68.0		38.0	38.0		38.0
Total Split (%)	64.2%	64.2%			64.2%	64.2%	64.2%		35.8%	35.8%		35.8%
Maximum Green (s)	62.0	62.0			62.0	62.0	62.0		32.0	32.0		32.0
Yellow Time (s)	4.5	4.5			4.5	4.5	4.5		4.5	4.5		4.5
All-Red Time (s)	1.5	1.5			1.5	1.5	1.5		1.5	1.5		1.5
Lost Time Adjust (s)		0.0					0.0			0.0		
Total Lost Time (s)		6.0					6.0			6.0		
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0			3.0	3.0	3.0		3.0	3.0		3.0
Recall Mode	None	None			None	None	None		Max	Max		None
Walk Time (s)	7.0	7.0			7.0	7.0	7.0		7.0	7.0		7.0
Flash Dont Walk (s)	11.0	11.0			11.0	11.0	11.0		11.0	11.0		11.0
Pedestrian Calls (#/hr)	0	0			0	0	0		0	0		0
Act Effct Green (s)		16.9					16.9			32.2		
Actuated g/C Ratio		0.28					0.28			0.53		
v/c Ratio		0.70					0.54			0.05		
Control Delay		27.8					22.5			6.9		
Queue Delay		0.0					0.0			0.0		
Total Delay		27.8					22.5			6.9		
LOS		C					C			A		
Approach Delay		27.8					22.5			6.9		
Approach LOS		C					C			A		

Intersection Summary			
Area Type:	Other		
Cycle Length: 106			
Actuated Cycle Length: 61.1			
Natural Cycle: 40			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.70			
Intersection Signal Delay: 23.0		Intersection LOS: C	
Intersection Capacity Utilization 54.7%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 7: Park Dr & Franklin Ave & Washington Blvd



Lane Group	SBT	SBR	SBR2
Switch Phase			
Minimum Initial (s)	5.0		
Minimum Split (s)	14.0		
Total Split (s)	38.0		
Total Split (%)	35.8%		
Maximum Green (s)	32.0		
Yellow Time (s)	4.5		
All-Red Time (s)	1.5		
Lost Time Adjust (s)	0.0		
Total Lost Time (s)	6.0		
Lead/Lag			
Lead-Lag Optimize?			
Vehicle Extension (s)	3.0		
Recall Mode	None		
Walk Time (s)	7.0		
Flash Dont Walk (s)	11.0		
Pedestrian Calls (#/hr)	0		
Act Effct Green (s)	32.2		
Actuated g/C Ratio	0.53		
v/c Ratio	0.06		
Control Delay	7.4		
Queue Delay	0.0		
Total Delay	7.4		
LOS	A		
Approach Delay	7.4		
Approach LOS	A		

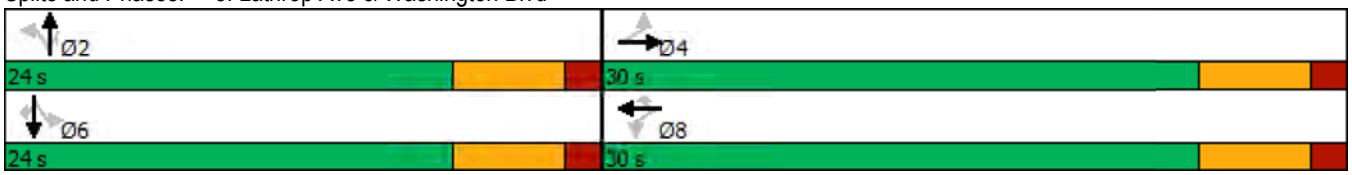
Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	53	256	12	5	169	90	7	190	15	20	150	78
Future Volume (vph)	53	256	12	5	169	90	7	190	15	20	150	78
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		75	0		75	0		75	0		75
Storage Lanes	0		0	0		1	0		1	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00			1.00	0.97		1.00	0.96		1.00	0.97
Frt		0.995				0.850			0.850			0.850
Flt Protected		0.992			0.999			0.998			0.994	
Satd. Flow (prot)	0	1836	0	0	1861	1583	0	1859	1583	0	1852	1583
Flt Permitted		0.906			0.986			0.988			0.949	
Satd. Flow (perm)	0	1674	0	0	1836	1528	0	1840	1521	0	1765	1528
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5				99			61			86
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		450			2667			1328			1233	
Travel Time (s)		12.3			72.7			36.2			33.6	
Confl. Peds. (#/hr)	10		10	10		10	10		13	13		10
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	58	281	13	5	186	99	8	209	16	22	165	86
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	352	0	0	191	99	0	217	16	0	187	86
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (ft)	20	100		20	100	20	20	100	20	20	100	20
Trailing Detector (ft)	0	0		0	0	0	0	0	0	0	0	0
Detector 1 Position(ft)	0	0		0	0	0	0	0	0	0	0	0
Detector 1 Size(ft)	20	6		20	6	20	20	6	20	20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA	Perm	Perm	NA	Perm

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Protected Phases		4			8			2			6	
Permitted Phases	4			8		8	2		2	6		6
Detector Phase	4	4		8	8	8	2	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	1.0	1.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	14.0	14.0		14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0
Total Split (s)	30.0	30.0		30.0	30.0	30.0	24.0	24.0	24.0	24.0	24.0	24.0
Total Split (%)	55.6%	55.6%		55.6%	55.6%	55.6%	44.4%	44.4%	44.4%	44.4%	44.4%	44.4%
Maximum Green (s)	24.0	24.0		24.0	24.0	24.0	18.0	18.0	18.0	18.0	18.0	18.0
Yellow Time (s)	4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
All-Red Time (s)	1.5	1.5		1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Lost Time Adjust (s)		0.0			0.0	0.0		0.0	0.0		0.0	0.0
Total Lost Time (s)		6.0			6.0	6.0		6.0	6.0		6.0	6.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None		None	None	None	Max	Max	Max	Max	Max	Max
Walk Time (s)	7.0	7.0		7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0		11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0		0	0	0	0	0	0	0	0	0
Act Effct Green (s)		14.1			14.1	14.1		18.2	18.2		18.2	18.2
Actuated g/C Ratio		0.32			0.32	0.32		0.41	0.41		0.41	0.41
v/c Ratio		0.66			0.33	0.18		0.29	0.02		0.26	0.13
Control Delay		19.0			12.6	3.6		11.6	0.1		11.4	3.9
Queue Delay		0.0			0.0	0.0		0.0	0.0		0.0	0.0
Total Delay		19.0			12.6	3.6		11.6	0.1		11.4	3.9
LOS		B			B	A		B	A		B	A
Approach Delay		19.0			9.5			10.8			9.0	
Approach LOS		B			A			B			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 54			
Actuated Cycle Length: 44.4			
Natural Cycle: 40			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.66			
Intersection Signal Delay: 12.6		Intersection LOS: B	
Intersection Capacity Utilization 67.7%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 8: Lathrop Ave & Washington Blvd



Intersection	
Intersection Delay, s/veh	15.6
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	91	268	21	10	196	23	20	219	11	12	184	85
Future Vol, veh/h	91	268	21	10	196	23	20	219	11	12	184	85
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	97	285	22	11	209	24	21	233	12	13	196	90
Number of Lanes	0	2	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	2
HCM Control Delay	14.8	15.4	16	16.6
HCM LOS	B	C	C	C

Lane	NBLn1	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	8%	40%	0%	4%	4%
Vol Thru, %	88%	60%	86%	86%	65%
Vol Right, %	4%	0%	14%	10%	30%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	250	225	155	229	281
LT Vol	20	91	0	10	12
Through Vol	219	134	134	196	184
RT Vol	11	0	21	23	85
Lane Flow Rate	266	239	165	244	299
Geometry Grp	2	7	7	5	2
Degree of Util (X)	0.491	0.474	0.313	0.456	0.533
Departure Headway (Hd)	6.646	7.127	6.823	6.734	6.415
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	540	505	526	534	559
Service Time	4.711	4.887	4.583	4.801	4.477
HCM Lane V/C Ratio	0.493	0.473	0.314	0.457	0.535
HCM Control Delay	16	16.2	12.7	15.4	16.6
HCM Lane LOS	C	C	B	C	C
HCM 95th-tile Q	2.7	2.5	1.3	2.4	3.1

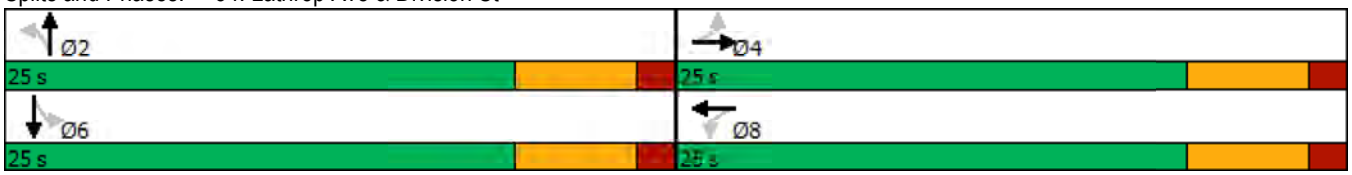
Alternative Volumes & Level of Service – PM

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	22	342	24	44	215	54	25	229	46	28	143	22
Future Volume (vph)	22	342	24	44	215	54	25	229	46	28	143	22
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		40	0		200	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00			0.99			0.99			1.00	
Frt		0.992			0.977			0.979			0.985	
Flt Protected		0.997			0.993			0.996			0.993	
Satd. Flow (prot)	0	1838	0	0	1797	0	0	1807	0	0	1815	0
Flt Permitted		0.962			0.899			0.953			0.909	
Satd. Flow (perm)	0	1773	0	0	1625	0	0	1728	0	0	1660	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		8			24			21			15	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		890			879			670			677	
Travel Time (s)		24.3			24.0			18.3			18.5	
Confl. Peds. (#/hr)	10		10	10		10	10		10	10		10
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	24	380	27	49	239	60	28	254	51	31	159	24
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	431	0	0	348	0	0	333	0	0	214	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	24.0	24.0		24.0	24.0		24.0	24.0		24.0	24.0	
Total Split (s)	25.0	25.0		25.0	25.0		25.0	25.0		25.0	25.0	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Maximum Green (s)	19.0	19.0		19.0	19.0		19.0	19.0		19.0	19.0	
Yellow Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
All-Red Time (s)	1.5	1.5		1.5	1.5		1.5	1.5		1.5	1.5	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		6.0			6.0			6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Min	Min		Min	Min	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)		13.9			13.9			12.4			12.4	
Actuated g/C Ratio		0.36			0.36			0.32			0.32	
v/c Ratio		0.67			0.58			0.59			0.40	
Control Delay		17.0			14.5			15.8			12.6	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		17.0			14.5			15.8			12.6	
LOS		B			B			B			B	
Approach Delay		17.0			14.5			15.8			12.6	
Approach LOS		B			B			B			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 50			
Actuated Cycle Length: 38.9			
Natural Cycle: 50			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.67			
Intersection Signal Delay: 15.3		Intersection LOS: B	
Intersection Capacity Utilization 59.4%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 34: Lathrop Ave & Division St



Intersection	
Int Delay, s/veh	3.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	44	130	452	56	20	564
Future Vol, veh/h	44	130	452	56	20	564
Conflicting Peds, #/hr	10	10	0	10	10	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	48	141	491	61	22	613

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1199	542	0	0	562	0
Stage 1	532	-	-	-	-	-
Stage 2	667	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	205	540	-	-	1009	-
Stage 1	589	-	-	-	-	-
Stage 2	510	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	194	530	-	-	999	-
Mov Cap-2 Maneuver	194	-	-	-	-	-
Stage 1	583	-	-	-	-	-
Stage 2	489	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	24.6	0	0.3
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	369	999	-
HCM Lane V/C Ratio	-	-	0.513	0.022	-
HCM Control Delay (s)	-	-	24.6	8.7	0
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	2.8	0.1	-

Intersection	
Int Delay, s/veh	41.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	68	183	488	94	240	516
Future Vol, veh/h	68	183	488	94	240	516
Conflicting Peds, #/hr	10	10	0	10	10	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	71	191	508	98	250	538

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1615	577	0	0	616	0
Stage 1	567	-	-	-	-	-
Stage 2	1048	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	114	516	-	-	964	-
Stage 1	568	-	-	-	-	-
Stage 2	338	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 70	506	-	-	955	-
Mov Cap-2 Maneuver	~ 70	-	-	-	-	-
Stage 1	562	-	-	-	-	-
Stage 2	210	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	252.5	0	3.2
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	188	955	-
HCM Lane V/C Ratio	-	-	1.391	0.262	-
HCM Control Delay (s)	-	-	252.5	10.1	0
HCM Lane LOS	-	-	F	B	A
HCM 95th %tile Q(veh)	-	-	15.5	1.1	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

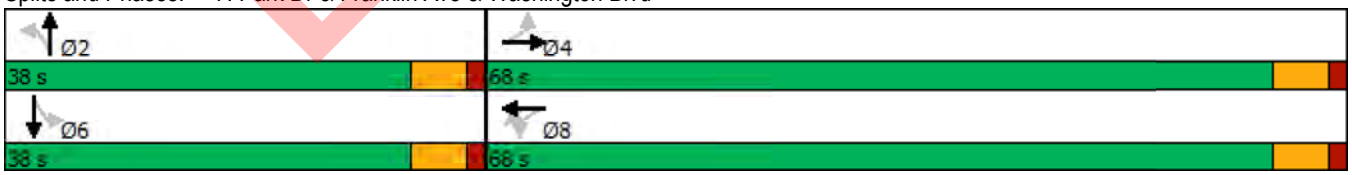
Lane Group	EBL	EBT	EBR	WBL2	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	10	330	5	5	15	224	13	5	29	33	10	35
Future Volume (vph)	10	330	5	5	15	224	13	5	29	33	10	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00				1.00			0.97			0.97
Frt		0.998				0.993			0.933			0.949
Flt Protected		0.999				0.996			0.997			0.993
Satd. Flow (prot)	0	1856	0	0	0	1838	0	0	1691	0	0	1704
Flt Permitted		0.990				0.963			0.977			0.954
Satd. Flow (perm)	0	1838	0	0	0	1773	0	0	1654	0	0	1631
Right Turn on Red							Yes			Yes		
Satd. Flow (RTOR)						4			36			19
Link Speed (mph)		25				25			25			25
Link Distance (ft)		458				415			336			350
Travel Time (s)		12.5				11.3			9.2			9.5
Confl. Peds. (#/hr)	10		10	10	10		10	10		10	10	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	11	359	5	5	16	243	14	5	32	36	11	38
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	375	0	0	0	278	0	0	73	0	0	79
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Left	Right	Left	Left	Right	Left	Left
Median Width(ft)		0				0			0			0
Link Offset(ft)		0				0			0			0
Crosswalk Width(ft)		16				16			16			16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15	15		9	15		9	15	
Number of Detectors	1	2		1	1	2		1	2		1	2
Detector Template	Left	Thru		Left	Left	Thru		Left	Thru		Left	Thru
Leading Detector (ft)	20	100		20	20	100		20	100		20	100
Trailing Detector (ft)	0	0		0	0	0		0	0		0	0
Detector 1 Position(ft)	0	0		0	0	0		0	0		0	0
Detector 1 Size(ft)	20	6		20	20	6		20	6		20	6
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0		0.0	0.0		0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0		0.0	0.0		0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0		0.0	0.0		0.0	0.0
Detector 2 Position(ft)		94				94			94			94
Detector 2 Size(ft)		6				6			6			6
Detector 2 Type		Cl+Ex				Cl+Ex			Cl+Ex			Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)		0.0				0.0			0.0			0.0
Turn Type	Perm	NA		Perm	Perm	NA		Perm	NA		Perm	NA
Protected Phases		4				8			2			6
Permitted Phases	4			8	8			2			6	
Detector Phase	4	4		8	8	8		2	2		6	6

Lane Group	SBR	SBR2
Lane Configurations		
Traffic Volume (vph)	7	20
Future Volume (vph)	7	20
Ideal Flow (vphpl)	1900	1900
Lane Util. Factor	1.00	1.00
Ped Bike Factor		
Frt		
Flt Protected		
Satd. Flow (prot)	0	0
Flt Permitted		
Satd. Flow (perm)	0	0
Right Turn on Red		Yes
Satd. Flow (RTOR)		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Confl. Peds. (#/hr)	10	10
Peak Hour Factor	0.92	0.92
Adj. Flow (vph)	8	22
Shared Lane Traffic (%)		
Lane Group Flow (vph)	0	0
Enter Blocked Intersection	No	No
Lane Alignment	Right	Right
Median Width(ft)		
Link Offset(ft)		
Crosswalk Width(ft)		
Two way Left Turn Lane		
Headway Factor	1.00	1.00
Turning Speed (mph)	9	9
Number of Detectors		
Detector Template		
Leading Detector (ft)		
Trailing Detector (ft)		
Detector 1 Position(ft)		
Detector 1 Size(ft)		
Detector 1 Type		
Detector 1 Channel		
Detector 1 Extend (s)		
Detector 1 Queue (s)		
Detector 1 Delay (s)		
Detector 2 Position(ft)		
Detector 2 Size(ft)		
Detector 2 Type		
Detector 2 Channel		
Detector 2 Extend (s)		
Turn Type		
Protected Phases		
Permitted Phases		
Detector Phase		

Lane Group	EBL	EBT	EBR	WBL2	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0		5.0	5.0		5.0	5.0
Minimum Split (s)	14.0	14.0		14.0	14.0	14.0		14.0	14.0		14.0	14.0
Total Split (s)	68.0	68.0		68.0	68.0	68.0		38.0	38.0		38.0	38.0
Total Split (%)	64.2%	64.2%		64.2%	64.2%	64.2%		35.8%	35.8%		35.8%	35.8%
Maximum Green (s)	62.0	62.0		62.0	62.0	62.0		32.0	32.0		32.0	32.0
Yellow Time (s)	4.5	4.5		4.5	4.5	4.5		4.5	4.5		4.5	4.5
All-Red Time (s)	1.5	1.5		1.5	1.5	1.5		1.5	1.5		1.5	1.5
Lost Time Adjust (s)		0.0				0.0			0.0			0.0
Total Lost Time (s)		6.0				6.0			6.0			6.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0		3.0	3.0		3.0	3.0
Recall Mode	Max	Max		Max	Max	Max		None	None		None	None
Walk Time (s)	7.0	7.0		7.0	7.0	7.0		7.0	7.0		7.0	7.0
Flash Dont Walk (s)	11.0	11.0		11.0	11.0	11.0		11.0	11.0		11.0	11.0
Pedestrian Calls (#/hr)	0	0		0	0	0		0	0		0	0
Act Effct Green (s)		68.2				68.2			8.6			8.6
Actuated g/C Ratio		0.80				0.80			0.10			0.10
v/c Ratio		0.25				0.20			0.37			0.44
Control Delay		3.7				3.4			25.9			35.6
Queue Delay		0.0				0.0			0.0			0.0
Total Delay		3.7				3.4			25.9			35.6
LOS		A				A			C			D
Approach Delay		3.7				3.4			25.9			35.6
Approach LOS		A				A			C			D

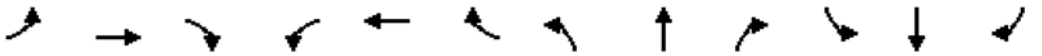
Intersection Summary			
Area Type:	Other		
Cycle Length: 106			
Actuated Cycle Length: 85.2			
Natural Cycle: 40			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.44			
Intersection Signal Delay: 8.7		Intersection LOS: A	
Intersection Capacity Utilization 50.6%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 7: Park Dr & Franklin Ave & Washington Blvd



Lane Group	SBR	SBR2
Switch Phase		
Minimum Initial (s)		
Minimum Split (s)		
Total Split (s)		
Total Split (%)		
Maximum Green (s)		
Yellow Time (s)		
All-Red Time (s)		
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag		
Lead-Lag Optimize?		
Vehicle Extension (s)		
Recall Mode		
Walk Time (s)		
Flash Dont Walk (s)		
Pedestrian Calls (#/hr)		
Act Effct Green (s)		
Actuated g/C Ratio		
v/c Ratio		
Control Delay		
Queue Delay		
Total Delay		
LOS		
Approach Delay		
Approach LOS		

Intersection Summary

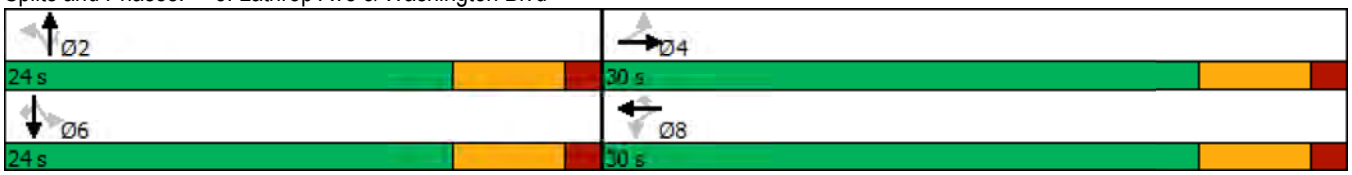


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	68	276	5	4	189	81	5	184	16	136	84	69
Future Volume (vph)	68	276	5	4	189	81	5	184	16	136	84	69
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		75	0		75	0		75	0		75
Storage Lanes	0		0	0		1	0		1	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00			1.00	0.97		1.00	0.97		0.99	0.97
Frt		0.998				0.850			0.850			0.850
Flt Protected		0.990			0.999			0.999			0.970	
Satd. Flow (prot)	0	1840	0	0	1861	1583	0	1861	1583	0	1807	1583
Flt Permitted		0.891			0.990			0.986			0.697	
Satd. Flow (perm)	0	1652	0	0	1844	1528	0	1836	1528	0	1289	1528
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2				86			61			73
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		450			2667			1328			1233	
Travel Time (s)		12.3			72.7			36.2			33.6	
Confl. Peds. (#/hr)	10		10	10		10	10		10	10		10
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	72	294	5	4	201	86	5	196	17	145	89	73
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	371	0	0	205	86	0	201	17	0	234	73
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (ft)	20	100		20	100	20	20	100	20	20	100	20
Trailing Detector (ft)	0	0		0	0	0	0	0	0	0	0	0
Detector 1 Position(ft)	0	0		0	0	0	0	0	0	0	0	0
Detector 1 Size(ft)	20	6		20	6	20	20	6	20	20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA	Perm	Perm	NA	Perm

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Protected Phases		4			8			2			6	
Permitted Phases	4			8		8	2		2	6		6
Detector Phase	4	4		8	8	8	2	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	14.0	14.0		14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0
Total Split (s)	30.0	30.0		30.0	30.0	30.0	24.0	24.0	24.0	24.0	24.0	24.0
Total Split (%)	55.6%	55.6%		55.6%	55.6%	55.6%	44.4%	44.4%	44.4%	44.4%	44.4%	44.4%
Maximum Green (s)	24.0	24.0		24.0	24.0	24.0	18.0	18.0	18.0	18.0	18.0	18.0
Yellow Time (s)	4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
All-Red Time (s)	1.5	1.5		1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Lost Time Adjust (s)		0.0			0.0	0.0		0.0	0.0		0.0	0.0
Total Lost Time (s)		6.0			6.0	6.0		6.0	6.0		6.0	6.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None		None	None	None	None	None	None	None	None	None
Walk Time (s)	7.0	7.0		7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0		11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0		0	0	0	0	0	0	0	0	0
Act Effct Green (s)		15.3			15.3	15.3		12.6	12.6		13.0	13.0
Actuated g/C Ratio		0.42			0.42	0.42		0.34	0.34		0.35	0.35
v/c Ratio		0.54			0.27	0.13		0.32	0.03		0.51	0.12
Control Delay		13.3			10.0	3.2		13.0	0.1		17.0	4.5
Queue Delay		0.0			0.0	0.0		0.0	0.0		0.0	0.0
Total Delay		13.3			10.0	3.2		13.0	0.1		17.0	4.5
LOS		B			B	A		B	A		B	A
Approach Delay		13.3			8.0			12.0			14.0	
Approach LOS		B			A			B			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 54			
Actuated Cycle Length: 36.7			
Natural Cycle: 40			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.54			
Intersection Signal Delay: 12.0		Intersection LOS: B	
Intersection Capacity Utilization 74.3%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 8: Lathrop Ave & Washington Blvd



Intersection	
Intersection Delay, s/veh	15.5
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	114	241	19	10	243	23	11	155	31	13	148	89
Future Vol, veh/h	114	241	19	10	243	23	11	155	31	13	148	89
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	125	265	21	11	267	25	12	170	34	14	163	98
Number of Lanes	0	2	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	2
HCM Control Delay	15	17.1	14.2	15.6
HCM LOS	B	C	B	C

Lane	NBLn1	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	6%	49%	0%	4%	5%
Vol Thru, %	79%	51%	86%	88%	59%
Vol Right, %	16%	0%	14%	8%	36%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	197	235	140	276	250
LT Vol	11	114	0	10	13
Through Vol	155	121	121	243	148
RT Vol	31	0	19	23	89
Lane Flow Rate	216	258	153	303	275
Geometry Grp	2	7	7	5	2
Degree of Util (X)	0.403	0.503	0.284	0.545	0.491
Departure Headway (Hd)	6.7	7.022	6.677	6.471	6.433
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	535	513	537	555	558
Service Time	4.761	4.778	4.432	4.53	4.489
HCM Lane V/C Ratio	0.404	0.503	0.285	0.546	0.493
HCM Control Delay	14.2	16.7	12.1	17.1	15.6
HCM Lane LOS	B	C	B	C	C
HCM 95th-tile Q	1.9	2.8	1.2	3.3	2.7

APPENDIX D: CRASH ANALYSIS

01. Top 10% - Segment Crashes
02. Top 10% - Intersection Crashes
03. Warrants

Top 10%- Segment Crashes

Segment - 10% Crash Locations

							Overall (2016-2020)							
Segment_ID	Primary Route	From	To	# Crashes	PG	Exclude?	Fatal	A-injury	B-injury	C-injury	PD	Score	PG Rank (hard)	PG % Tier (hard)
U1419_E	Madison St	Forest	Park	9	Primary		0	1	2	3	3	29	1	10%
U1419_G	Madison St	Franklin	Ashland	18	Primary		0	0	1	3	14	25	2	10%
U2753_J	Thatcher Ave	Augusta	Division	6	Primary		0	1	1	1	3	20	3	10%
U1394_I	Division St	Monroe	Bonnie Brae	3	Primary		0	0	3	0	0	15	4	10%
M2003_A	Forest Ave	Madison	Vine	1	Local		0	1	0	0	0	10	1	10%
M4000_C	Oak Ave	Forest	Park	2	Local		0	0	1	1	0	7	2	10%
M2006_B	Edgewood Pl	Lake	Thatcher	1	Local		0	0	1	0	0	5	3	10%
M1003_B	Clinton Pl	Quick	Oak	1	Local		0	0	1	0	0	5	3	10%
M2000_F	Ashland Ave	Lake	Oak	1	Local		0	0	1	0	0	5	3	10%

ID Name U1419_E

LOCATION INFO: Madison St: Forest - Park

PG, FC & ADT Primary

County: Cook County

Main ID: U1419_E
Sub ID: ALL
Study Period Begin Year: 2016 to 2021

Analysis Period 6 years

YEAR	Rear End			Angle			Sideswipe Opposite Direction			Sideswipe Same Direction			Turning Left			Turning Right			Fixed Object			Overturned			Head On			Pedestrian			Other Object			Animal			Pedalcyclist			Other Non-Collision			TOTAL	
	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	**Crash Count**	**Injury Count**
2016																																									0	
2017													1	1 - B	1 - BI	1	1 - C	2 - CI	1	1 - A	1 - AI																				3	1 - AI 1 - BI 2 - CI
2018	2															1																									3	
2019	1	1 - C	1 - CI																																	1	1 - B	1 - BI				2	1 - BI 1 - CI
2020	1	1 - C	1 - CI																																							1	1 - CI
2021																																									0	
TOTAL	**4**	**2 - C**	**2 - CI**	**0**			**0**			**0**			**1**	**1 - B**	**1 - BI**	**2**	**1 - C**	**2 - CI**	**1**	**1 - A**	**1 - AI**	**0**			**0**			**0**			**0**			**0**			**1**	**1 - B**	**1 - BI**	**0**			**9**	**1 - AI 2 - BI 4 - CI**
%	**44.4%**			**0.0%**			**0.0%**			**0.0%**			**11.1%**			**22.2%**			**11.1%**			**0.0%**			**0.0%**			**0.0%**			**0.0%**			**0.0%**			**11.1%**			**0.0%**			

YEAR	INJURY TYPE					CRASH CONDITIONS						TOTAL
	K	A	B	C	PDO	Wet	Wet %	Snow/Ice	Snow/Ice %	Night	Night %	
2016					0	0	-	0	-	0	-	0
2017		1	1	1	0	0	0%	0	0%	1	33%	3
2018					3	0	0%	0	0%	0	0%	3
2019			1	1	0	0	0%	0	0%	0	0%	2
2020				1	0	0	0%	0	0%	0	0%	1
2021					0	0	-	0	-	0	-	0
TOTAL	**0**	**1**	**2**	**3**	**3**	**0**	**0.0%**	**0**	**0.0%**	**1**	**11.1%**	**9**

ID Name U1419_G

LOCATION INFO: Madison St: Franklin - Ashland

PG, FC & ADT Primary

County: Cook County

Main ID: U1419_G
Sub ID: ALL
Study Period Begin Year: 2016 to 2021

Analysis Period 6 years

YEAR	Rear End			Angle			Sideswipe Opposite Direction			Sideswipe Same Direction			Turning Left			Turning Right			Fixed Object			Overturned			Head On			Pedestrian			Other Object			Animal			Pedalcyclist			Other Non-Collision			TOTAL	
	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	**Crash Count**	**Injury Count**
2016													1																													1	
2017																												1													1	
2018				2	1 - B	2 - BI				2						2												1	1 - C	1 - CI	1										8	2 - BI 1 - CI
2019																																									0	
2020				2												1																									3	
2021				1									1	1 - C	2 - CI	1															1										4	2 - CI
TOTAL	**0**			**5**	**1 - B**	**2 - BI**	**0**			**2**			**2**	**1 - C**	**2 - CI**	**4**			**0**			**0**			**0**			**1**	**1 - C**	**1 - CI**	**3**			**0**			**0**			**0**			**17**	**2 - BI 3 - CI**
%	**0.0%**			**29.4%**			**0.0%**			**11.8%**			**11.8%**			**23.5%**			**0.0%**			**0.0%**			**0.0%**			**5.9%**			**17.6%**			**0.0%**			**0.0%**			**0.0%**				

YEAR	INJURY TYPE					CRASH CONDITIONS						TOTAL
	K	A	B	C	PDO	Wet	Wet %	Snow/Ice	Snow/Ice %	Night	Night %	
2016					1	0	0%	0	0%	0	0%	1
2017					1	0	0%	0	0%	0	0%	1
2018			1	1	6	1	13%	1	13%	1	13%	8
2019					0	0	-	0	-	0	-	0
2020					3	0	0%	0	0%	0	0%	3
2021				1	3	0	0%	0	0%	1	25%	4
TOTAL	**0**	**0**	**1**	**2**	**14**	**1**	**5.9%**	**1**	**5.9%**	**2**	**11.8%**	**17**

ID Name U2753_J

LOCATION INFO: Thatcher Ave: Augusta - Division

PG, FC & ADT Primary

County: Cook County

Main ID: U2753_J
Sub ID: ALL
Study Period Begin Year: 2016 to 2021

Analysis Period 6 years

YEAR	Rear End			Angle			Sideswipe Opposite Direction			Sideswipe Same Direction			Turning Left			Turning Right			Fixed Object			Overturned			Head On			Pedestrian			Other Object			Animal			Pedalcyclist			Other Non-Collision			TOTAL	
	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	**Crash Count**	**Injury Count**
2016																			1																							1	
2017	1																																								1	
2018	1	1 - B	1 - BI																																						1	1 - BI
2019	1																																								1	
2020																																									0	
2021																			1	1 - A	1 - AI										1	1 - C	1 - CI								2	1 - AI 1 - CI
TOTAL	**3**	**1 - B**	**1 - BI**	**0**			**0**			**0**			**0**			**0**			**2**	**1 - A**	**1 - AI**	**0**			**0**			**0**			**1**	**1 - C**	**1 - CI**	**0**			**0**			**0**			**6**	**1 - AI 1 - BI 1 - CI**
%	**50.0%**			**0.0%**			**0.0%**			**0.0%**			**0.0%**			**0.0%**			**33.3%**			**0.0%**			**0.0%**			**0.0%**			**16.7%**			**0.0%**			**0.0%**			**0.0%**			

YEAR	INJURY TYPE					CRASH CONDITIONS						TOTAL
	K	A	B	C	PDO	Wet	Wet %	Snow/Ice	Snow/Ice %	Night	Night %	
2016					1	0	0%	1	100%	0	0%	1
2017					1	0	0%	0	0%	0	0%	1
2018			1		0	1	100%	0	0%	0	0%	1
2019					1	0	0%	0	0%	0	0%	1
2020					0	0	-	0	-	0	-	0
2021		1		1	0	1	50%	0	0%	1	50%	2
TOTAL	**0**	**1**	**1**	**1**	**3**	**2**	**33.3%**	**1**	**16.7%**	**1**	**16.7%**	**6**

ID Name U1394_I

LOCATION INFO: Division St: Monroe - Bonnie Brae

PG, FC & ADT Primary

County: Cook County

Main ID: U1394_I
Sub ID: ALL
Study Period Begin Year: 2016 to 2021

Analysis Period 6 years

YEAR	Rear End			Angle			Sideswipe Opposite Direction			Sideswipe Same Direction			Turning Left			Turning Right			Fixed Object			Overturned			Head On			Pedestrian			Other Object			Animal			Pedalcyclist			Other Non-Collision			TOTAL	
	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	**Crash Count**	**Injury Count**
2016																																									0	
2017										1	1 - B	1 - BI																1	1 - B	1 - BI											2	2 - BI
2018																																									0	
2019																																									0	
2020	1	1 - B	1 - BI																																						1	1 - BI
2021																																									0	
TOTAL	**1**	**1 - B**	**1 - BI**	**0**			**0**			**1**	**1 - B**	**1 - BI**	**0**			**0**			**0**			**0**			**0**			**0**			**1**	**1 - B**	**1 - BI**	**0**			**0**			**0**			**3**	**3 - BI**
%	**33.3%**			**0.0%**			**0.0%**			**33.3%**			**0.0%**			**0.0%**			**0.0%**			**0.0%**			**0.0%**			**0.0%**			**33.3%**			**0.0%**			**0.0%**			**0.0%**			

YEAR	INJURY TYPE					CRASH CONDITIONS						TOTAL
	K	A	B	C	PDO	Wet	Wet %	Snow/Ice	Snow/Ice %	Night	Night %	
2016					0	0	-	0	-	0	-	0
2017			2		0	0	0%	0	0%	1	50%	2
2018					0	0	-	0	-	0	-	0
2019					0	0	-	0	-	0	-	0
2020			1		0	0	0%	0	0%	0	0%	1
2021					0	0	-	0	-	0	-	0
TOTAL	**0**	**0**	**3**	**0**	**0**	**0**	**0.0%**	**0**	**0.0%**	**1**	**33.3%**	**3**

ID Name M2003_A

LOCATION INFO: Forest Ave: Madison - Vine

PG, FC & ADT Local

County: Cook County

Main ID: M2003_A
Sub ID: ALL
Study Period Begin Year: 2016 to 2021

Analysis Period 6 years

YEAR	Rear End			Angle			Sideswipe Opposite Direction			Sideswipe Same Direction			Turning Left			Turning Right			Fixed Object			Overturned			Head On			Pedestrian			Other Object			Animal			Pedalcyclist			Other Non-Collision			TOTAL	
	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	**Crash Count**	**Injury Count**
2016																																									0	
2017																																									0	
2018																																									0	
2019																																									0	
2020																																									0	
2021													1	1 - A	2 - AI																										1	2 - AI
TOTAL	**0**			**0**			**0**			**0**			**1**	**1 - A**	**2 - AI**	**0**			**0**			**0**			**0**			**0**			**0**			**0**			**0**			**1**	**2 - AI**
%	**0.0%**			**0.0%**			**0.0%**			**0.0%**			**100.0%**			**0.0%**			**0.0%**			**0.0%**			**0.0%**			**0.0%**			**0.0%**			**0.0%**			**0.0%**				

YEAR	INJURY TYPE					CRASH CONDITIONS						TOTAL
	K	A	B	C	PDO	Wet	Wet %	Snow/Ice	Snow/Ice %	Night	Night %	
2016					0	0	-	0	-	0	-	0
2017					0	0	-	0	-	0	-	0
2018					0	0	-	0	-	0	-	0
2019					0	0	-	0	-	0	-	0
2020					0	0	-	0	-	0	-	0
2021		1			0	0	0%	0	0%	1	100%	1
TOTAL	**0**	**1**	**0**	**0**	**0**	**0**	**0.0%**	**0**	**0.0%**	**1**	**100.0%**	**1**

ID Name M4000_C

LOCATION INFO: Oak Ave: Forest - Park

PG, FC & ADT Local

County: Cook County

Main ID: M4000_C
Sub ID: ALL
Study Period Begin Year: 2016 to 2021

Analysis Period 6 years

YEAR	Rear End			Angle			Sideswipe Opposite Direction			Sideswipe Same Direction			Turning Left			Turning Right			Fixed Object			Overturned			Head On			Pedestrian			Other Object			Animal			Pedalcyclist			Other Non-Collision			TOTAL	
	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	**Crash Count**	**Injury Count**
2016																																									0	
2017																																									0	
2018																			1	1 - B	2 - BI																			1	2 - BI
2019																																									0	
2020																			1	1 - C	2 - CI																			1	2 - CI
2021																																									0	
TOTAL	**0**			**0**			**0**			**0**			**0**			**0**			**2**	**1 - B** **1 - C**	**2 - BI** **2 - CI**	**0**			**0**			**0**			**0**			**0**			**0**			**2**	**2 - BI** **2 - CI**
%	**0.0%**			**0.0%**			**0.0%**			**0.0%**			**0.0%**			**0.0%**			**100.0%**			**0.0%**			**0.0%**			**0.0%**			**0.0%**			**0.0%**			**0.0%**				

YEAR	INJURY TYPE					CRASH CONDITIONS						TOTAL
	K	A	B	C	PDO	Wet	Wet %	Snow/Ice	Snow/Ice %	Night	Night %	
2016					0	0	-	0	-	0	-	0
2017					0	0	-	0	-	0	-	0
2018			1		0	0	0%	0	0%	1	100%	1
2019					0	0	-	0	-	0	-	0
2020				1	0	0	0%	0	0%	1	100%	1
2021					0	0	-	0	-	0	-	0
TOTAL	**0**	**0**	**1**	**1**	**0**	**0**	**0.0%**	**0**	**0.0%**	**2**	**100.0%**	**2**

ID Name M2006_B

LOCATION INFO: Edgewood Pl: Lake - Thatcher

PG, FC & ADT Local

County: Cook County

Main ID: M2006_B
Sub ID: ALL
Study Period Begin Year: 2016 to 2021

Analysis Period 6 years

YEAR	Rear End			Angle			Sideswipe Opposite Direction			Sideswipe Same Direction			Turning Left			Turning Right			Fixed Object			Overturned			Head On			Pedestrian			Other Object			Animal			Pedalcyclist			Other Non-Collision			TOTAL	
	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	**Crash Count**	**Injury Count**
2016																																									0	
2017																																									0	
2018																																									0	
2019																			1	1 - B	1 - BI																				1	1 - BI
2020																																									0	
2021																																									0	
TOTAL	**0**			**0**			**0**			**0**			**0**			**0**			**1**	**1 - B**	**1 - BI**	**0**			**0**			**0**			**0**			**0**			**0**			**1**	**1 - BI**
%	**0.0%**			**0.0%**			**0.0%**			**0.0%**			**0.0%**			**0.0%**			**100.0%**			**0.0%**			**0.0%**			**0.0%**			**0.0%**			**0.0%**			**0.0%**				

YEAR	INJURY TYPE					CRASH CONDITIONS						TOTAL
	K	A	B	C	PDO	Wet	Wet %	Snow/Ice	Snow/Ice %	Night	Night %	
2016					0	0	-	0	-	0	-	0
2017					0	0	-	0	-	0	-	0
2018					0	0	-	0	-	0	-	0
2019			1		0	1	100%	0	0%	1	100%	1
2020					0	0	-	0	-	0	-	0
2021					0	0	-	0	-	0	-	0
TOTAL	**0**	**0**	**1**	**0**	**0**	**1**	**100.0%**	**0**	**0.0%**	**1**	**100.0%**	**1**

ID Name M1003_B

LOCATION INFO: Clinton Pl: Quick - Oak

PG, FC & ADT Local

County: Cook County

Main ID: M1003_B
Sub ID: ALL
Study Period Begin Year: 2016 to 2021

Analysis Period 6 years

YEAR	Rear End			Angle			Sideswipe Opposite Direction			Sideswipe Same Direction			Turning Left			Turning Right			Fixed Object			Overturned			Head On			Pedestrian			Other Object			Animal			Pedalcyclist			Other Non-Collision			TOTAL	
	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	**Crash Count**	**Injury Count**
2016																																									0	
2017																																									0	
2018																			1	1 - B	1 - BI																			1	1 - BI
2019																																									0	
2020																																									0	
2021																																									0	
TOTAL	**0**			**0**			**0**			**0**			**0**			**0**			**1**	**1 - B**	**1 - BI**	**0**			**0**			**0**			**0**			**0**			**0**			**1**	**1 - BI**
%	**0.0%**			**0.0%**			**0.0%**			**0.0%**			**0.0%**			**0.0%**			**100.0%**			**0.0%**			**0.0%**			**0.0%**			**0.0%**			**0.0%**			**0.0%**				

YEAR	INJURY TYPE					CRASH CONDITIONS						TOTAL
	K	A	B	C	PDO	Wet	Wet %	Snow/Ice	Snow/Ice %	Night	Night %	
2016					0	0	-	0	-	0	-	0
2017					0	0	-	0	-	0	-	0
2018			1		0	0	0%	0	0%	0	0%	1
2019					0	0	-	0	-	0	-	0
2020					0	0	-	0	-	0	-	0
2021					0	0	-	0	-	0	-	0
TOTAL	**0**	**0**	**1**	**0**	**0**	**0**	**0.0%**	**0**	**0.0%**	**0**	**0.0%**	**1**

ID Name M2000_F

LOCATION INFO: Ashland Ave: Lake - Oak

PG, FC & ADT Local

County: Cook County

Main ID: M2000_F
Sub ID: ALL
Study Period Begin Year: 2016 to 2021

Analysis Period 6 years

YEAR	Rear End			Angle			Sideswipe Opposite Direction			Sideswipe Same Direction			Turning Left			Turning Right			Fixed Object			Overturned			Head On			Pedestrian			Other Object			Animal			Pedalcyclist			Other Non-Collision			TOTAL	
	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	**Crash Count**	**Injury Count**
2016																																									0	
2017																																									0	
2018																																									0	
2019																																									0	
2020																																									0	
2021																														1	1 - B	1 - BI									1	1 - BI
TOTAL	**0**			**0**			**0**			**0**			**0**			**0**			**0**			**0**			**0**			**0**			**1**	**1 - B**	**1 - BI**	**0**			**0**			**0**			**1**	**1 - BI**
%	**0.0%**			**0.0%**			**0.0%**			**0.0%**			**0.0%**			**0.0%**			**0.0%**			**0.0%**			**0.0%**			**0.0%**			**100.0%**			**0.0%**			**0.0%**			**0.0%**				

YEAR	INJURY TYPE					CRASH CONDITIONS						TOTAL
	K	A	B	C	PDO	Wet	Wet %	Snow/Ice	Snow/Ice %	Night	Night %	
2016					0	0	-	0	-	0	-	0
2017					0	0	-	0	-	0	-	0
2018					0	0	-	0	-	0	-	0
2019					0	0	-	0	-	0	-	0
2020					0	0	-	0	-	0	-	0
2021			1		0	0	0%	0	0%	0	0%	1
TOTAL	**0**	**0**	**1**	**0**	**0**	**0**	**0.0%**	**0**	**0.0%**	**0**	**0.0%**	**1**

Top 10%- Intersection Crashes

Intersection - 10% Crash Locations

									Overall (2016-2021)							
Intersection_ID	Street 1	Street 2	# Crashes	TC	# Legs	Classification	PG	Exclude?	Fatal	A-injury	B-injury	C-injury	PD	Score	PG Rank (hard)	PG % Tier (hard)
U2753-U1411	Thatcher Ave	Washington Blvd	28	AWS	4	AWS - 4	AWS		0	1	4	3	20	56	1	10%
M2000-U3537	Ashland Ave	Lake St	26	Minor leg stop control (N/S)	4	Minor leg stop control (N/S) - 4	Minor Stop - 4 Leg		0	1	4	3	18	54	1	10%
U2753-U1398	Thatcher Ave	Chicago Ave	24	Signalized	4	Signalized - 4	Signalized		0	0	6	2	16	50	1	10%
U1398-U1396	Chicago Ave	William St	11	AWS	4	AWS - 4	AWS		0	1	6	2	2	46	2	10%
U2765-U1394	Lathrop Ave	Division St	19	AWS	4	AWS - 4	AWS		0	0	5	1	13	40	3	10%
U1411-M2000	Washington Blvd	Ashland Ave	21	Minor leg stop control (N/S)	4	Minor leg stop control (N/S) - 4	Minor Stop - 4 Leg		0	0	4	1	16	38	2	10%
U2753-M3001	Thatcher Ave	Greenfield St	8	Minor leg stop control (E/W)	3	Minor leg stop control (E/W) - 3	Minor Stop - 3 Leg		1	0	0	2	5	34	1	10%
U2753-U1394	Thatcher Ave	Division St	18	Minor leg stop control (E/W)	3	Minor leg stop control (E/W) - 3	Minor Stop - 3 Leg		0	1	1	1	15	32	2	10%
M4005-M2004	Hawthorne Ave	Keystone Ave	7	Minor leg stop control (N/S)	Offset-4	Minor leg stop control (N/S) - Offset-4	Minor Stop - 3 Leg		1	0	0	0	6	31	3	10%
U1411-M2005	Washington Blvd	Gale Ave	14	Minor leg stop control (N/S)	4	Minor leg stop control (N/S) - 4	Minor Stop - 4 Leg		0	0	3	3	8	29	3	10%
U1419-U2765	Madison St	Lathrop Ave	20	Minor leg stop control (N/S)	3	Minor leg stop control (N/S) - 3	Minor Stop - 3 Leg		0	0	2	1	17	29	4	10%
U3537-M2004	Lake St	Keystone Ave	13	Minor leg stop control (N/S)	4	Minor leg stop control (N/S) - 4	Minor Stop - 4 Leg		0	0	3	2	8	27	4	10%
U1398-M1000	Chicago Ave	Jackson Ave	13	Minor leg stop control (N/S)	4	Minor leg stop control (N/S) - 4	Minor Stop - 4 Leg		0	0	3	2	8	27	4	10%

ID Name U2753-U1411

LOCATION INFO: Thatcher Ave At Washington Blvd

PG, FC & ADT AWS

County: Cook County

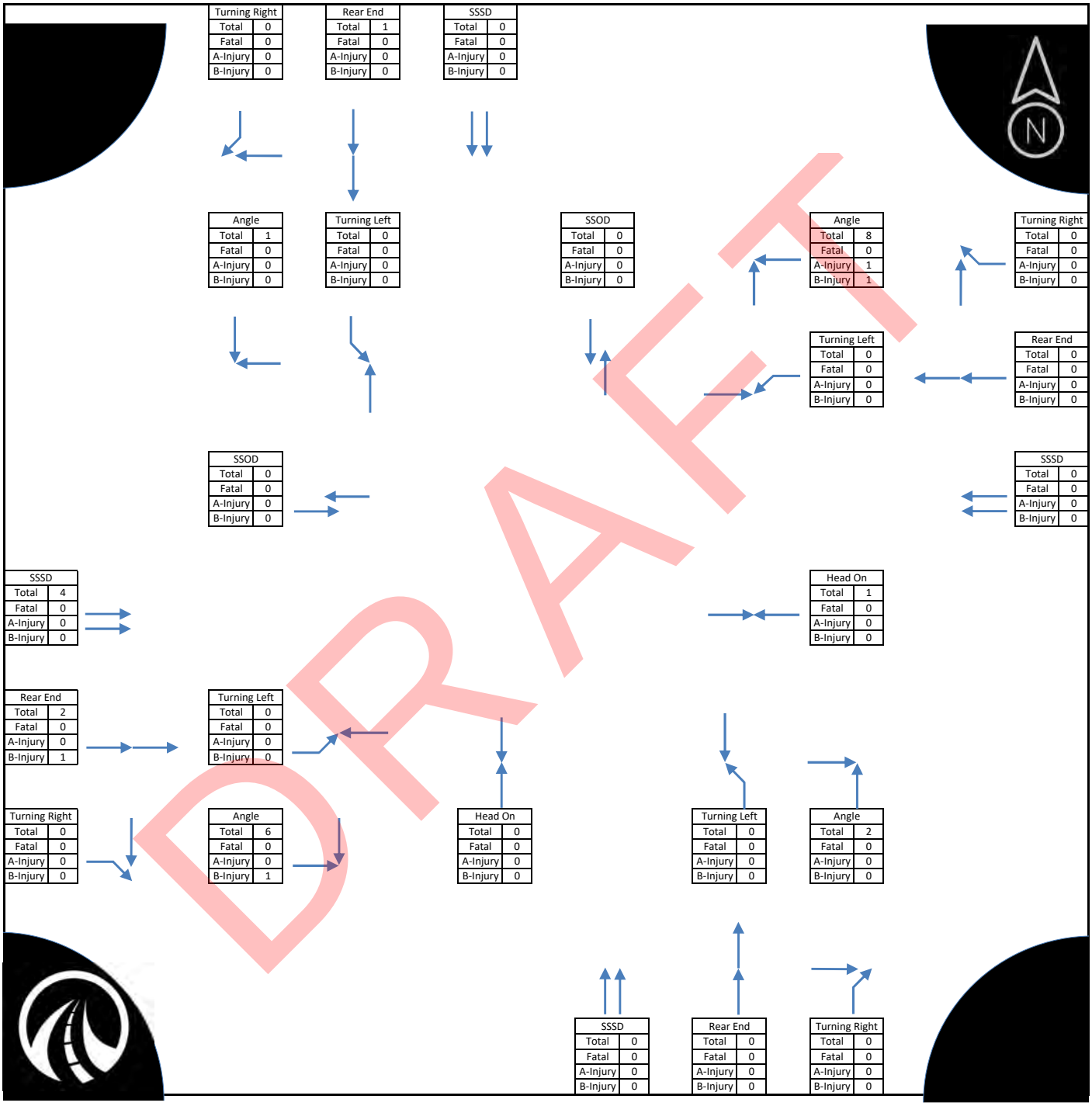
Main ID: U2753-U1411
Sub ID: ALL
Study Period Begin Year: 2016 to 2021

Analysis Period 6 years

YEAR	Rear End			Angle			Sideswipe Opposite Direction			Sideswipe Same Direction			Turning Left			Turning Right			Fixed Object			Overturned			Head On			Pedestrian			Other Object			Animal			Pedalcyclist			Other Non-Collision			TOTAL	
	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	**Crash Count**	**Injury Count**
2016	1			3	1 - A	1 - AI				1															1																7	1 - AI 1 - BI
2017	2	1 - B 1 - C	1 - BI 1 - CI	5						1									1																						9	1 - BI 1 - CI
2018				5	1 - B 1 - C	3 - BI 4 - CI				1																																6	3 - BI 4 - CI
2019				3																																						3	
2020				1	1 - B	1 - BI																																				1	1 - BI
2021										1																											1		1 - CI				2	1 - CI
TOTAL	**3**	**1 - B 1 - C**	**1 - BI 1 - CI**	**17**	**1 - A 2 - B 1 - C**	**1 - AI 4 - BI 4 - CI**	**0**			**4**			**0**			**0**			**1**			**0**			**1**			**0**			**0**			**0**			**2**	**1 - B 1 - C**	**1 - BI 1 - CI**	**0**			**28**	**1 - AI 6 - BI 6 - CI**
%	**10.7%**			**60.7%**			**0.0%**			**14.3%**			**0.0%**			**0.0%**			**3.6%**			**0.0%**			**3.6%**			**0.0%**			**0.0%**			**0.0%**			**7.1%**			**0.0%**				

YEAR	INJURY TYPE					CRASH CONDITIONS						TOTAL
	K	A	B	C	PDO	Wet	Wet %	Snow/Ice	Snow/Ice %	Night	Night %	
2016		1	1		5	2	29%	0	0%	2	29%	7
2017			1	1	7	2	22%	1	11%	1	11%	9
2018			1	1	4	2	33%	0	0%	2	33%	6
2019					3	1	33%	1	33%	1	33%	3
2020			1		0	0	0%	0	0%	1	100%	1
2021				1	1	0	0%	0	0%	0	0%	2
TOTAL	**0**	**1**	**4**	**3**	**20**	**7**	**25.0%**	**2**	**7.1%**	**7**	**25.0%**	**28**

Cook County	Thatcher Ave At Washington Blvd
2016 to 2021 Crash Data	Intersection ID: U2753-U1411
28 Total Crashes	PG: AWS



The following crashes could not be plotted on the diagram

	FO	OT	PD	PDC	OO	Animal	ONC	TOTAL
Total	1	0	0	2	0	0	0	3
Fatal	0	0	0	0	0	0	0	0
A-Injury	0	0	0	0	0	0	0	0
B-Injury	0	0	0	1	0	0	0	1

ID Name M2000-U3537

LOCATION INFO: Ashland Ave At Lake St

PG, FC & ADT Minor Stop - 4 Leg

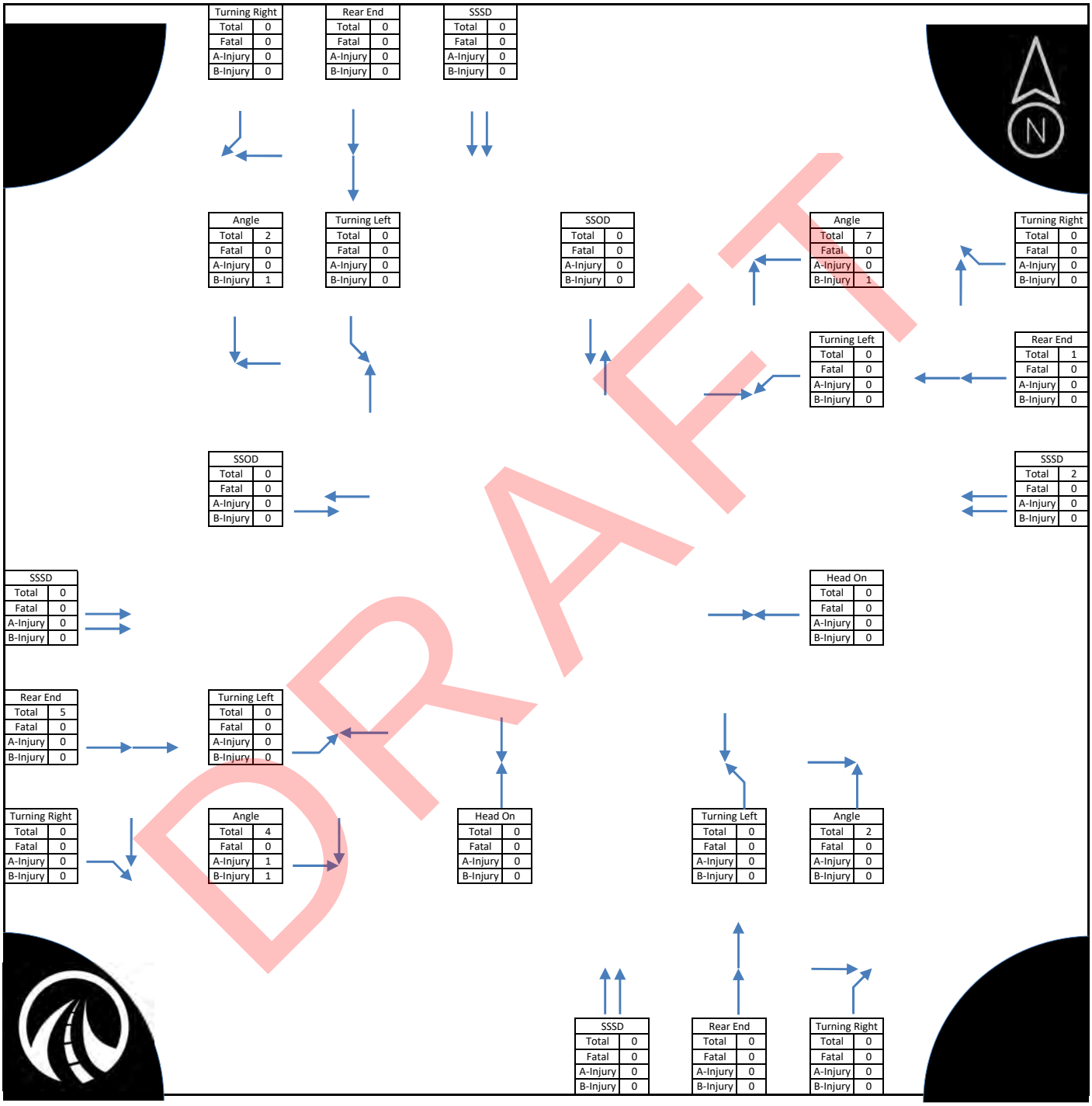
County: Cook County

Main ID: M2000-U3537
Sub ID: ALL
Study Period Begin Year: 2016 to 2021
Analysis Period 6 years

YEAR	Rear End			Angle			Sideswipe Opposite Direction			Sideswipe Same Direction			Turning Left			Turning Right			Fixed Object			Overturned			Head On			Pedestrian			Other Object			Animal			Pedalcyclist			Other Non-Collision			TOTAL	
	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	**Crash Count**	**Injury Count**
2016	3			4	1 - A	1 - AI																						2														9	1 - AI
2017	1	1 - C	1 - CI	1						1																																3	1 - CI
2018	1	1 - C	1 - CI	5	2 - B	4 - BI				1																		1	1 - B	2 - BI												8	6 - BI 1 - CI
2019				2																																						2	
2020	1			1	1 - C	1 - CI																																						2	1 - CI
2021				2	1 - B	1 - BI																																						2	1 - BI
TOTAL	**6**	**2 - C**	**2 - CI**	**15**	**1 - A 3 - B 1 - C**	**1 - AI 5 - BI 1 - CI**	**0**			**2**			**0**			**0**			**0**			**0**			**0**			**0**			**3**	**1 - B**	**2 - BI**	**0**			**0**			**0**			**26**	**1 - AI 7 - BI 3 - CI**
%	**23.1%**			**57.7%**			**0.0%**			**7.7%**			**0.0%**			**0.0%**			**0.0%**			**0.0%**			**0.0%**			**0.0%**			**11.5%**			**0.0%**			**0.0%**			**0.0%**				

YEAR	INJURY TYPE					CRASH CONDITIONS						TOTAL
	K	A	B	C	PDO	Wet	Wet %	Snow/Ice	Snow/Ice %	Night	Night %	
2016		1			8	0	0%	1	11%	1	11%	9
2017				1	2	1	33%	0	0%	1	33%	3
2018			3	1	4	4	50%	0	0%	2	25%	8
2019					2	0	0%	0	0%	0	0%	2
2020				1	1	1	50%	0	0%	0	0%	2
2021			1		1	0	0%	0	0%	0	0%	2
TOTAL	**0**	**1**	**4**	**3**	**18**	**6**	**23.1%**	**1**	**3.8%**	**4**	**15.4%**	**26**

Cook County	Ashland Ave At Lake St
2016 to 2021 Crash Data	Intersection ID: M2000-U3537
26 Total Crashes	PG: Minor Stop - 4 Leg



The following crashes could not be plotted on the diagram

	FO	OT	PD	PDC	OO	Animal	ONC	TOTAL
Total	0	0	0	0	3	0	0	3
Fatal	0	0	0	0	0	0	0	0
A-Injury	0	0	0	0	0	0	0	0
B-Injury	0	0	0	0	1	0	0	1

ID Name U2753-U1398

LOCATION INFO: Thatcher Ave At Chicago Ave

PG, FC & ADT Signalized

County: Cook County

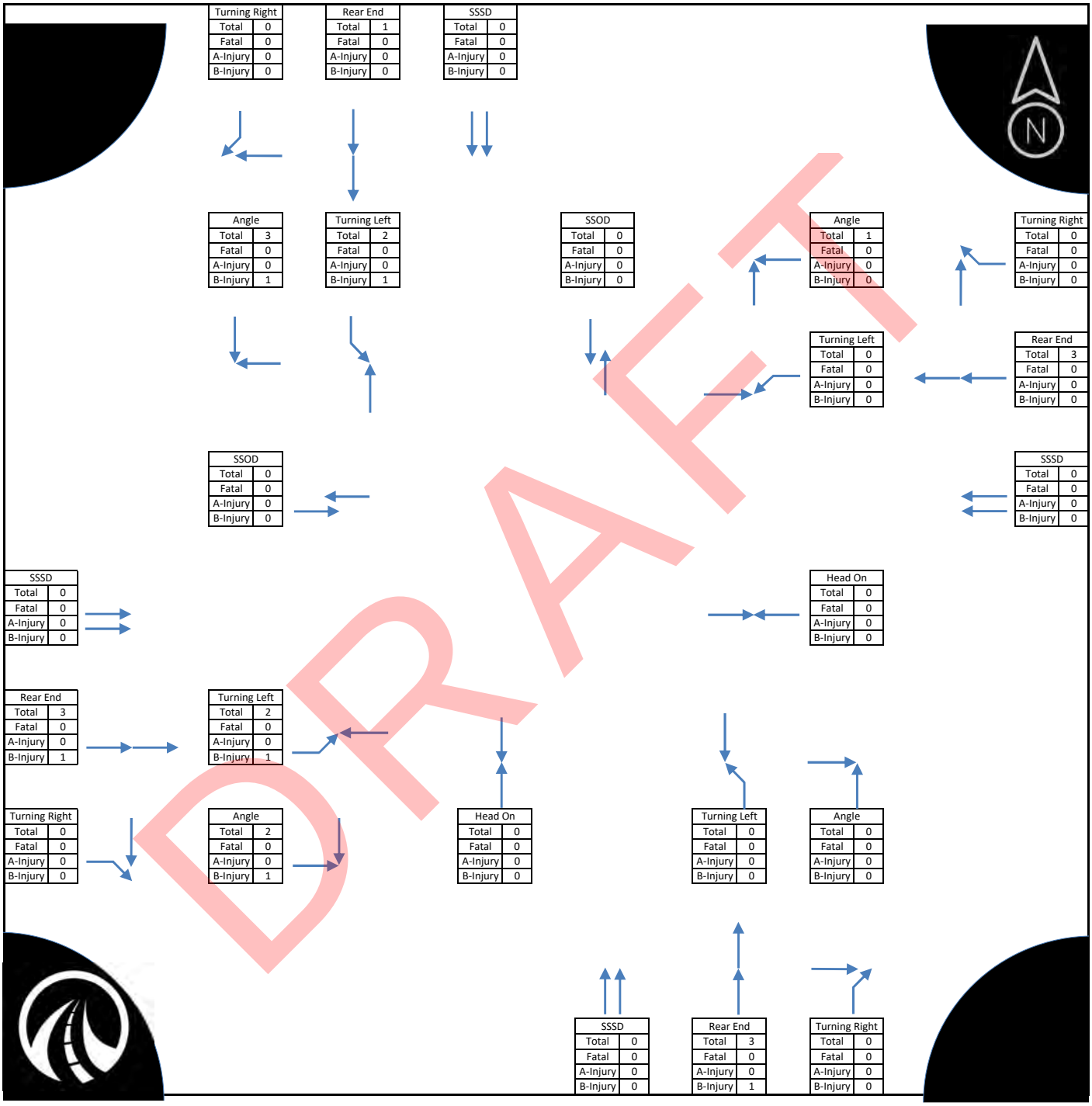
Main ID: U2753-U1398
Sub ID: ALL
Study Period Begin Year: 2016 to 2021

Analysis Period 6 years

YEAR	Rear End			Angle			Sideswipe Opposite Direction			Sideswipe Same Direction			Turning Left			Turning Right			Fixed Object			Overturned			Head On			Pedestrian			Other Object			Animal			Pedalcyclist			Other Non-Collision			TOTAL	
	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	**Crash Count**	**Injury Count**
2016	1	1 - C	1 - CI	2	1 - B	1 - BI							1																											4	1 - BI 1 - CI
2017	3	1 - C	1 - CI										2	1 - B	2 - BI																					1						6	2 - BI 1 - CI
2018	2	1 - B	1 - BI										1	1 - B	1 - BI																			1						4	2 - BI
2019	2																																							2	
2020	1			3	1 - B	1 - BI													1																					5	1 - BI
2021	1	1 - B	1 - BI	1															1																					3	1 - BI
TOTAL	**10**	**2 - B 2 - C**	**2 - BI 2 - CI**	**6**	**2 - B**	**2 - BI**	**0**			**0**			**4**	**2 - B**	**3 - BI**	**0**			**2**			**0**			**0**			**0**			**0**			**1**			**1**			**0**			**24**	**7 - BI 2 - CI**
%	**41.7%**			**25.0%**			**0.0%**			**0.0%**			**16.7%**			**0.0%**			**8.3%**			**0.0%**			**0.0%**			**0.0%**			**0.0%**			**4.2%**			**4.2%**			**0.0%**				

YEAR	INJURY TYPE					CRASH CONDITIONS						TOTAL
	K	A	B	C	PDO	Wet	Wet %	Snow/Ice	Snow/Ice %	Night	Night %	
2016			1	1	2	0	0%	0	0%	0	0%	4
2017			1	1	4	1	17%	0	0%	1	17%	6
2018			2		2	0	0%	0	0%	2	50%	4
2019					2	0	0%	1	50%	1	50%	2
2020			1		4	1	20%	0	0%	0	0%	5
2021			1		2	0	0%	0	0%	1	33%	3
TOTAL	**0**	**0**	**6**	**2**	**16**	**2**	**8.3%**	**1**	**4.2%**	**5**	**20.8%**	**24**

Cook County	Thatcher Ave At Chicago Ave
2016 to 2021 Crash Data	Intersection ID: U2753-U1398
24 Total Crashes	PG: Signalized



The following crashes could not be plotted on the diagram

	FO	OT	PD	PDC	OO	Animal	ONC	TOTAL
Total	2	0	0	1	0	1	0	4
Fatal	0	0	0	0	0	0	0	0
A-Injury	0	0	0	0	0	0	0	0
B-Injury	0	0	0	0	0	0	0	0

ID Name U1398-U1396

LOCATION INFO: Chicago Ave At William St

PG, FC & ADT AWS

County: Cook County

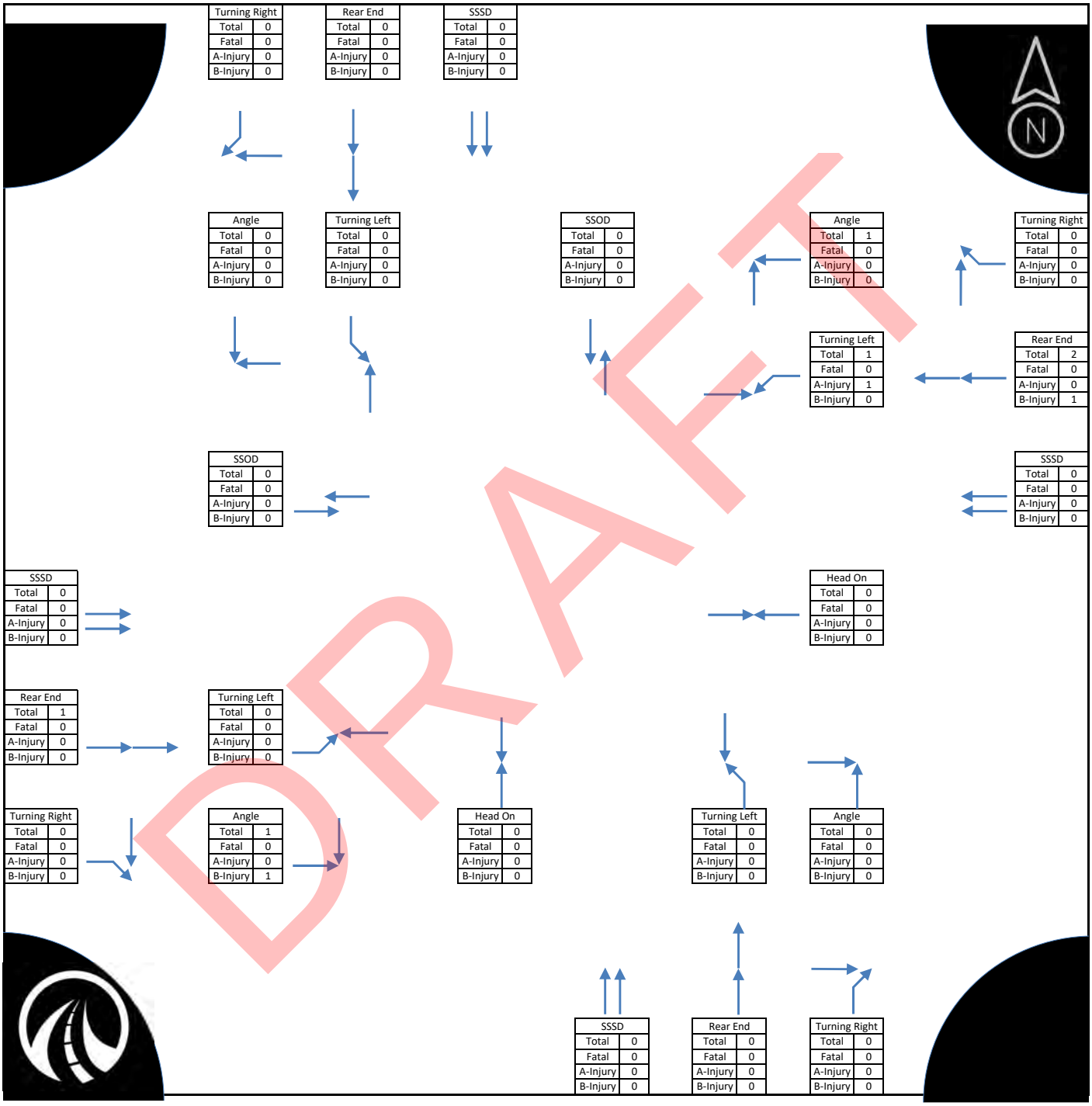
Main ID: U1398-U1396
Sub ID: ALL
Study Period Begin Year: 2016 to 2021

Analysis Period 6 years

YEAR	Rear End			Angle			Sideswipe Opposite Direction			Sideswipe Same Direction			Turning Left			Turning Right			Fixed Object			Overturned			Head On			Pedestrian			Other Object			Animal			Pedalcyclist			Other Non-Collision			TOTAL	
	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	**Crash Count**	**Injury Count**
2016				1									1	1 - A	1 - AI																					1	1 - B	1 - BI				3	1 - AI 1 - BI
2017	1			1	1 - B	1 - BI																													1	1 - B	1 - BI				3	2 - BI
2018																																									0	
2019	2	1 - B 1 - C	1 - BI 2 - CI																1	1 - B	1 - BI																					3	2 - BI 2 - CI
2020																																										0	
2021																			1	1 - B	1 - BI							1	1 - C	1 - CI												2	1 - BI 1 - CI
TOTAL	**3**	**1 - B 1 - C**	**1 - BI 2 - CI**	**2**	**1 - B**	**1 - BI**	**0**			**0**			**1**	**1 - A**	**1 - AI**	**0**			**2**	**2 - B**	**2 - BI**	**0**			**0**			**1**	**1 - C**	**1 - CI**	**0**			**0**			**2**	**2 - B**	**2 - BI**	**0**			**11**	**1 - AI 6 - BI 3 - CI**
%	**27.3%**			**18.2%**			**0.0%**			**0.0%**			**9.1%**			**0.0%**			**18.2%**			**0.0%**			**0.0%**			**9.1%**			**0.0%**			**0.0%**			**18.2%**			**0.0%**				

YEAR	INJURY TYPE					CRASH CONDITIONS						TOTAL
	K	A	B	C	PDO	Wet	Wet %	Snow/Ice	Snow/Ice %	Night	Night %	
2016		1	1		1	2	67%	0	0%	1	33%	3
2017			2		1	0	0%	0	0%	0	0%	3
2018					0	0	-	0	-	0	-	0
2019			2	1	0	2	67%	0	0%	2	67%	3
2020					0	0	-	0	-	0	-	0
2021			1	1	0	1	50%	0	0%	1	50%	2
TOTAL	**0**	**1**	**6**	**2**	**2**	**5**	**45.5%**	**0**	**0.0%**	**4**	**36.4%**	**11**

Cook County	Chicago Ave At William St
2016 to 2021 Crash Data	Intersection ID: U1398-U1396
11 Total Crashes	PG: AWS



The following crashes could not be plotted on the diagram

	FO	OT	PD	PDC	OO	Animal	ONC	TOTAL
Total	2	0	1	2	0	0	0	5
Fatal	0	0	0	0	0	0	0	0
A-Injury	0	0	0	0	0	0	0	0
B-Injury	2	0	0	2	0	0	0	4

ID Name U2765-U1394

LOCATION INFO: Lathrop Ave At Division St

PG, FC & ADT AWS

County: Cook County

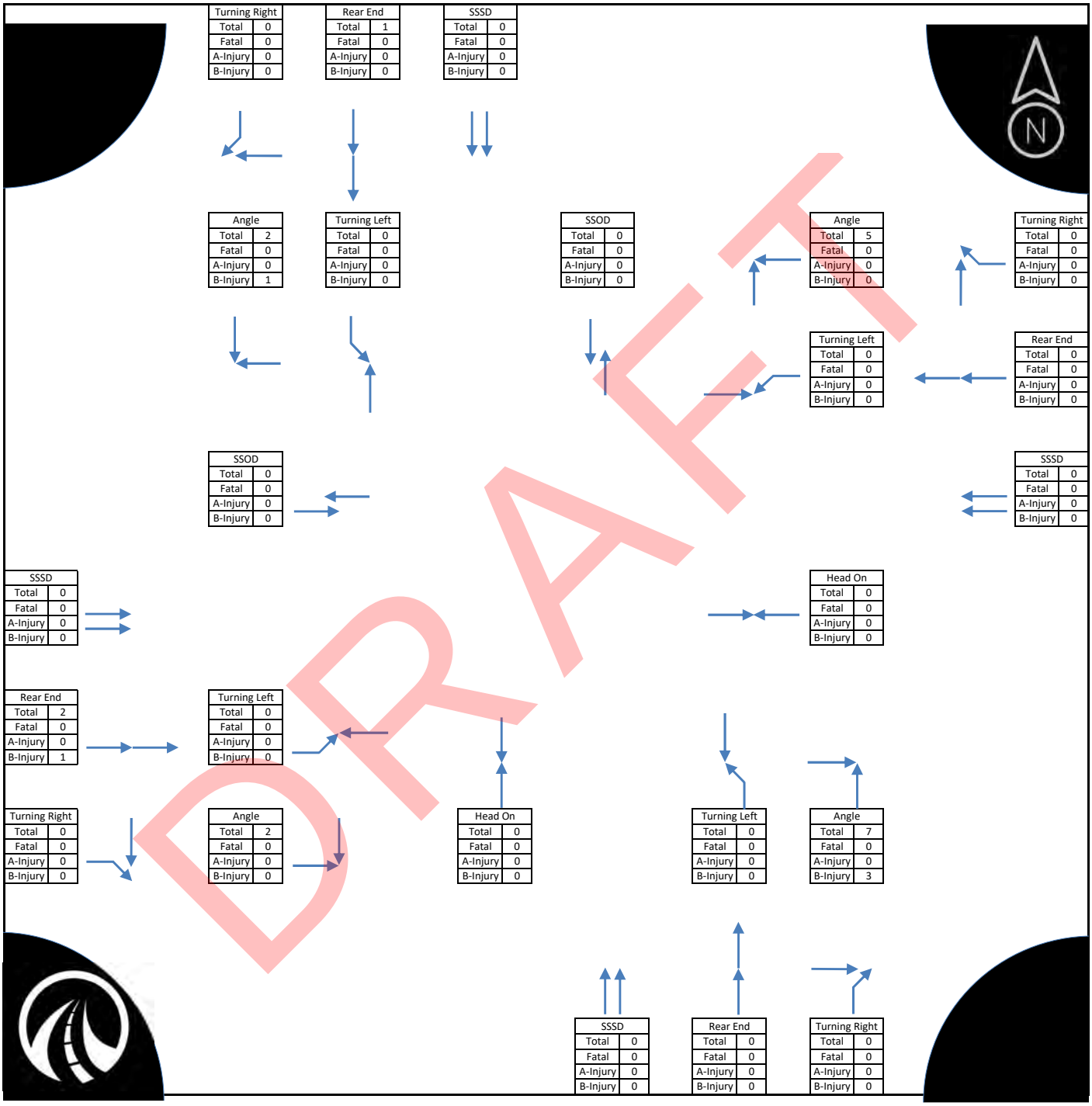
Main ID: U2765-U1394
Sub ID: ALL
Study Period Begin Year: 2016 to 2021

Analysis Period 6 years

YEAR	Rear End			Angle			Sideswipe Opposite Direction			Sideswipe Same Direction			Turning Left			Turning Right			Fixed Object			Overturned			Head On			Pedestrian			Other Object			Animal			Pedalcyclist			Other Non-Collision			TOTAL	
	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	**Crash Count**	**Injury Count**
2016				2																																				2	
2017	2	1 - B	1 - BI	5	2 - B 1 - C	3 - BI 1 - CI																																		7	4 - BI 1 - CI
2018				1																																		1	
2019				6	2 - B	6 - BI																																		6	6 - BI
2020	1																																							1	
2021				2																																		2	
TOTAL	**3**	**1 - B**	**1 - BI**	**16**	**4 - B 1 - C**	**9 - BI 1 - CI**	**0**			**0**			**0**			**0**			**0**			**0**			**0**			**0**			**0**			**0**			**0**			**19**	**10 - BI 1 - CI**
%	**15.8%**			**84.2%**			**0.0%**			**0.0%**			**0.0%**			**0.0%**			**0.0%**			**0.0%**			**0.0%**			**0.0%**			**0.0%**			**0.0%**			**0.0%**				

YEAR	INJURY TYPE					CRASH CONDITIONS						TOTAL
	K	A	B	C	PDO	Wet	Wet %	Snow/Ice	Snow/Ice %	Night	Night %	
2016					2	0	0%	0	0%	0	0%	2
2017			3	1	3	1	14%	0	0%	2	29%	7
2018					1	0	0%	0	0%	0	0%	1
2019			2		4	1	17%	0	0%	3	50%	6
2020					1	0	0%	0	0%	0	0%	1
2021					2	0	0%	1	50%	1	50%	2
TOTAL	**0**	**0**	**5**	**1**	**13**	**2**	**10.5%**	**1**	**5.3%**	**6**	**31.6%**	**19**

Cook County	Lathrop Ave At Division St
2016 to 2021 Crash Data	Intersection ID: U2765-U1394
19 Total Crashes	PG: AWS



ID Name U1411-M2000

LOCATION INFO: Washington Blvd At Ashland Ave

PG, FC & ADT Minor Stop - 4 Leg

County: Cook County

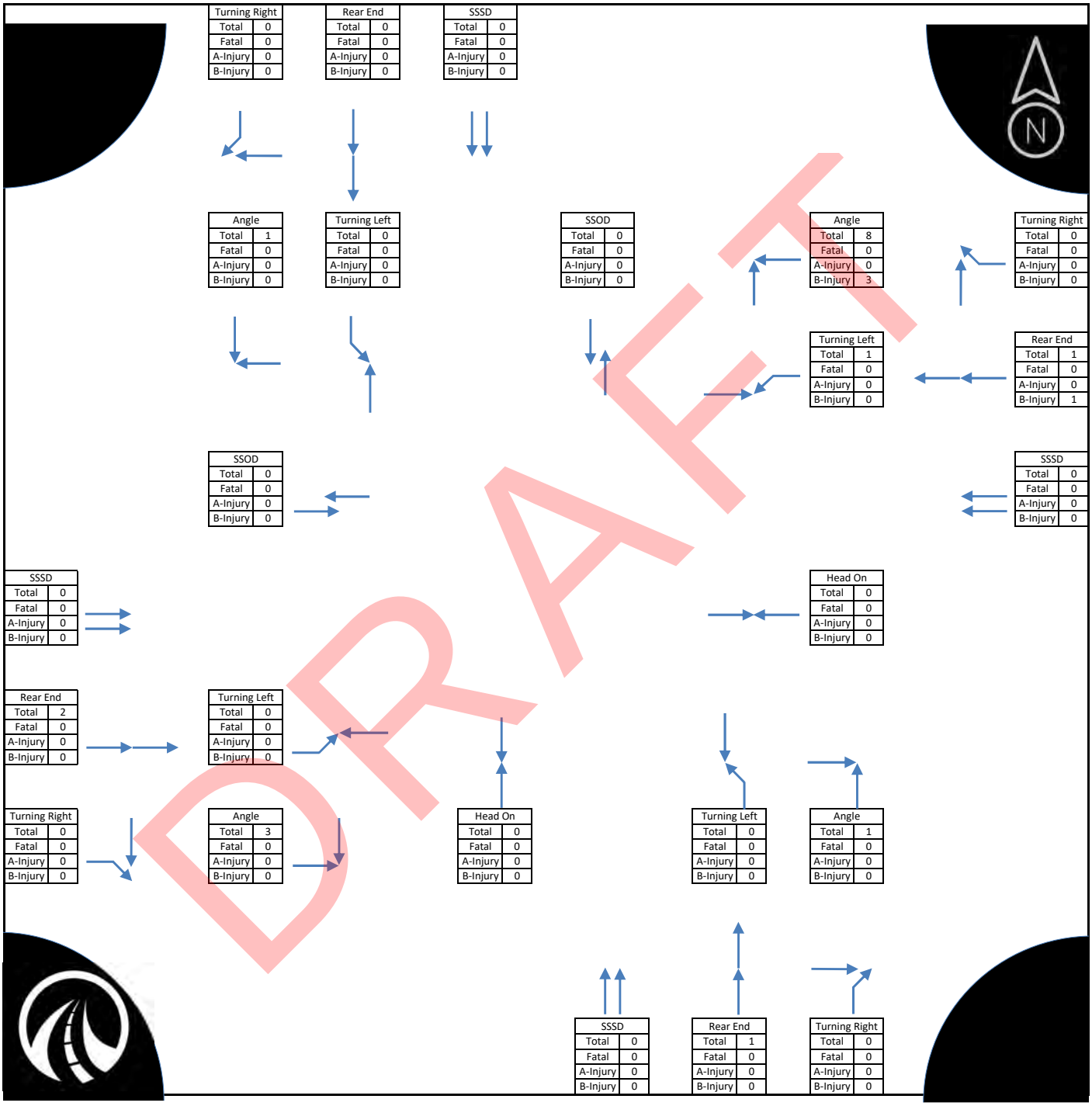
Main ID: U1411-M2000
Sub ID: ALL
Study Period Begin Year: 2016 to 2021

Analysis Period 6 years

YEAR	Rear End			Angle			Sideswipe Opposite Direction			Sideswipe Same Direction			Turning Left			Turning Right			Fixed Object			Overturned			Head On			Pedestrian			Other Object			Animal			Pedalcyclist			Other Non-Collision			TOTAL	
	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	**Crash Count**	**Injury Count**
2016				2	1 - B	2 - BI																																		2	2 - BI
2017				5	2 - B	4 - BI							1						1									1												8	4 - BI
2018	3	1 - B	2 - BI	2	1 - C	1 - CI																						1												6	2 - BI 1 - CI
2019				1																																				1	
2020	1			3																																				4	
2021																																								0	
TOTAL	**4**	**1 - B**	**2 - BI**	**13**	**3 - B** **1 - C**	**6 - BI** **1 - CI**	**0**			**0**			**1**			**0**			**1**			**0**			**0**			**0**			**2**			**0**			**0**			**0**			**21**	**8 - BI** **1 - CI**
%	**19.0%**			**61.9%**			**0.0%**			**0.0%**			**4.8%**			**0.0%**			**4.8%**			**0.0%**			**0.0%**			**0.0%**			**9.5%**			**0.0%**			**0.0%**			**0.0%**				

YEAR	INJURY TYPE					CRASH CONDITIONS						TOTAL
	K	A	B	C	PDO	Wet	Wet %	Snow/Ice	Snow/Ice %	Night	Night %	
2016			1		1	0	0%	1	50%	2	100%	2
2017			2		6	0	0%	0	0%	1	13%	8
2018			1	1	4	1	17%	2	33%	1	17%	6
2019					1	1	100%	0	0%	0	0%	1
2020					4	1	25%	0	0%	0	0%	4
2021					0	0	-	0	-	0	-	0
TOTAL	**0**	**0**	**4**	**1**	**16**	**3**	**14.3%**	**3**	**14.3%**	**4**	**19.0%**	**21**

Cook County	Washington Blvd At Ashland Ave
2016 to 2021 Crash Data	Intersection ID: U1411-M2000
21 Total Crashes	PG: Minor Stop - 4 Leg



The following crashes could not be plotted on the diagram

	FO	OT	PD	PDC	OO	Animal	ONC	TOTAL
Total	1	0	0	0	2	0	0	3
Fatal	0	0	0	0	0	0	0	0
A-Injury	0	0	0	0	0	0	0	0
B-Injury	0	0	0	0	0	0	0	0

ID Name U2753-M3001

LOCATION INFO: Thatcher Ave At Greenfield St

PG, FC & ADT Minor Stop - 3 Leg

County: Cook County

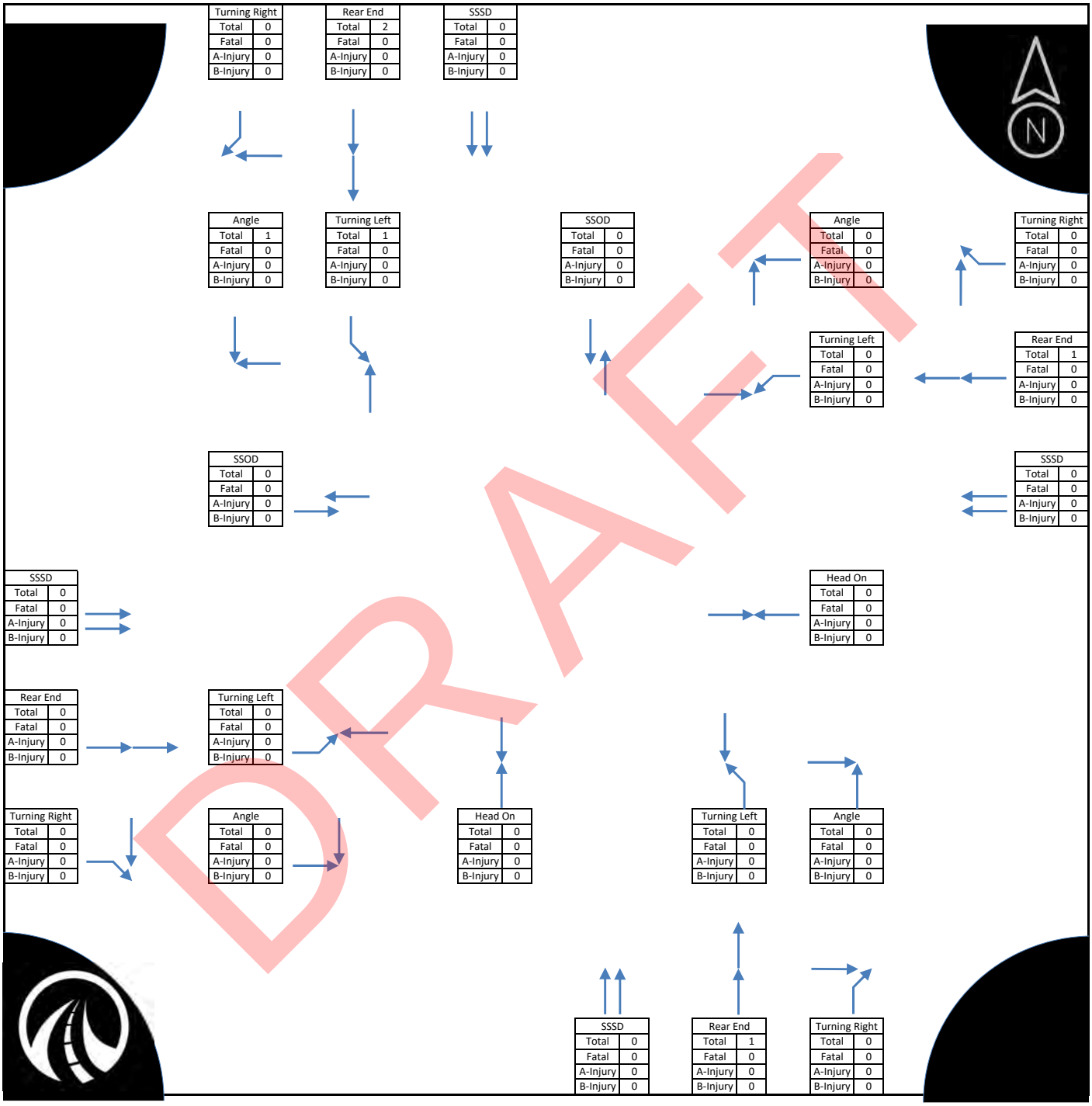
Main ID: U2753-M3001
Sub ID: ALL
Study Period Begin Year: 2016 to 2021

Analysis Period 6 years

YEAR	Rear End			Angle			Sideswipe Opposite Direction			Sideswipe Same Direction			Turning Left			Turning Right			Fixed Object			Overturned			Head On			Pedestrian			Other Object			Animal			Pedalcyclist			Other Non-Collision			TOTAL	
	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	**Crash Count**	**Injury Count**
2016																			1																							1	
2017	1	1 - C	1 - CI	1																																					2	1 - CI
2018	1	1 - C	1 - CI										1																												2	1 - CI
2019																			1	- K	1 - KI																				1	1 - KI
2020																																								0	
2021	2																																							2	
TOTAL	**4**	**2 - C**	**2 - CI**	**1**			**0**			**0**			**1**			**0**			**2**	**1 - K**	**1 - KI**	**0**			**0**			**0**			**0**			**0**			**0**			**8**	**1 - KI 2 - CI**
%	**50.0%**			**12.5%**			**0.0%**			**0.0%**			**12.5%**			**0.0%**			**25.0%**			**0.0%**			**0.0%**			**0.0%**			**0.0%**			**0.0%**			**0.0%**				

YEAR	INJURY TYPE					CRASH CONDITIONS						TOTAL
	K	A	B	C	PDO	Wet	Wet %	Snow/Ice	Snow/Ice %	Night	Night %	
2016					1	0	0%	0	0%	0	0%	1
2017				1	1	1	50%	0	0%	0	0%	2
2018				1	1	0	0%	1	50%	0	0%	2
2019	1				0	0	0%	0	0%	0	0%	1
2020					0	0	-	0	-	0	-	0
2021					2	0	0%	0	0%	0	0%	2
TOTAL	**1**	**0**	**0**	**2**	**5**	**1**	**12.5%**	**1**	**12.5%**	**0**	**0.0%**	**8**

Cook County	Thatcher Ave At Greenfield St
2016 to 2021 Crash Data	Intersection ID: U2753-M3001
8 Total Crashes	PG: Minor Stop - 3 Leg



The following crashes could not be plotted on the diagram

	FO	OT	PD	PDC	OO	Animal	ONC	TOTAL
Total	2	0	0	0	0	0	0	2
Fatal	1	0	0	0	0	0	0	1
A-Injury	0	0	0	0	0	0	0	0
B-Injury	0	0	0	0	0	0	0	0

ID Name U2753-U1394

LOCATION INFO: Thatcher Ave At Division St

PG, FC & ADT Minor Stop - 3 Leg

County: Cook County

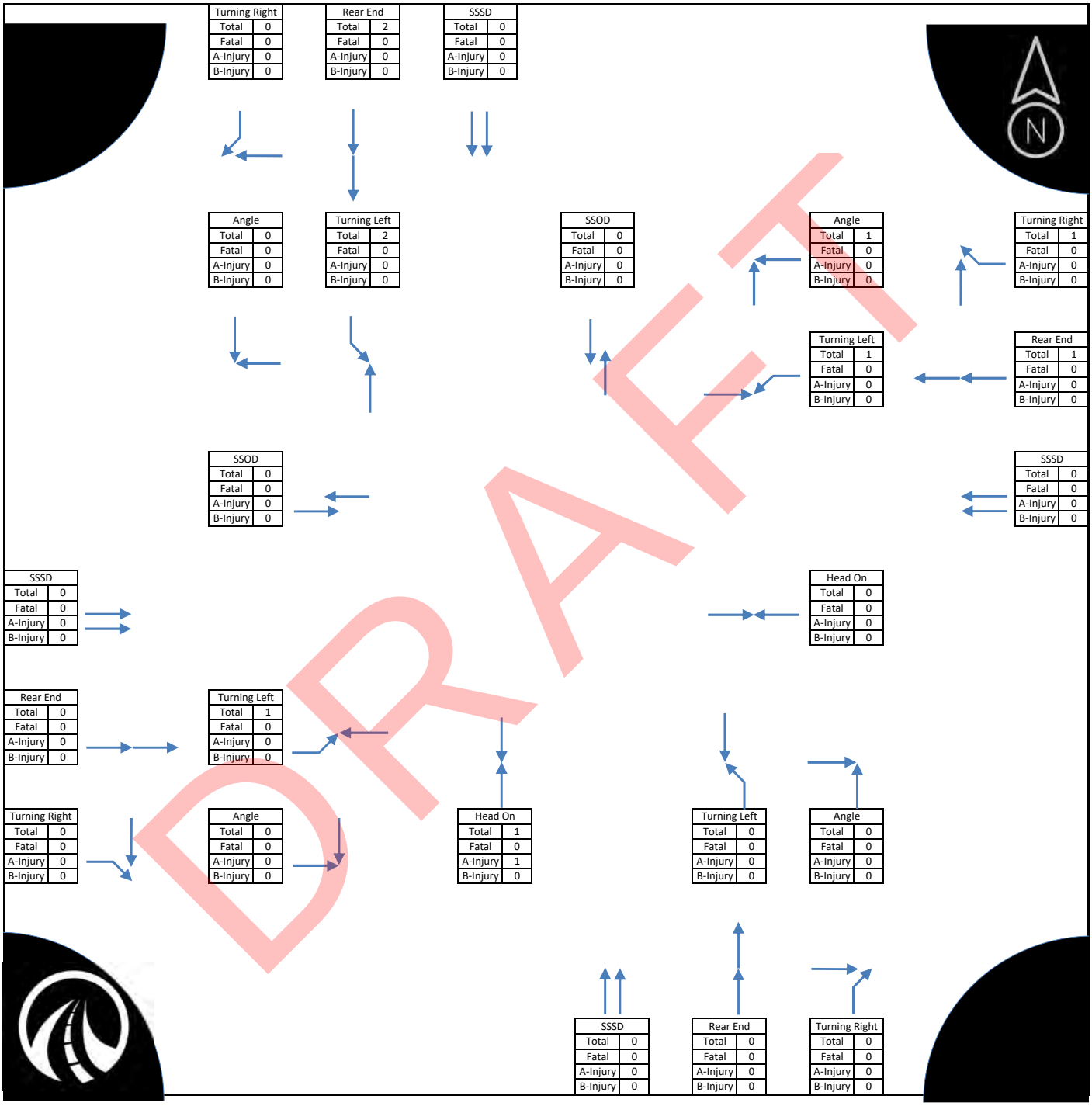
Main ID: U2753-U1394
Sub ID: ALL
Study Period Begin Year: 2016 to 2021

Analysis Period 6 years

YEAR	Rear End			Angle			Sideswipe Opposite Direction			Sideswipe Same Direction			Turning Left			Turning Right			Fixed Object			Overturned			Head On			Pedestrian			Other Object			Animal			Pedalcyclist			Other Non-Collision			TOTAL	
	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	**Crash Count**	**Injury Count**
2016													1	1 - B	2 - BI				2						1	1 - A	2 - AI															4	2 - AI 2 - BI
2017													1																1									1			3	
2018	2	1 - C	2 - CI	1									1			1			1																					6	2 - CI
2019	1																												1											2	
2020																			1																						1	
2021													1																1												2	
TOTAL	**3**	1 - C	2 - CI	**1**			**0**			**0**			**4**	1 - B	2 - BI	**1**			**4**			**0**			**1**	1 - A	2 - AI	**0**			**3**			**0**			**0**			**1**			**18**	2 - AI 2 - BI 2 - CI
%	**16.7%**			**5.6%**			**0.0%**			**0.0%**			**22.2%**			**5.6%**			**22.2%**			**0.0%**			**5.6%**			**0.0%**			**16.7%**			**0.0%**			**0.0%**			**5.6%**				

YEAR	INJURY TYPE					CRASH CONDITIONS						TOTAL
	K	A	B	C	PDO	Wet	Wet %	Snow/Ice	Snow/Ice %	Night	Night %	
2016		1	1		2	3	75%	0	0%	1	25%	4
2017					3	1	33%	0	0%	2	67%	3
2018				1	5	1	17%	0	0%	3	50%	6
2019					2	1	50%	0	0%	0	0%	2
2020					1	0	0%	0	0%	0	0%	1
2021					2	1	50%	0	0%	0	0%	2
TOTAL	**0**	**1**	**1**	**1**	**15**	**7**	**38.9%**	**0**	**0.0%**	**6**	**33.3%**	**18**

Cook County	Thatcher Ave At Division St
2016 to 2021 Crash Data	Intersection ID: U2753-U1394
18 Total Crashes	PG: Minor Stop - 3 Leg



The following crashes could not be plotted on the diagram

	FO	OT	PD	PDC	OO	Animal	ONC	TOTAL
Total	4	0	0	0	3	0	1	8
Fatal	0	0	0	0	0	0	0	0
A-Injury	0	0	0	0	0	0	0	0
B-Injury	0	0	0	0	0	0	0	0

ID Name M4005-M2004

LOCATION INFO: Hawthorne Ave At Keystone Ave

PG, FC & ADT Minor Stop - 3 Leg

County: Cook County

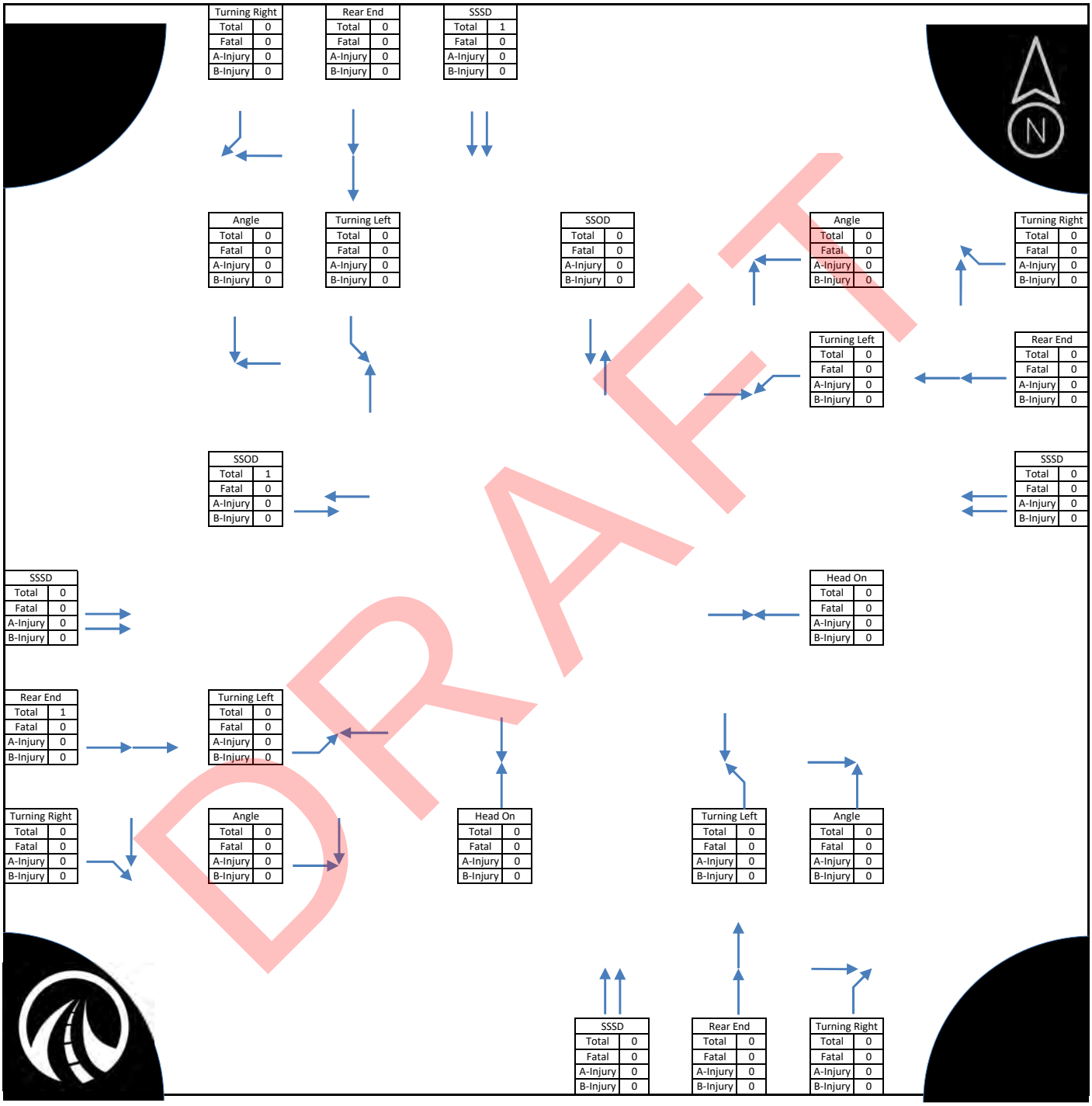
Main ID: M4005-M2004
Sub ID: ALL
Study Period Begin Year: 2016 to 2021

Analysis Period 6 years

YEAR	Rear End			Angle			Sideswipe Opposite Direction			Sideswipe Same Direction			Turning Left			Turning Right			Fixed Object			Overturned			Head On			Pedestrian			Other Object			Animal			Pedalcyclist			Other Non-Collision			TOTAL	
	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	**Crash Count**	**Injury Count**
2016																			1	- K	1 - KI							1													2	1 - KI
2017							1																					1													2	
2018	1																		1																							2	
2019																																									0	
2020																																									0	
2021										1																															1	
TOTAL	**1**			**0**			**1**			**1**			**0**			**0**			**2**	**1 - K**	**1 - KI**	**0**			**0**			**0**			**2**			**0**			**0**			**0**			**7**	**1 - KI**
%	**14.3%**			**0.0%**			**14.3%**			**14.3%**			**0.0%**			**0.0%**			**28.6%**			**0.0%**			**0.0%**			**0.0%**			**28.6%**			**0.0%**			**0.0%**					

YEAR	INJURY TYPE					CRASH CONDITIONS						TOTAL
	K	A	B	C	PDO	Wet	Wet %	Snow/Ice	Snow/Ice %	Night	Night %	
2016	1				1	0	0%	0	0%	1	50%	2
2017					2	1	50%	0	0%	1	50%	2
2018					2	1	50%	1	50%	0	0%	2
2019					0	0	-	0	-	0	-	0
2020					0	0	-	0	-	0	-	0
2021					1	0	0%	0	0%	1	100%	1
TOTAL	**1**	**0**	**0**	**0**	**6**	**2**	**28.6%**	**1**	**14.3%**	**3**	**42.9%**	**7**

Cook County	Hawthorne Ave At Keystone Ave
2016 to 2021 Crash Data	Intersection ID: M4005-M2004
7 Total Crashes	PG: Minor Stop - 3 Leg



The following crashes could not be plotted on the diagram

	FO	OT	PD	PDC	OO	Animal	ONC	TOTAL
Total	2	0	0	0	2	0	0	4
Fatal	1	0	0	0	0	0	0	1
A-Injury	0	0	0	0	0	0	0	0
B-Injury	0	0	0	0	0	0	0	0

ID Name U1411-M2005

LOCATION INFO: Washington Blvd At Gale Ave

PG, FC & ADT Minor Stop - 4 Leg

County: Cook County

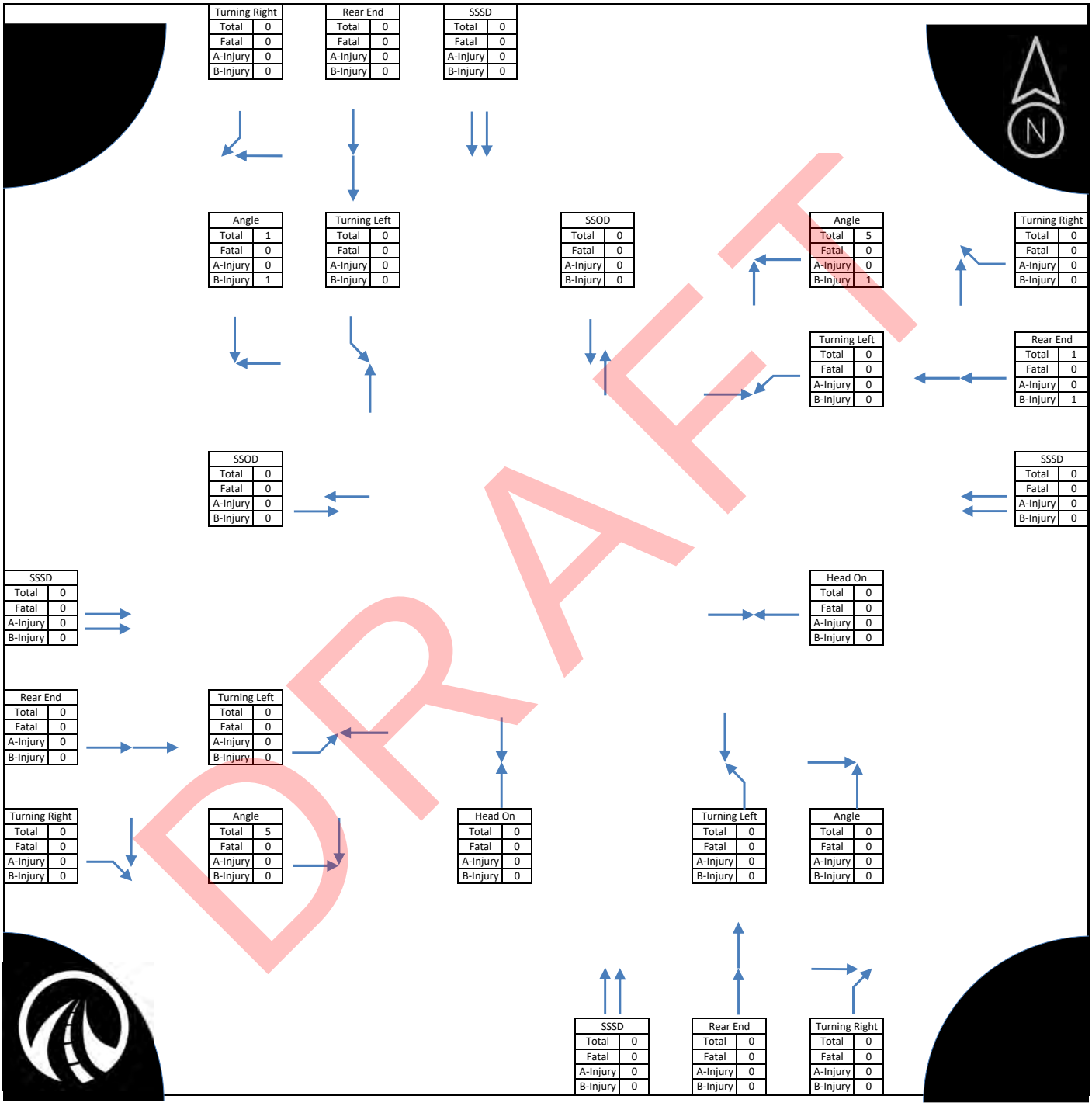
Main ID: U1411-M2005
Sub ID: ALL
Study Period Begin Year: 2016 to 2021

Analysis Period 6 years

YEAR	Rear End			Angle			Sideswipe Opposite Direction			Sideswipe Same Direction			Turning Left			Turning Right			Fixed Object			Overturned			Head On			Pedestrian			Other Object			Animal			Pedalcyclist			Other Non-Collision			TOTAL	
	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	**Crash Count**	**Injury Count**
2016				2	1 - B 1 - C	1 - BI 2 - CI																												1	1 - C	1 - CI				3	1 - BI 3 - CI
2017				2																																				2	
2018	1	1 - B	1 - BI	3	1 - B 1 - C	1 - BI 1 - CI																									1									5	2 - BI 1 - CI
2019				1																																				1	
2020				1																																				1	
2021				2																																				2	
TOTAL	**1**	**1 - B**	**1 - BI**	**11**	**2 - B 2 - C**	**2 - BI 3 - CI**	**0**			**0**			**0**			**0**			**0**			**0**			**0**			**0**			**1**			**1**	**1 - C**	**1 - CI**	**0**			**14**	**3 - BI 4 - CI**
%	**7.1%**			**78.6%**			**0.0%**			**0.0%**			**0.0%**			**0.0%**			**0.0%**			**0.0%**			**0.0%**			**0.0%**			**0.0%**			**7.1%**			**7.1%**			**0.0%**				

YEAR	INJURY TYPE					CRASH CONDITIONS						TOTAL
	K	A	B	C	PDO	Wet	Wet %	Snow/Ice	Snow/Ice %	Night	Night %	
2016			1	2	0	1	33%	0	0%	1	33%	3
2017					2	0	0%	0	0%	0	0%	2
2018			2	1	2	1	20%	0	0%	1	20%	5
2019					1	1	100%	0	0%	0	0%	1
2020					1	0	0%	0	0%	0	0%	1
2021					2	0	0%	0	0%	0	0%	2
TOTAL	**0**	**0**	**3**	**3**	**8**	**3**	**21.4%**	**0**	**0.0%**	**2**	**14.3%**	**14**

Cook County	Washington Blvd At Gale Ave
2016 to 2021 Crash Data	Intersection ID: U1411-M2005
14 Total Crashes	PG: Minor Stop - 4 Leg



The following crashes could not be plotted on the diagram

	FO	OT	PD	PDC	OO	Animal	ONC	TOTAL
Total	0	0	0	1	0	1	0	2
Fatal	0	0	0	0	0	0	0	0
A-Injury	0	0	0	0	0	0	0	0
B-Injury	0	0	0	0	0	0	0	0

ID Name U1419-U2765

LOCATION INFO: Madison St At Lathrop Ave

PG, FC & ADT Minor Stop - 3 Leg

County: Cook County

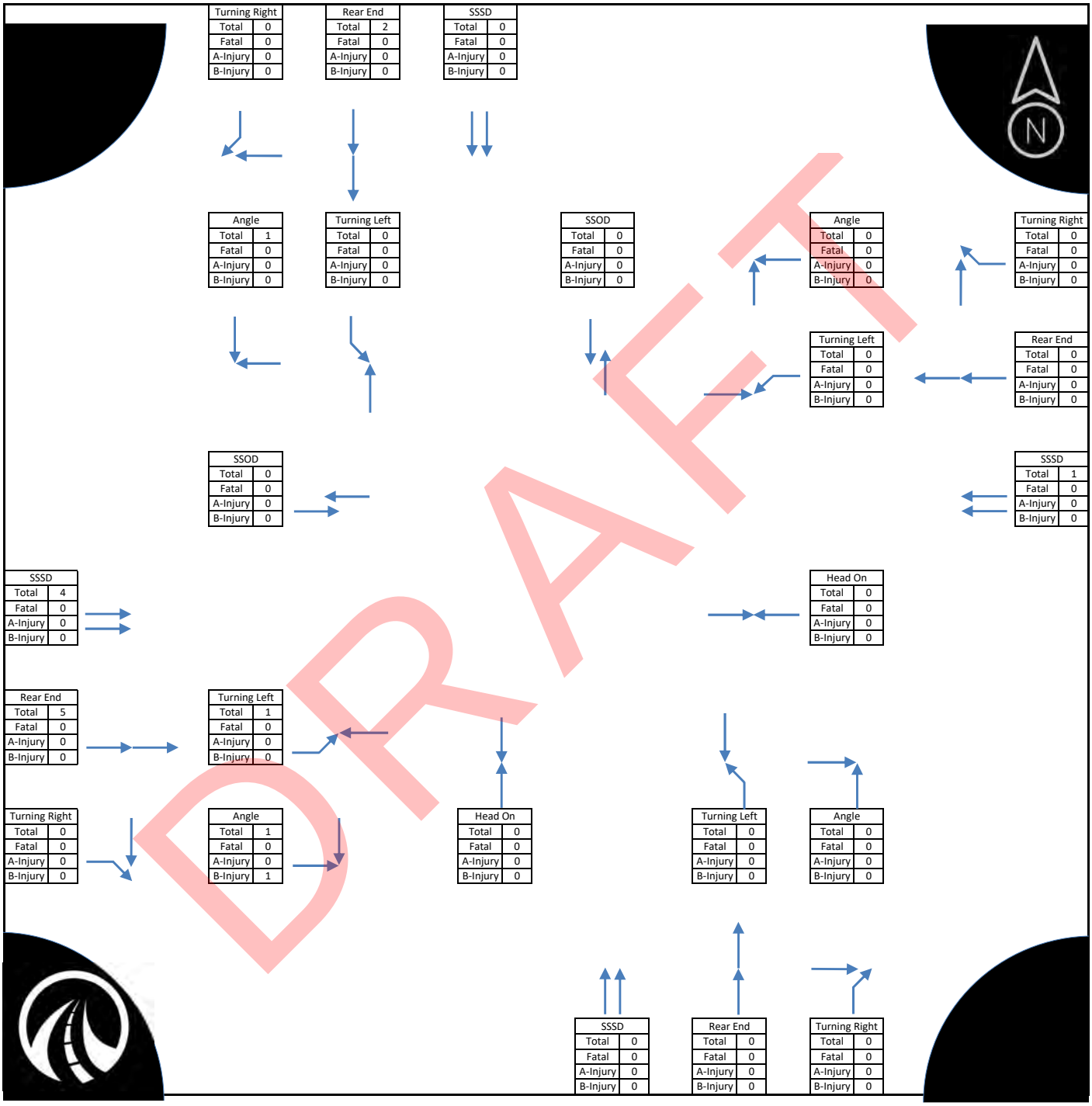
Main ID: U1419-U2765
Sub ID: ALL
Study Period Begin Year: 2016 to 2021

Analysis Period 6 years

YEAR	Rear End			Angle			Sideswipe Opposite Direction			Sideswipe Same Direction			Turning Left			Turning Right			Fixed Object			Overturned			Head On			Pedestrian			Other Object			Animal			Pedalcyclist			Other Non-Collision			TOTAL	
	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	**Crash Count**	**Injury Count**
2016				1	1 - B	1 - BI				2																		1														4	1 - BI
2017	1																																									1	
2018	2									1									2	1 - B	1 - BI																					5	1 - BI
2019	3									1																																4	
2020																												1														1	
2021	1			1	1 - C	1 - CI				1			1															1														5	1 - CI
TOTAL	**7**			**2**	**1 - B** **1 - C**	**1 - BI** **1 - CI**	**0**			**5**			**1**			**0**			**2**	**1 - B**	**1 - BI**	**0**			**0**			**0**			**3**			**0**			**0**			**0**			**20**	**2 - BI** **1 - CI**
%	**35.0%**			**10.0%**			**0.0%**			**25.0%**			**5.0%**			**0.0%**			**10.0%**			**0.0%**			**0.0%**			**0.0%**			**15.0%**			**0.0%**			**0.0%**			**0.0%**				

YEAR	INJURY TYPE					CRASH CONDITIONS						TOTAL
	K	A	B	C	PDO	Wet	Wet %	Snow/Ice	Snow/Ice %	Night	Night %	
2016			1		3	0	0%	0	0%	1	25%	4
2017					1	0	0%	0	0%	0	0%	1
2018			1		4	0	0%	1	20%	2	40%	5
2019					4	1	25%	0	0%	2	50%	4
2020					1	0	0%	0	0%	0	0%	1
2021				1	4	2	40%	0	0%	2	40%	5
TOTAL	**0**	**0**	**2**	**1**	**17**	**3**	**15.0%**	**1**	**5.0%**	**7**	**35.0%**	**20**

Cook County	Madison St At Lathrop Ave
2016 to 2021 Crash Data	Intersection ID: U1419-U2765
20 Total Crashes	PG: Minor Stop - 3 Leg



The following crashes could not be plotted on the diagram

	FO	OT	PD	PDC	OO	Animal	ONC	TOTAL
Total	2	0	0	0	3	0	0	5
Fatal	0	0	0	0	0	0	0	0
A-Injury	0	0	0	0	0	0	0	0
B-Injury	1	0	0	0	0	0	0	1

ID Name U3537-M2004

LOCATION INFO: Lake St At Keystone Ave

PG, FC & ADT Minor Stop - 4 Leg

County: Cook County

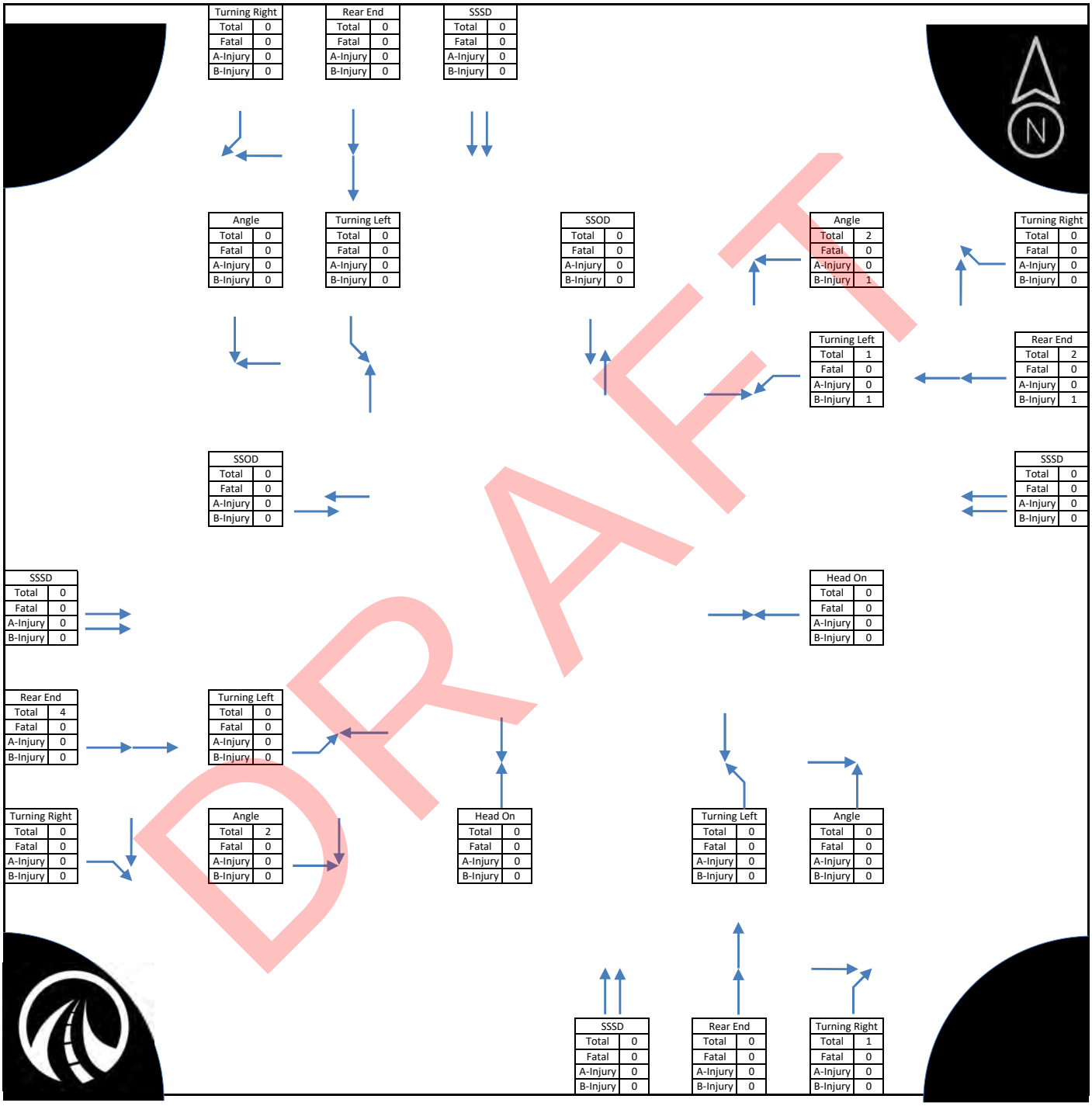
Main ID: U3537-M2004
Sub ID: ALL
Study Period Begin Year: 2016 to 2021

Analysis Period 6 years

YEAR	Rear End			Angle			Sideswipe Opposite Direction			Sideswipe Same Direction			Turning Left			Turning Right			Fixed Object			Overturned			Head On			Pedestrian			Other Object			Animal			Pedalcyclist			Other Non-Collision			TOTAL	
	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	**Crash Count**	**Injury Count**
2016	1												1	1 - B	2 - BI																											2	2 - BI
2017																												1													1	
2018				3	1 - B	1 - BI																																			3	1 - BI
2019	2	1 - C	2 - CI	1																																				3	2 - CI
2020	2	1 - B 1 - C	2 - BI 1 - CI																																					2	2 - BI 1 - CI
2021	1															1																								2	
TOTAL	**6**	**1 - B 2 - C**	**2 - BI 3 - CI**	**4**	**1 - B**	**1 - BI**	**0**			**0**			**1**	**1 - B**	**2 - BI**	**1**			**0**			**0**			**0**			**0**			**1**			**0**			**0**			**0**			**13**	**5 - BI 3 - CI**
%	**46.2%**			**30.8%**			**0.0%**			**0.0%**			**7.7%**			**7.7%**			**0.0%**			**0.0%**			**0.0%**			**0.0%**			**7.7%**			**0.0%**			**0.0%**			**0.0%**				

YEAR	INJURY TYPE					CRASH CONDITIONS						TOTAL
	K	A	B	C	PDO	Wet	Wet %	Snow/Ice	Snow/Ice %	Night	Night %	
2016			1		1	1	50%	0	0%	0	0%	2
2017					1	0	0%	0	0%	1	100%	1
2018			1		2	1	33%	1	33%	2	67%	3
2019				1	2	0	0%	1	33%	2	67%	3
2020			1	1	0	0	0%	0	0%	0	0%	2
2021					2	0	0%	0	0%	1	50%	2
TOTAL	**0**	**0**	**3**	**2**	**8**	**2**	**15.4%**	**2**	**15.4%**	**6**	**46.2%**	**13**

Cook County	Lake St At Keystone Ave
2016 to 2021 Crash Data	Intersection ID: U3537-M2004
13 Total Crashes	PG: Minor Stop - 4 Leg



The following crashes could not be plotted on the diagram

	FO	OT	PD	PDC	OO	Animal	ONC	TOTAL
Total	0	0	0	0	1	0	0	1
Fatal	0	0	0	0	0	0	0	0
A-Injury	0	0	0	0	0	0	0	0
B-Injury	0	0	0	0	0	0	0	0

ID Name U1398-M1000

LOCATION INFO: Chicago Ave At Jackson Ave

PG, FC & ADT Minor Stop - 4 Leg

County: Cook County

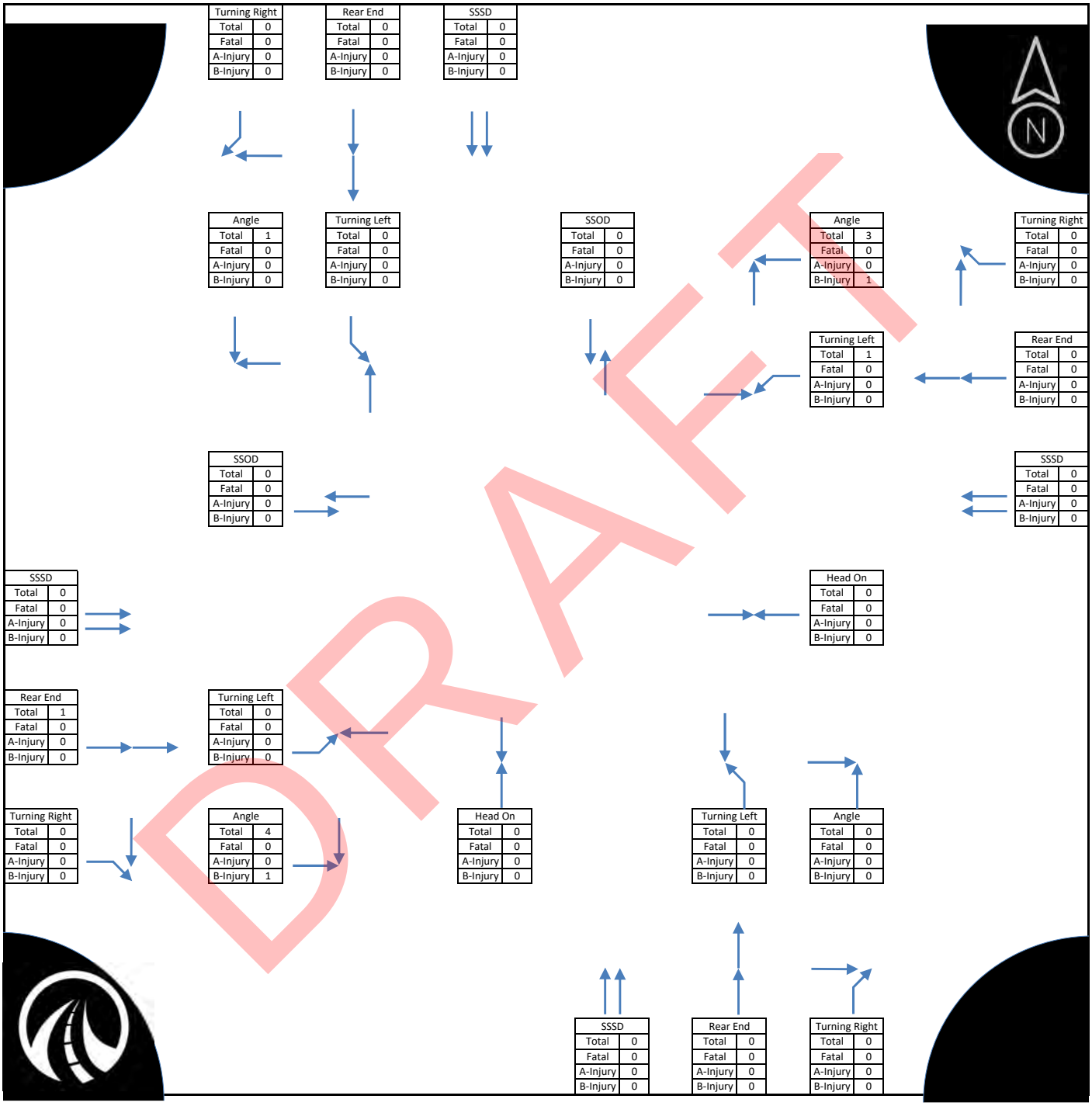
Main ID: U1398-M1000
Sub ID: ALL
Study Period Begin Year: 2016 to 2021

Analysis Period 6 years

YEAR	Rear End			Angle			Sideswipe Opposite Direction			Sideswipe Same Direction			Turning Left			Turning Right			Fixed Object			Overturned			Head On			Pedestrian			Other Object			Animal			Pedalcyclist			Other Non-Collision			TOTAL	
	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Count
2016																																								0	
2017	1			2	1 - C	1 - CI																																		3	1 - CI
2018				1																																		1	
2019				3	2 - B	2 - BI													1																			4	2 - BI
2020				1																								1	1 - B	1 - BI										2	1 - BI
2021				1	1 - C	1 - CI							1																		1									3	1 - CI
TOTAL	**1**			**8**	**2 - B 2 - C**	**2 - BI 2 - CI**	**0**			**0**			**1**			**0**			**1**			**0**			**0**			**1**	**1 - B**	**1 - BI**	**1**			**0**			**0**			**13**	**3 - BI 2 - CI**
%	**7.7%**			**61.5%**			**0.0%**			**0.0%**			**7.7%**			**0.0%**			**7.7%**			**0.0%**			**0.0%**			**7.7%**			**7.7%**			**0.0%**			**0.0%**				

YEAR	INJURY TYPE					CRASH CONDITIONS						TOTAL
	K	A	B	C	PDO	Wet	Wet %	Snow/Ice	Snow/Ice %	Night	Night %	
2016					0	0	-	0	-	0	-	0
2017				1	2	0	0%	0	0%	1	33%	3
2018					1	0	0%	0	0%	1	100%	1
2019			2		2	1	25%	2	50%	0	0%	4
2020			1		1	0	0%	0	0%	0	0%	2
2021				1	2	2	67%	0	0%	2	67%	3
TOTAL	**0**	**0**	**3**	**2**	**8**	**3**	**23.1%**	**2**	**15.4%**	**4**	**30.8%**	**13**

Cook County	Chicago Ave At Jackson Ave
2016 to 2021 Crash Data	Intersection ID: U1398-M1000
13 Total Crashes	PG: Minor Stop - 4 Leg



The following crashes could not be plotted on the diagram

	FO	OT	PD	PDC	OO	Animal	ONC	TOTAL
Total	1	0	1	0	1	0	0	3
Fatal	0	0	0	0	0	0	0	0
A-Injury	0	0	0	0	0	0	0	0
B-Injury	0	0	1	0	0	0	0	1

Warrants

MULTI-WAY STOP WARRANT

ILLINOIS DEPARTMENT OF TRANSPORTATION — DISTRICT #1

SRA : _____

YES / (NO)

INTERSECTION : **William St & Chicago Ave**

MUNICPALITY / TOWNSHIP: **River Forest** COUNTY : **Cook**

SPEED LIMIT OF MAJOR ROUTE : **25 mph**

NUMBER OF LANES ON MAJOR APPROACH : **1**

PROPOSED 3-WAY OR 4-WAY: **4-WAY**

NUMBER OF LANES ON MINOR APPROACH : **1**

TRAFFIC VOLUMES				CHECK ANY HOURS WHICH MEET THE FOLLOWING REQUIREMENTS:	
	MAJOR STREET	MINOR STREET			
HOUR BEGIN	VEHICLES ENTERING (BOTH APPROACHES)	VEHICLES ENTERING (BOTH APPROACHES)	PEDS OR BIKES (BOTH APPROACHES)	HOURS MET	COMBINATION OF WARRANTS
			N/C = NOT COUNTED	100%	80%
6:00			N/C		
7:00	718	67	N/C		
8:00	750	97	N/C		
9:00	546	78	N/C		
10:00	558	70	N/C		
11:00	555	72	N/C		
12:00	650	75	N/C		
13:00	677	66	N/C		
14:00	755	75	N/C		
15:00	907	111	N/C		
16:00	908	116	N/C		
17:00	991	111	N/C		
18:00	843	73	N/C		
19:00			N/C		
20:00			N/C		
21:00			N/C		

Hours Met: 0 hours 0 hours

VOLUME REQUIREMENTS:

MAJOR ENTERING:	300	240
MINOR ENTERING: INCLUDING ANY PEDS	200	160

Review Information

Counts Used : IDOT

Count Date(s) : 05/31/23 (AM) + 05/31/23 (PM)

Date Reviewed : August 1, 2023

Reviewed By : KRS

Comments

ACCIDENT DATA

ACCIDENT EXPERIENCE	2016	2017	2018	2019	2020
TOTAL NUMBER OF ACCIDENTS	7	9	6	3	3
NUMBER CORRECTABLE ACCIDENTS	3	5	5	3	1

(INCLUDING LEFT- *AND* RIGHT-TURN AS WELL AS RIGHT-ANGLE COLLISIONS)

ACCIDENT WARRANT

5 Correctable Accidents Within A 12-month Period?

(No Volume Requirement) (YES) NO

VOLUME WARRANT

Are Volume Requirements Met For 8 Hours?

YES 0 hours (NO)

COMBINATION OF WARRANTS *(REDUCED TO 80%)*

4 Correctable Accidents Within A 12-month Period?

(YES) NO

Are Volume Requirements Met For 8 Hours?

YES 0 hours (NO)

ARE BOTH CRITERIA MET?

YES (NO)

IS A MULTI-WAY STOP WARRANTED?

YES (NO)

SIGNAL WARRANT REVIEW SHEET

DISTRICT #1

ILLINOIS DEPARTMENT OF TRANSPORTATION

SRA : _____

Yes (No)

Intersection: **Lathrop Ave & Division St** County: **Cook**

Municipality: **River Forest**

Speed Limit of Major Route **25 mph** Isolated Community with Population < 10,000 **N**

Number of Lanes on Major approach **1** Number of Lanes on Minor approach **1**

HOUR BEGIN	Major Street Volume *(both approaches)*	Adj. Minor Street Volume *(higher volume approach)*	CHECK ANY HOURS WHICH MEET THE FOLLOWING WARRANTS: WARRANT 1 A 100%	WARRANT 1 B 100%	WARRANT 7: 8 hrs of one of the Following: WARRANT 1 A/B: 8hrs of BOTH: 80% of A	80% of B	80% of Warr #4
6:00	154	53					
7:00	368	188					
8:00	592	220	X		X		
9:00	403	133			X		
10:00	262	118					
11:00	368	150					
12:00	368	173					
13:00	332	164					
14:00	458	191			X		
15:00	653	253	X		X	X	
16:00	679	265	X		X	X	
17:00	666	242	X		X	X	
18:00	439	184			X		
19:00	215	113					
20:00	187	85					
21:00	138	49					
Hours Met :			4 hours	0 hours	7 hours	3 hours	0 hours
Volume Requirements:	MAJOR:		500	750	400	600	
	MINOR:		150	75	120	60	

WARRANT 1 Yes (No)

Warrant 1 is met if any of the following Conditions are met:

- Condition A — 4 hours — MINIMUM VEHICULAR VOLUME — Yes (No)
- Condition B — 0 hours — INTERRUPTION OF CONTINUOUS TRAFFIC — Yes (No)
- Condition A/B — 3 hours — COMBINATION OF WARRANTS — Yes (No)

WARRANT 2 FOUR-HOUR VOLUME — Yes — 3 hours — (No)

WARRANT 3 PEAK-HOUR VOLUME — Yes — 0 hours — (No)

WARRANT 4 PEDESTRIAN VOLUME — Yes — 0 hours — (No)

WARRANT 5 SCHOOL CROSSING — (Yes) — No

WARRANT 6 COORDINATED SIGNAL SYSTEM — Yes — (No)

WARRANT 7 ACCIDENT EXPERIENCE — (Yes) — 7 hours — No

	2016	2017	2018	2019	2020
TOTAL NUMBER OF ACCIDENTS:	7	9	6	3	3
NUMBER CORRECTABLE ACCIDENTS:	3	5	5	3	2
TRIED LESS RESTRICTIVE METHODS?					
ARE VOLUME REQUIREMENTS MET?					

WARRANT 8 ROADWAY NETWORK — Yes — (No)

WARRANT 9 Intersection Near a Grade Crossing — Yes — (No)

STOP OR YIELD CONTROLLED LEG WITH GRADE CROSSING: NORTH

D (clear storage distance) =

	#	%	Adj. Factor
RAIL TRAFFIC PER DAY =		-	1.00
HIGH OCCUPANCY BUSSES PER HOUR =		0%	1.00
TRUCKS PER HOUR =		0.0%	0.50
OVERALL ADJUSTMENT FACTOR =		0.50	

Review Information

Counts Used : IDOT

Count Date(s) : 12/06/22 (AM) + 12/06/22 (PM)

Date Reviewed : August 1, 2023

Reviewed By : KRS

Traffic Signal Approved: _____

Comments

APPENDIX E: TWO-BLOCK SPAN STUDY

01. Speed Data
02. Two-Block Crash Data
03. All-Way Stop Warrant
04. Traffic Calming Toolbox Scoring Sheets

Speed Data

Sequential 85th Percentile Report

Device ID:	405193	Begin:	06/06/2023 11:00 AM	End:	06/07/2023 11:00 AM
Street:	Ashland Ave	Lane:	Misc see chat	Hours:	24.00
State:	Il	Operator:	SD	Period (min):	15
City:	River Forest	Speed Limit:	25	Raw Count:	699
County:	United States	AADT Factor:	1	ADT Count:	699

Date / Hour	NB Ashland 85th	*SB Ashland 85th*	Avg Spd	Max Spd	NB 85th	SB 85th
Tuesday, June 6, 2023 12:00PM	22	31	26.50	31.00	22.2	24.5
Tuesday, June 6, 2023 1:00PM	26	28	27.00	28.00		
Tuesday, June 6, 2023 2:00PM	20	24	22.00	24.00		
Tuesday, June 6, 2023 3:00PM	20	32	26.00	32.00		
Tuesday, June 6, 2023 4:00PM	26	24	25.00	26.00		
Tuesday, June 6, 2023 5:00PM	27	23	25.00	27.00		
Tuesday, June 6, 2023 6:00PM	22	23	22.50	23.00		
Tuesday, June 6, 2023 7:00PM	21	28	24.50	28.00		
Tuesday, June 6, 2023 8:00PM	21	22	21.50	22.00		
Tuesday, June 6, 2023 9:00PM	22	24	23.00	24.00		
Tuesday, June 6, 2023 10:00PM	19	29	24.00	29.00		
Tuesday, June 6, 2023 11:00PM	19	22	20.50	22.00		
Wednesday, June 7, 2023 12:00AM	19	18	18.50	19.00		
Wednesday, June 7, 2023 1:00AM	19	23	21.00	23.00		
Wednesday, June 7, 2023 2:00AM	18	0	9.00	18.00		
Wednesday, June 7, 2023 3:00AM	24	23	23.50	24.00		
Wednesday, June 7, 2023 4:00AM	0	0	0.00	0.00		
Wednesday, June 7, 2023 5:00AM	19	0	9.50	19.00		
Wednesday, June 7, 2023 6:00AM	19	26	22.50	26.00		
Wednesday, June 7, 2023 7:00AM	25	24	24.50	25.00		
Wednesday, June 7, 2023 8:00AM	19	23	21.00	23.00		
Wednesday, June 7, 2023 9:00AM	21	24	22.50	24.00		
Wednesday, June 7, 2023 10:00AM	20	25	22.50	25.00		
Wednesday, June 7, 2023 11:00AM	22	21	21.50	22.00		

Two-Block Crash Data

ID Name M2000_A

LOCATION INFO: Ashland Ave: Madison - Vine

PG, FC & ADT Local

County: Cook County

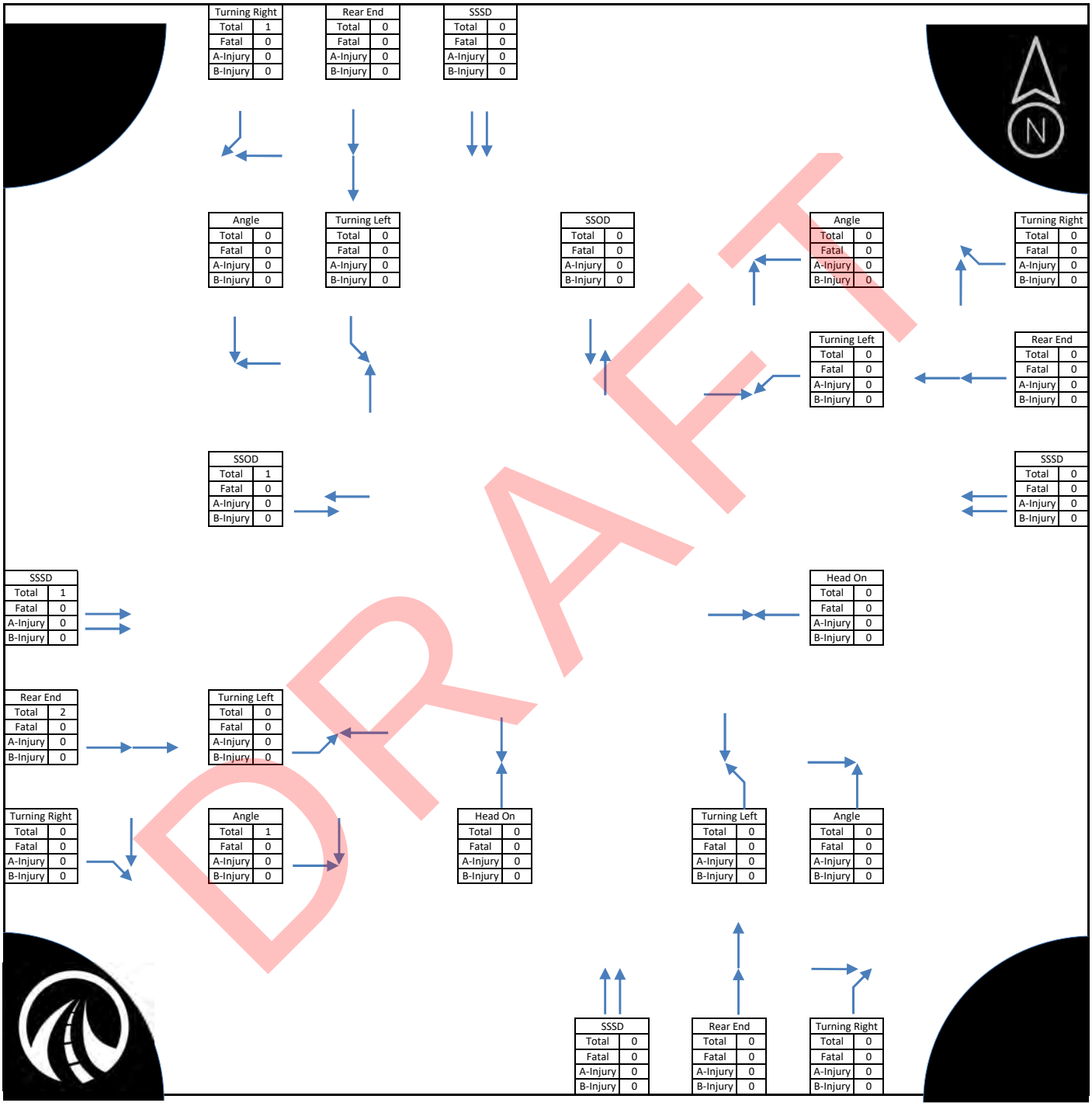
Main ID: M2000_A
Sub ID: ALL
Study Period Begin Year: 2016 to 2021

Analysis Period 6 years

YEAR	Rear End			Angle			Sideswipe Opposite Direction			Sideswipe Same Direction			Turning Left			Turning Right			Fixed Object			Overturned			Head On			Pedestrian			Other Object			Animal			Pedalcyclist			Other Non-Collision			TOTAL	
	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	**Crash Count**	**Injury Count**
2016																																									0	
2017																																									0	
2018										1																															1	
2019																																									0	
2020																																									0	
2021																																									0	
TOTAL	**0**			**0**			**0**			**1**			**0**			**0**			**0**			**0**			**0**			**0**			**0**			**0**			**0**			**1**	
%	**0.0%**			**0.0%**			**0.0%**			**100.0%**			**0.0%**			**0.0%**			**0.0%**			**0.0%**			**0.0%**			**0.0%**			**0.0%**			**0.0%**			**0.0%**				

YEAR	INJURY TYPE					CRASH CONDITIONS						TOTAL
	K	A	B	C	PDO	Wet	Wet %	Snow/Ice	Snow/Ice %	Night	Night %	
2016					0	0	-	0	-	0	-	0
2017					0	0	-	0	-	0	-	0
2018					1	0	0%	0	0%	0	0%	1
2019					0	0	-	0	-	0	-	0
2020					0	0	-	0	-	0	-	0
2021					0	0	-	0	-	0	-	0
TOTAL	**0**	**0**	**0**	**0**	**1**	**0**	**0.0%**	**0**	**0.0%**	**0**	**0.0%**	**1**

Cook County	Madison St At Ashland Ave
2016 to 2021 Crash Data	Intersection ID: U1419-M2000
8 Total Crashes	PG: Minor Stop - 3 Leg



The following crashes could not be plotted on the diagram

	FO	OT	PD	PDC	OO	Animal	ONC	TOTAL
Total	0	0	0	0	2	0	0	2
Fatal	0	0	0	0	0	0	0	0
A-Injury	0	0	0	0	0	0	0	0
B-Injury	0	0	0	0	0	0	0	0

ID Name U1419-M2000

LOCATION INFO: Madison St At Ashland Ave

PG, FC & ADT Minor Stop - 3 Leg

County: Cook County

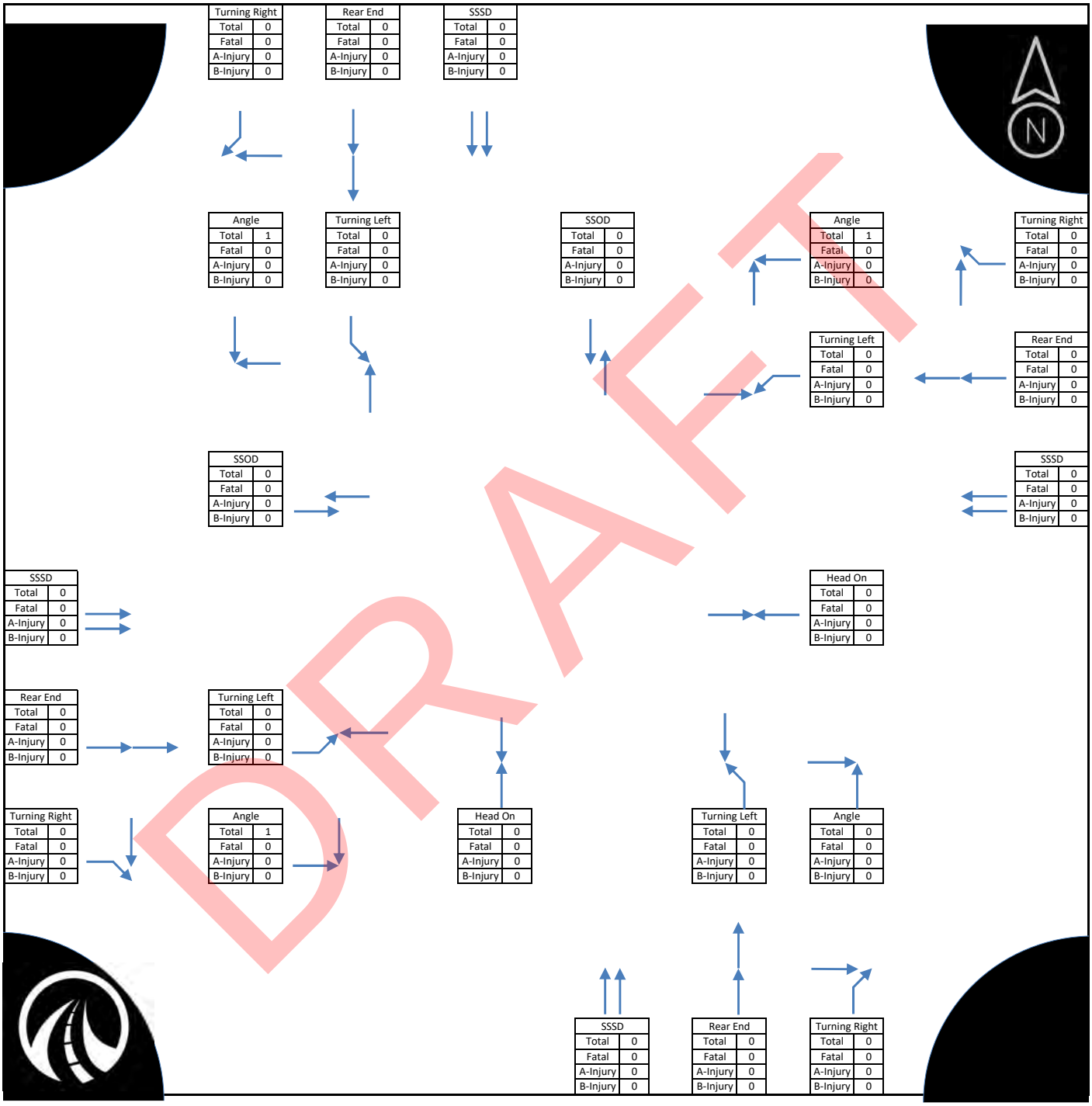
Main ID: U1419-M2000
Sub ID: ALL
Study Period Begin Year: 2016 to 2021

Analysis Period 6 years

YEAR	Rear End			Angle			Sideswipe Opposite Direction			Sideswipe Same Direction			Turning Left			Turning Right			Fixed Object			Overturned			Head On			Pedestrian			Other Object			Animal			Pedalcyclist			Other Non-Collision			TOTAL	
	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	**Crash Count**	**Injury Count**
2016							1																						1												2	
2017	1																																								1	
2018										1																															1	
2019				1	1 - C	1 - CI										1																									2	1 - CI
2020																													1												1	
2021	1																																								1	
TOTAL	**2**			**1**	**1 - C**	**1 - CI**	**1**			**1**			**0**			**1**			**0**			**0**			**0**			**0**			**2**			**0**			**0**			**0**			**8**	**1 - CI**
%	**25.0%**			**12.5%**			**12.5%**			**12.5%**			**0.0%**			**12.5%**			**0.0%**			**0.0%**			**0.0%**			**0.0%**			**25.0%**			**0.0%**			**0.0%**			**0.0%**				

YEAR	INJURY TYPE					CRASH CONDITIONS						TOTAL
	K	A	B	C	PDO	Wet	Wet %	Snow/Ice	Snow/Ice %	Night	Night %	
2016					2	0	0%	0	0%	1	50%	2
2017					1	0	0%	0	0%	0	0%	1
2018					1	0	0%	0	0%	0	0%	1
2019				1	1	1	50%	0	0%	1	50%	2
2020					1	0	0%	0	0%	0	0%	1
2021					1	0	0%	0	0%	1	100%	1
TOTAL	**0**	**0**	**0**	**1**	**7**	**1**	**12.5%**	**0**	**0.0%**	**3**	**37.5%**	**8**

Cook County	Ashland Ave At Vine St
2016 to 2021 Crash Data	Intersection ID: M2000-M4007
4 Total Crashes	PG: Minor Stop - 4 Leg



The following crashes could not be plotted on the diagram

	FO	OT	PD	PDC	OO	Animal	ONC	TOTAL
Total	0	0	0	0	1	0	0	1
Fatal	0	0	0	0	0	0	0	0
A-Injury	0	0	0	0	0	0	0	0
B-Injury	0	0	0	0	0	0	0	0

ID Name M2000-M4007

LOCATION INFO: Ashland Ave At Vine St

PG, FC & ADT Minor Stop - 4 Leg

County: Cook County

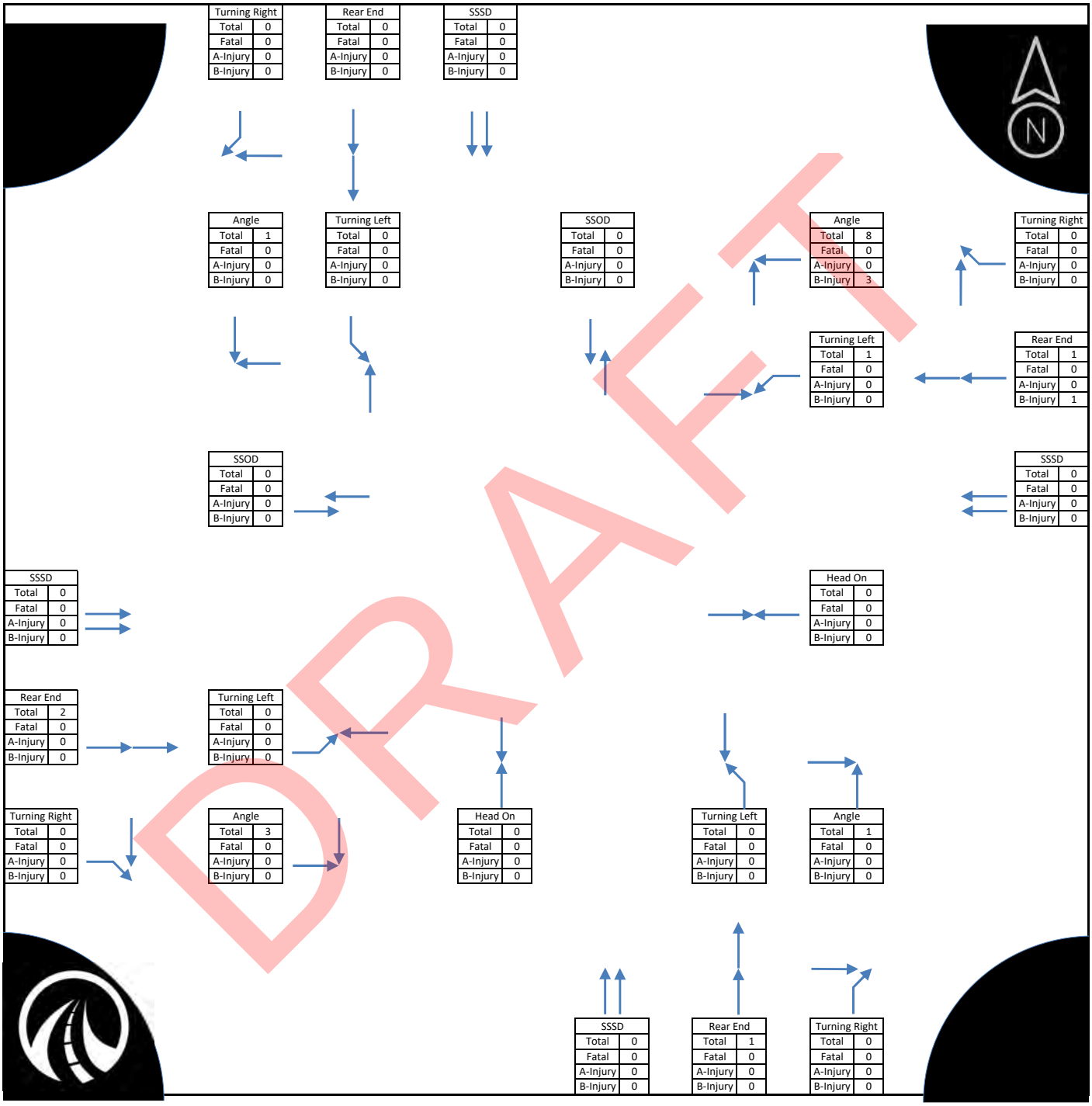
Main ID: M2000-M4007
Sub ID: ALL
Study Period Begin Year: 2016 to 2021

Analysis Period 6 years

YEAR	Rear End			Angle			Sideswipe Opposite Direction			Sideswipe Same Direction			Turning Left			Turning Right			Fixed Object			Overturned			Head On			Pedestrian			Other Object			Animal			Pedalcyclist			Other Non-Collision			TOTAL	
	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	**Crash Count**	**Injury Count**
2016				1	1 - C	1 - CI																																		1	1 - CI
2017				1																																				1	
2018																																								0	
2019																													1											1	
2020																																								0	
2021				1																																				1	
TOTAL	**0**			**3**	1 - C	1 - CI	**0**			**0**			**0**			**0**			**0**			**0**			**0**			**0**			**1**			**0**			**0**			**4**	1 - CI
%	**0.0%**			**75.0%**			**0.0%**			**0.0%**			**0.0%**			**0.0%**			**0.0%**			**0.0%**			**0.0%**			**0.0%**			**25.0%**			**0.0%**			**0.0%**				

YEAR	INJURY TYPE					CRASH CONDITIONS						TOTAL
	K	A	B	C	PDO	Wet	Wet %	Snow/Ice	Snow/Ice %	Night	Night %	
2016				1	0	0	0%	0	0%	1	100%	1
2017					1	0	0%	0	0%	0	0%	1
2018					0	0	-	0	-	0	-	0
2019					1	0	0%	0	0%	1	100%	1
2020					0	0	-	0	-	0	-	0
2021					1	0	0%	1	100%	0	0%	1
TOTAL	**0**	**0**	**0**	**1**	**3**	**0**	**0.0%**	**1**	**25.0%**	**2**	**50.0%**	**4**

Cook County	Washington Blvd At Ashland Ave
2016 to 2021 Crash Data	Intersection ID: U1411-M2000
21 Total Crashes	PG: Minor Stop - 4 Leg



The following crashes could not be plotted on the diagram

	FO	OT	PD	PDC	OO	Animal	ONC	TOTAL
Total	1	0	0	0	2	0	0	3
Fatal	0	0	0	0	0	0	0	0
A-Injury	0	0	0	0	0	0	0	0
B-Injury	0	0	0	0	0	0	0	0

ID Name U1411-M2000

LOCATION INFO: Washington Blvd At Ashland Ave

PG, FC & ADT Minor Stop - 4 Leg

County: Cook County

Main ID: U1411-M2000
Sub ID: ALL
Study Period Begin Year: 2016 to 2021

Analysis Period 6 years

YEAR	Rear End			Angle			Sideswipe Opposite Direction			Sideswipe Same Direction			Turning Left			Turning Right			Fixed Object			Overturned			Head On			Pedestrian			Other Object			Animal			Pedalcyclist			Other Non-Collision			TOTAL	
	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	**Crash Count**	**Injury Count**
2016				2	1 - B	2 - BI																																		2	2 - BI
2017				5	2 - B	4 - BI							1						1									1												8	4 - BI
2018	3	1 - B	2 - BI	2	1 - C	1 - CI																						1												6	2 - BI 1 - CI
2019				1																																				1	
2020	1			3																																				4	
2021																																								0	
TOTAL	**4**	**1 - B**	**2 - BI**	**13**	**3 - B** **1 - C**	**6 - BI** **1 - CI**	**0**			**0**			**1**			**0**			**1**			**0**			**0**			**0**			**2**			**0**			**0**			**0**			**21**	**8 - BI** **1 - CI**
%	**19.0%**			**61.9%**			**0.0%**			**0.0%**			**4.8%**			**0.0%**			**4.8%**			**0.0%**			**0.0%**			**0.0%**			**9.5%**			**0.0%**			**0.0%**			**0.0%**				

YEAR	INJURY TYPE					CRASH CONDITIONS						TOTAL
	K	A	B	C	PDO	Wet	Wet %	Snow/Ice	Snow/Ice %	Night	Night %	
2016			1		1	0	0%	1	50%	2	100%	2
2017			2		6	0	0%	0	0%	1	13%	8
2018			1	1	4	1	17%	2	33%	1	17%	6
2019					1	1	100%	0	0%	0	0%	1
2020					4	1	25%	0	0%	0	0%	4
2021					0	0	-	0	-	0	-	0
TOTAL	**0**	**0**	**4**	**1**	**16**	**3**	**14.3%**	**3**	**14.3%**	**4**	**19.0%**	**21**

All-Way Stop Warrant

MULTI-WAY STOP WARRANT

ILLINOIS DEPARTMENT OF TRANSPORTATION — DISTRICT #1

SRA : _____

YES / (NO)

INTERSECTION : **Ashland Ave & Vine St**

MUNICPALITY / TOWNSHIP: **River Forest** COUNTY : **Cook**

SPEED LIMIT OF MAJOR ROUTE : **25 mph** PROPOSED 3-WAY OR 4-WAY: **4-WAY**

NUMBER OF LANES ON MAJOR APPROACH : **1** NUMBER OF LANES ON MINOR APPROACH : **1**

TRAFFIC VOLUMES				CHECK ANY HOURS WHICH MEET THE FOLLOWING REQUIREMENTS:	
	MAJOR STREET	MINOR STREET			
HOUR BEGIN	VEHICLES ENTERING (BOTH APPROACHES)	VEHICLES ENTERING (BOTH APPROACHES)	PEDS OR BIKES (BOTH APPROACHES)	HOURS MET	COMBINATION OF WARRANTS
			N/C = NOT COUNTED	100%	80%
6:00	33	11	N/C		
7:00	58	8	N/C		
8:00	78	26	N/C		
9:00	67	20	N/C		
10:00	89	35	N/C		
11:00	94	28	N/C		
12:00	48	17	N/C		
13:00	112	19	N/C		
14:00	89	20	N/C		
15:00	109	15	N/C		
16:00	134	21	N/C		
17:00	124	31	N/C		
18:00	123	31	N/C		
19:00	83	17	N/C		
20:00	51	14	N/C		
21:00	29	13	N/C		

Hours Met:		0 hours	0 hours
VOLUME REQUIREMENTS:	MAJOR ENTERING:	300	240
	MINOR ENTERING: INCLUDING ANY PEDS	200	160

ACCIDENT DATA

ACCIDENT EXPERIENCE	2016	2017	2018	2019	2020
TOTAL NUMBER OF ACCIDENTS	1	1	0	1	1
NUMBER CORRECTABLE ACCIDENTS	1	1	0	0	1

(INCLUDING LEFT- *AND* RIGHT-TURN AS WELL AS RIGHT-ANGLE COLLISIONS)

ACCIDENT WARRANT

5 Correctable Accidents Within A 12-month Period?

(No Volume Requirement) YES (NO)

VOLUME WARRANT

Are Volume Requirements Met For 8 Hours?

YES 0 hours (NO)

COMBINATION OF WARRANTS *(REDUCED TO 80%)*

4 Correctable Accidents Within A 12-month Period?

YES (NO)

Are Volume Requirements Met For 8 Hours?

YES 0 hours (NO)

ARE BOTH CRITERIA MET?

YES (NO)

IS A MULTI-WAY STOP WARRANTED?

YES (NO)

Review Information

Counts Used : IDOT

Count Date(s) : 06/07/23 (AM) + 06/07/23 (PM)

Date Reviewed : July 13, 2023

Reviewed By : KRS

Comments

Traffic Calming Toolbox Scoring Sheets

Scoring Matrix

RIVER FOREST
Proud Heritage · Bright Future

Measure	Criteria for assigning a numerical score to traffic problems	Points
Crash History	1-3 crashes in a 5 year period = 5 points 4-10 crashes in a 5 year period = 10 points More than 10 crashes in a 5 year period = 15 points any crash involving a pedestrian/cyclist = +5 points	0-20 pts. **Score:** 15
Vehicle Speed	85th percentile speed is not over the speed limit = 0 points 85th percentile speed is 2 mph over the speed limit = 3 points 85th percentile speed is 4 mph over the speed limit = 6 points 85th percentile speed is 6 mph over the speed limit = 9 points 85th percentile speed is 8 mph over the speed limit = 12 points 85th percentile speed is 10 mph over the speed limit = 15 points Outlier Speed 20+ mph above posted speed limit = +5 points	0-20 pts. **Score:** 9
Vehicle Volume	ADT < 750 = 0 points ADT = 751 - 1,350 = 5 points ADT = 1,351 - 1,950 = 10 points ADT = 1,951 - 2,550 = 15 points ADT > 2,550 = 20 points	0-20 pts. **Score:** 5
Pedestrian Traffic Generators	Any school, park, library, church, CTA station more than 2 blocks (1,320 ft.) away = 0 points Any school, park, library, church, CTA station 1-2 blocks (1,320 ft.) away = 5 points Any school, park, library, church, CTA station 1 block (660 ft.) or less away = 10 points Three or more overlapping 1-block areas = +10 points Three or more overlapping 2-block areas = +5 points	0-20 pts. **Score:** 5
Bike Routes / Non-Bike Routes	Not identified as a proposed bike route = 0 points Identified as a Marked Shared Lane = 5 points Identified as a Dedicated Bike Lane = 10 points *Per Village Bicycle Plan published in 2019	0-10 pts. **Score:** 0
Community Interest	No Petition = 0 points Local Petition (0-75% residents on block) = 5 points Local Petition (75%+ of residents on block) = 10 points Village Petition (0-10% of Village population) = 5 points Village Petition (10%+ of Village population) = 10 points	0-10 pts. **Score:** 0

Intersection 1: Madison St
Segment: Ashland Ave
Intersection 2: Vine St

Total: 34

Scoring Matrix

RIVER FOREST
Proud Heritage · Bright Future

Measure	Criteria for assigning a numerical score to traffic problems	Points
Crash History	1-3 crashes in a 5 year period = 5 points 4-10 crashes in a 5 year period = 10 points More than 10 crashes in a 5 year period = 15 points any crash involving a pedestrian/cyclist = +5 points	0-20 pts. **Score:** 15
Vehicle Speed	85th percentile speed is not over the speed limit = 0 points 85th percentile speed is 2 mph over the speed limit = 3 points 85th percentile speed is 4 mph over the speed limit = 6 points 85th percentile speed is 6 mph over the speed limit = 9 points 85th percentile speed is 8 mph over the speed limit = 12 points 85th percentile speed is 10 mph over the speed limit = 15 points Outlier Speed 20+ mph above posted speed limit = +5 points	0-20 pts. **Score:** 9
Vehicle Volume	ADT < 750 = 0 points ADT = 751 - 1,350 = 5 points ADT = 1,351 - 1,950 = 10 points ADT = 1,951 - 2,550 = 15 points ADT > 2,550 = 20 points	0-20 pts. **Score:** 5
Pedestrian Traffic Generators	Any school, park, library, church, CTA station more than 2 blocks (1,320 ft.) away = 0 points Any school, park, library, church, CTA station 1-2 blocks (1,320 ft.) away = 5 points Any school, park, library, church, CTA station 1 block (660 ft.) or less away = 10 points Three or more overlapping 1-block areas = +10 points Three or more overlapping 2-block areas = +5 points	0-20 pts. **Score:** 5
Bike Routes / Non-Bike Routes	Not identified as a proposed bike route = 0 points Identified as a Marked Shared Lane = 5 points Identified as a Dedicated Bike Lane = 10 points *Per Village Bicycle Plan published in 2019	0-10 pts. **Score:** 0
Community Interest	No Petition = 0 points Local Petition (0-75% residents on block) = 5 points Local Petition (75%+ of residents on block) = 10 points Village Petition (0-10% of Village population) = 5 points Village Petition (10%+ of Village population) = 10 points	0-10 pts. **Score:** 0

Intersection 1: Vine St
Segment: Ashland Ave
Intersection 2: Washington Blvd

Total: 34

APPENDIX F: WASHINGTON BLVD CORRIDOR STUDY

01. Speed Data
02. Washington Blvd Crash Data
03. Signal Warrant
04. Traffic Calming Toolbox Scoring Sheet
05. Washington Blvd Exhibits

Speed Data

Sequential 85th Percentile Report

Device ID:	405195	Begin:	06/07/2023 02:00 PM	End:	06/08/2023 02:00 PM
Street:	Washington Blvd	Lane:	Misc see chat	Hours:	24.00
State:	Il	Operator:	SD	Period (min):	15
City:	River Forest	Speed Limit:	25	Raw Count:	3,327
County:	United States	AADT Factor:	1	AADT Count:	3,327

Date / Hour	85th Percentile EB	*85th Percentile WB*	Avg Spe	Max Sp	EB 85th	WB 85th
Wednesday, June 7, 2023 3:00PM	40	40	40	40	39	39
Wednesday, June 7, 2023 4:00PM	39	39	39	39		
Wednesday, June 7, 2023 5:00PM	39	40	39.5	40		
Wednesday, June 7, 2023 6:00PM	39	38	38.5	39		
Wednesday, June 7, 2023 7:00PM	36	41	38.5	41		
Wednesday, June 7, 2023 8:00PM	38	40	39	40		
Wednesday, June 7, 2023 9:00PM	37	38	37.5	38		
Wednesday, June 7, 2023 10:00PM	37	36	36.5	37		
Wednesday, June 7, 2023 11:00PM	40	37	38.5	40		
Thursday, June 8, 2023 12:00AM	41	41	41	41		
Thursday, June 8, 2023 1:00AM	44	38	41	44		
Thursday, June 8, 2023 2:00AM	34	37	35.5	37		
Thursday, June 8, 2023 3:00AM	29	22	25.5	29		
Thursday, June 8, 2023 4:00AM	36	37	36.5	37		
Thursday, June 8, 2023 5:00AM	36	35	35.5	36		
Thursday, June 8, 2023 6:00AM	42	39	40.5	42		
Thursday, June 8, 2023 7:00AM	41	40	40.5	41		
Thursday, June 8, 2023 8:00AM	41	39	40	41		
Thursday, June 8, 2023 9:00AM	40	39	39.5	40		
Thursday, June 8, 2023 10:00AM	39	40	39.5	40		
Thursday, June 8, 2023 11:00AM	37	40	38.5	40		
Thursday, June 8, 2023 12:00PM	37	36	36.5	37		
Thursday, June 8, 2023 1:00PM	40	36	38	40		
Thursday, June 8, 2023 2:00PM	38	38	38	38		

Washington Blvd Crash Data

ID Name U1411_E

LOCATION INFO: Washington Blvd: Forest - Park

PG, FC & ADT Primary

County: Cook County

Main ID: U1411_E
Sub ID: ALL
Study Period Begin Year: 2016 to 2021

Analysis Period 6 years

YEAR	Rear End			Angle			Sideswipe Opposite Direction			Sideswipe Same Direction			Turning Left			Turning Right			Fixed Object			Overturned			Head On			Pedestrian			Other Object			Animal			Pedalcyclist			Other Non-Collision			TOTAL	
	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	**Crash Count**	**Injury Count**
2016																																									0	
2017																																									0	
2018																																									0	
2019																			1																						1	
2020																																									0	
2021																																									0	
TOTAL	**0**			**0**			**0**			**0**			**0**			**0**			**1**			**0**			**0**			**0**			**0**			**0**			**0**			**1**	
%	**0.0%**			**0.0%**			**0.0%**			**0.0%**			**0.0%**			**0.0%**			**100.0%**			**0.0%**			**0.0%**			**0.0%**			**0.0%**			**0.0%**			**0.0%**				

YEAR	INJURY TYPE					CRASH CONDITIONS						TOTAL
	K	A	B	C	PDO	Wet	Wet %	Snow/Ice	Snow/Ice %	Night	Night %	
2016					0	0	-	0	-	0	-	0
2017					0	0	-	0	-	0	-	0
2018					0	0	-	0	-	0	-	0
2019					1	1	100%	0	0%	1	100%	1
2020					0	0	-	0	-	0	-	0
2021					0	0	-	0	-	0	-	0
TOTAL	**0**	**0**	**0**	**0**	**1**	**1**	**100.0%**	**0**	**0.0%**	**1**	**100.0%**	**1**

ID Name U2753-U1411

LOCATION INFO: Thatcher Ave At Washington Blvd

PG, FC & ADT AWS

County: Cook County

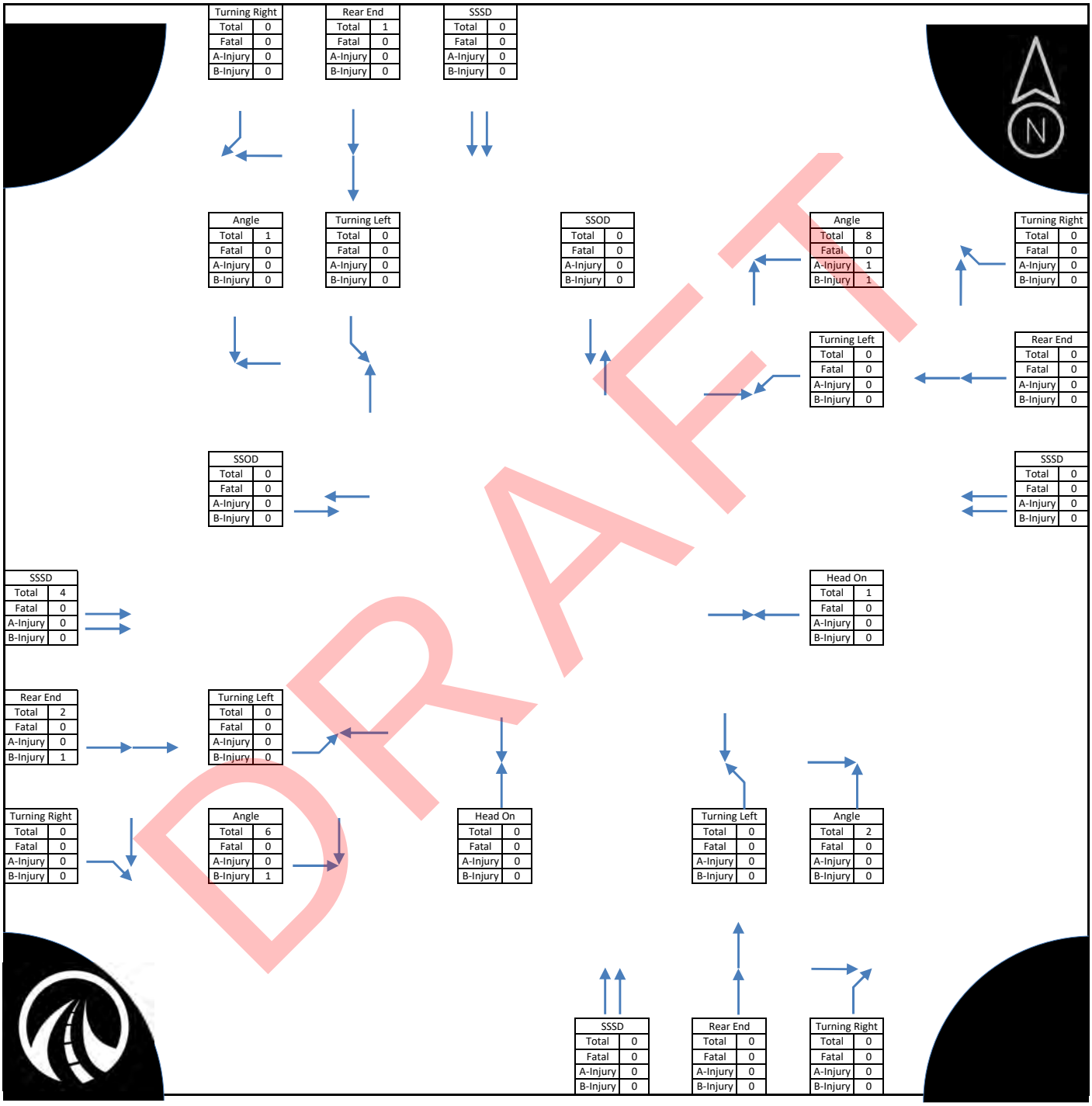
Main ID: U2753-U1411
Sub ID: ALL
Study Period Begin Year: 2016 to 2021

Analysis Period 6 years

YEAR	Rear End			Angle			Sideswipe Opposite Direction			Sideswipe Same Direction			Turning Left			Turning Right			Fixed Object			Overturned			Head On			Pedestrian			Other Object			Animal			Pedalcyclist			Other Non-Collision			TOTAL	
	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	**Crash Count**	**Injury Count**
2016	1			3	1 - A	1 - AI				1															1																7	1 - AI 1 - BI
2017	2	1 - B 1 - C	1 - BI 1 - CI	5						1									1																						9	1 - BI 1 - CI
2018				5	1 - B 1 - C	3 - BI 4 - CI				1																																6	3 - BI 4 - CI
2019				3																																						3	
2020				1	1 - B	1 - BI																																				1	1 - BI
2021										1																											1		1 - CI				2	1 - CI
TOTAL	**3**	**1 - B 1 - C**	**1 - BI 1 - CI**	**17**	**1 - A 2 - B 1 - C**	**1 - AI 4 - BI 4 - CI**	**0**			**4**			**0**			**0**			**1**			**0**			**1**			**0**			**0**			**0**			**2**	**1 - B 1 - C**	**1 - BI 1 - CI**	**0**			**28**	**1 - AI 6 - BI 6 - CI**
%	**10.7%**			**60.7%**			**0.0%**			**14.3%**			**0.0%**			**0.0%**			**3.6%**			**0.0%**			**3.6%**			**0.0%**			**0.0%**			**0.0%**			**7.1%**			**0.0%**				

YEAR	INJURY TYPE					CRASH CONDITIONS						TOTAL
	K	A	B	C	PDO	Wet	Wet %	Snow/Ice	Snow/Ice %	Night	Night %	
2016		1	1		5	2	29%	0	0%	2	29%	7
2017			1	1	7	2	22%	1	11%	1	11%	9
2018			1	1	4	2	33%	0	0%	2	33%	6
2019					3	1	33%	1	33%	1	33%	3
2020			1		0	0	0%	0	0%	1	100%	1
2021				1	1	0	0%	0	0%	0	0%	2
TOTAL	**0**	**1**	**4**	**3**	**20**	**7**	**25.0%**	**2**	**7.1%**	**7**	**25.0%**	**28**

Cook County	Thatcher Ave At Washington Blvd
2016 to 2021 Crash Data	Intersection ID: U2753-U1411
28 Total Crashes	PG: AWS



The following crashes could not be plotted on the diagram

	FO	OT	PD	PDC	OO	Animal	ONC	TOTAL
Total	1	0	0	2	0	0	0	3
Fatal	0	0	0	0	0	0	0	0
A-Injury	0	0	0	0	0	0	0	0
B-Injury	0	0	0	1	0	0	0	1

ID Name U1411-M2005

LOCATION INFO: Washington Blvd At Gale Ave

PG, FC & ADT Minor Stop - 4 Leg

County: Cook County

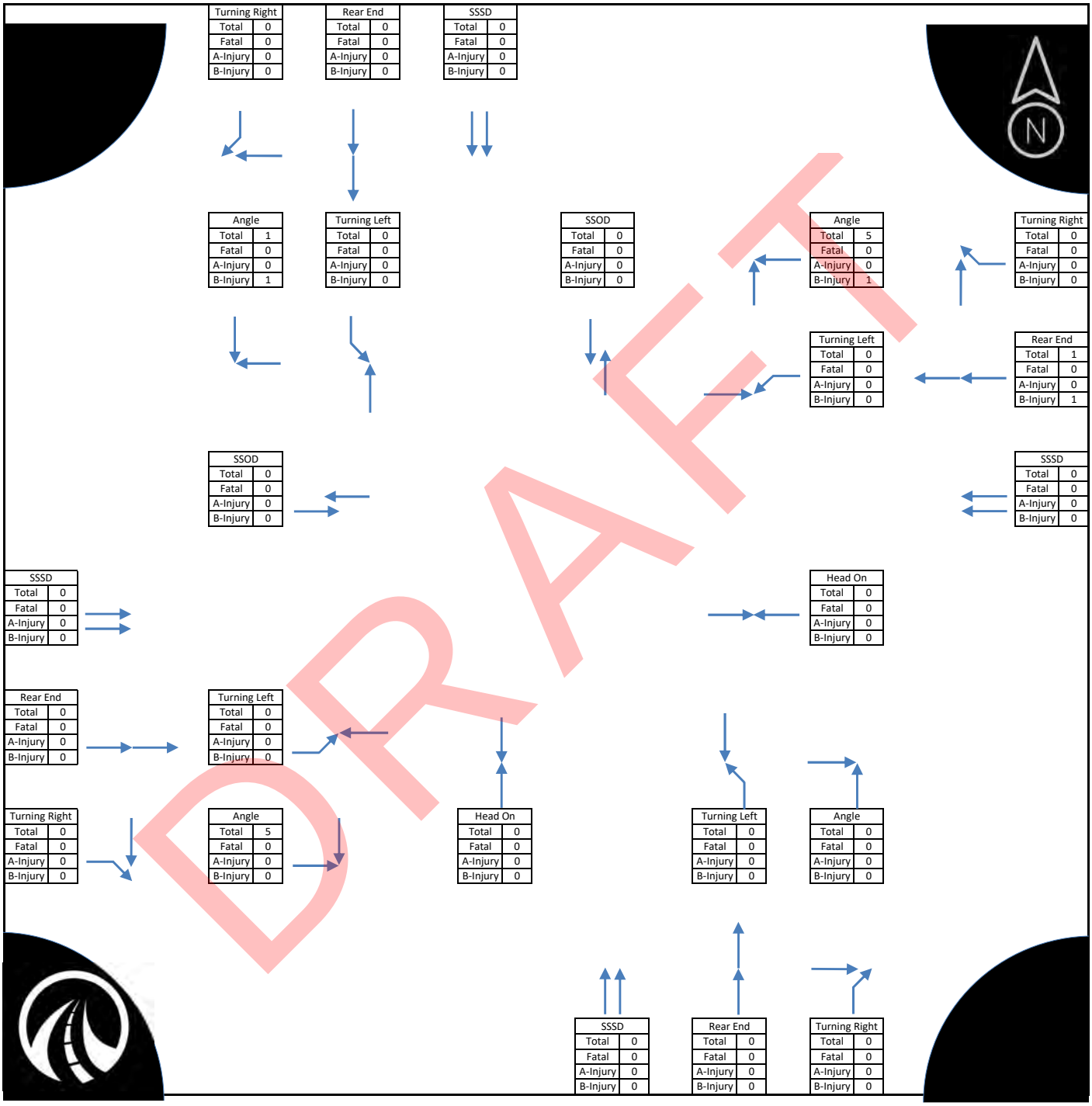
Main ID: U1411-M2005
Sub ID: ALL
Study Period Begin Year: 2016 to 2021

Analysis Period 6 years

YEAR	Rear End			Angle			Sideswipe Opposite Direction			Sideswipe Same Direction			Turning Left			Turning Right			Fixed Object			Overturned			Head On			Pedestrian			Other Object			Animal			Pedalcyclist			Other Non-Collision			TOTAL	
	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	**Crash Count**	**Injury Count**
2016				2	1 - B 1 - C	1 - BI 2 - CI																												1	1 - C	1 - CI				3	1 - BI 3 - CI
2017				2																																				2	
2018	1	1 - B	1 - BI	3	1 - B 1 - C	1 - BI 1 - CI																									1									5	2 - BI 1 - CI
2019				1																																				1	
2020				1																																				1	
2021				2																																				2	
TOTAL	**1**	**1 - B**	**1 - BI**	**11**	**2 - B 2 - C**	**2 - BI 3 - CI**	**0**			**0**			**0**			**0**			**0**			**0**			**0**			**0**			**1**			**1**	**1 - C**	**1 - CI**	**0**			**14**	**3 - BI 4 - CI**
%	**7.1%**			**78.6%**			**0.0%**			**0.0%**			**0.0%**			**0.0%**			**0.0%**			**0.0%**			**0.0%**			**0.0%**			**0.0%**			**7.1%**			**7.1%**			**0.0%**				

YEAR	INJURY TYPE					CRASH CONDITIONS						TOTAL
	K	A	B	C	PDO	Wet	Wet %	Snow/Ice	Snow/Ice %	Night	Night %	
2016			1	2	0	1	33%	0	0%	1	33%	3
2017					2	0	0%	0	0%	0	0%	2
2018			2	1	2	1	20%	0	0%	1	20%	5
2019					1	1	100%	0	0%	0	0%	1
2020					1	0	0%	0	0%	0	0%	1
2021					2	0	0%	0	0%	0	0%	2
TOTAL	**0**	**0**	**3**	**3**	**8**	**3**	**21.4%**	**0**	**0.0%**	**2**	**14.3%**	**14**

Cook County	Washington Blvd At Gale Ave
2016 to 2021 Crash Data	Intersection ID: U1411-M2005
14 Total Crashes	PG: Minor Stop - 4 Leg



The following crashes could not be plotted on the diagram

	FO	OT	PD	PDC	OO	Animal	ONC	TOTAL
Total	0	0	0	1	0	1	0	2
Fatal	0	0	0	0	0	0	0	0
A-Injury	0	0	0	0	0	0	0	0
B-Injury	0	0	0	0	0	0	0	0

ID Name U1411-M2004

LOCATION INFO: Washington Blvd At Keystone Ave

PG, FC & ADT AWS

County: Cook County

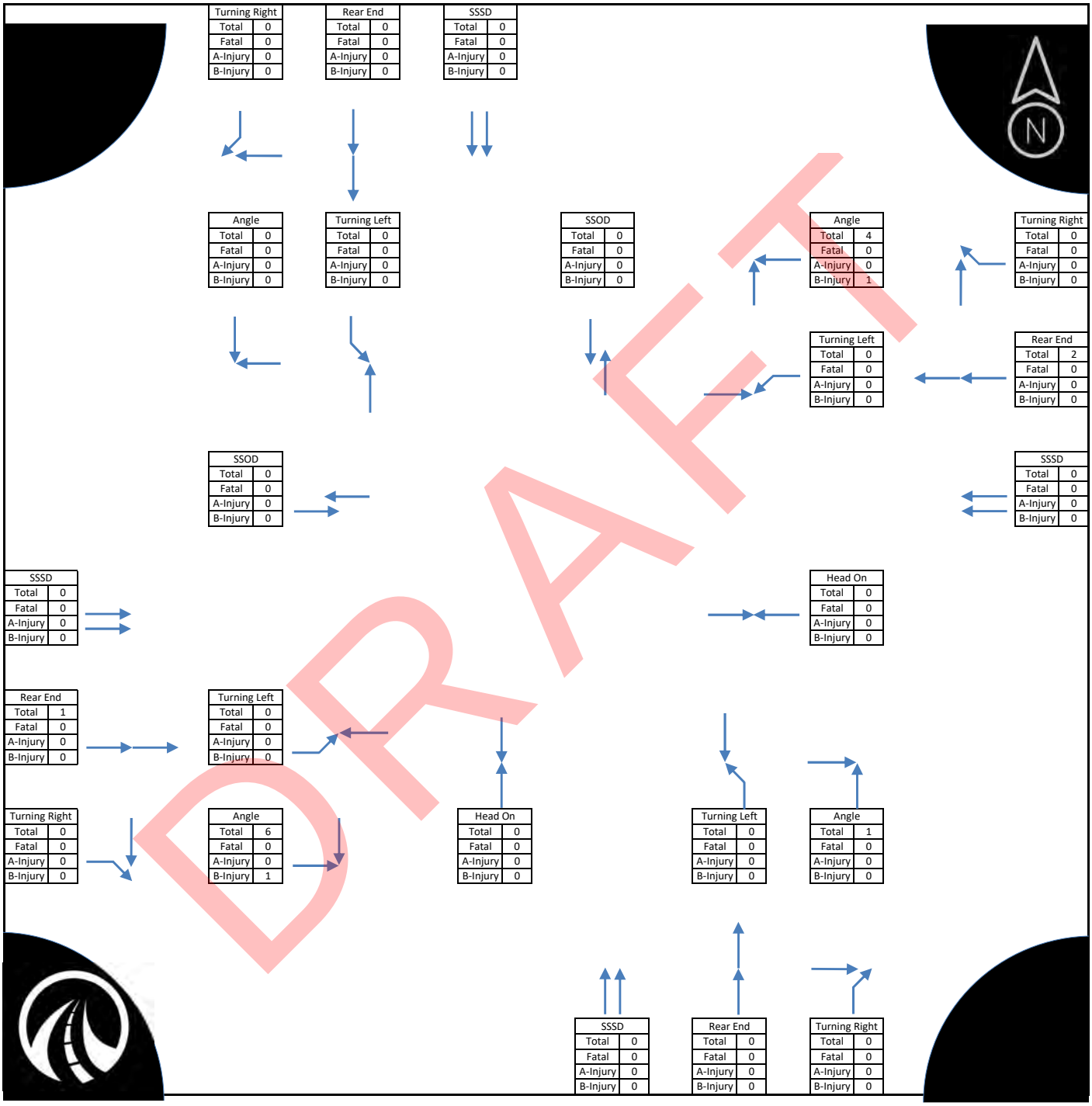
Main ID: U1411-M2004
Sub ID: ALL
Study Period Begin Year: 2016 to 2021

Analysis Period 6 years

YEAR	Rear End			Angle			Sideswipe Opposite Direction			Sideswipe Same Direction			Turning Left			Turning Right			Fixed Object			Overturned			Head On			Pedestrian			Other Object			Animal			Pedalcyclist			Other Non-Collision			TOTAL	
	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	**Crash Count**	**Injury Count**
2016	1	1 - C	1 - CI	3	1 - B	1 - BI																																		4	1 - BI 1 - CI
2017	1			3																																				4	
2018				1																																				1	
2019				4	1 - B	1 - BI																																		4	1 - BI
2020																																								0	
2021	1																																							1	
TOTAL	**3**	**1 - C**	**1 - CI**	**11**	**2 - B**	**2 - BI**	**0**			**0**			**0**			**0**			**0**			**0**			**0**			**0**			**0**			**0**			**0**			**14**	**2 - BI 1 - CI**
%	**21.4%**			**78.6%**			**0.0%**			**0.0%**			**0.0%**			**0.0%**			**0.0%**			**0.0%**			**0.0%**			**0.0%**			**0.0%**			**0.0%**			**0.0%**				

YEAR	INJURY TYPE					CRASH CONDITIONS						TOTAL
	K	A	B	C	PDO	Wet	Wet %	Snow/Ice	Snow/Ice %	Night	Night %	
2016			1	1	2	0	0%	1	25%	0	0%	4
2017					4	0	0%	0	0%	3	75%	4
2018					1	0	0%	0	0%	0	0%	1
2019			1		3	1	25%	0	0%	1	25%	4
2020					0	0	-	0	-	0	-	0
2021					1	0	0%	0	0%	0	0%	1
TOTAL	**0**	**0**	**2**	**1**	**11**	**1**	**7.1%**	**1**	**7.1%**	**4**	**28.6%**	**14**

Cook County	Washington Blvd At Keystone Ave
2016 to 2021 Crash Data	Intersection ID: U1411-M2004
14 Total Crashes	PG: AWS



ID Name U1411-M2003

LOCATION INFO: Washington Blvd At Forest Ave

PG, FC & ADT Minor Stop - 3 Leg

County: Cook County

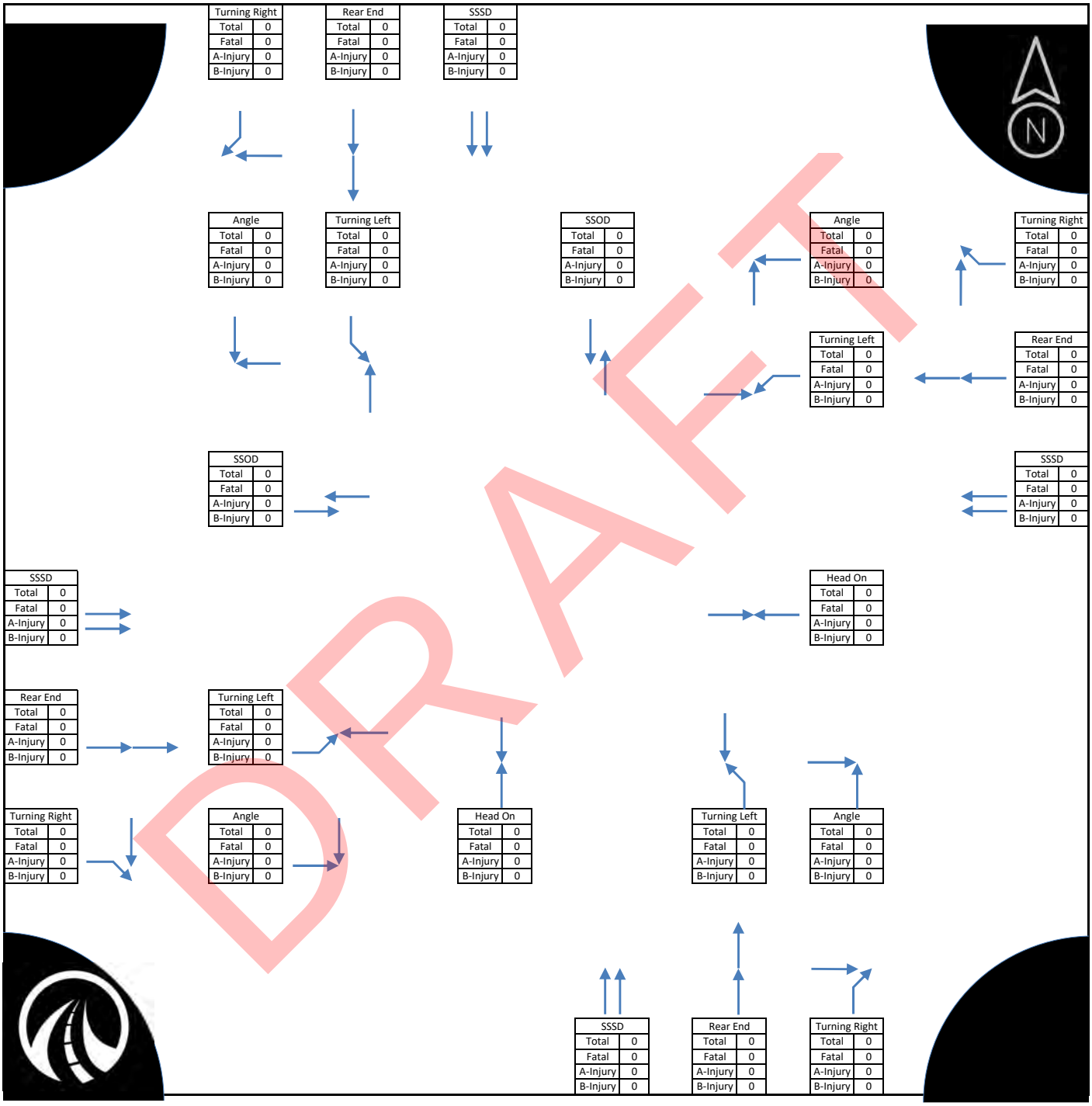
Main ID: U1411-M2003
Sub ID: ALL
Study Period Begin Year: 2016 to 2021

Analysis Period 6 years

YEAR	Rear End			Angle			Sideswipe Opposite Direction			Sideswipe Same Direction			Turning Left			Turning Right			Fixed Object			Overturned			Head On			Pedestrian			Other Object			Animal			Pedalcyclist			Other Non-Collision			TOTAL	
	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	**Crash Count**	**Injury Count**
2016																												1												1	
2017																																								0	
2018																																								0	
2019																																								0	
2020																												1	1 - B	1 - BI										1	1 - BI
2021																																								0	
TOTAL	**0**			**0**			**0**			**0**			**0**			**0**			**0**			**0**			**0**			**0**			**2**	**1 - B**	**1 - BI**	**0**			**0**			**0**			**2**	**1 - BI**
%	**0.0%**			**0.0%**			**0.0%**			**0.0%**			**0.0%**			**0.0%**			**0.0%**			**0.0%**			**0.0%**			**0.0%**			**100.0%**			**0.0%**			**0.0%**			**0.0%**				

YEAR	INJURY TYPE					CRASH CONDITIONS						TOTAL
	K	A	B	C	PDO	Wet	Wet %	Snow/Ice	Snow/Ice %	Night	Night %	
2016					1	0	0%	0	0%	0	0%	1
2017					0	0	-	0	-	0	-	0
2018					0	0	-	0	-	0	-	0
2019					0	0	-	0	-	0	-	0
2020			1		0	1	100%	0	0%	0	0%	1
2021					0	0	-	0	-	0	-	0
TOTAL	**0**	**0**	**1**	**0**	**1**	**1**	**50.0%**	**0**	**0.0%**	**0**	**0.0%**	**2**

Cook County	Washington Blvd At Forest Ave
2016 to 2021 Crash Data	Intersection ID: U1411-M2003
2 Total Crashes	PG: Minor Stop - 3 Leg



The following crashes could not be plotted on the diagram

	FO	OT	PD	PDC	OO	Animal	ONC	TOTAL
Total	0	0	0	0	2	0	0	2
Fatal	0	0	0	0	0	0	0	0
A-Injury	0	0	0	0	0	0	0	0
B-Injury	0	0	0	0	1	0	0	1

ID Name U1411-M0024

LOCATION INFO: Washington Blvd At Park Ave

PG, FC & ADT AWS

County: Cook County

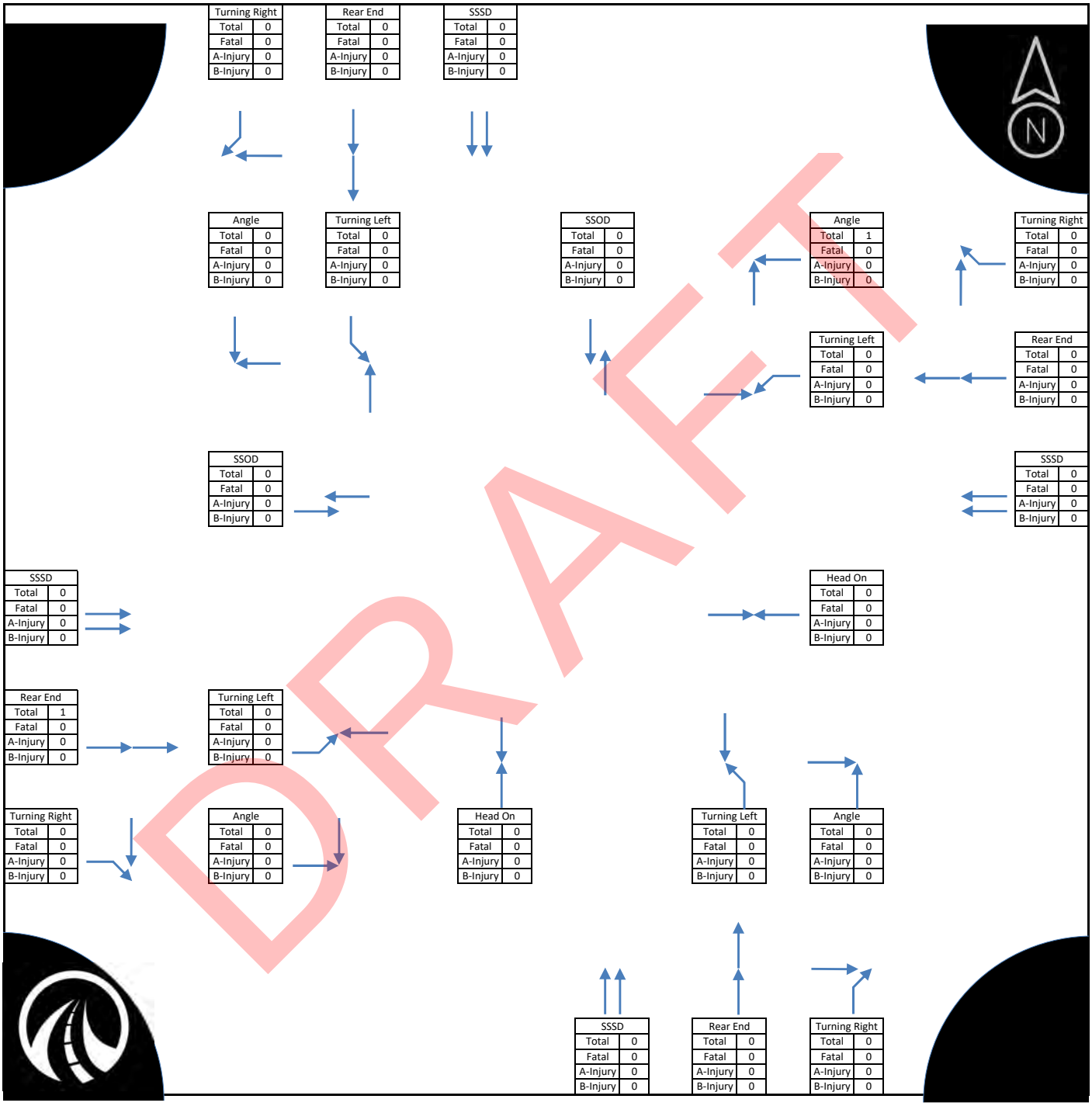
Main ID: U1411-M0024
Sub ID: ALL
Study Period Begin Year: 2016 to 2021

Analysis Period 6 years

YEAR	Rear End			Angle			Sideswipe Opposite Direction			Sideswipe Same Direction			Turning Left			Turning Right			Fixed Object			Overturned			Head On			Pedestrian			Other Object			Animal			Pedalcyclist			Other Non-Collision			TOTAL	
	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	**Crash Count**	**Injury Count**
2016				1															1	1 - C	1 - CI																				2	1 - CI
2017	1																																									1	
2018																																										0	
2019																																										0	
2020																																										0	
2021																																										0	
TOTAL	**1**			**1**			**0**			**0**			**0**			**0**			**1**	**1 - C**	**1 - CI**	**0**			**0**			**0**			**0**			**0**			**0**			**3**	**1 - CI**
%	**33.3%**			**33.3%**			**0.0%**			**0.0%**			**0.0%**			**0.0%**			**33.3%**			**0.0%**			**0.0%**			**0.0%**			**0.0%**			**0.0%**			**0.0%**				

YEAR	INJURY TYPE					CRASH CONDITIONS						TOTAL
	K	A	B	C	PDO	Wet	Wet %	Snow/Ice	Snow/Ice %	Night	Night %	
2016				1	1	0	0%	0	0%	1	50%	2
2017					1	0	0%	0	0%	0	0%	1
2018					0	0	-	0	-	0	-	0
2019					0	0	-	0	-	0	-	0
2020					0	0	-	0	-	0	-	0
2021					0	0	-	0	-	0	-	0
TOTAL	**0**	**0**	**0**	**1**	**2**	**0**	**0.0%**	**0**	**0.0%**	**1**	**33.3%**	**3**

Cook County	Washington Blvd At Park Ave
2016 to 2021 Crash Data	Intersection ID: U1411-M0024
3 Total Crashes	PG: AWS



The following crashes could not be plotted on the diagram

	FO	OT	PD	PDC	OO	Animal	ONC	TOTAL
Total	1	0	0	0	0	0	0	1
Fatal	0	0	0	0	0	0	0	0
A-Injury	0	0	0	0	0	0	0	0
B-Injury	0	0	0	0	0	0	0	0

ID Name U1411-M0002

LOCATION INFO: Washington Blvd At Franklin Ave

PG, FC & ADT Signalized

County: Cook County

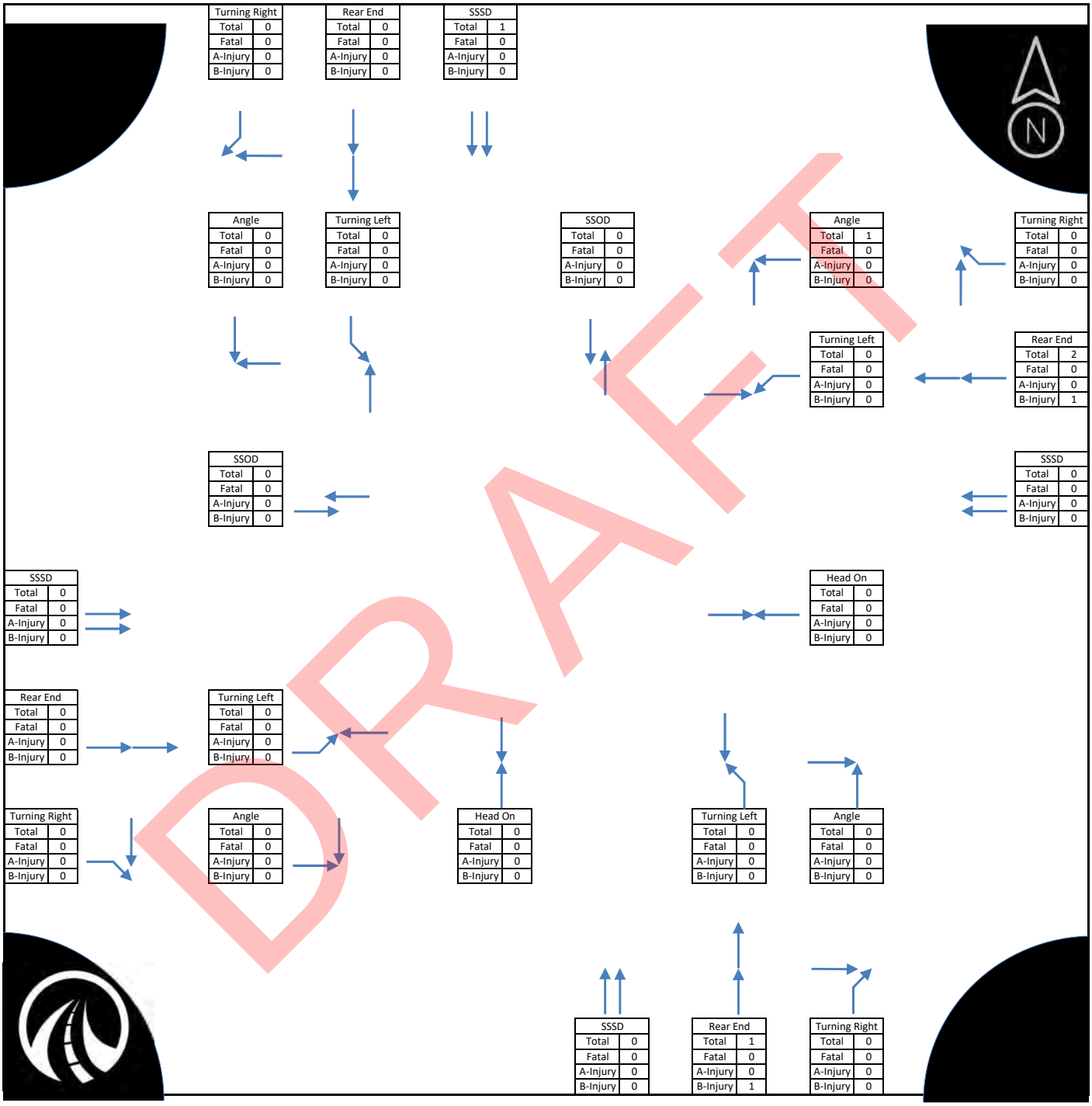
Main ID: U1411-M0002
Sub ID: ALL
Study Period Begin Year: 2016 to 2021

Analysis Period 6 years

YEAR	Rear End			Angle			Sideswipe Opposite Direction			Sideswipe Same Direction			Turning Left			Turning Right			Fixed Object			Overturned			Head On			Pedestrian			Other Object			Animal			Pedalcyclist			Other Non-Collision			TOTAL	
	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	**Crash Count**	**Injury Count**
2016	1	1 - B	2 - BI																1																							2	2 - BI
2017	1	1 - B	2 - BI																																							1	2 - BI
2018																																										0	
2019	1	1 - C	1 - CI							1																					1	1 - B	1 - BI									3	1 - BI 1 - CI
2020																																									0	
2021				1																																				1	
TOTAL	**3**	**2 - B 1 - C**	**4 - BI 1 - CI**	**1**			**0**			**1**			**0**			**0**			**1**			**0**			**0**			**0**			**1**	**1 - B**	**1 - BI**	**0**			**0**			**0**			**7**	**5 - BI 1 - CI**
%	**42.9%**			**14.3%**			**0.0%**			**14.3%**			**0.0%**			**0.0%**			**14.3%**			**0.0%**			**0.0%**			**0.0%**			**14.3%**			**0.0%**			**0.0%**				

YEAR	INJURY TYPE					CRASH CONDITIONS						TOTAL
	K	A	B	C	PDO	Wet	Wet %	Snow/Ice	Snow/Ice %	Night	Night %	
2016			1		1	0	0%	1	50%	1	50%	2
2017			1		0	0	0%	0	0%	0	0%	1
2018					0	0	-	0	-	0	-	0
2019			1	1	1	0	0%	0	0%	1	33%	3
2020					0	0	-	0	-	0	-	0
2021					1	0	0%	0	0%	0	0%	1
TOTAL	**0**	**0**	**3**	**1**	**3**	**0**	**0.0%**	**1**	**14.3%**	**2**	**28.6%**	**7**

Cook County	Washington Blvd At Franklin Ave
2016 to 2021 Crash Data	Intersection ID: U1411-M0002
7 Total Crashes	PG: Signalized



The following crashes could not be plotted on the diagram

	FO	OT	PD	PDC	OO	Animal	ONC	TOTAL
Total	1	0	0	0	1	0	0	2
Fatal	0	0	0	0	0	0	0	0
A-Injury	0	0	0	0	0	0	0	0
B-Injury	0	0	0	0	1	0	0	1

ID Name U1411-M2000

LOCATION INFO: Washington Blvd At Ashland Ave

PG, FC & ADT Minor Stop - 4 Leg

County: Cook County

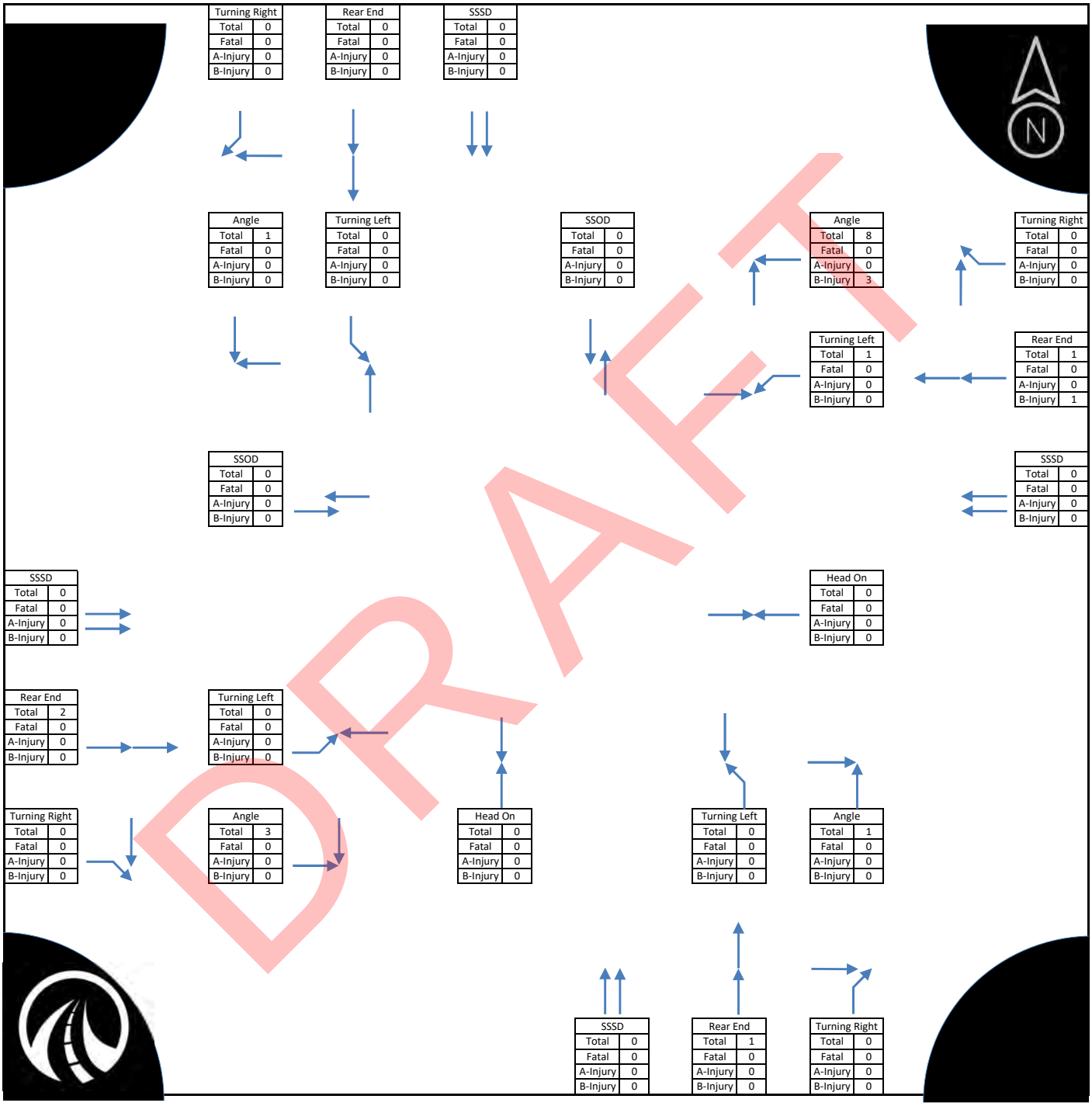
Main ID: U1411-M2000
Sub ID: ALL
Study Period Begin Year: 2016 to 2021

Analysis Period 6 years

YEAR	Rear End			Angle			Sideswipe Opposite Direction			Sideswipe Same Direction			Turning Left			Turning Right			Fixed Object			Overturned			Head On			Pedestrian			Other Object			Animal			Pedalcyclist			Other Non-Collision			TOTAL	
	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	**Crash Count**	**Injury Count**
2016				2	1 - B	2 - BI																																		2	2 - BI
2017				5	2 - B	4 - BI							1						1									1												8	4 - BI
2018	3	1 - B	2 - BI	2	1 - C	1 - CI																						1												6	2 - BI 1 - CI
2019				1																																				1	
2020	1			3																																				4	
2021																																								0	
TOTAL	**4**	**1 - B**	**2 - BI**	**13**	**3 - B** **1 - C**	**6 - BI** **1 - CI**	**0**			**0**			**1**			**0**			**1**			**0**			**0**			**0**			**2**			**0**			**0**			**0**			**21**	**8 - BI** **1 - CI**
%	**19.0%**			**61.9%**			**0.0%**			**0.0%**			**4.8%**			**0.0%**			**4.8%**			**0.0%**			**0.0%**			**0.0%**			**9.5%**			**0.0%**			**0.0%**			**0.0%**				

YEAR	INJURY TYPE					CRASH CONDITIONS						TOTAL
	K	A	B	C	PDO	Wet	Wet %	Snow/Ice	Snow/Ice %	Night	Night %	
2016			1		1	0	0%	1	50%	2	100%	2
2017			2		6	0	0%	0	0%	1	13%	8
2018			1	1	4	1	17%	2	33%	1	17%	6
2019					1	1	100%	0	0%	0	0%	1
2020					4	1	25%	0	0%	0	0%	4
2021					0	0	-	0	-	0	-	0
TOTAL	**0**	**0**	**4**	**1**	**16**	**3**	**14.3%**	**3**	**14.3%**	**4**	**19.0%**	**21**

Cook County	Washington Blvd At Ashland Ave
2016 to 2021 Crash Data	Intersection ID: U1411-M2000
21 Total Crashes	PG: Minor Stop - 4 Leg



The following crashes could not be plotted on the diagram

	FO	OT	PD	PDC	OO	Animal	ONC	TOTAL
Total	1	0	0	0	2	0	0	3
Fatal	0	0	0	0	0	0	0	0
A-Injury	0	0	0	0	0	0	0	0
B-Injury	0	0	0	0	0	0	0	0

ID Name U1411-U2765

LOCATION INFO: Washington Blvd At Lathrop Ave

PG, FC & ADT Signalized

County: Cook County

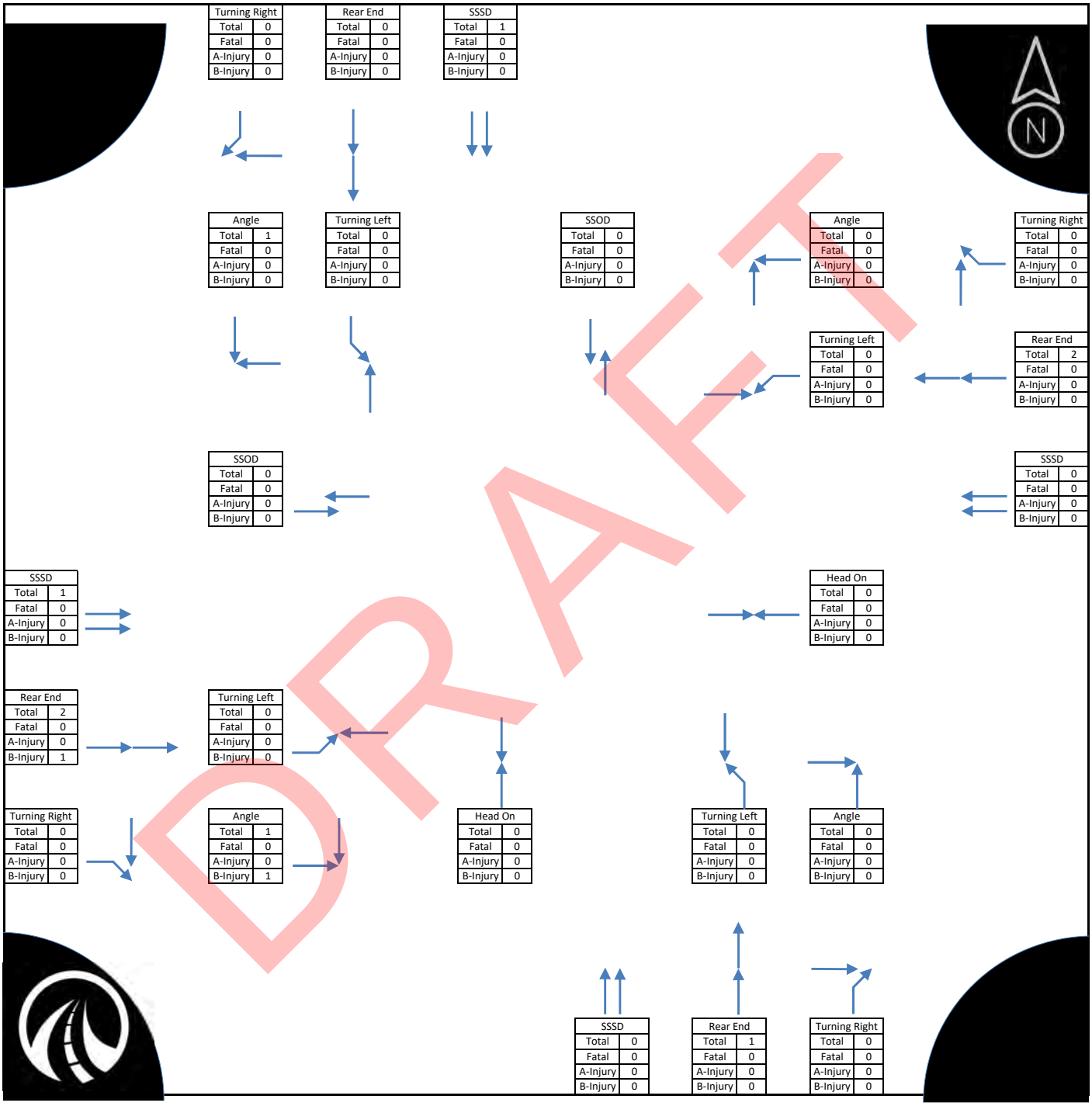
Main ID: U1411-U2765
Sub ID: ALL
Study Period Begin Year: 2016 to 2021

Analysis Period 6 years

YEAR	Rear End			Angle			Sideswipe Opposite Direction			Sideswipe Same Direction			Turning Left			Turning Right			Fixed Object			Overturned			Head On			Pedestrian			Other Object			Animal			Pedalcyclist			Other Non-Collision			TOTAL	
	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	**Crash Count**	**Injury Count**
2016										2																		1														3	
2017	1			1	1 - B	1 - BI							1															1														4	1 - BI
2018																																										0	
2019	3	1 - B	1 - BI																																						3	1 - BI
2020																																										0	
2021	1			1																																					2	
TOTAL	**5**	**1 - B**	**1 - BI**	**2**	**1 - B**	**1 - BI**	**0**			**2**			**1**			**0**			**0**			**0**			**0**			**0**			**2**			**0**			**0**			**0**			**12**	**2 - BI**
%	**41.7%**			**16.7%**			**0.0%**			**16.7%**			**8.3%**			**0.0%**			**0.0%**			**0.0%**			**0.0%**			**0.0%**			**16.7%**			**0.0%**			**0.0%**			**0.0%**				

YEAR	INJURY TYPE					CRASH CONDITIONS						TOTAL
	K	A	B	C	PDO	Wet	Wet %	Snow/Ice	Snow/Ice %	Night	Night %	
2016					3	0	0%	0	0%	1	33%	3
2017			1		3	1	25%	0	0%	1	25%	4
2018					0	0	-	0	-	0	-	0
2019			1		2	2	67%	0	0%	0	0%	3
2020					0	0	-	0	-	0	-	0
2021					2	0	0%	0	0%	0	0%	2
TOTAL	**0**	**0**	**2**	**0**	**10**	**3**	**25.0%**	**0**	**0.0%**	**2**	**16.7%**	**12**

Cook County	Washington Blvd At Lathrop Ave
2016 to 2021 Crash Data	Intersection ID: U1411-U2765
12 Total Crashes	PG: Signalized



The following crashes could not be plotted on the diagram

	FO	OT	PD	PDC	OO	Animal	ONC	TOTAL
Total	0	0	0	0	2	0	0	2
Fatal	0	0	0	0	0	0	0	0
A-Injury	0	0	0	0	0	0	0	0
B-Injury	0	0	0	0	0	0	0	0

The following crashes need to be reviewed/corrected before being plotted on the diagram

	RE	Angle	SSOD	SSSD	TL	TR	HO	TOTAL
Total	0	0	0	0	1	0	0	1
Fatal	0	0	0	0	0	0	0	0
A-Injury	0	0	0	0	0	0	0	0
B-Injury	0	0	0	0	0	0	0	0

Signal Warrant

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DISTRICT #1, BUREAU OF TRAFFIC OPERATIONS

SUMMARY OF TRAFFIC SURVEY

INTERSECTION: **Thatcher Avenue & Washington Blvd**
MUNICIPALITY: **River Forest**
COUNTY: **Cook**

	TRAFFIC FROM NORTH				TRAFFIC FROM SOUTH					TRAFFIC FROM EAST				TRAFFIC FROM WEST					
ROUTE :	Thatcher Avenue ☐ SRA				Thatcher Avenue ☐ SRA					Washington Blvd ☐ SRA				Washington Blvd ☐ SRA					
	N. OF : Washington Blvd GOING				S. OF : Washington Blvd GOING					E. OF : Thatcher Avenue GOING				W. OF : Thatcher Avenue GOING					
START HOUR	EAST ↳	SOUTH ↓	WEST ↲	TOTAL	WEST ←	NORTH ↑	EAST ↱	TOTAL	TOTAL NORTH AND SOUTH	SOUTH ↙	WEST ←	NORTH ↖	TOTAL	NORTH ↑	EAST →	SOUTH ↘	TOTAL	TOTAL EAST AND WEST	GRAND TOTAL
6:00	6	116	40	**162**	4	47	3	**54**	216	2	49	2	**53**	63	89	4	**156**	209	**425**
7:00	7	134	56	**197**	13	163	13	**189**	386	6	125	23	**154**	82	299	12	**393**	547	**933**
8:00	12	172	78	**262**	9	188	15	**212**	474	7	149	17	**173**	80	217	13	**310**	483	**957**
9:00	8	74	36	**118**	6	107	9	**122**	240	5	60	13	**78**	44	85	8	**137**	215	**455**
10:00	6	72	34	**112**	3	79	5	**87**	199	2	67	9	**78**	37	75	5	**117**	195	**394**
11:00	6	80	32	**118**	3	69	9	**81**	199	5	77	15	**97**	29	65	3	**97**	194	**393**
12:00	4	91	32	**127**	3	103	5	**111**	238	8	95	11	**114**	37	74	1	**112**	226	**464**
13:00	12	101	40	**153**	2	81	5	**88**	241	5	105	17	**127**	20	94	2	**116**	243	**484**
14:00	12	99	48	**159**	5	126	9	**140**	299	4	111	14	**129**	46	140	12	**198**	327	**626**
15:00	10	130	91	**231**	11	167	18	**196**	427	14	209	15	**238**	100	212	17	**329**	567	**994**
16:00	11	167	93	**271**	8	166	16	**190**	461	6	204	23	**233**	104	260	17	**381**	614	**1075**
17:00	11	115	71	**197**	8	142	21	**171**	368	2	173	20	**195**	100	309	8	**417**	612	**980**
18:00	7	89	52	**148**	5	84	10	**99**	247	6	95	6	**107**	69	166	8	**243**	350	**597**
19:00	1	55	24	**80**	2	52	1	**55**	135	2	42	10	**54**	35	60	3	**98**	152	**287**
20:00	0	26	9	**35**	1	41	3	**45**	80	2	34	3	**39**	11	40	2	**53**	92	**172**
21:00	0	31	13	**44**	2	23	1	**26**	70	0	26	2	**28**	17	17	0	**34**	62	**132**

REVIEW INFORMATION

COUNTS USED: IDOT
COUNT DATE(S): 12/06/22 - AM 12/06/22 - PM
DATE REVIEWED: 07/13/23
REVIEWED BY: KRS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
BUREAU OF TRAFFIC OPERATIONS

DISTRICT #1

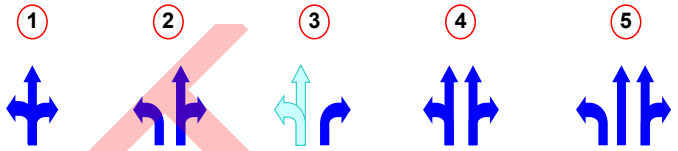
RIGHT TURN FACTORIZATION SHEET

INTERSECTION: **Thatcher Avenue & Washington Blvd**

MUNICIPALITY: **River Forest** COUNTY: **Cook**

DIR	HOUR BEGIN	MINOR STREET STREET NAME: Thatcher Aven CONFIG. #: 1 VOLUMES L LEFT	T THROUGH	R RIGHT	A TOTAL	CRITICAL MAINLINE APPROACH VOLUME PER LANE	BASE RIGHT TURN REDUCTION %	MAINLINE CONGESTION FACTOR %	ADJUSTED RIGHT TURN REDUCTION %	ADJUSTED RIGHT TURNS	ADJUSTED MINOR STREET VOLUMES
S.B.	6:00	6	116	40	**162**	27	20	0	20	32	**154**
N.B.	7:00	13	163	13	**189**	162	20	0	20	10	**186**
S.B.	8:00	12	172	78	**262**	92	20	0	20	62	**246**
N.B.	9:00	6	107	9	**122**	51	20	0	20	7	**120**
S.B.	10:00	6	72	34	**112**	43	20	0	20	27	**105**
S.B.	11:00	6	80	32	**118**	54	20	0	20	26	**112**
S.B.	12:00	4	91	32	**127**	59	20	0	20	26	**121**
S.B.	13:00	12	101	40	**153**	70	20	0	20	32	**145**
S.B.	14:00	12	99	48	**159**	70	20	0	20	38	**149**
S.B.	15:00	10	130	91	**231**	120	40	0	40	55	**195**
S.B.	16:00	11	167	93	**271**	125	20	0	20	74	**252**
S.B.	17:00	11	115	71	**197**	107	40	0	40	43	**169**
S.B.	18:00	7	89	52	**148**	54	40	0	40	31	**127**
S.B.	19:00	1	55	24	**80**	31	20	0	20	19	**75**
N.B.	20:00	1	41	3	**45**	22	20	0	20	2	**44**
S.B.	21:00	0	31	13	**44**	15	20	0	20	10	**41**

Lane Configurations



LEFT	THROUGH	RIGHT	TOTAL (A)	.7A	.35A	3T	T/3	(T+L)	(T+R)	3R	3L	T/2	T/4	BASE REDUCTION
6	116	40	162	113	56.7	348	38.7	122	156	120	18	58	29	20
13	163	13	189	132	66.2	489	54.3	176	176	39	39	81.5	40.8	20
12	172	78	262	183	91.7	516	57.3	184	250	234	36	86	43	20
6	107	9	122	85.4	42.7	321	35.7	113	116	27	18	53.5	26.8	20
6	72	34	112	78.4	39.2	216	24	78	106	102	18	36	18	20
6	80	32	118	82.6	41.3	240	26.7	86	112	96	18	40	20	20
4	91	32	127	88.9	44.5	273	30.3	95	123	96	12	45.5	22.8	20
12	101	40	153	107	53.6	303	33.7	113	141	120	36	50.5	25.3	20
12	99	48	159	111	55.7	297	33	111	147	144	36	49.5	24.8	20
10	130	91	231	162	80.9	390	43.3	140	221	273	30	65	32.5	40
11	167	93	271	190	94.9	501	55.7	178	260	279	33	83.5	41.8	20
11	115	71	197	138	69	345	38.3	126	186	213	33	57.5	28.8	40
7	89	52	148	104	51.8	267	29.7	96	141	156	21	44.5	22.3	40
1	55	24	80	56	28	165	18.3	56	79	72	3	27.5	13.8	20
1	41	3	45	31.5	15.8	123	13.7	42	44	9	3	20.5	10.3	20
	31	13	44	30.8	15.4	93	10.3	31	44	39	0	15.5	7.75	20

MAINLINE CONGESTION FACTORS	
VOLUMES	FACTOR (%)
0-399	0
400-499	5
500-599	10
600-699	15
700-799	20
800-899	25
900-999	30
1000-1099	35
1100-1199	40
1200-1299	45
1300-1399	50
1400-1499	55

REVIEW INFORMATION

COUNTS USED: IDOT

COUNT DATE(S): 12/06/22 (AM) + 12/06/22 (PM)

DATE REVIEWED: July 13, 2023

REVIEWED BY: KRS

SIGNAL WARRANT REVIEW SHEET

DISTRICT #1

ILLINOIS DEPARTMENT OF TRANSPORTATION

SRA : _____

Yes No

Intersection: **Thatcher Avenue & Washington Blvd** County: **Cook**

Municipality: **River Forest**

Speed Limit of Major Route **25 mph** Isolated Community with Population < 10,000 **N**

Number of Lanes on Major approach **1** Number of Lanes on Minor approach **1**

HOUR BEGIN	Major Street Volume *(both approaches)*	Adj. Minor Street Volume *(higher volume approach)*	CHECK ANY HOURS WHICH MEET THE FOLLOWING WARRANTS				
			WARRANT 1		WARRANT 7: 8 hrs of one of the Following:		
			A	B	WARRANT 1 A/B: 8hrs of BOTH:		
			100%	100%	80% of A	80% of B	80% of Warr #4
6:00	209	154					
7:00	547	186	X		X		
8:00	483	246			X		
9:00	215	120					
10:00	195	105					
11:00	194	112					
12:00	226	121					
13:00	243	145					
14:00	327	149					
15:00	567	195	X		X		
16:00	614	252	X		X	X	
17:00	612	169	X		X	X	
18:00	350	127					
19:00	152	75					
20:00	92	44					
21:00	62	41					
Hours Met :			4 hours	0 hours	5 hours	2 hours	0 hours
Volume Requirements:		MAJOR:	500	750	400	600	
		MINOR:	150	75	120	60	

WARRANT 1 Yes No

Warrant 1 is met if any of the following Conditions are met:

- Condition A — 4 hours — MINIMUM VEHICULAR VOLUME — Yes No
- Condition B — 0 hours — INTERRUPTION OF CONTINUOUS TRAFFIC — Yes No
- Condition A/B — 2 hours — COMBINATION OF WARRANTS — Yes No

WARRANT 2 — FOUR-HOUR VOLUME — Yes — 1 hours — No

WARRANT 3 — PEAK-HOUR VOLUME — Yes — 0 hours — No

WARRANT 4 — PEDESTRIAN VOLUME — Yes — 0 hours — No

WARRANT 5 — SCHOOL CROSSING — Yes No

WARRANT 6 — COORDINATED SIGNAL SYSTEM — Yes No

WARRANT 7 — ACCIDENT EXPERIENCE — Yes — 5 hours — No

	2016	2017	2018	2019	2020
TOTAL NUMBER OF ACCIDENTS:	7	9	6	3	3
NUMBER CORRECTABLE ACCIDENTS:	3	5	5	3	1
TRIED LESS RESTRICTIVE METHODS?					
ARE VOLUME REQUIREMENTS MET?					

WARRANT 8 — ROADWAY NETWORK — Yes No

WARRANT 9 — Intersection Near a Grade Crossing — Yes No

STOP OR YIELD CONTROLLED LEG WITH GRADE CROSSING: NORTH

D (clear storage distance) = _____

	#	%	Adj. Factor
RAIL TRAFFIC PER DAY =		-	1.00
HIGH OCCUPANCY BUSSES PER HOUR =		0%	1.00
TRUCKS PER HOUR =		0.0%	0.50
OVERALL ADJUSTMENT FACTOR =		0.50	

Review Information

Counts Used : IDOT

Count Date(s) : 12/06/22 (AM) + 12/06/22 (PM)

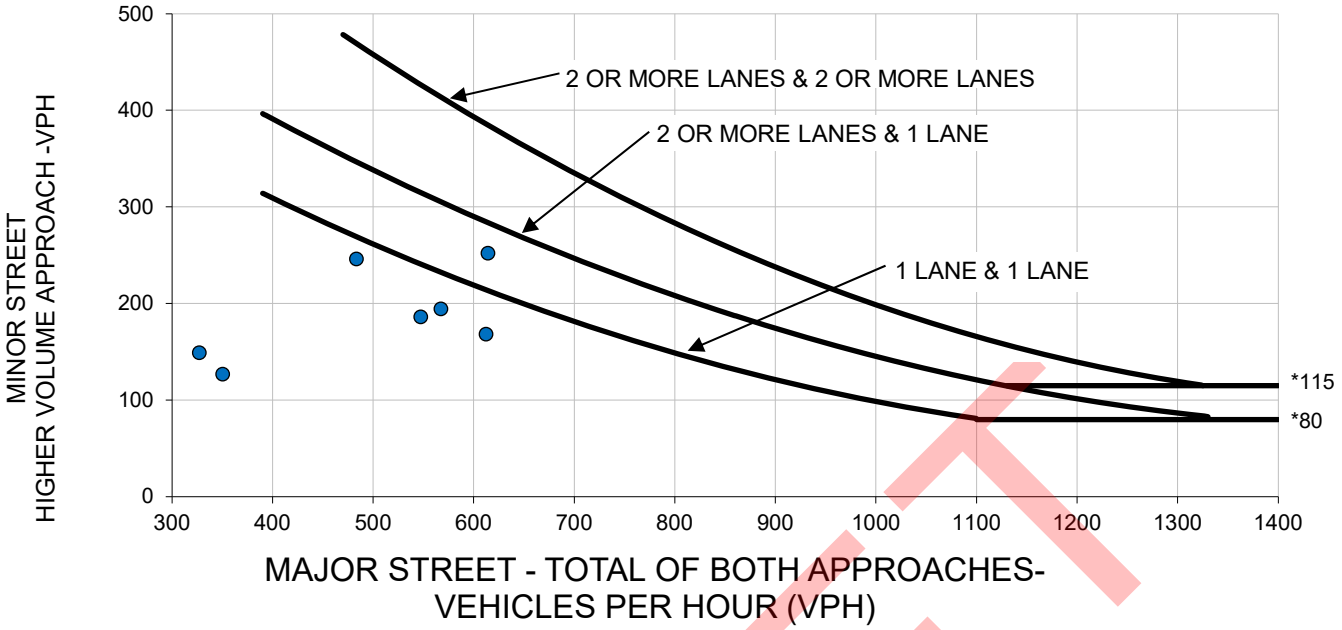
Date Reviewed : July 13, 2023

Reviewed By : KRS

Traffic Signal Approved: _____

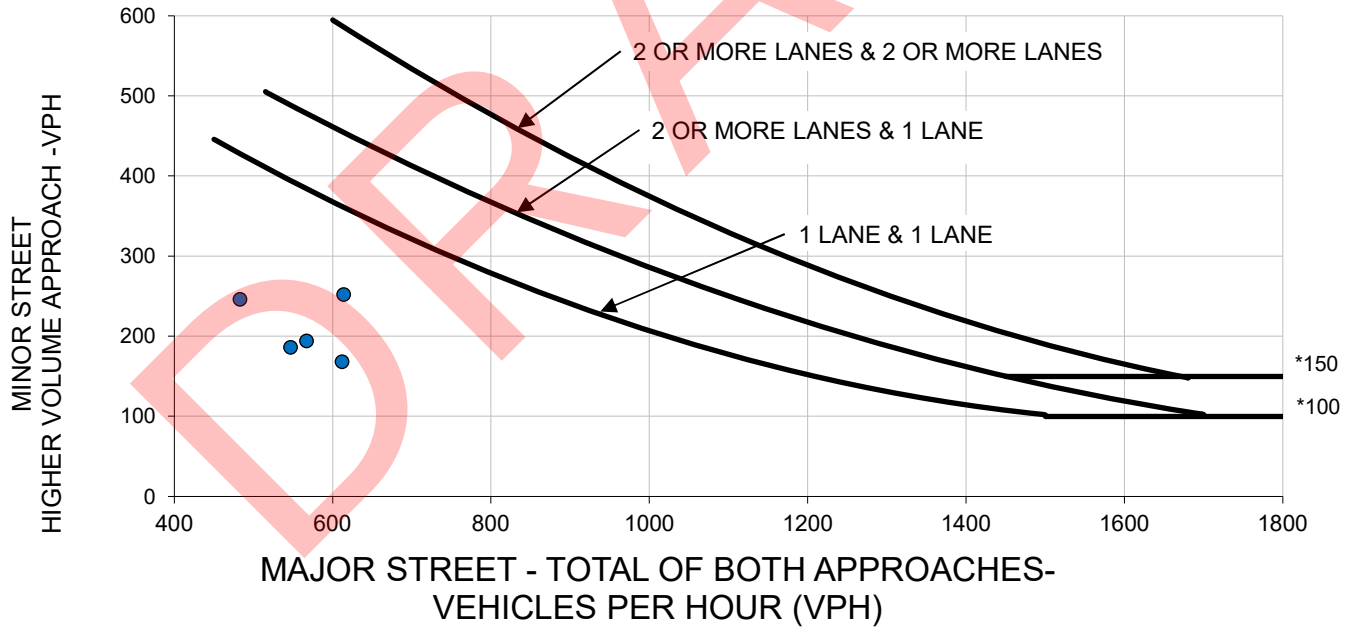
Comments

Figure 4C-1. Warrant 2, Four Hour Vehicular Volume



* Note: 115 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 80 vph applies as the lower threshold volume for a minor-street approach with one lane.

Figure 4C-3 Warrant 3, Peak Hour



* Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

MULTI-WAY STOP WARRANT

ILLINOIS DEPARTMENT OF TRANSPORTATION — DISTRICT #1

SRA : _____

INTERSECTION : **Thatcher Avenue & Washington Blvd** — YES / (NO)

MUNICPALITY / TOWNSHIP: **River Forest** — COUNTY : **Cook**

SPEED LIMIT OF MAJOR ROUTE : **25 mph** — PROPOSED 3-WAY OR 4-WAY: **4-WAY**

NUMBER OF LANES ON MAJOR APPROACH : **1** — NUMBER OF LANES ON MINOR APPROACH : **1**

TRAFFIC VOLUMES				CHECK ANY HOURS WHICH MEET THE FOLLOWING REQUIREMENTS:	
	MAJOR STREET	MINOR STREET			
HOUR BEGIN	VEHICLES ENTERING (BOTH APPROACHES)	VEHICLES ENTERING (BOTH APPROACHES)	PEDS OR BIKES (BOTH APPROACHES)	HOURS MET	COMBINATION OF WARRANTS
			N/C = NOT COUNTED	100%	80%
6:00	209	216	N/C		
7:00	547	386	N/C	X	X
8:00	483	474	N/C	X	X
9:00	215	240	N/C		
10:00	195	199	N/C		
11:00	194	199	N/C		
12:00	226	238	N/C		
13:00	243	241	N/C		X
14:00	327	299	N/C	X	X
15:00	567	427	N/C	X	X
16:00	614	461	N/C	X	X
17:00	612	368	N/C	X	X
18:00	350	247	N/C	X	X
19:00	152	135	N/C		
20:00	92	80	N/C		
21:00	62	70	N/C		

		7 hours	8 hours
Hours Met:			
VOLUME REQUIREMENTS:	MAJOR ENTERING:	300	240
	MINOR ENTERING: INCLUDING ANY PEDS	200	160

Review Information

Counts Used : IDOT

Count Date(s) : 12/06/22 (AM) + 12/06/22 (PM)

Date Reviewed : July 13, 2023

Reviewed By : KRS

Comments

ACCIDENT DATA

ACCIDENT EXPERIENCE	2016	2017	2018	2019	2020
TOTAL NUMBER OF ACCIDENTS	7	9	6	3	3
NUMBER CORRECTABLE ACCIDENTS	3	5	5	3	1

(INCLUDING LEFT- *AND* RIGHT-TURN AS WELL AS RIGHT-ANGLE COLLISIONS)

ACCIDENT WARRANT

5 Correctable Accidents Within A 12-month Period?

(No Volume Requirement) (YES) NO

VOLUME WARRANT

Are Volume Requirements Met For 8 Hours?

YES 7 hours (NO)

COMBINATION OF WARRANTS *(REDUCED TO 80%)*

4 Correctable Accidents Within A 12-month Period?

(YES) NO

Are Volume Requirements Met For 8 Hours?

(YES) 8 hours NO

ARE BOTH CRITERIA MET?

(YES) NO

IS A MULTI-WAY STOP WARRANTED?

(YES) NO

Traffic Calming Toolbox Scoring Sheets

Scoring Matrix

RIVER FOREST
Proud Heritage · Bright Future

Measure	Criteria for assigning a numerical score to traffic problems	Points
Crash History	1-3 crashes in a 5 year period = 5 points 4-10 crashes in a 5 year period = 10 points More than 10 crashes in a 5 year period = 15 points any crash involving a pedestrian/cyclist = +5 points	0-20 pts. **Score:** 20
Vehicle Speed	85th percentile speed is not over the speed limit = 0 points 85th percentile speed is 2 mph over the speed limit = 3 points 85th percentile speed is 4 mph over the speed limit = 6 points 85th percentile speed is 6 mph over the speed limit = 9 points 85th percentile speed is 8 mph over the speed limit = 12 points 85th percentile speed is 10 mph over the speed limit = 15 points Outlier Speed 20+ mph above posted speed limit = +5 points	0-20 pts. **Score:** 20
Vehicle Volume	ADT < 750 = 0 points ADT = 751 - 1,350 = 5 points ADT = 1,351 - 1,950 = 10 points ADT = 1,951 - 2,550 = 15 points ADT > 2,550 = 20 points	0-20 pts. **Score:** 20
Pedestrian Traffic Generators	Any school, park, library, church, CTA station more than 2 blocks (1,320 ft.) away = 0 points Any school, park, library, church, CTA station 1-2 blocks (1,320 ft.) away = 5 points Any school, park, library, church, CTA station 1 block (660 ft.) or less away = 10 points Three or more overlapping 1-block areas = +10 points Three or more overlapping 2-block areas = +5 points	0-20 pts. **Score:** 5
Bike Routes / Non-Bike Routes	Not identified as a proposed bike route = 0 points Identified as a Marked Shared Lane = 5 points Identified as a Dedicated Bike Lane = 10 points *Per Village Bicycle Plan published in 2019	0-10 pts. **Score:** 5
Community Interest	No Petition = 0 points Local Petition (0-75% residents on block) = 5 points Local Petition (75%+ of residents on block) = 10 points Village Petition (0-10% of Village population) = 5 points Village Petition (10%+ of Village population) = 10 points	0-10 pts. **Score:** 0

Intersection 1: Thatcher Ave
Segment: Washington Blvd
Intersection 2: Gale Ave

Total: 70

Scoring Matrix

RIVER FOREST
Proud Heritage · Bright Future

Measure	Criteria for assigning a numerical score to traffic problems	Points
Crash History	1-3 crashes in a 5 year period = 5 points 4-10 crashes in a 5 year period = 10 points More than 10 crashes in a 5 year period = 15 points any crash involving a pedestrian/cyclist = +5 points	0-20 pts. **Score:** 20
Vehicle Speed	85th percentile speed is not over the speed limit = 0 points 85th percentile speed is 2 mph over the speed limit = 3 points 85th percentile speed is 4 mph over the speed limit = 6 points 85th percentile speed is 6 mph over the speed limit = 9 points 85th percentile speed is 8 mph over the speed limit = 12 points 85th percentile speed is 10 mph over the speed limit = 15 points Outlier Speed 20+ mph above posted speed limit = +5 points	0-20 pts. **Score:** 20
Vehicle Volume	ADT < 750 = 0 points ADT = 751 - 1,350 = 5 points ADT = 1,351 - 1,950 = 10 points ADT = 1,951 - 2,550 = 15 points ADT > 2,550 = 20 points	0-20 pts. **Score:** 20
Pedestrian Traffic Generators	Any school, park, library, church, CTA station more than 2 blocks (1,320 ft.) away = 0 points Any school, park, library, church, CTA station 1-2 blocks (1,320 ft.) away = 5 points Any school, park, library, church, CTA station 1 block (660 ft.) or less away = 10 points Three or more overlapping 1-block areas = +10 points Three or more overlapping 2-block areas = +5 points	0-20 pts. **Score:** 10
Bike Routes / Non-Bike Routes	Not identified as a proposed bike route = 0 points Identified as a Marked Shared Lane = 5 points Identified as a Dedicated Bike Lane = 10 points *Per Village Bicycle Plan published in 2019	0-10 pts. **Score:** 5
Community Interest	No Petition = 0 points Local Petition (0-75% residents on block) = 5 points Local Petition (75%+ of residents on block) = 10 points Village Petition (0-10% of Village population) = 5 points Village Petition (10%+ of Village population) = 10 points	0-10 pts. **Score:** 0

Intersection 1: Gale Ave
Segment: Washington Blvd
Intersection 2: Keystone Ave

Total: 75

Scoring Matrix

RIVER FOREST
Proud Heritage · Bright Future

Measure	Criteria for assigning a numerical score to traffic problems	Points
Crash History	1-3 crashes in a 5 year period = 5 points 4-10 crashes in a 5 year period = 10 points More than 10 crashes in a 5 year period = 15 points any crash involving a pedestrian/cyclist = +5 points	0-20 pts. **Score:** 15
Vehicle Speed	85th percentile speed is not over the speed limit = 0 points 85th percentile speed is 2 mph over the speed limit = 3 points 85th percentile speed is 4 mph over the speed limit = 6 points 85th percentile speed is 6 mph over the speed limit = 9 points 85th percentile speed is 8 mph over the speed limit = 12 points 85th percentile speed is 10 mph over the speed limit = 15 points Outlier Speed 20+ mph above posted speed limit = +5 points	0-20 pts. **Score:** 20
Vehicle Volume	ADT < 750 = 0 points ADT = 751 - 1,350 = 5 points ADT = 1,351 - 1,950 = 10 points ADT = 1,951 - 2,550 = 15 points ADT > 2,550 = 20 points	0-20 pts. **Score:** 20
Pedestrian Traffic Generators	Any school, park, library, church, CTA station more than 2 blocks (1,320 ft.) away = 0 points Any school, park, library, church, CTA station 1-2 blocks (1,320 ft.) away = 5 points Any school, park, library, church, CTA station 1 block (660 ft.) or less away = 10 points Three or more overlapping 1-block areas = +10 points Three or more overlapping 2-block areas = +5 points	0-20 pts. **Score:** 15
Bike Routes / Non-Bike Routes	Not identified as a proposed bike route = 0 points Identified as a Marked Shared Lane = 5 points Identified as a Dedicated Bike Lane = 10 points *Per Village Bicycle Plan published in 2019	0-10 pts. **Score:** 5
Community Interest	No Petition = 0 points Local Petition (0-75% residents on block) = 5 points Local Petition (75%+ of residents on block) = 10 points Village Petition (0-10% of Village population) = 5 points Village Petition (10%+ of Village population) = 10 points	0-10 pts. **Score:** 0

Intersection 1: Keystone Ave
Segment: Washington Blvd
Intersection 2: Forest Ave

Total: 75

Scoring Matrix

RIVER FOREST
Proud Heritage · Bright Future

Measure	Criteria for assigning a numerical score to traffic problems	Points
Crash History	1-3 crashes in a 5 year period = 5 points 4-10 crashes in a 5 year period = 10 points More than 10 crashes in a 5 year period = 15 points any crash involving a pedestrian/cyclist = +5 points	0-20 pts. **Score:** 10
Vehicle Speed	85th percentile speed is not over the speed limit = 0 points 85th percentile speed is 2 mph over the speed limit = 3 points 85th percentile speed is 4 mph over the speed limit = 6 points 85th percentile speed is 6 mph over the speed limit = 9 points 85th percentile speed is 8 mph over the speed limit = 12 points 85th percentile speed is 10 mph over the speed limit = 15 points Outlier Speed 20+ mph above posted speed limit = +5 points	0-20 pts. **Score:** 20
Vehicle Volume	ADT < 750 = 0 points ADT = 751 - 1,350 = 5 points ADT = 1,351 - 1,950 = 10 points ADT = 1,951 - 2,550 = 15 points ADT > 2,550 = 20 points	0-20 pts. **Score:** 20
Pedestrian Traffic Generators	Any school, park, library, church, CTA station more than 2 blocks (1,320 ft.) away = 0 points Any school, park, library, church, CTA station 1-2 blocks (1,320 ft.) away = 5 points Any school, park, library, church, CTA station 1 block (660 ft.) or less away = 10 points Three or more overlapping 1-block areas = +10 points Three or more overlapping 2-block areas = +5 points	0-20 pts. **Score:** 20
Bike Routes / Non-Bike Routes	Not identified as a proposed bike route = 0 points Identified as a Marked Shared Lane = 5 points Identified as a Dedicated Bike Lane = 10 points *Per Village Bicycle Plan published in 2019	0-10 pts. **Score:** 5
Community Interest	No Petition = 0 points Local Petition (0-75% residents on block) = 5 points Local Petition (75%+ of residents on block) = 10 points Village Petition (0-10% of Village population) = 5 points Village Petition (10%+ of Village population) = 10 points	0-10 pts. **Score:** 0

Intersection 1: Forest Ave
Segment: Washington Blvd
Intersection 2: Park Ave

Total: 75

Scoring Matrix

RIVER FOREST
Proud Heritage · Bright Future

Measure	Criteria for assigning a numerical score to traffic problems	Points
Crash History	1-3 crashes in a 5 year period = 5 points 4-10 crashes in a 5 year period = 10 points More than 10 crashes in a 5 year period = 15 points any crash involving a pedestrian/cyclist = +5 points	0-20 pts. **Score:** 10
Vehicle Speed	85th percentile speed is not over the speed limit = 0 points 85th percentile speed is 2 mph over the speed limit = 3 points 85th percentile speed is 4 mph over the speed limit = 6 points 85th percentile speed is 6 mph over the speed limit = 9 points 85th percentile speed is 8 mph over the speed limit = 12 points 85th percentile speed is 10 mph over the speed limit = 15 points Outlier Speed 20+ mph above posted speed limit = +5 points	0-20 pts. **Score:** 20
Vehicle Volume	ADT < 750 = 0 points ADT = 751 - 1,350 = 5 points ADT = 1,351 - 1,950 = 10 points ADT = 1,951 - 2,550 = 15 points ADT > 2,550 = 20 points	0-20 pts. **Score:** 20
Pedestrian Traffic Generators	Any school, park, library, church, CTA station more than 2 blocks (1,320 ft.) away = 0 points Any school, park, library, church, CTA station 1-2 blocks (1,320 ft.) away = 5 points Any school, park, library, church, CTA station 1 block (660 ft.) or less away = 10 points Three or more overlapping 1-block areas = +10 points Three or more overlapping 2-block areas = +5 points	0-20 pts. **Score:** 20
Bike Routes / Non-Bike Routes	Not identified as a proposed bike route = 0 points Identified as a Marked Shared Lane = 5 points Identified as a Dedicated Bike Lane = 10 points *Per Village Bicycle Plan published in 2019	0-10 pts. **Score:** 5
Community Interest	No Petition = 0 points Local Petition (0-75% residents on block) = 5 points Local Petition (75%+ of residents on block) = 10 points Village Petition (0-10% of Village population) = 5 points Village Petition (10%+ of Village population) = 10 points	0-10 pts. **Score:** 0

Intersection 1: Park Ave
Segment: Washington Blvd
Intersection 2: Franklin Ave

Total: 75

Scoring Matrix

RIVER FOREST
Proud Heritage • Bright Future

Measure	Criteria for assigning a numerical score to traffic problems	Points
Crash History	1-3 crashes in a 5 year period = 5 points 4-10 crashes in a 5 year period = 10 points More than 10 crashes in a 5 year period = 15 points any crash involving a pedestrian/cyclist = +5 points	0-20 pts. **Score:** 15
Vehicle Speed	85th percentile speed is not over the speed limit = 0 points 85th percentile speed is 2 mph over the speed limit = 3 points 85th percentile speed is 4 mph over the speed limit = 6 points 85th percentile speed is 6 mph over the speed limit = 9 points 85th percentile speed is 8 mph over the speed limit = 12 points 85th percentile speed is 10 mph over the speed limit = 15 points Outlier Speed 20+ mph above posted speed limit = +5 points	0-20 pts. **Score:** 20
Vehicle Volume	ADT < 750 = 0 points ADT = 751 - 1,350 = 5 points ADT = 1,351 - 1,950 = 10 points ADT = 1,951 - 2,550 = 15 points ADT > 2,550 = 20 points	0-20 pts. **Score:** 20
Pedestrian Traffic Generators	Any school, park, library, church, CTA station more than 2 blocks (1,320 ft.) away = 0 points Any school, park, library, church, CTA station 1-2 blocks (1,320 ft.) away = 5 points Any school, park, library, church, CTA station 1 block (660 ft.) or less away = 10 points Three or more overlapping 1-block areas = +10 points Three or more overlapping 2-block areas = +5 points	0-20 pts. **Score:** 15
Bike Routes / Non-Bike Routes	Not identified as a proposed bike route = 0 points Identified as a Marked Shared Lane = 5 points Identified as a Dedicated Bike Lane = 10 points *Per Village Bicycle Plan published in 2019	0-10 pts. **Score:** 5
Community Interest	No Petition = 0 points Local Petition (0-75% residents on block) = 5 points Local Petition (75%+ of residents on block) = 10 points Village Petition (0-10% of Village population) = 5 points Village Petition (10%+ of Village population) = 10 points	0-10 pts. **Score:** 0

Intersection 1: Franklin Ave
Segment: Washington Blvd
Intersection 2: Ashland Ave

Total: 75

Scoring Matrix

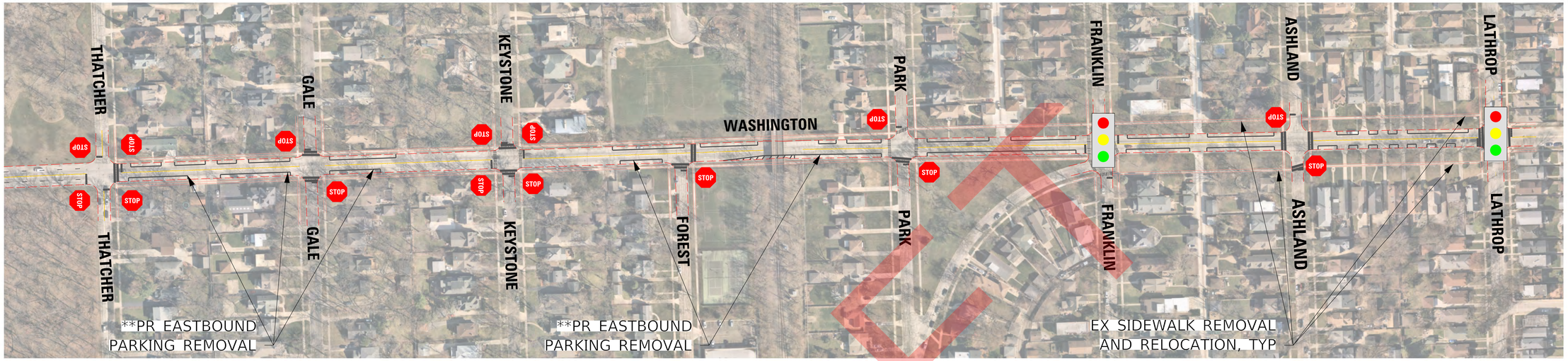
RIVER FOREST
Proud Heritage · Bright Future

Measure	Criteria for assigning a numerical score to traffic problems	Points
Crash History	1-3 crashes in a 5 year period = 5 points 4-10 crashes in a 5 year period = 10 points More than 10 crashes in a 5 year period = 15 points any crash involving a pedestrian/cyclist = +5 points	0-20 pts. **Score:** 15
Vehicle Speed	85th percentile speed is not over the speed limit = 0 points 85th percentile speed is 2 mph over the speed limit = 3 points 85th percentile speed is 4 mph over the speed limit = 6 points 85th percentile speed is 6 mph over the speed limit = 9 points 85th percentile speed is 8 mph over the speed limit = 12 points 85th percentile speed is 10 mph over the speed limit = 15 points Outlier Speed 20+ mph above posted speed limit = +5 points	0-20 pts. **Score:** 20
Vehicle Volume	ADT < 750 = 0 points ADT = 751 - 1,350 = 5 points ADT = 1,351 - 1,950 = 10 points ADT = 1,951 - 2,550 = 15 points ADT > 2,550 = 20 points	0-20 pts. **Score:** 20
Pedestrian Traffic Generators	Any school, park, library, church, CTA station more than 2 blocks (1,320 ft.) away = 0 points Any school, park, library, church, CTA station 1-2 blocks (1,320 ft.) away = 5 points Any school, park, library, church, CTA station 1 block (660 ft.) or less away = 10 points Three or more overlapping 1-block areas = +10 points Three or more overlapping 2-block areas = +5 points	0-20 pts. **Score:** 5
Bike Routes / Non-Bike Routes	Not identified as a proposed bike route = 0 points Identified as a Marked Shared Lane = 5 points Identified as a Dedicated Bike Lane = 10 points *Per Village Bicycle Plan published in 2019	0-10 pts. **Score:** 5
Community Interest	No Petition = 0 points Local Petition (0-75% residents on block) = 5 points Local Petition (75%+ of residents on block) = 10 points Village Petition (0-10% of Village population) = 5 points Village Petition (10%+ of Village population) = 10 points	0-10 pts. **Score:** 0
Intersection 1: Ashland Ave Segment: Washington Blvd Intersection 2: Lathrop Ave		**Total:** 65

Washington Blvd Exhibits

* LABELS ARE PROVIDED AT LOCATIONS WITH SIGNIFIGANT CHANGES TO PARKING OR PEDESTRIAN FACILITIES

** APPROXIMATELY 35 EASTBOUND PARKING SPOTS ARE BEING REMOVED FROM THE ROAD OR 45% OF ALL EASTBOUND PARKING. IT IS ASSUMED THE REMAINING PARKING SPACES, AS WELL AS, SIDE STREET PARKING WILL ACCOMODATE DRIVERS LOOKING TO PARK IN THE AREA



WASHINGTON BLVD EXISTING

PROPOSED IMPROVEMENTS WEST SECTION:

1. RAISED INTERSECTIONS: THATCHER AVE & KEYSTONE AVE
2. A NEW CROSS SECTION BETWEEN THATCHER AVE AND PARK AVE THAT INCLUDES REMOVING PARKING ALONG THE SOUTH SIDE OF WASHINGTON BLVD AND ADDING ON-STREET BIIKE LANES.
3. CURB EXTENSIONS WILL BE PROVIDED ON THE NORTH SIDE OF ALL INTERSECTIONS FROM THATCHER AVE TO FOREST AVE.
4. FOREST AVE WILL HAVE A RAISED CROSSWALK INSTALLED ALONG ITS EAST LEG.

PROPOSED IMPROVEMENTS EAST SECTION:

1. RAISED INTERSECTIONS: FRANKLIN AVE & LATHROP AVE
2. FROM PARK AVE TO LATHROP AVE THE CROSS SECTION WILL REMAIN THE SAME WITH THE ADDITION OF A 2' STRIPED CENTER MEDIAN ALONG WITH CURB EXTENSIONS AT ALL INTERSECTIONS.
3. STARTING AT PARK AVE TO THE EAST THE ON-STREET BIKE LANES WILL BE MOVED TO AN OFF-STREET MULTI-USE PATH. TEG CURRENTLY SHOWS THE PATH ON BOTH SIDES OF THE ROAD,
4. THE EXISTING SIDEWALK STARTING AT PARK AVE TO THE EAST WILL BE REMOVED IN FAVOR OF THE PR MULTI-USE PATH PLACED 5' FROM THE BACK CURB. STRIPING WILL BE REPLACED WITH NEW ZEBRA STRIPING.

WASHINGTON BLVD PROPOSED

0 60 120 240

HORIZONTAL SCALE IN FEET

DRAWN BY	KRS	DATE	8/25/23
CHECKED BY	JMY	SCALE	1" = 120'

REVISIONS

NO.	DATE	DESCRIPTION

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oak brook, il 60523
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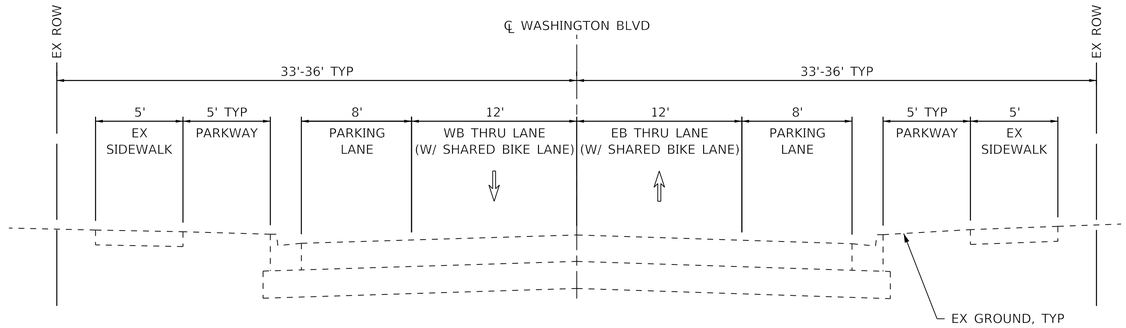
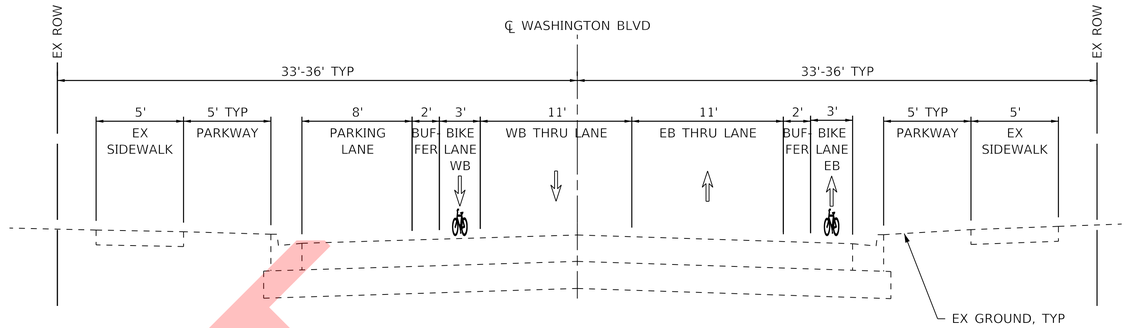
WASHINGTON BLVD OVERVIEW

DRAWING NO. 1 OF 14



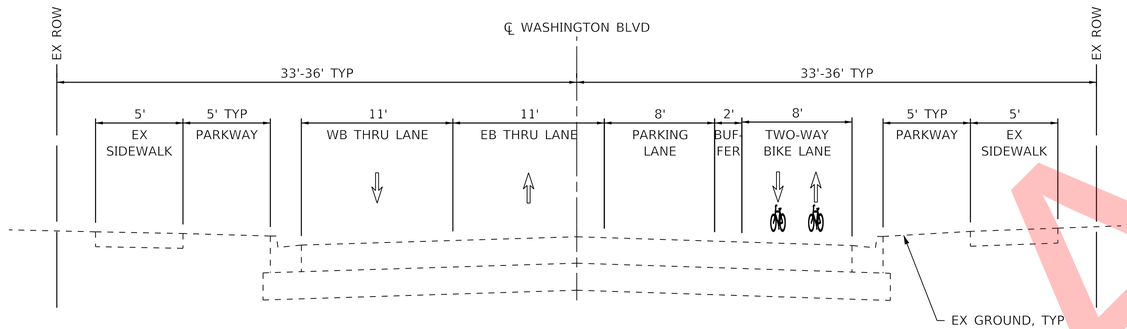
EXISTING WESTERN TYPICAL SECTION

THATCHER AVE - PARK AVE
(FACING EAST)



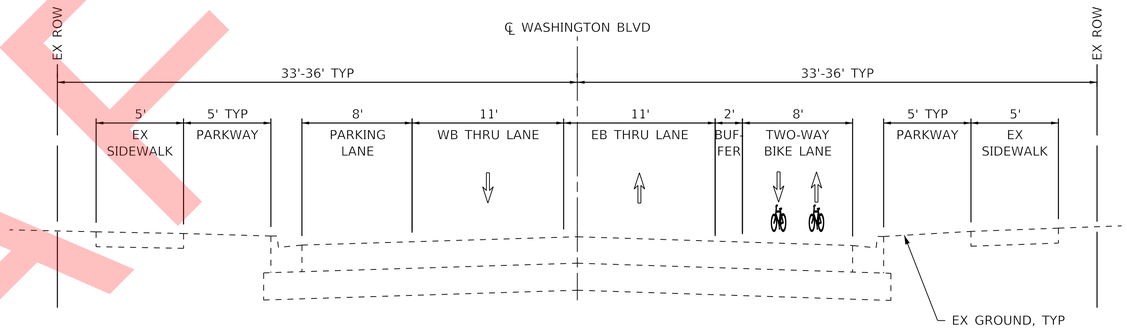
WESTERN ALTERNATIVE 1

THATCHER AVE - PARK AVE
(FACING EAST)



WESTERN ALTERNATIVE 2

THATCHER AVE - PARK AVE
(FACING EAST)



WESTERN ALTERNATIVE 3

THATCHER AVE - PARK AVE
(FACING EAST)

NOTES

1. PROPOSED ALTERNATIVES WILL MOVE THE CENTERLINE FROM THE CROWN OF THE ROAD
2. PARKING AND BIKE LANES ARE SHOWN IN TEG'S PREFERRED ORIENTATION, BUT WE CAN ACCOMODATE PARKING AND BIKE ON EITHER SIDE PER VILLAGE PREFERENCE.
3. PARKING IS INTERMITENT AND BREAKS FOR DRIVEWAY AND INTERSECTIONS. TEG IS NOT PROPOSING ANY NEW PARKING SPACES BEYOND WHAT IS STRIPED IN THE EXISTING CONDITIONS.
4. STARTING AT PARK AVE TO THE EAST THE ON-STREET BIKE LANES WILL BE MOVED TO AN OFF-STREET MULTI-USE PATH IF THE OFF-STREET ALTERNATIVE IS CHOSEN.

DRAWN BY	KRS	DATE	8/25/23
CHECKED BY	JMY	SCALE	N.T.S.

REVISIONS

NO.	DATE	DESCRIPTION

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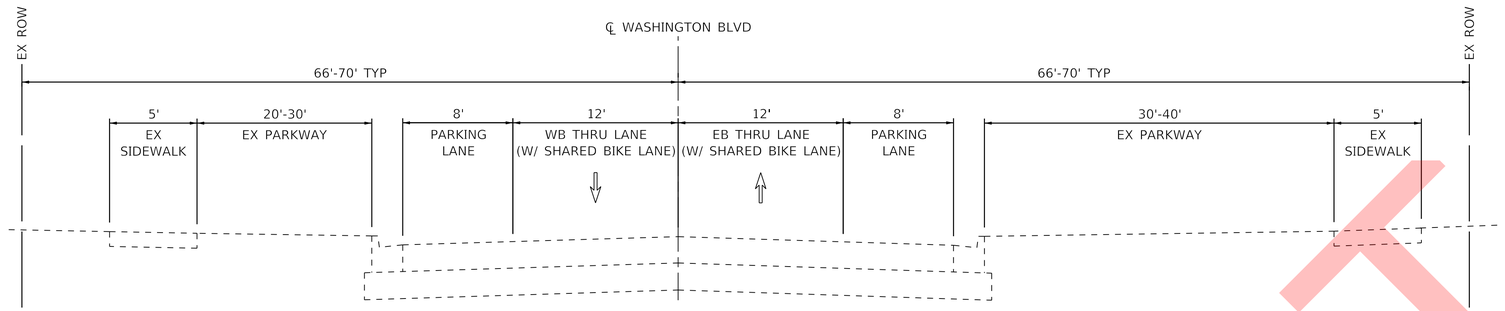
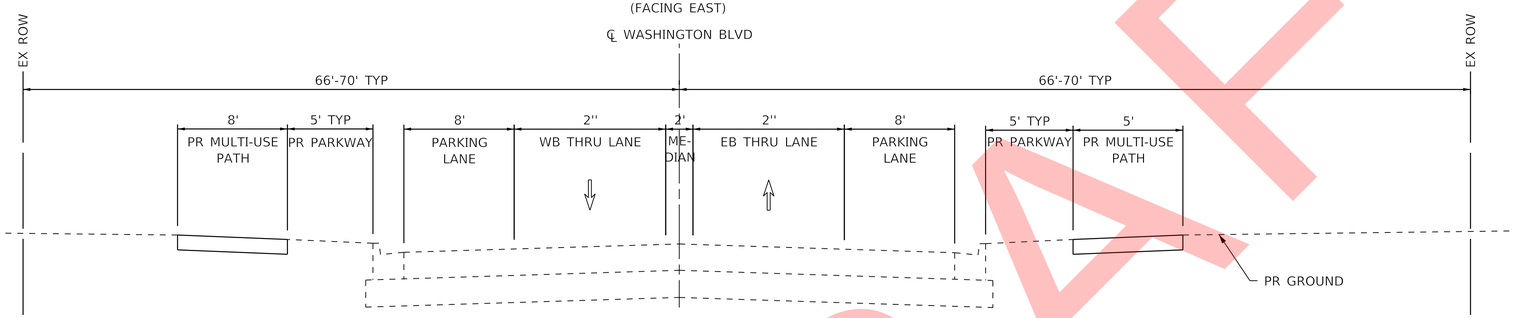
WASHINGTON BLVD WESTERN TYPICAL SECTIONS

DRAWING NO.
2 OF 14



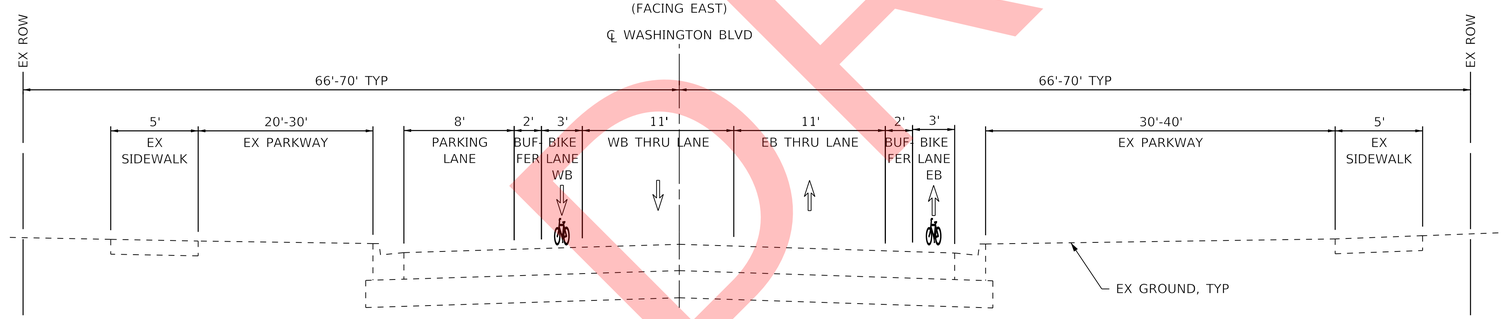
EXISTING EASTERN TYPICAL SECTION

PARK AVE - LATHROP AVE
(FACING EAST)



EASTERN ALTERNATIVE 1

PARK AVE - LATHROP AVE
(FACING EAST)



EASTERN ALTERNATIVE 2

PARK AVE - LATHROP AVE
(FACING EAST)

NOTES

1. PROPOSED ALTERNATIVES WILL MOVE THE CENTERLINE FROM THE CROWN OF THE ROAD
2. PARKING AND BIKE LANES ARE SHOWN IN TEG'S PREFERRED ORIENTATION, BUT WE CAN ACCOMODATE PARKING AND BIKE ON EITHER SIDE PER VILLAGE PREFERENCE.
3. PARKING IS INTERMITENT AND BREAKS FOR DRIVEWAY AND INTERSECTIONS. TEG IS NOT PROPOSING ANY NEW PARKING SPACES BEYOND WHAT IS STRIPED IN THE EXISTING CONDITIONS.
4. STARTING AT PARK AVE TO THE EAST THE ON-STREET BIKE LANES WILL BE MOVED TO AN OFF-STREET MULTI-USE PATH IF THE OFF-STREET ALTERNATIVE IS CHOSEN.

DRAWN BY	KRS	DATE	8/25/23
CHECKED BY	JMY	SCALE	N.T.S.

REVISIONS

NO.	DATE	DESCRIPTION

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WASHINGTON BLVD EASTERN TYPICAL SECTIONS

DRAWING NO.
3 OF 14

DRAWN BY	KRS	DATE	8/25/23
CHECKED BY	JMY	SCALE	1' = 20'

REVISIONS

NO.	DATE	DESCRIPTION

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WASHINGTON AT THATCHER
ALTERNATIVE 1

DRAWING NO.

4 OF 14

DRAWN BY	KRS	DATE	8/25/23
CHECKED BY	JMY	SCALE	1" = 20'

REVISIONS

NO.	DATE	DESCRIPTION

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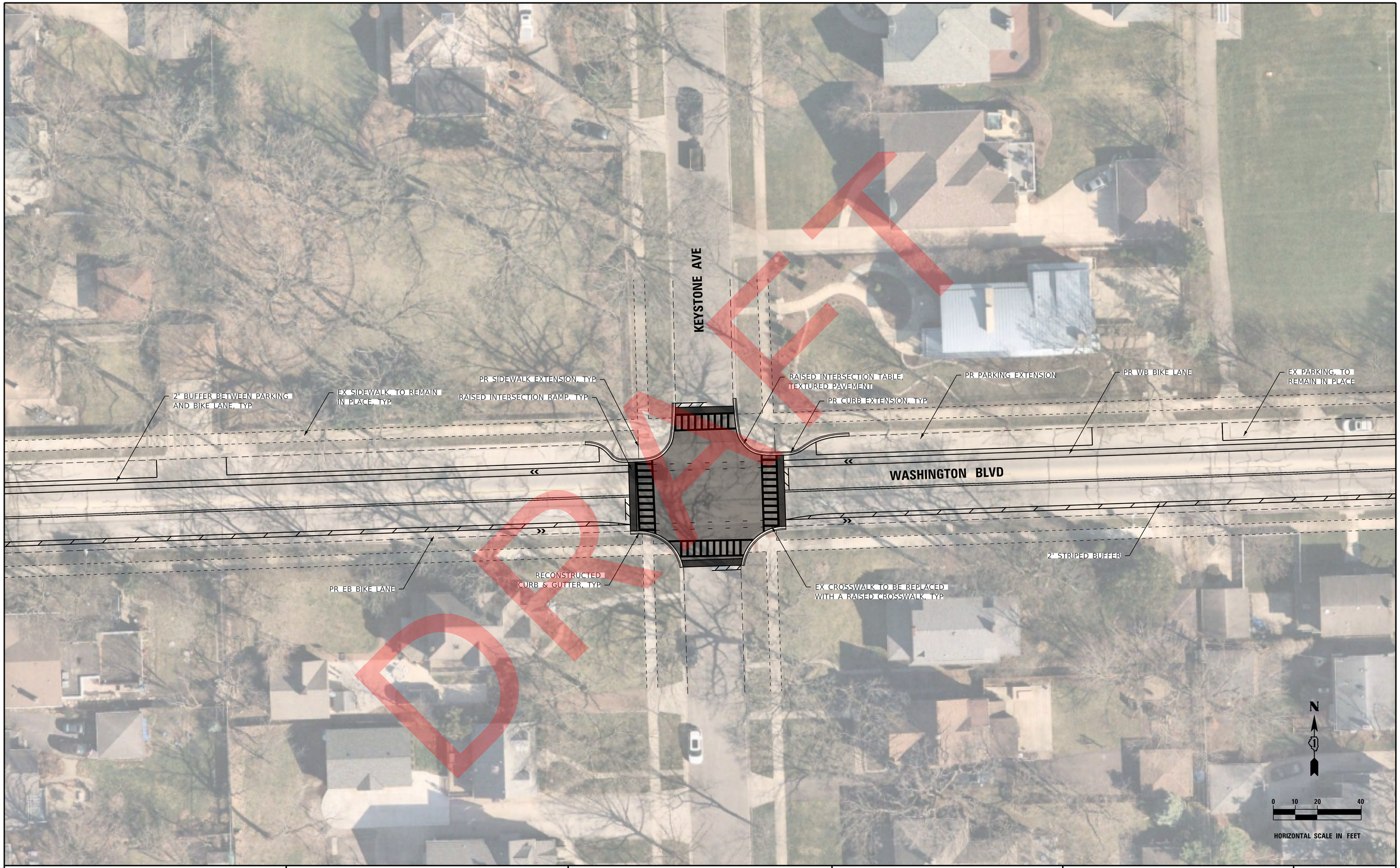
WASHINGTON AT GALE
ALTERNATIVE 1

DRAWING NO.

5 OF 14



DRAWN BY	KRS	DATE	8/25/23
CHECKED BY	JMY	SCALE	1" = 20'

REVISIONS

NO.	DATE	DESCRIPTION

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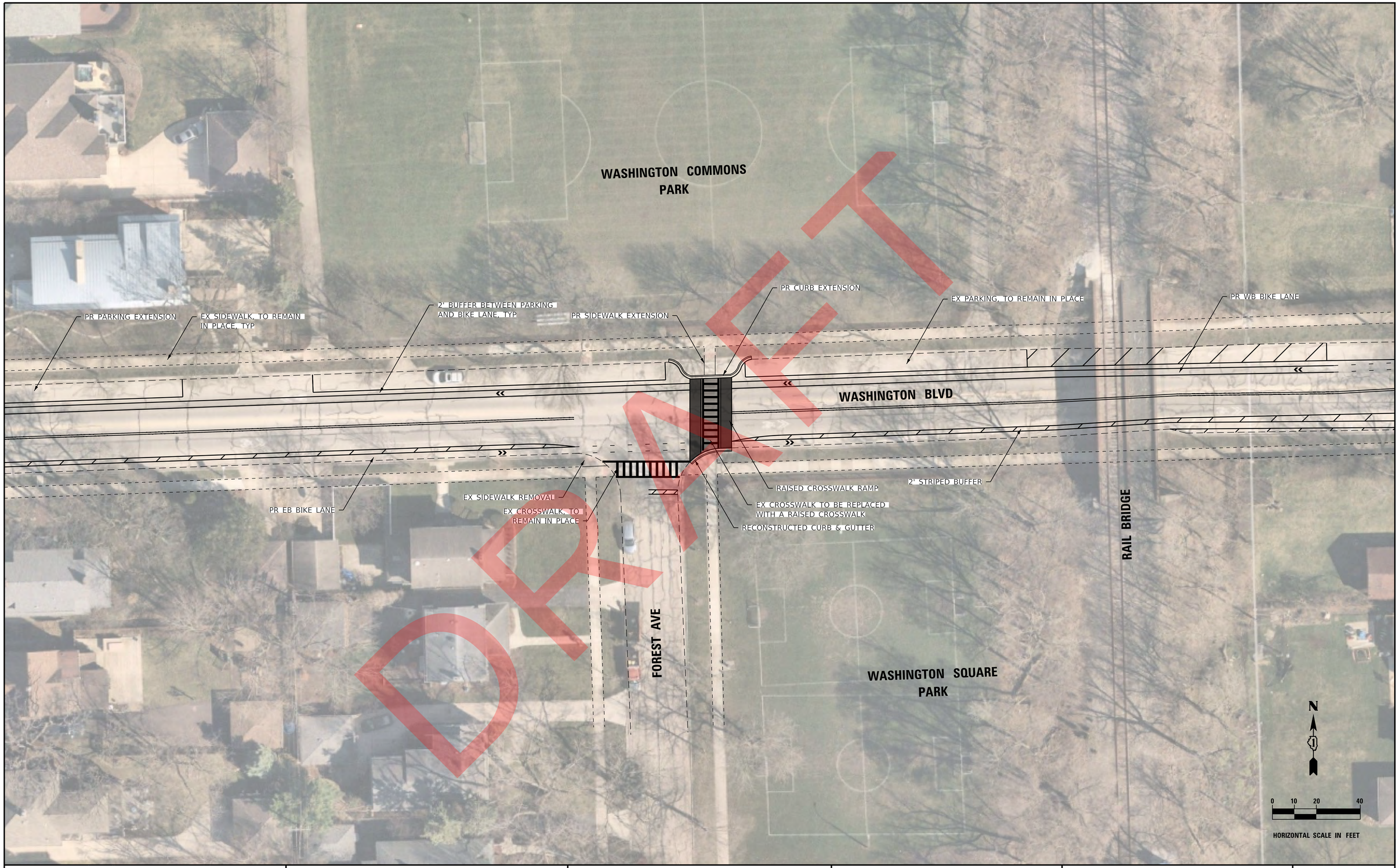
WASHINGTON AT KEYSTONE
ALTERNATIVE 1

DRAWING NO.

6 OF 14



DRAWN BY	KRS	DATE	8/25/23
CHECKED BY	JMY	SCALE	1' = 20'

REVISIONS

NO.	DATE	DESCRIPTION

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WASHINGTON AT FOREST
ALTERNATIVE 1

DRAWING NO.

7 OF 14

DRAWN BY	KRS	DATE	8/25/23
CHECKED BY	JMY	SCALE	1" = 20'

REVISIONS

NO.	DATE	DESCRIPTION

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WASHINGTON AT PARK ALTERNATIVE 1

DRAWING NO.

8 OF 14

DRAWN BY	KRS	DATE	8/25/23
CHECKED BY	JMY	SCALE	1' = 20'

REVISIONS

NO.	DATE	DESCRIPTION

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WASHINGTON AT FRANKLIN ALTERNATIVE 1

DRAWING NO.

9 OF 14

DRAWN BY	KRS	DATE	8/25/23
CHECKED BY	JMY	SCALE	1" = 20'

REVISIONS

NO.	DATE	DESCRIPTION

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WASHINGTON AT ASHLAND
ALTERNATIVE 1

DRAWING NO.

10 OF 14

DRAWN BY	KRS	DATE	8/25/23
CHECKED BY	JMY	SCALE	1" = 20'

REVISIONS		
NO.	DATE	DESCRIPTION

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WASHINGTON AT LATHROP
ALTERNATIVE 1

DRAWING NO.
11 OF 14

DRAWN BY	KRS	DATE	8/25/23
CHECKED BY	JMY	SCALE	1' = 20'

REVISIONS

NO.	DATE	DESCRIPTION

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WESTERN TYPICAL SECTION ALTERNATIVE 2

DRAWING NO. 12 OF 14

DRAWN BY	KRS	DATE	8/25/23
CHECKED BY	JMY	SCALE	1' = 20'

REVISIONS

NO.	DATE	DESCRIPTION

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WESTERN TYPICAL SECTION
ALTERNATIVE 3

DRAWING NO.
13 OF 14

DRAWN BY	KRS	DATE	8/25/23
CHECKED BY	JMY	SCALE	1' = 20'

REVISIONS

NO.	DATE	DESCRIPTION

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EASTERN TYPICAL SECTION
ALTERNATIVE 2

DRAWING NO.

14 OF 14

APPENDIX G: THATCHER AVE SPEED STUDY

01. Speed Data
02. Thatcher Crash Data
03. Traffic Calming Toolbox Scoring Sheet

Speed Data

Sequential 85th Percentile Report

Device ID:	405193	Begin:	05/31/2023 02:00 PM	End:	06/01/2023 02:00 PM
Street:	Thatcher Ave	Lane:	Misc see chat	Hours:	24.00
State:	Il	Operator:	SD	Period (min):	15
City:	River Forest	Speed Limit:	25	Raw Count:	2,844
County:	United States	AADT Factor:	1	ADT Count:	2,844

Date / Hour	NB Thatcher 85th	*SB Thatcher Inside*	*SB Thatcher Outside*	Avg Speed	Max Speed
Wednesday, May 31, 2023 3:00PM	39	41	45	31.25	45
Wednesday, May 31, 2023 4:00PM	37	42	45	31.00	45
Wednesday, May 31, 2023 5:00PM	38	42	43	30.75	43
Wednesday, May 31, 2023 6:00PM	35	41	44	30.00	44
Wednesday, May 31, 2023 7:00PM	38	42	45	31.25	45
Wednesday, May 31, 2023 8:00PM	37	40	43	30.00	43
Wednesday, May 31, 2023 9:00PM	38	39	41	29.50	41
Wednesday, May 31, 2023 10:00PM	39	42	41	30.50	42
Wednesday, May 31, 2023 11:00PM	39	42	45	31.50	45
Thursday, June 1, 2023 12:00AM	40	41	36	29.25	41
Thursday, June 1, 2023 1:00AM	32	39	0	17.75	39
Thursday, June 1, 2023 2:00AM	42	39	24	26.25	42
Thursday, June 1, 2023 3:00AM	32	36	24	23.00	36
Thursday, June 1, 2023 4:00AM	34	33	33	25.00	34
Thursday, June 1, 2023 5:00AM	40	39	29	27.00	40
Thursday, June 1, 2023 6:00AM	41	43	46	32.50	46
Thursday, June 1, 2023 7:00AM	42	44	45	32.75	45
Thursday, June 1, 2023 8:00AM	39	45	45	32.25	45
Thursday, June 1, 2023 9:00AM	38	43	43	31.00	43
Thursday, June 1, 2023 10:00AM	39	43	44	31.50	44
Thursday, June 1, 2023 11:00AM	39	39	43	30.25	43
Thursday, June 1, 2023 12:00PM	38	41	43	30.50	43
Thursday, June 1, 2023 1:00PM	38	43	43	31.00	43
Thursday, June 1, 2023 2:00PM	39	43	44	31.50	44

NB 85th	Overall
38	41
SB Inside 85th	
42	
SB Outside 85th	
44	

Thatcher Crash Data

ID Name U2753_J

LOCATION INFO: Thatcher Ave: Augusta - Division

PG, FC & ADT Primary

County: Cook County

Main ID: U2753_J
Sub ID: ALL
Study Period Begin Year: 2016 to 2021

Analysis Period 6 years

YEAR	Rear End			Angle			Sideswipe Opposite Direction			Sideswipe Same Direction			Turning Left			Turning Right			Fixed Object			Overturned			Head On			Pedestrian			Other Object			Animal			Pedalcyclist			Other Non-Collision			TOTAL	
	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	**Crash Count**	**Injury Count**
2016																			1																							1	
2017	1																																								1	
2018	1	1 - B	1 - BI																																						1	1 - BI
2019	1																																								1	
2020																																									0	
2021																			1	1 - A	1 - AI										1	1 - C	1 - CI								2	1 - AI 1 - CI
TOTAL	**3**	**1 - B**	**1 - BI**	**0**			**0**			**0**			**0**			**0**			**2**	**1 - A**	**1 - AI**	**0**			**0**			**0**			**1**	**1 - C**	**1 - CI**	**0**			**0**			**0**			**6**	**1 - AI 1 - BI 1 - CI**
%	**50.0%**			**0.0%**			**0.0%**			**0.0%**			**0.0%**			**0.0%**			**33.3%**			**0.0%**			**0.0%**			**0.0%**			**16.7%**			**0.0%**			**0.0%**			**0.0%**			

YEAR	INJURY TYPE					CRASH CONDITIONS						TOTAL
	K	A	B	C	PDO	Wet	Wet %	Snow/Ice	Snow/Ice %	Night	Night %	
2016					1	0	0%	1	100%	0	0%	1
2017					1	0	0%	0	0%	0	0%	1
2018			1		0	1	100%	0	0%	0	0%	1
2019					1	0	0%	0	0%	0	0%	1
2020					0	0	-	0	-	0	-	0
2021		1		1	0	1	50%	0	0%	1	50%	2
TOTAL	**0**	**1**	**1**	**1**	**3**	**2**	**33.3%**	**1**	**16.7%**	**1**	**16.7%**	**6**

ID Name U2753-U1394

LOCATION INFO: Thatcher Ave At Division St

PG, FC & ADT Minor Stop - 3 Leg

County: Cook County

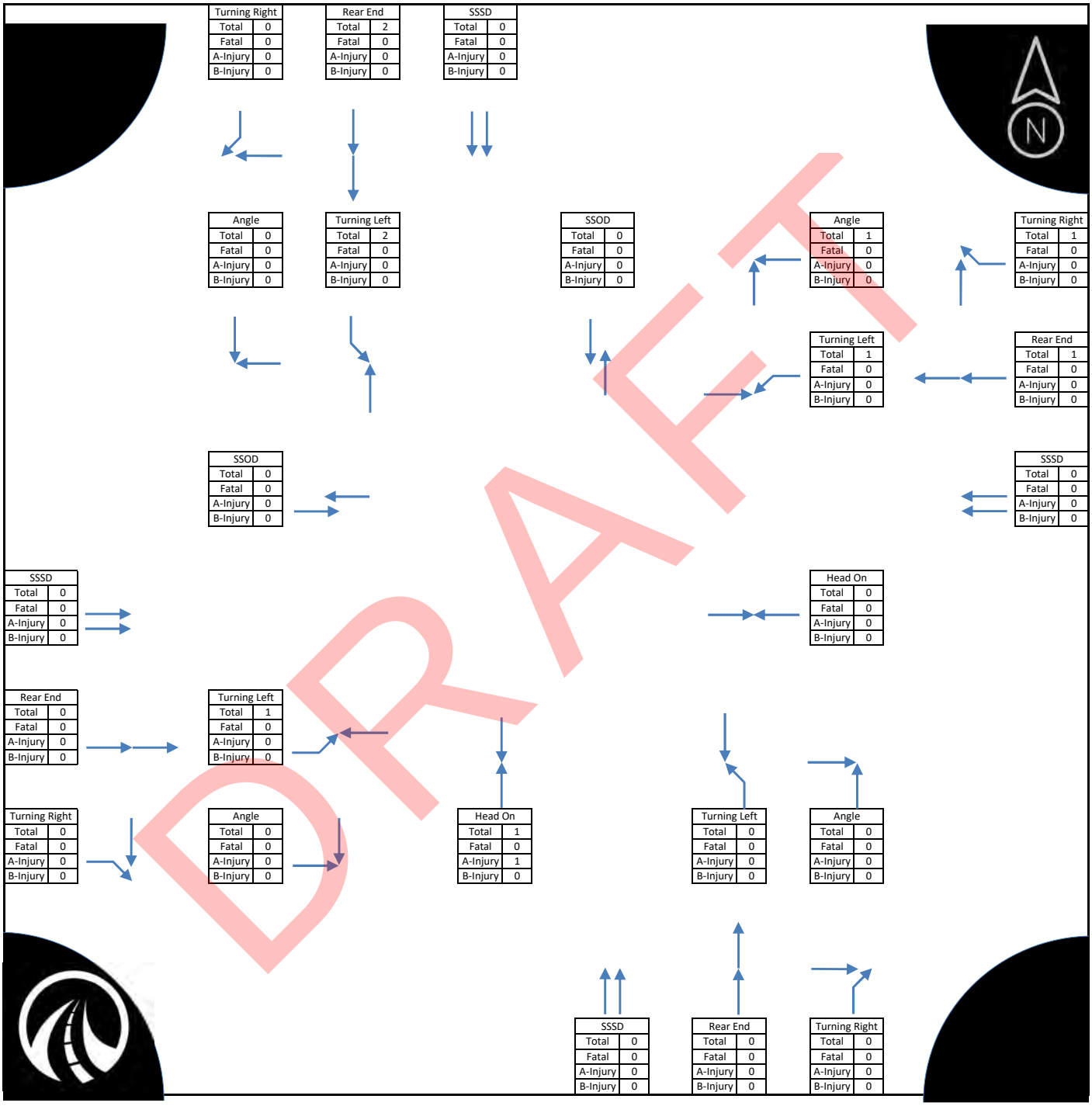
Main ID: U2753-U1394
Sub ID: ALL
Study Period Begin Year: 2016 to 2021

Analysis Period 6 years

YEAR	Rear End			Angle			Sideswipe Opposite Direction			Sideswipe Same Direction			Turning Left			Turning Right			Fixed Object			Overturned			Head On			Pedestrian			Other Object			Animal			Pedalcyclist			Other Non-Collision			TOTAL	
	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	**Crash Count**	**Injury Count**
2016													1	1 - B	2 - BI				2						1	1 - A	2 - AI															4	2 - AI 2 - BI
2017													1																1									1			3	
2018	2	1 - C	2 - CI	1									1			1			1																					6	2 - CI
2019	1																												1											2	
2020																			1																						1	
2021													1																1												2	
TOTAL	**3**	1 - C	2 - CI	**1**			**0**			**0**			**4**	1 - B	2 - BI	**1**			**4**			**0**			**1**	1 - A	2 - AI	**0**			**3**			**0**			**0**			**1**			**18**	2 - AI 2 - BI 2 - CI
%	**16.7%**			**5.6%**			**0.0%**			**0.0%**			**22.2%**			**5.6%**			**22.2%**			**0.0%**			**5.6%**			**0.0%**			**16.7%**			**0.0%**			**0.0%**			**5.6%**				

YEAR	INJURY TYPE					CRASH CONDITIONS						TOTAL
	K	A	B	C	PDO	Wet	Wet %	Snow/Ice	Snow/Ice %	Night	Night %	
2016		1	1		2	3	75%	0	0%	1	25%	4
2017					3	1	33%	0	0%	2	67%	3
2018				1	5	1	17%	0	0%	3	50%	6
2019					2	1	50%	0	0%	0	0%	2
2020					1	0	0%	0	0%	0	0%	1
2021					2	1	50%	0	0%	0	0%	2
TOTAL	**0**	**1**	**1**	**1**	**15**	**7**	**38.9%**	**0**	**0.0%**	**6**	**33.3%**	**18**

Cook County	Thatcher Ave At Division St
2016 to 2021 Crash Data	Intersection ID: U2753-U1394
18 Total Crashes	PG: Minor Stop - 3 Leg



The following crashes could not be plotted on the diagram

	FO	OT	PD	PDC	OO	Animal	ONC	TOTAL
Total	4	0	0	0	3	0	1	8
Fatal	0	0	0	0	0	0	0	0
A-Injury	0	0	0	0	0	0	0	0
B-Injury	0	0	0	0	0	0	0	0

ID Name U2753-M3004

LOCATION INFO: Thatcher Ave At Augusta St

PG, FC & ADT Minor Stop - 3 Leg

County: Cook County

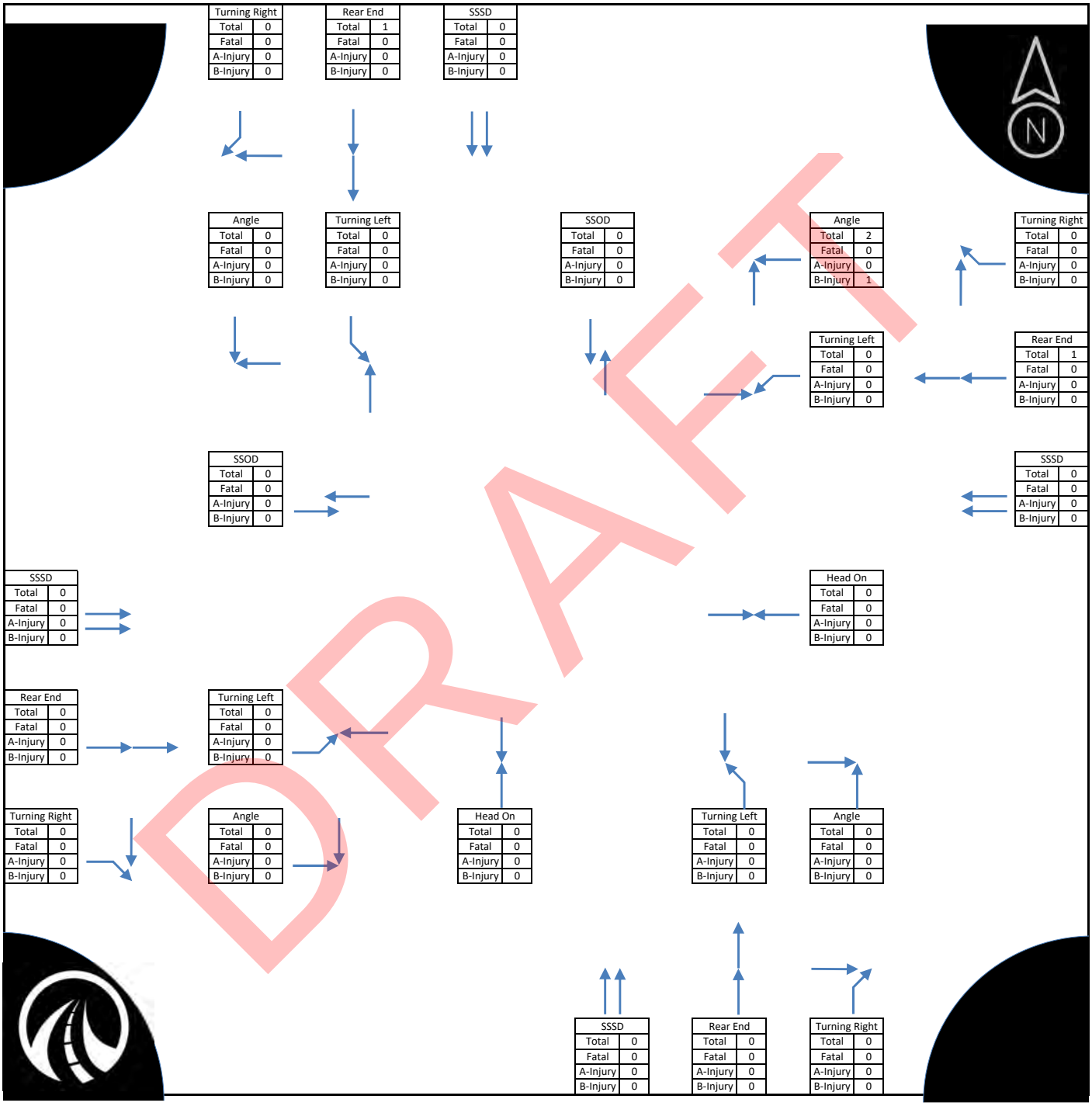
Main ID: U2753-M3004
Sub ID: ALL
Study Period Begin Year: 2016 to 2021

Analysis Period 6 years

YEAR	Rear End			Angle			Sideswipe Opposite Direction			Sideswipe Same Direction			Turning Left			Turning Right			Fixed Object			Overturned			Head On			Pedestrian			Other Object			Animal			Pedalcyclist			Other Non-Collision			TOTAL	
	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	Crash Count	Injury Type	Injury Count	**Crash Count**	**Injury Count**
2016																																									0	
2017				1	1 - B	2 - BI																															1	1 - B	3 - BI				2	5 - BI
2018	1			1																																					2	
2019																																									0	
2020	1																																								1	
2021																																									0	
TOTAL	**2**			**2**	**1 - B**	**2 - BI**	**0**			**0**			**0**			**0**			**0**			**0**			**0**			**0**			**0**			**0**			**1**	**1 - B**	**3 - BI**	**0**			**5**	**5 - BI**
%	**40.0%**			**40.0%**			**0.0%**			**0.0%**			**0.0%**			**0.0%**			**0.0%**			**0.0%**			**0.0%**			**0.0%**			**0.0%**			**0.0%**			**20.0%**			**0.0%**				

YEAR	INJURY TYPE					CRASH CONDITIONS						TOTAL
	K	A	B	C	PDO	Wet	Wet %	Snow/Ice	Snow/Ice %	Night	Night %	
2016					0	0	-	0	-	0	-	0
2017			2		0	0	0%	0	0%	0	0%	2
2018					2	0	0%	1	50%	1	50%	2
2019					0	0	-	0	-	0	-	0
2020					1	0	0%	0	0%	0	0%	1
2021					0	0	-	0	-	0	-	0
TOTAL	**0**	**0**	**2**	**0**	**3**	**0**	**0.0%**	**1**	**20.0%**	**1**	**20.0%**	**5**

Cook County	Thatcher Ave At Augusta St
2016 to 2021 Crash Data	Intersection ID: U2753-M3004
5 Total Crashes	PG: Minor Stop - 3 Leg



The following crashes could not be plotted on the diagram

	FO	OT	PD	PDC	OO	Animal	ONC	TOTAL
Total	0	0	0	1	0	0	0	1
Fatal	0	0	0	0	0	0	0	0
A-Injury	0	0	0	0	0	0	0	0
B-Injury	0	0	0	1	0	0	0	1

Traffic Calming Toolbox Scoring Sheets

Scoring Matrix

RIVER FOREST
Proud Heritage · Bright Future

Measure	Criteria for assigning a numerical score to traffic problems	Points
Crash History	1-3 crashes in a 5 year period = 5 points 4-10 crashes in a 5 year period = 10 points More than 10 crashes in a 5 year period = 15 points any crash involving a pedestrian/cyclist = +5 points	0-20 pts. **Score:** 20
Vehicle Speed	85th percentile speed is not over the speed limit = 0 points 85th percentile speed is 2 mph over the speed limit = 3 points 85th percentile speed is 4 mph over the speed limit = 6 points 85th percentile speed is 6 mph over the speed limit = 9 points 85th percentile speed is 8 mph over the speed limit = 12 points 85th percentile speed is 10 mph over the speed limit = 15 points Outlier Speed 20+ mph above posted speed limit = +5 points	0-20 pts. **Score:** 20
Vehicle Volume	ADT < 750 = 0 points ADT = 751 - 1,350 = 5 points ADT = 1,351 - 1,950 = 10 points ADT = 1,951 - 2,550 = 15 points ADT > 2,550 = 20 points	0-20 pts. **Score:** 20
Pedestrian Traffic Generators	Any school, park, library, church, CTA station more than 2 blocks (1,320 ft.) away = 0 points Any school, park, library, church, CTA station 1-2 blocks (1,320 ft.) away = 5 points Any school, park, library, church, CTA station 1 block (660 ft.) or less away = 10 points Three or more overlapping 1-block areas = +10 points Three or more overlapping 2-block areas = +5 points	0-20 pts. **Score:** 5
Bike Routes / Non-Bike Routes	Not identified as a proposed bike route = 0 points Identified as a Marked Shared Lane = 5 points Identified as a Dedicated Bike Lane = 10 points *Per Village Bicycle Plan published in 2019	0-10 pts. **Score:** 10
Community Interest	No Petition = 0 points Local Petition (0-75% residents on block) = 5 points Local Petition (75%+ of residents on block) = 10 points Village Petition (0-10% of Village population) = 5 points Village Petition (10%+ of Village population) = 10 points	0-10 pts. **Score:** 0

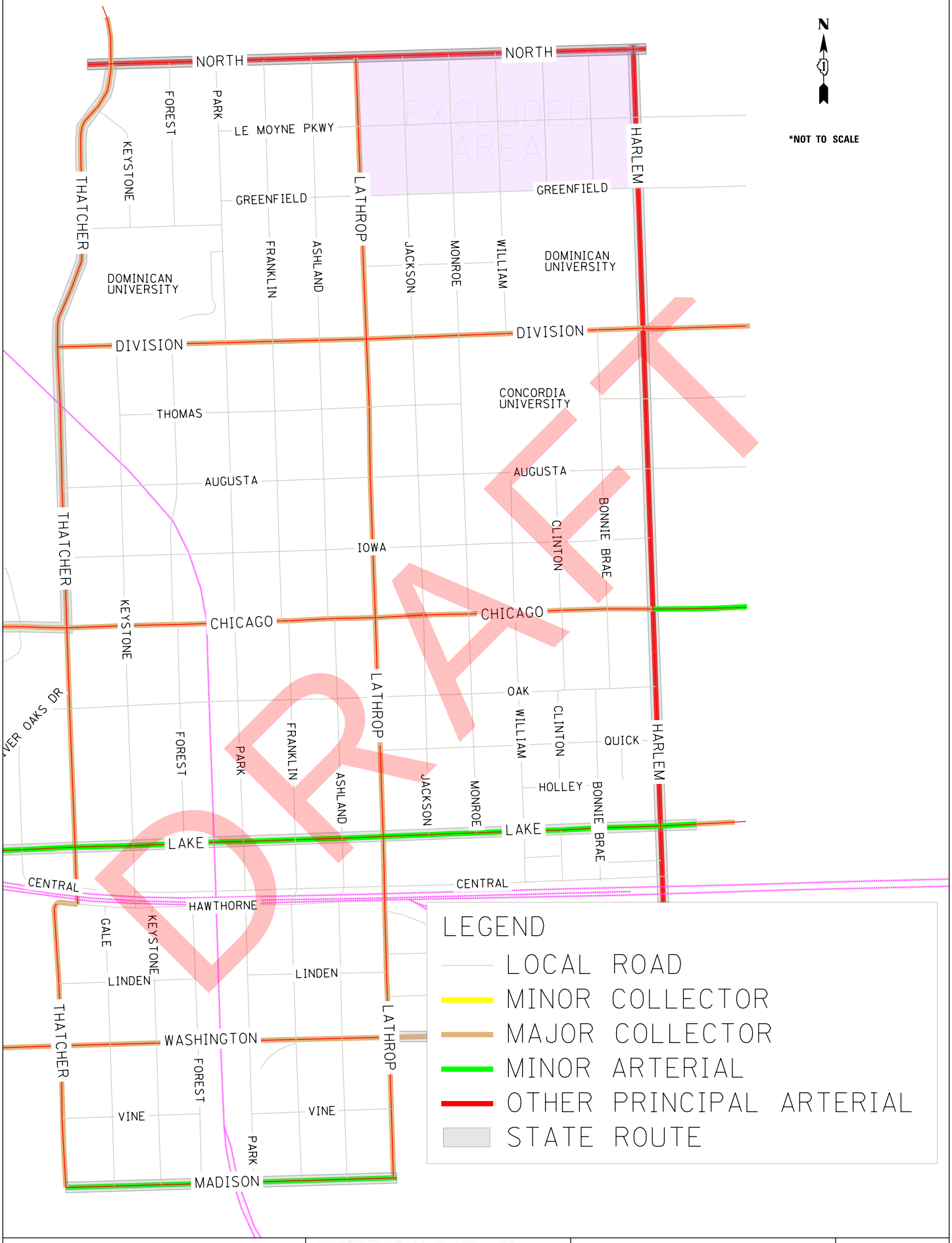
Intersection 1: Thatcher Ave @ Division St
Segment: Thatcher Ave
Intersection 2: Thatcher Ave @ Augusta St

Total: 75

APPENDIX H: GENERAL EXHIBITS

01. Functional Class Map
02. Study Locations & Data Collection Exhibit
03. 24 Hour Traffic Counts
04. 12 Hour Traffic Counts
05. Rail Crossing Inventory
06. NE Quadrant Traffic Counts

Functional Class Exhibit



thomas engineering group, llc
2625 butterfield road
suite 209w
oak brook, il 60523
phone: 855-533-1700

RIVER FOREST
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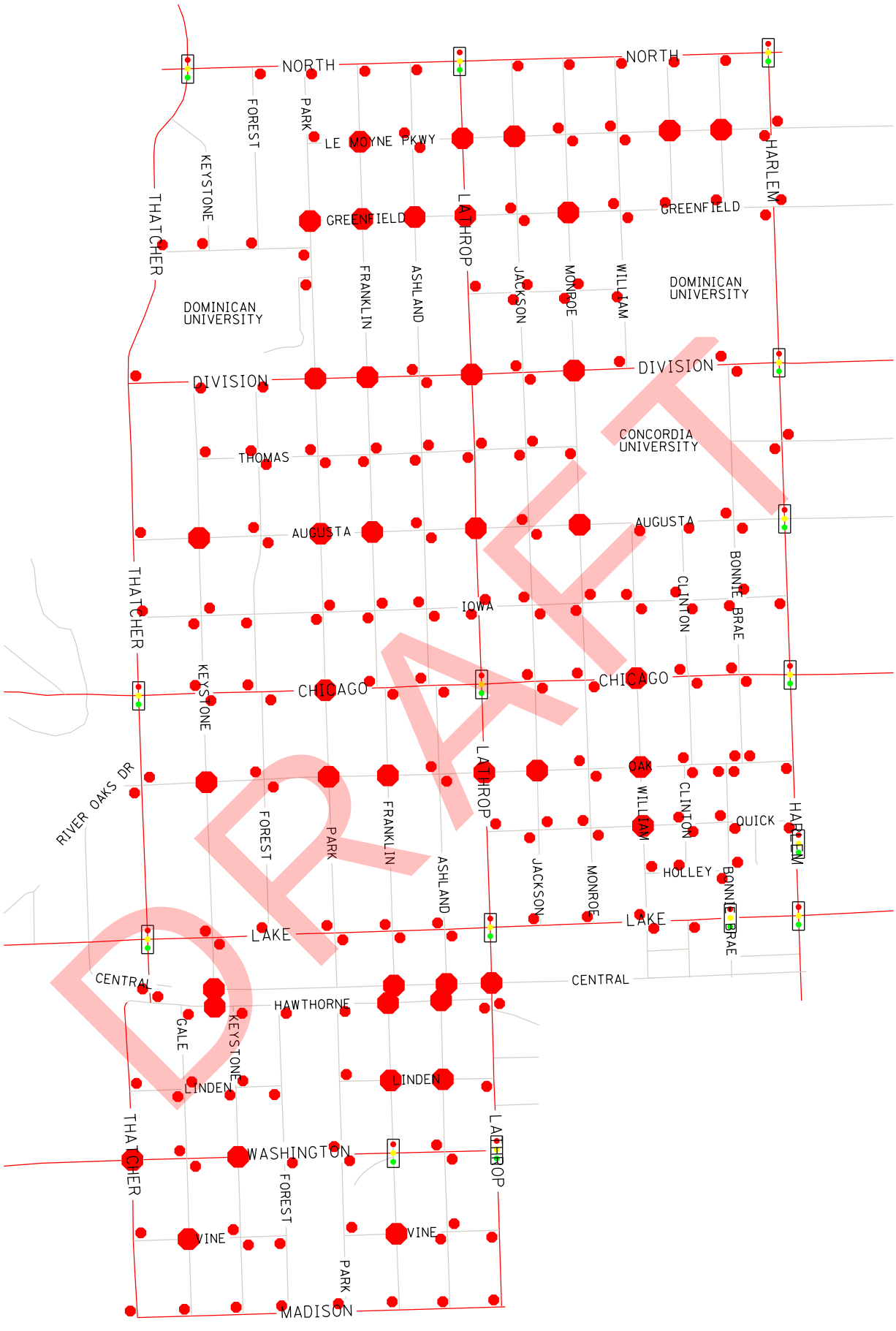
FUNCTIONAL CLASS EXHIBIT

SHEET NO. 1
DRAWING NO. 1 OF 1

Study Locations & Data Collection Exhibit



*NOT TO SCALE

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2625 butterfield road
suite 209w
oak brook, il 60523
phone: 855-533-1700

RIVER FOREST
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VILLAGE TRAFFIC CONTROL EXHIBIT

SHEET NO. 1
DRAWING NO. 1 OF 1

24 Hour Traffic Counts

Study Name	Madison Street & Thatcher Avenue
Start Date	12/06/2022
Start Time	12:00 AM

	Thatcher Avenue Southbound			Madison Street Westbound			Madison Street Eastbound			0 0							
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	0	0	0	**Hourly Total**	PC %	Heavy Veh %	Peak Hour Factor	FILTER
12:00 AM	4	0	2	0	17	2	3	17	0	0	0	0	**45**	93.3%	6.7%		
12:15 AM	4	0	2	0	17	2	3	18	0	0	0	0	**46**	95.7%	4.3%		
12:30 AM	1	0	0	0	11	2	1	20	0	0	0	0	**35**	97.1%	2.9%		
12:45 AM	1	0	0	0	12	2	1	22	0	0	0	0	**38**	97.4%	2.6%		
1:00 AM	0	0	0	0	13	2	1	25	0	0	0	0	**41**	100.0%	0.0%		
1:15 AM	0	0	1	0	12	2	1	21	0	0	0	0	**37**	100.0%	0.0%		
1:30 AM	1	0	1	0	17	2	1	21	0	0	0	0	**43**	100.0%	0.0%		
1:45 AM	2	0	4	0	13	2	0	17	0	0	0	0	**38**	100.0%	0.0%		
2:00 AM	2	0	6	0	9	1	0	11	0	0	0	0	**29**	100.0%	0.0%		
2:15 AM	2	0	6	0	7	0	0	10	0	0	0	0	**25**	100.0%	0.0%		
2:30 AM	1	0	6	0	5	0	1	9	0	0	0	0	**22**	95.5%	4.5%		
2:45 AM	0	0	4	0	5	0	2	9	0	0	0	0	**20**	95.0%	5.0%		
3:00 AM	0	0	5	0	6	1	3	14	0	0	0	0	**29**	96.6%	3.4%		
3:15 AM	0	0	7	0	9	3	4	18	0	0	0	0	**41**	95.1%	4.9%		
3:30 AM	0	0	9	0	10	3	4	19	0	0	0	0	**45**	95.6%	4.4%		
3:45 AM	0	0	11	0	18	4	3	24	0	0	0	0	**60**	95.0%	5.0%		
4:00 AM	0	0	11	0	20	4	3	26	0	0	0	0	**64**	89.1%	10.9%		
4:15 AM	0	0	10	0	23	4	2	27	0	0	0	0	**66**	89.4%	10.6%		
4:30 AM	2	0	13	0	29	7	1	29	0	0	0	0	**81**	84.0%	16.0%		
4:45 AM	2	0	16	0	52	10	2	38	0	0	0	0	**120**	87.5%	12.5%		
5:00 AM	5	0	19	0	73	16	2	44	0	0	0	0	**159**	91.2%	8.8%		
5:15 AM	9	0	27	0	87	16	5	81	0	0	0	0	**225**	88.9%	11.1%		
5:30 AM	10	0	43	0	112	16	18	115	0	0	0	0	**314**	92.4%	7.6%		
5:45 AM	17	0	80	0	118	19	24	170	0	0	0	0	**428**	92.5%	7.5%		
6:00 AM	26	0	97	0	142	22	32	264	0	0	0	0	**583**	93.8%	6.2%		
6:15 AM	29	0	106	0	170	34	41	355	0	0	0	0	**735**	93.9%	6.1%		
6:30 AM	33	0	111	0	216	45	59	431	0	0	0	0	**895**	93.4%	6.6%		
6:45 AM	30	0	99	0	296	64	83	493	0	0	0	0	**1065**	93.7%	6.3%		
7:00 AM	24	0	125	0	346	83	102	518	0	0	0	0	**1198**	93.5%	6.5%		
7:15 AM	33	0	152	0	409	101	127	510	0	0	0	0	**1332**	94.4%	5.6%		
7:30 AM	31	0	181	0	467	115	135	475	0	0	0	0	**1404**	95.2%	4.8%	0.95	**AM Peak**
7:45 AM	32	0	182	0	442	109	123	436	0	0	0	0	**1324**	95.2%	4.8%		
8:00 AM	30	0	157	0	439	98	112	407	0	0	0	0	**1243**	94.4%	5.6%		
8:15 AM	19	0	125	0	393	93	91	347	0	0	0	0	**1068**	93.9%	6.1%		
8:30 AM	15	0	91	0	322	89	63	340	0	0	0	0	**920**	92.9%	7.1%		
8:45 AM	15	0	75	0	284	77	54	306	0	0	0	0	**811**	93.0%	7.0%		
9:00 AM	16	0	68	0	228	72	44	266	0	0	0	0	**694**	93.5%	6.5%		
9:15 AM	17	0	71	0	215	51	38	252	0	0	0	0	**644**	93.9%	6.1%		

9:30 AM	20	0	61	0	185	41	34	237	0	0	0	0	**578**	93.3%	6.7%		
9:45 AM	25	0	59	0	186	44	40	233	0	0	0	0	**587**	92.7%	7.3%		
10:00 AM	27	0	57	0	202	38	45	239	0	0	0	0	**608**	94.2%	5.8%		
10:15 AM	25	0	57	0	202	47	40	235	0	0	0	0	**606**	93.7%	6.3%		
10:30 AM	30	0	60	0	216	42	45	228	0	0	0	0	**621**	93.9%	6.1%		
10:45 AM	26	0	59	0	212	41	40	245	0	0	0	0	**623**	94.4%	5.6%		
11:00 AM	25	0	55	0	219	46	35	224	0	0	0	0	**604**	93.4%	6.6%		
11:15 AM	28	0	59	0	228	46	41	224	0	0	0	0	**626**	94.1%	5.9%		
11:30 AM	22	0	63	0	235	52	41	241	0	0	0	0	**654**	95.1%	4.9%		
11:45 AM	22	0	70	0	238	62	42	233	0	0	0	0	**667**	95.4%	4.6%		
12:00 PM	29	0	74	0	236	66	43	248	0	0	0	0	**696**	95.7%	4.3%		
12:15 PM	28	0	69	0	235	61	38	269	0	0	0	0	**700**	93.4%	6.6%		
12:30 PM	33	0	75	0	238	53	34	258	0	0	0	0	**691**	93.8%	6.2%		
12:45 PM	33	0	75	0	262	46	32	265	0	0	0	0	**713**	93.4%	6.6%		
1:00 PM	29	0	77	0	284	44	41	280	0	0	0	0	**755**	93.2%	6.8%		
1:15 PM	31	0	80	0	317	41	57	298	0	0	0	0	**824**	95.3%	4.7%		
1:30 PM	29	0	72	0	333	52	66	298	0	0	0	0	**850**	93.9%	6.1%		
1:45 PM	28	0	78	0	339	56	77	310	0	0	0	0	**888**	92.9%	7.1%		
2:00 PM	24	0	83	0	332	59	88	328	0	0	0	0	**914**	92.2%	7.8%		
2:15 PM	20	0	90	0	352	63	92	333	0	0	0	0	**950**	91.9%	8.1%		
2:30 PM	23	0	102	0	376	68	111	385	0	0	0	0	**1065**	93.7%	6.3%		
2:45 PM	38	0	103	0	379	67	119	428	0	0	0	0	**1134**	94.7%	5.3%		
3:00 PM	53	0	99	0	420	69	120	450	0	0	0	0	**1211**	96.0%	4.0%		
3:15 PM	62	0	104	0	421	77	126	500	0	0	0	0	**1290**	96.8%	3.2%		
3:30 PM	71	0	101	0	417	70	112	547	0	0	0	0	**1318**	96.3%	3.7%		
3:45 PM	67	0	101	0	434	70	115	569	0	0	0	0	**1356**	96.5%	3.5%		
4:00 PM	65	0	112	0	442	72	125	612	0	0	0	0	**1428**	96.9%	3.1%	0.91	**PM Peak**
4:15 PM	60	0	92	0	440	69	124	614	0	0	0	0	**1399**	97.1%	2.9%		
4:30 PM	59	0	93	0	469	70	135	585	0	0	0	0	**1411**	97.7%	2.3%		
4:45 PM	52	0	84	0	480	75	123	549	0	0	0	0	**1363**	98.5%	1.5%		
5:00 PM	47	0	74	0	460	66	101	512	0	0	0	0	**1260**	97.9%	2.1%		
5:15 PM	49	0	78	0	434	60	89	471	0	0	0	0	**1181**	97.9%	2.1%		
5:30 PM	42	0	67	0	377	55	69	436	0	0	0	0	**1046**	97.7%	2.3%		
5:45 PM	42	0	64	0	327	39	63	395	0	0	0	0	**930**	97.3%	2.7%		
6:00 PM	35	0	63	0	274	36	62	340	0	0	0	0	**810**	97.4%	2.6%		
6:15 PM	30	0	58	0	234	32	50	272	0	0	0	0	**676**	97.3%	2.7%		
6:30 PM	24	0	52	0	206	26	56	223	0	0	0	0	**587**	97.3%	2.7%		
6:45 PM	23	0	45	0	177	23	47	183	0	0	0	0	**498**	97.2%	2.8%		
7:00 PM	20	0	37	0	165	18	38	150	0	0	0	0	**428**	97.7%	2.3%		
7:15 PM	18	0	32	0	145	16	34	144	0	0	0	0	**389**	97.7%	2.3%		
7:30 PM	21	0	25	0	126	14	24	120	0	0	0	0	**330**	97.6%	2.4%		
7:45 PM	17	0	22	0	122	18	24	114	0	0	0	0	**317**	97.8%	2.2%		
8:00 PM	15	0	18	0	109	16	26	112	0	0	0	0	**296**	97.6%	2.4%		
8:15 PM	17	0	16	0	103	18	29	106	0	0	0	0	**289**	97.6%	2.4%		
8:30 PM	14	0	20	0	96	17	25	100	0	0	0	0	**272**	98.5%	1.5%		
8:45 PM	15	0	20	0	84	12	22	102	0	0	0	0	**255**	97.6%	2.4%		

9:00 PM	14	0	17	0	78	12	15	87	0	0	0	0	**223**	97.3%	2.7%	
9:15 PM	9	0	17	0	80	7	13	87	0	0	0	0	**213**	97.2%	2.8%	
9:30 PM	6	0	14	0	81	4	10	91	0	0	0	0	**206**	95.6%	4.4%	
9:45 PM	3	0	11	0	74	3	12	79	0	0	0	0	**182**	95.1%	4.9%	
10:00 PM	3	0	8	0	66	2	12	76	0	0	0	0	**167**	95.2%	4.8%	
10:15 PM	4	0	5	0	52	2	10	60	0	0	0	0	**133**	95.5%	4.5%	
10:30 PM	5	0	10	0	43	4	11	50	0	0	0	0	**123**	96.7%	3.3%	
10:45 PM	3	0	9	0	34	5	7	45	0	0	0	0	**103**	98.1%	1.9%	
11:00 PM	3	0	11	0	35	5	5	38	0	0	0	0	**97**	97.9%	2.1%	
11:15 PM	2	0	11	0	26	4	3	31	0	0	0	0				
11:30 PM	0	0	3	0	18	2	0	21	0	0	0	0				
11:45 PM	0	0	2	0	14	1	0	10	0	0	0	0				
Movement Total	**496**	**0**	**1275**	**0**	**4615**	**850**	**1058**	**5288**	**0**	**0**	**0**	**0**				Movement Total
PC %	98.2%		97.1%		94.3%	95.8%	96.5%	94.9%								PC %
Heavy Veh %	1.8%		2.9%		5.7%	4.2%	3.5%	5.1%								Heavy Veh %

Study Name: Madison Street & Lathrop Avenue
Start Date: 12/06/2022
Start Time: 12:00 AM

	Lathrop Avenue Southbound			Madison Street Westbound			Madison Street Eastbound			0 0							
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	0	0	0	**Hourly Total**	PC %	Heavy Veh %	Peak Hour Factor	FILTER
12:00 AM	4	0	3	0	16	3	2	25	0	0	0	0	**53**	96.2%	3.8%		
12:15 AM	3	0	2	0	15	2	1	23	0	0	0	0	**46**	97.8%	2.2%		
12:30 AM	2	0	3	0	14	2	1	21	0	0	0	0	**43**	100.0%	0.0%		
12:45 AM	2	0	3	0	13	3	1	24	0	0	0	0	**46**	97.8%	2.2%		
1:00 AM	2	0	2	0	14	6	1	20	0	0	0	0	**45**	93.3%	6.7%		
1:15 AM	2	0	2	0	13	6	1	17	0	0	0	0	**41**	90.2%	9.8%		
1:30 AM	2	0	1	0	16	6	2	18	0	0	0	0	**45**	91.1%	8.9%		
1:45 AM	2	0	0	0	14	7	2	14	0	0	0	0	**39**	92.3%	7.7%		
2:00 AM	1	0	0	0	11	4	1	11	0	0	0	0	**28**	96.4%	3.6%		
2:15 AM	2	0	0	0	9	3	1	10	0	0	0	0	**25**	100.0%	0.0%		
2:30 AM	3	0	0	0	6	2	0	9	0	0	0	0	**20**	100.0%	0.0%		
2:45 AM	4	0	1	0	6	0	0	8	0	0	0	0	**19**	94.7%	5.3%		
3:00 AM	4	0	1	0	8	1	0	11	0	0	0	0	**25**	92.0%	8.0%		
3:15 AM	3	0	1	0	11	2	0	11	0	0	0	0	**28**	89.3%	10.7%		
3:30 AM	2	0	1	0	14	2	0	10	0	0	0	0	**29**	79.3%	20.7%		
3:45 AM	3	0	1	0	19	2	0	17	0	0	0	0	**42**	83.3%	16.7%		
4:00 AM	7	0	2	0	21	9	0	18	0	0	0	0	**57**	84.2%	15.8%		
4:15 AM	11	0	3	0	22	8	0	24	0	0	0	0	**68**	86.8%	13.2%		
4:30 AM	15	0	4	0	28	14	0	25	0	0	0	0	**86**	93.0%	7.0%		
4:45 AM	18	0	4	0	48	19	1	31	0	0	0	0	**121**	94.2%	5.8%		
5:00 AM	23	0	3	0	66	22	1	39	0	0	0	0	**154**	96.8%	3.2%		
5:15 AM	28	0	6	0	78	32	1	68	0	0	0	0	**213**	93.0%	7.0%		
5:30 AM	32	0	11	0	96	37	5	100	0	0	0	0	**281**	94.3%	5.7%		
5:45 AM	35	0	15	0	103	54	7	152	0	0	0	0	**366**	93.2%	6.8%		
6:00 AM	35	0	20	0	124	59	9	226	0	0	0	0	**473**	94.5%	5.5%		
6:15 AM	32	0	22	0	166	77	14	278	0	0	0	0	**589**	95.4%	4.6%		
6:30 AM	29	0	20	0	203	89	15	345	0	0	0	0	**701**	94.7%	5.3%		
6:45 AM	25	0	29	0	258	103	14	363	0	0	0	0	**792**	95.3%	4.7%		
7:00 AM	17	0	34	0	316	132	19	380	0	0	0	0	**898**	94.8%	5.2%		
7:15 AM	16	0	47	0	363	154	23	399	0	0	0	0	**1002**	95.3%	4.7%		
7:30 AM	17	0	55	0	413	172	27	399	0	0	0	0	**1083**	95.9%	4.1%		
7:45 AM	20	0	55	0	411	175	32	395	0	0	0	0	**1088**	96.0%	4.0%	0.92	**AM Peak**
8:00 AM	22	0	58	0	409	176	32	363	0	0	0	0	**1060**	95.2%	4.8%		
8:15 AM	21	0	48	0	381	171	33	342	0	0	0	0	**996**	94.7%	5.3%		
8:30 AM	30	0	42	0	330	157	28	290	0	0	0	0	**877**	94.2%	5.8%		
8:45 AM	27	0	40	0	294	144	27	262	0	0	0	0	**794**	94.2%	5.8%		
9:00 AM	39	0	39	0	242	135	24	263	0	0	0	0	**742**	95.7%	4.3%		
9:15 AM	38	0	40	0	227	116	16	243	0	0	0	0	**680**	96.6%	3.4%		

9:30 AM	35	0	46	0	216	113	21	248	0	0	0	0	**679**	96.2%	3.8%		
9:45 AM	39	0	47	0	226	109	19	265	0	0	0	0	**705**	96.3%	3.7%		
10:00 AM	34	0	40	0	240	107	24	260	0	0	0	0	**705**	96.7%	3.3%		
10:15 AM	38	0	36	0	242	120	29	251	0	0	0	0	**716**	96.6%	3.4%		
10:30 AM	33	0	38	0	245	130	26	250	0	0	0	0	**722**	96.8%	3.2%		
10:45 AM	32	0	36	0	245	145	31	257	0	0	0	0	**746**	97.2%	2.8%		
11:00 AM	34	0	39	0	254	153	27	250	0	0	0	0	**757**	95.9%	4.1%		
11:15 AM	42	0	40	0	253	146	23	259	0	0	0	0	**763**	95.8%	4.2%		
11:30 AM	47	0	35	0	277	155	21	267	0	0	0	0	**802**	96.3%	3.7%		
11:45 AM	48	0	35	0	276	165	17	258	0	0	0	0	**799**	96.1%	3.9%		
12:00 PM	50	0	40	0	283	154	14	265	0	0	0	0	**806**	96.5%	3.5%		
12:15 PM	52	0	42	0	275	161	18	270	0	0	0	0	**818**	95.8%	4.2%		
12:30 PM	53	0	41	0	256	157	19	268	0	0	0	0	**794**	95.7%	4.3%		
12:45 PM	57	0	41	0	284	132	20	260	0	0	0	0	**794**	95.8%	4.2%		
1:00 PM	49	0	39	0	288	136	26	255	0	0	0	0	**793**	95.8%	4.2%		
1:15 PM	44	0	44	0	296	132	25	258	0	0	0	0	**799**	96.9%	3.1%		
1:30 PM	39	0	41	0	324	123	29	257	0	0	0	0	**813**	96.3%	3.7%		
1:45 PM	36	0	46	0	319	145	30	269	0	0	0	0	**845**	95.4%	4.6%		
2:00 PM	39	0	50	0	325	157	29	283	0	0	0	0	**883**	95.4%	4.6%		
2:15 PM	37	0	46	0	360	162	28	289	0	0	0	0	**922**	95.3%	4.7%		
2:30 PM	34	0	55	0	358	165	28	319	0	0	0	0	**959**	95.9%	4.1%		
2:45 PM	36	0	65	0	354	166	28	347	0	0	0	0	**996**	96.5%	3.5%		
3:00 PM	36	0	75	0	368	164	28	361	0	0	0	0	**1032**	97.3%	2.7%		
3:15 PM	36	0	80	0	372	159	28	375	0	0	0	0	**1050**	97.6%	2.4%		
3:30 PM	33	0	83	0	365	157	29	372	0	0	0	0	**1039**	97.4%	2.6%		
3:45 PM	22	0	76	0	386	156	30	366	0	0	0	0	**1036**	97.3%	2.7%		
4:00 PM	14	0	66	0	372	147	26	367	0	0	0	0	**992**	97.4%	2.6%		
4:15 PM	9	0	74	0	367	153	27	388	0	0	0	0	**1018**	97.6%	2.4%		
4:30 PM	8	0	80	0	383	165	25	384	0	0	0	0	**1045**	98.2%	1.8%		
4:45 PM	12	0	79	0	394	173	20	393	0	0	0	0	**1071**	99.0%	1.0%	0.93	**PM Peak**
5:00 PM	17	0	87	0	390	172	22	380	0	0	0	0	**1068**	98.9%	1.1%		
5:15 PM	20	0	75	0	369	162	23	362	0	0	0	0	**1011**	98.7%	1.3%		
5:30 PM	27	0	63	0	344	150	18	354	0	0	0	0	**956**	99.0%	1.0%		
5:45 PM	30	0	58	0	304	139	18	321	0	0	0	0	**870**	99.1%	0.9%		
6:00 PM	36	0	42	0	278	123	19	315	0	0	0	0	**813**	99.0%	1.0%		
6:15 PM	37	0	40	0	248	117	14	265	0	0	0	0	**721**	98.9%	1.1%		
6:30 PM	36	0	35	0	226	116	16	231	0	0	0	0	**660**	98.8%	1.2%		
6:45 PM	42	0	28	0	196	106	18	204	0	0	0	0	**594**	98.7%	1.3%		
7:00 PM	42	0	29	0	177	102	19	160	0	0	0	0	**529**	99.1%	0.9%		
7:15 PM	42	0	26	0	160	99	19	142	0	0	0	0	**488**	99.6%	0.4%		
7:30 PM	41	0	24	0	141	90	15	130	0	0	0	0	**441**	99.5%	0.5%		
7:45 PM	36	0	19	0	139	78	11	117	0	0	0	0	**400**	99.8%	0.2%		
8:00 PM	33	0	12	0	136	87	8	121	0	0	0	0	**397**	99.7%	0.3%		
8:15 PM	34	0	10	0	137	76	7	121	0	0	0	0	**385**	99.7%	0.3%		
8:30 PM	36	0	9	0	125	76	9	109	0	0	0	0	**364**	99.7%	0.3%		
8:45 PM	33	0	12	0	106	69	9	101	0	0	0	0	**330**	99.7%	0.3%		

9:00 PM	27	0	14	0	87	55	10	84	0	0	0	0	**277**	99.6%	0.4%	
9:15 PM	23	0	13	0	81	58	12	84	0	0	0	0	**271**	99.3%	0.7%	
9:30 PM	17	0	12	0	79	49	11	86	0	0	0	0	**254**	98.8%	1.2%	
9:45 PM	16	0	8	0	71	44	10	79	0	0	0	0	**228**	98.7%	1.3%	
10:00 PM	17	0	7	0	72	37	6	77	0	0	0	0	**216**	98.1%	1.9%	
10:15 PM	13	0	5	0	61	28	3	61	0	0	0	0	**171**	98.2%	1.8%	
10:30 PM	11	0	4	0	54	18	3	55	0	0	0	0	**145**	99.3%	0.7%	
10:45 PM	9	0	4	0	56	14	4	52	0	0	0	0	**139**	99.3%	0.7%	
11:00 PM	8	0	2	0	46	13	4	49	0	0	0	0	**122**	99.2%	0.8%	
11:15 PM	6	0	1	0	32	8	4	36	0	0	0	0				
11:30 PM	5	0	0	0	22	6	2	22	0	0	0	0				
11:45 PM	3	0	0	0	9	3	1	11	0	0	0	0				
Movement Total	**590**	**0**	**704**	**0**	**4543**	**2154**	**351**	**4583**	**0**	**0**	**0**	**0**				Movement Total
PC %	98.8%		98.0%		96.1%	98.4%	96.6%	96.2%								PC %
Heavy Veh %	1.2%		2.0%		3.9%	1.6%	3.4%	3.8%								Heavy Veh %

Study Name: Washington Blvd. & Thatcher Ave
Start Date: 12/06/2022
Start Time: 12:00 AM

	Thatcher Avenue Southbound			Washington Blvd. Westbound			Thatcher Avenue Northbound			Washington Blvd. Eastbound							
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	**Hourly Total**	PC %	Heavy Veh %	Peak Hour Factor	FILTER
12:00 AM	1	6	2	0	6	0	0	6	0	2	11	1	**35**	100.0%	0.0%		
12:15 AM	1	6	1	0	4	0	0	5	0	1	11	1	**30**	100.0%	0.0%		
12:30 AM	1	1	1	0	5	0	0	3	0	2	9	0	**22**	100.0%	0.0%		
12:45 AM	1	1	1	0	4	1	0	3	0	2	7	0	**20**	100.0%	0.0%		
1:00 AM	1	0	1	0	3	1	0	2	1	1	5	0	**15**	100.0%	0.0%		
1:15 AM	1	1	3	0	4	1	1	1	1	2	2	0	**17**	100.0%	0.0%		
1:30 AM	1	2	2	0	3	1	1	1	1	1	1	0	**14**	100.0%	0.0%		
1:45 AM	1	6	8	0	3	0	1	0	1	3	1	0	**24**	100.0%	0.0%		
2:00 AM	0	8	8	0	3	0	1	0	0	3	2	0	**25**	100.0%	0.0%		
2:15 AM	0	8	6	0	3	0	0	0	0	2	2	0	**21**	100.0%	0.0%		
2:30 AM	0	7	6	0	3	0	0	1	0	3	4	0	**24**	95.8%	4.2%		
2:45 AM	0	4	1	0	2	0	0	2	0	2	4	0	**15**	93.3%	6.7%		
3:00 AM	0	5	2	0	1	0	0	4	0	6	4	0	**22**	95.5%	4.5%		
3:15 AM	1	8	2	0	0	0	0	7	0	7	4	0	**29**	96.6%	3.4%		
3:30 AM	1	9	3	0	3	0	0	7	0	6	2	0	**31**	100.0%	0.0%		
3:45 AM	1	11	2	0	6	0	0	7	0	5	5	0	**37**	100.0%	0.0%		
4:00 AM	1	11	1	0	6	0	0	7	0	1	5	0	**32**	100.0%	0.0%		
4:15 AM	0	9	2	0	8	0	1	5	0	0	9	0	**34**	100.0%	0.0%		
4:30 AM	0	14	5	1	14	0	1	7	0	5	14	0	**61**	96.7%	3.3%		
4:45 AM	1	18	7	1	13	1	1	11	0	8	13	0	**74**	95.9%	4.1%		
5:00 AM	1	23	11	2	20	1	1	16	0	14	17	0	**106**	97.2%	2.8%		
5:15 AM	1	35	20	3	29	1	0	20	1	20	18	0	**148**	98.0%	2.0%		
5:30 AM	1	55	19	2	30	1	1	32	1	23	28	0	**193**	99.0%	1.0%		
5:45 AM	2	92	37	3	46	1	1	40	1	52	44	2	**321**	98.8%	1.2%		
6:00 AM	6	116	40	2	49	2	4	47	3	63	89	4	**425**	98.6%	1.4%		
6:15 AM	7	128	44	1	56	6	4	65	5	74	155	5	**550**	97.8%	2.2%		
6:30 AM	9	131	49	3	74	12	4	87	11	91	220	7	**698**	97.6%	2.4%		
6:45 AM	10	112	46	6	90	15	10	127	14	82	280	9	**801**	97.5%	2.5%		
7:00 AM	7	134	56	6	125	23	13	163	13	82	299	12	**933**	97.4%	2.6%		
7:15 AM	10	156	67	10	155	25	19	200	12	88	291	20	**1053**	97.6%	2.4%		
7:30 AM	12	184	85	10	166	23	20	225	11	91	268	21	**1116**	97.6%	2.4%	0.94	**AM Peak**
7:45 AM	12	199	89	7	160	23	14	208	10	84	242	17	**1065**	97.4%	2.6%		
8:00 AM	12	172	78	7	149	17	9	188	15	80	217	13	**957**	96.8%	3.2%		
8:15 AM	11	142	64	3	117	17	6	164	16	70	181	6	**797**	96.4%	3.6%		
8:30 AM	7	103	47	3	89	16	6	132	15	50	139	5	**612**	95.8%	4.2%		
8:45 AM	6	79	34	4	74	13	7	115	14	44	106	7	**503**	95.6%	4.4%		
9:00 AM	8	74	36	5	60	13	6	107	9	44	85	8	**455**	96.5%	3.5%		
9:15 AM	5	79	35	6	57	11	4	86	6	40	81	6	**416**	97.4%	2.6%		

9:30 AM	9	71	35	5	61	8	3	78	4	41	78	6	**399**	96.5%	3.5%		
9:45 AM	9	75	38	3	73	9	3	86	4	43	81	6	**430**	96.5%	3.5%		
10:00 AM	6	72	34	2	67	9	3	79	5	37	75	5	**394**	96.4%	3.6%		
10:15 AM	6	69	36	4	70	6	4	80	7	36	72	5	**395**	95.2%	4.8%		
10:30 AM	4	83	37	5	71	10	3	78	8	32	77	4	**412**	95.6%	4.4%		
10:45 AM	4	77	30	5	65	14	2	67	10	26	68	3	**371**	96.2%	3.8%		
11:00 AM	6	80	32	5	77	15	3	69	9	29	65	3	**393**	96.4%	3.6%		
11:15 AM	7	79	24	4	81	15	1	77	9	30	62	3	**392**	96.7%	3.3%		
11:30 AM	6	77	20	4	88	11	2	83	7	32	61	2	**393**	96.9%	3.1%		
11:45 AM	4	87	31	7	102	9	4	97	5	40	68	1	**455**	96.7%	3.3%		
12:00 PM	4	91	32	8	95	11	3	103	5	37	74	1	**464**	96.3%	3.7%		
12:15 PM	6	94	41	7	96	14	3	95	3	35	79	1	**474**	96.4%	3.6%		
12:30 PM	7	102	49	7	108	16	4	85	2	32	87	3	**502**	97.0%	3.0%		
12:45 PM	10	102	42	5	102	18	2	75	5	23	90	3	**477**	95.6%	4.4%		
1:00 PM	12	101	40	5	105	17	2	81	5	20	94	2	**484**	95.5%	4.5%		
1:15 PM	11	105	37	4	116	14	4	87	8	17	106	4	**513**	94.5%	5.5%		
1:30 PM	15	96	35	4	105	15	5	96	13	25	113	5	**527**	94.3%	5.7%		
1:45 PM	14	102	41	4	106	17	5	110	10	36	125	7	**577**	94.6%	5.4%		
2:00 PM	12	99	48	4	111	14	5	126	9	46	140	12	**626**	94.6%	5.4%		
2:15 PM	11	106	56	6	118	16	4	142	11	55	146	14	**685**	95.8%	4.2%		
2:30 PM	9	110	69	9	136	15	4	164	12	68	163	17	**776**	96.4%	3.6%		
2:45 PM	11	119	86	11	170	14	6	172	13	90	189	21	**902**	97.3%	2.7%		
3:00 PM	10	130	91	14	209	15	11	167	18	100	212	17	**994**	97.6%	2.4%		
3:15 PM	15	138	95	14	231	19	13	166	18	113	221	20	**1063**	97.0%	3.0%		
3:30 PM	13	148	93	10	243	23	11	155	19	114	241	19	**1089**	96.7%	3.3%	0.91	**PM Peak**
3:45 PM	12	156	88	8	231	19	11	155	21	99	247	14	**1061**	96.7%	3.3%		
4:00 PM	11	167	93	6	204	23	8	166	16	104	260	17	**1075**	97.3%	2.7%		
4:15 PM	6	148	92	4	181	18	8	167	18	103	284	10	**1039**	98.3%	1.7%		
4:30 PM	6	150	90	4	174	19	8	175	15	104	301	9	**1055**	98.8%	1.2%		
4:45 PM	9	127	81	4	169	19	9	170	17	109	314	10	**1038**	99.0%	1.0%		
5:00 PM	11	115	71	2	173	20	8	142	21	100	309	8	**980**	98.8%	1.2%		
5:15 PM	12	114	71	5	166	20	6	130	20	98	279	9	**930**	98.7%	1.3%		
5:30 PM	12	100	61	4	144	15	7	109	18	87	234	7	**798**	98.9%	1.1%		
5:45 PM	8	98	55	6	117	13	5	89	12	70	203	8	**684**	99.0%	1.0%		
6:00 PM	7	89	52	6	95	6	5	84	10	69	166	8	**597**	99.3%	0.7%		
6:15 PM	5	83	38	3	84	7	4	71	4	59	137	7	**502**	99.6%	0.4%		
6:30 PM	4	73	35	3	69	11	3	67	3	50	110	7	**435**	99.8%	0.2%		
6:45 PM	2	66	29	1	56	10	2	60	3	45	78	5	**357**	99.7%	0.3%		
7:00 PM	1	55	24	2	42	10	2	52	1	35	60	3	**287**	100.0%	0.0%		
7:15 PM	1	45	18	2	31	9	3	47	2	26	58	3	**245**	99.6%	0.4%		
7:30 PM	0	41	12	2	30	4	2	40	3	22	52	2	**210**	99.5%	0.5%		
7:45 PM	0	31	9	3	37	4	2	40	3	20	43	2	**194**	99.5%	0.5%		
8:00 PM	0	26	9	2	34	3	1	41	3	11	40	2	**172**	99.4%	0.6%		
8:15 PM	0	29	12	2	36	1	1	43	2	8	33	2	**169**	100.0%	0.0%		
8:30 PM	0	30	14	2	32	1	2	38	0	12	30	1	**162**	100.0%	0.0%		
8:45 PM	0	35	15	0	25	1	2	31	0	15	26	0	**150**	100.0%	0.0%		

9:00 PM	0	31	13	0	26	2	2	23	1	17	17	0	**132**	100.0%	0.0%	
9:15 PM	0	25	12	1	24	2	1	18	1	25	20	0	**129**	100.0%	0.0%	
9:30 PM	0	18	11	2	21	1	0	13	1	18	20	0	**105**	100.0%	0.0%	
9:45 PM	1	12	11	2	19	1	0	13	2	16	19	0	**96**	100.0%	0.0%	
10:00 PM	1	9	9	2	18	0	0	12	1	18	21	0	**91**	100.0%	0.0%	
10:15 PM	1	8	6	1	10	1	0	10	1	13	17	0	**68**	100.0%	0.0%	
10:30 PM	1	14	4	0	13	1	1	13	1	18	22	0	**88**	100.0%	0.0%	
10:45 PM	0	11	1	0	12	2	1	11	0	13	22	0	**73**	100.0%	0.0%	
11:00 PM	0	13	1	0	8	2	1	9	0	10	18	0	**62**	100.0%	0.0%	
11:15 PM	0	12	1	0	7	1	1	6	0	6	14	0				
11:30 PM	0	3	0	0	2	1	0	1	0	1	5	0				
11:45 PM	0	2	0	0	0	0	0	0	0	1	1	0				
Movement Total	**118**	**1627**	**784**	**80**	**1686**	**204**	**88**	**1694**	**145**	**929**	**2285**	**116**				Movement Total
PC %	97.5%	97.3%	95.3%	97.5%	97.9%	97.1%	97.7%	96.8%	91.0%	98.8%	98.6%	87.9%				PC %
Heavy Veh %	2.5%	2.7%	4.7%	2.5%	2.1%	2.9%	2.3%	3.2%	9.0%	1.2%	1.4%	12.1%				Heavy Veh %

Study Name	Washington Blvd. & Lathrop Avenue
Start Date	12/06/2022
Start Time	12:00 AM

	Lathrop Avenue Southbound			Washington Blvd. Westbound			Lathrop Avenue Northbound			Washington Blvd. Eastbound							
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	**Hourly Total**	PC %	Heavy Veh %	Peak Hour Factor	FILTER
12:00 AM	4	5	0	1	7	3	0	6	1	0	13	1	**41**	100.0%	0.0%		
12:15 AM	2	4	0	0	5	3	0	4	0	0	13	1	**32**	100.0%	0.0%		
12:30 AM	1	3	0	1	6	4	0	3	0	0	10	1	**29**	100.0%	0.0%		
12:45 AM	0	3	0	1	5	4	0	4	0	0	8	1	**26**	100.0%	0.0%		
1:00 AM	2	3	0	1	4	3	0	4	1	1	5	0	**24**	100.0%	0.0%		
1:15 AM	2	3	0	1	5	3	1	3	2	1	2	0	**23**	100.0%	0.0%		
1:30 AM	2	3	0	0	4	0	1	3	3	1	1	0	**18**	100.0%	0.0%		
1:45 AM	3	2	0	0	3	0	1	4	3	1	1	0	**18**	100.0%	0.0%		
2:00 AM	2	1	0	0	3	0	1	3	2	0	2	0	**14**	100.0%	0.0%		
2:15 AM	3	2	0	1	3	0	0	3	1	0	2	0	**15**	100.0%	0.0%		
2:30 AM	3	4	0	1	3	1	0	2	0	0	2	0	**16**	100.0%	0.0%		
2:45 AM	2	6	0	1	2	2	0	0	0	0	3	0	**16**	100.0%	0.0%		
3:00 AM	2	6	1	1	2	2	0	1	0	0	3	0	**18**	100.0%	0.0%		
3:15 AM	1	5	1	0	3	2	0	2	0	0	3	0	**17**	100.0%	0.0%		
3:30 AM	1	2	2	0	4	1	0	2	0	0	3	0	**15**	100.0%	0.0%		
3:45 AM	1	2	2	0	5	0	0	2	1	0	4	0	**17**	100.0%	0.0%		
4:00 AM	0	5	1	1	4	3	0	10	1	0	7	0	**32**	96.9%	3.1%		
4:15 AM	3	8	2	2	4	5	0	9	1	0	12	0	**46**	95.7%	4.3%		
4:30 AM	3	13	3	2	8	9	0	15	1	2	16	0	**72**	97.2%	2.8%		
4:45 AM	6	16	3	2	11	12	1	20	1	3	16	0	**91**	95.6%	4.4%		
5:00 AM	9	19	6	1	17	12	1	24	3	3	17	0	**112**	95.5%	4.5%		
5:15 AM	10	25	8	0	27	16	1	34	3	6	20	0	**150**	96.7%	3.3%		
5:30 AM	17	31	9	1	31	16	1	42	3	7	30	0	**188**	96.8%	3.2%		
5:45 AM	21	37	16	2	44	19	0	63	3	11	49	0	**265**	97.7%	2.3%		
6:00 AM	28	41	16	2	48	29	0	65	3	19	96	0	**347**	98.3%	1.7%		
6:15 AM	36	38	19	4	51	34	1	85	9	19	163	0	**459**	98.3%	1.7%		
6:30 AM	49	36	26	3	74	42	1	99	12	31	242	0	**615**	97.9%	2.1%		
6:45 AM	61	38	26	2	96	54	3	120	13	38	320	2	**773**	97.9%	2.1%		
7:00 AM	72	40	49	3	137	59	7	150	17	39	345	3	**921**	98.0%	2.0%		
7:15 AM	88	54	64	2	166	67	8	187	16	55	338	4	**1049**	98.1%	1.9%		
7:30 AM	105	60	73	2	169	66	8	204	17	53	316	4	**1077**	98.5%	1.5%	0.91	**AM Peak**
7:45 AM	105	67	78	3	166	67	9	205	17	50	274	4	**1045**	98.5%	1.5%		
8:00 AM	107	75	67	4	148	61	8	206	17	51	250	3	**997**	97.5%	2.5%		
8:15 AM	109	65	59	3	127	55	6	191	15	43	214	2	**889**	97.2%	2.8%		
8:30 AM	86	65	43	3	108	51	7	179	12	35	170	3	**762**	96.6%	3.4%		
8:45 AM	82	61	37	4	85	47	5	164	16	31	140	2	**674**	96.6%	3.4%		
9:00 AM	81	61	29	4	69	46	2	155	11	31	110	3	**602**	98.0%	2.0%		
9:15 AM	68	59	23	5	59	45	3	127	12	26	108	6	**541**	98.2%	1.8%		

9:30 AM	68	64	45	8	58	48	2	128	13	29	113	5	**581**	98.5%	1.5%		
9:45 AM	66	64	45	7	57	47	1	121	8	29	113	6	**564**	98.4%	1.6%		
10:00 AM	63	58	45	5	54	50	1	120	11	30	118	5	**560**	98.0%	2.0%		
10:15 AM	67	60	49	4	56	59	2	138	8	31	113	3	**590**	97.6%	2.4%		
10:30 AM	69	60	35	4	64	64	4	142	6	26	109	5	**588**	96.9%	3.1%		
10:45 AM	77	58	42	4	74	65	5	157	6	27	104	4	**623**	97.3%	2.7%		
11:00 AM	82	62	46	6	86	65	5	166	8	22	94	7	**649**	97.4%	2.6%		
11:15 AM	77	69	53	7	84	54	3	156	11	26	89	7	**636**	97.5%	2.5%		
11:30 AM	80	70	46	4	98	56	5	163	15	35	85	6	**663**	97.9%	2.1%		
11:45 AM	83	73	44	3	102	51	5	171	17	38	86	5	**678**	97.8%	2.2%		
12:00 PM	75	74	41	3	105	50	5	167	15	42	92	4	**673**	97.5%	2.5%		
12:15 PM	85	79	31	6	120	54	5	172	14	36	105	3	**710**	97.7%	2.3%		
12:30 PM	91	78	38	6	122	53	1	171	15	30	114	2	**721**	98.1%	1.9%		
12:45 PM	91	85	36	7	117	61	3	148	17	26	125	3	**719**	98.1%	1.9%		
1:00 PM	103	83	37	7	116	64	8	149	18	23	135	1	**744**	98.1%	1.9%		
1:15 PM	101	82	40	5	120	62	9	152	16	23	137	2	**749**	98.1%	1.9%		
1:30 PM	93	74	37	6	107	59	10	141	15	23	145	4	**714**	97.6%	2.4%		
1:45 PM	94	73	42	6	123	54	7	162	12	27	161	3	**764**	97.4%	2.6%		
2:00 PM	93	77	39	5	130	50	2	169	11	28	176	4	**784**	97.6%	2.4%		
2:15 PM	104	76	43	6	138	49	1	175	17	37	190	7	**843**	98.0%	2.0%		
2:30 PM	122	84	60	6	158	52	1	183	21	38	202	6	**933**	98.4%	1.6%		
2:45 PM	137	96	68	5	183	57	3	176	22	41	219	9	**1016**	98.8%	1.2%		
3:00 PM	136	104	80	5	216	59	6	174	26	50	251	9	**1116**	98.8%	1.2%		
3:15 PM	135	108	79	5	235	59	6	163	21	53	260	6	**1130**	98.4%	1.6%		
3:30 PM	135	106	68	6	247	57	6	155	23	62	272	6	**1143**	98.5%	1.5%		
3:45 PM	139	82	61	8	244	55	5	159	21	64	290	4	**1132**	98.4%	1.6%		
4:00 PM	148	73	57	9	225	63	4	147	16	65	280	4	**1091**	98.5%	1.5%		
4:15 PM	152	74	60	6	209	73	5	168	21	65	317	5	**1155**	99.2%	0.8%		
4:30 PM	154	76	63	6	202	80	5	174	14	68	339	6	**1187**	99.2%	0.8%		
4:45 PM	145	86	65	6	186	78	4	186	18	70	349	7	**1200**	99.3%	0.7%		
5:00 PM	136	100	69	6	189	75	5	184	19	68	356	7	**1214**	99.5%	0.5%	0.94	**PM Peak**
5:15 PM	139	90	68	7	178	72	4	168	16	65	323	6	**1136**	99.2%	0.8%		
5:30 PM	134	91	61	7	159	60	4	159	16	54	288	5	**1038**	99.2%	0.8%		
5:45 PM	115	90	55	5	137	55	6	144	13	48	252	3	**923**	99.3%	0.7%		
6:00 PM	113	72	44	6	108	41	5	135	10	36	215	3	**788**	99.1%	0.9%		
6:15 PM	88	72	31	7	103	31	7	118	7	26	166	3	**659**	99.4%	0.6%		
6:30 PM	73	65	27	5	87	31	6	119	5	19	131	2	**570**	99.5%	0.5%		
6:45 PM	71	63	21	5	76	28	4	114	6	17	88	3	**496**	99.4%	0.6%		
7:00 PM	52	66	18	2	69	32	2	111	7	14	71	2	**446**	99.6%	0.4%		
7:15 PM	51	65	20	2	59	28	1	108	9	10	72	2	**427**	99.5%	0.5%		
7:30 PM	44	61	16	2	61	23	1	95	10	10	70	2	**395**	99.5%	0.5%		
7:45 PM	35	53	14	3	63	20	3	78	7	4	67	1	**348**	99.7%	0.3%		
8:00 PM	40	45	14	3	54	15	3	79	8	5	54	1	**321**	100.0%	0.0%		
8:15 PM	34	45	13	1	50	17	2	68	6	5	47	0	**288**	100.0%	0.0%		
8:30 PM	32	47	14	1	35	17	2	70	5	4	36	0	**263**	100.0%	0.0%		
8:45 PM	32	44	13	1	27	17	1	58	7	2	27	0	**229**	100.0%	0.0%		

9:00 PM	25	37	9	1	28	16	1	52	6	0	21	0	**196**	100.0%	0.0%	
9:15 PM	23	33	9	3	26	11	1	59	6	1	23	1	**196**	100.0%	0.0%	
9:30 PM	19	24	11	7	23	10	1	51	5	2	23	1	**177**	99.4%	0.6%	
9:45 PM	19	21	11	6	24	8	0	48	4	3	24	1	**169**	99.4%	0.6%	
10:00 PM	18	20	11	7	20	6	0	36	4	5	21	1	**149**	99.3%	0.7%	
10:15 PM	12	12	8	5	11	5	0	26	5	5	19	0	**108**	99.1%	0.9%	
10:30 PM	10	11	4	1	15	3	0	17	5	4	19	0	**89**	100.0%	0.0%	
10:45 PM	7	8	2	1	11	4	0	15	5	3	18	0	**74**	100.0%	0.0%	
11:00 PM	8	6	3	0	9	3	0	14	3	1	18	0	**65**	98.5%	1.5%	
11:15 PM	7	4	2	0	7	3	0	8	1	0	11	0				
11:30 PM	5	2	1	0	3	2	0	5	1	0	7	0				
11:45 PM	3	1	1	0	2	0	0	3	0	0	2	0				
Movement Total	**1399**	**1133**	**682**	**83**	**1848**	**807**	**66**	**2327**	**218**	**533**	**2750**	**58**				Movement Total
PC %	99.5%	98.4%	97.4%	98.8%	97.9%	98.9%	97.0%	98.5%	96.8%	97.4%	98.5%	100.0%				PC %
Heavy Veh %	0.5%	1.6%	2.6%	1.2%	2.1%	1.1%	3.0%	1.5%	3.2%	2.6%	1.5%	0.0%				Heavy Veh %

Study Name: Lake Street & Thatcher Avenue
Start Date: 12/06/2022
Start Time: 12:00 AM

	Thatcher Avenue Southbound			Lake Street Westbound			Thatcher Avenue Northbound			Lake Street Eastbound							
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	**Hourly Total**	PC %	Heavy Veh %	Peak Hour Factor	FILTER
12:00 AM	1	8	0	3	14	2	1	7	0	0	20	3	**59**	100.0%	0.0%		
12:15 AM	1	6	0	2	16	1	0	5	0	0	13	2	**46**	100.0%	0.0%		
12:30 AM	1	1	0	2	17	1	0	3	0	0	9	1	**35**	100.0%	0.0%		
12:45 AM	1	1	0	2	14	1	1	3	0	0	11	1	**35**	100.0%	0.0%		
1:00 AM	1	1	0	1	16	1	1	2	0	0	14	0	**37**	100.0%	0.0%		
1:15 AM	0	3	0	1	17	0	2	2	0	0	13	2	**40**	100.0%	0.0%		
1:30 AM	0	3	0	0	12	2	2	2	0	0	15	2	**38**	100.0%	0.0%		
1:45 AM	0	4	0	0	10	2	3	1	0	1	16	11	**48**	100.0%	0.0%		
2:00 AM	0	5	0	0	10	3	3	1	0	1	17	11	**51**	98.0%	2.0%		
2:15 AM	0	4	0	0	7	4	2	2	0	1	16	9	**45**	97.8%	2.2%		
2:30 AM	1	4	0	0	7	2	3	3	0	1	14	9	**44**	95.5%	4.5%		
2:45 AM	3	5	0	0	9	2	1	4	0	1	10	1	**36**	91.7%	8.3%		
3:00 AM	3	5	0	0	9	3	9	4	0	1	8	3	**45**	95.6%	4.4%		
3:15 AM	4	8	0	0	10	2	10	3	1	1	13	4	**56**	96.4%	3.6%		
3:30 AM	4	11	1	0	19	3	10	3	1	2	16	4	**74**	97.3%	2.7%		
3:45 AM	2	12	1	0	26	5	11	2	1	1	21	4	**86**	95.3%	4.7%		
4:00 AM	3	14	1	0	32	4	4	4	1	2	30	3	**98**	90.8%	9.2%		
4:15 AM	3	13	2	1	41	4	4	5	0	2	34	3	**112**	87.5%	12.5%		
4:30 AM	4	17	4	1	50	4	3	9	1	1	43	8	**145**	89.0%	11.0%		
4:45 AM	6	20	5	1	65	5	8	21	1	1	59	7	**199**	89.9%	10.1%		
5:00 AM	7	30	8	2	70	8	13	32	2	0	61	8	**241**	92.5%	7.5%		
5:15 AM	11	39	10	1	71	13	15	40	3	0	78	20	**301**	94.7%	5.3%		
5:30 AM	16	66	7	1	89	15	21	47	9	7	113	30	**421**	94.8%	5.2%		
5:45 AM	29	112	7	4	101	21	38	67	14	8	159	48	**608**	96.1%	3.9%		
6:00 AM	45	141	8	7	131	26	40	83	17	12	225	55	**790**	95.6%	4.4%		
6:15 AM	54	175	8	11	158	31	47	103	21	20	271	47	**946**	95.2%	4.8%		
6:30 AM	73	192	10	14	171	39	55	139	28	18	323	36	**1098**	95.4%	4.6%		
6:45 AM	85	202	11	14	190	40	42	171	34	22	376	28	**1215**	95.4%	4.6%		
7:00 AM	92	226	16	15	206	43	55	192	41	24	393	28	**1331**	95.8%	4.2%		
7:15 AM	105	261	15	18	223	41	61	241	44	26	406	44	**1485**	96.2%	3.8%		
7:30 AM	93	286	22	23	239	47	68	276	42	28	386	56	**1566**	96.4%	3.6%	0.95	**AM Peak**
7:45 AM	85	284	24	25	235	54	75	265	33	29	325	56	**1490**	95.8%	4.2%		
8:00 AM	79	251	18	25	222	50	67	248	30	27	312	55	**1384**	95.5%	4.5%		
8:15 AM	61	199	19	23	215	51	66	215	27	19	294	40	**1229**	95.0%	5.0%		
8:30 AM	71	149	13	18	192	38	57	165	21	20	282	29	**1055**	94.2%	5.8%		
8:45 AM	70	120	16	19	184	28	48	140	25	18	278	27	**973**	95.0%	5.0%		
9:00 AM	65	110	18	19	183	27	42	143	22	18	254	25	**926**	94.3%	5.7%		
9:15 AM	79	108	20	21	175	24	35	114	21	19	227	27	**870**	94.4%	5.6%		

9:30 AM	72	100	20	22	170	25	33	99	24	14	217	28	**824**	94.5%	5.5%		
9:45 AM	71	93	15	22	178	26	34	103	20	16	225	33	**836**	93.7%	6.3%		
10:00 AM	84	101	11	22	179	33	32	88	24	14	225	32	**845**	94.1%	5.9%		
10:15 AM	73	115	8	19	186	38	28	98	25	15	231	26	**862**	94.2%	5.8%		
10:30 AM	70	124	9	20	195	49	24	109	18	14	231	23	**886**	94.2%	5.8%		
10:45 AM	68	130	13	20	190	54	21	102	23	9	232	16	**878**	94.9%	5.1%		
11:00 AM	60	138	16	16	194	52	23	100	25	10	233	23	**890**	95.8%	4.2%		
11:15 AM	62	125	15	16	199	54	26	99	30	8	235	25	**894**	96.5%	3.5%		
11:30 AM	62	130	13	19	200	47	26	96	38	13	228	26	**898**	96.1%	3.9%		
11:45 AM	66	138	10	17	206	47	33	110	40	14	213	31	**925**	96.5%	3.5%		
12:00 PM	62	127	12	21	198	52	32	119	35	15	199	20	**892**	95.9%	4.1%		
12:15 PM	66	143	14	20	208	47	33	114	30	15	218	17	**925**	94.6%	5.4%		
12:30 PM	77	162	16	19	205	44	34	102	26	8	223	23	**939**	95.4%	4.6%		
12:45 PM	79	160	14	18	218	45	35	85	25	14	219	17	**929**	94.0%	6.0%		
1:00 PM	86	172	21	24	224	39	40	86	23	14	224	25	**978**	94.3%	5.7%		
1:15 PM	83	160	25	33	217	47	35	94	25	13	213	33	**978**	94.6%	5.4%		
1:30 PM	78	154	25	32	227	52	36	105	24	18	206	33	**990**	94.3%	5.7%		
1:45 PM	82	172	29	32	217	58	26	120	29	14	242	37	**1058**	94.9%	5.1%		
2:00 PM	97	186	21	33	214	58	30	141	33	18	257	36	**1124**	94.9%	5.1%		
2:15 PM	116	201	24	31	228	56	32	152	39	21	270	40	**1210**	95.9%	4.1%		
2:30 PM	123	220	31	40	246	74	48	186	47	19	303	39	**1376**	96.5%	3.5%		
2:45 PM	131	229	32	48	260	64	58	220	47	19	302	47	**1457**	97.4%	2.6%		
3:00 PM	124	235	36	42	286	68	56	227	49	16	310	49	**1498**	97.6%	2.4%		
3:15 PM	128	266	33	44	283	73	63	242	46	17	326	46	**1567**	97.4%	2.6%		
3:30 PM	136	257	28	39	274	54	52	240	44	15	333	49	**1521**	97.1%	2.9%		
3:45 PM	145	282	32	38	300	54	49	226	43	19	315	42	**1545**	97.4%	2.6%		
4:00 PM	148	291	33	43	287	49	48	237	48	21	357	40	**1602**	98.0%	2.0%		
4:15 PM	143	271	32	38	306	51	46	246	49	24	348	38	**1592**	98.3%	1.7%		
4:30 PM	146	283	30	39	316	56	43	251	49	29	372	34	**1648**	99.0%	1.0%	0.98	**PM Peak**
4:45 PM	144	245	27	39	290	64	42	250	50	28	416	29	**1624**	98.9%	1.1%		
5:00 PM	140	231	19	33	306	65	40	231	43	26	406	28	**1568**	98.7%	1.3%		
5:15 PM	134	213	18	34	286	51	40	202	46	22	422	31	**1499**	98.9%	1.1%		
5:30 PM	123	192	17	32	281	53	36	184	44	21	403	30	**1416**	98.9%	1.1%		
5:45 PM	104	182	12	28	276	43	31	154	35	16	357	28	**1266**	99.1%	0.9%		
6:00 PM	95	161	16	28	252	40	29	135	33	14	326	27	**1156**	99.0%	1.0%		
6:15 PM	86	141	14	24	236	39	28	128	26	12	284	25	**1043**	99.0%	1.0%		
6:30 PM	71	120	13	20	208	30	29	106	21	11	225	28	**882**	98.8%	1.2%		
6:45 PM	64	100	13	15	172	30	27	94	17	12	202	28	**774**	98.4%	1.6%		
7:00 PM	54	88	12	13	157	28	24	76	17	13	153	29	**664**	98.0%	2.0%		
7:15 PM	50	76	11	12	148	26	19	59	12	15	134	22	**584**	97.9%	2.1%		
7:30 PM	50	69	11	8	141	22	15	53	9	14	139	14	**545**	98.0%	2.0%		
7:45 PM	44	65	11	8	138	19	13	51	12	15	127	12	**515**	97.9%	2.1%		
8:00 PM	40	56	6	7	133	16	13	47	6	11	134	9	**478**	98.5%	1.5%		
8:15 PM	33	54	7	8	125	15	10	48	7	7	135	10	**459**	98.5%	1.5%		
8:30 PM	26	43	8	11	124	21	13	45	6	5	124	12	**438**	98.4%	1.6%		
8:45 PM	20	41	8	12	117	17	17	39	4	2	114	14	**405**	98.8%	1.2%		

9:00 PM	18	31	8	13	102	17	16	38	5	2	101	11	**362**	98.9%	1.1%
9:15 PM	14	33	5	12	82	16	19	34	4	3	93	16	**331**	98.5%	1.5%
9:30 PM	13	29	2	8	64	8	14	23	4	3	79	15	**262**	97.7%	2.3%
9:45 PM	13	23	2	6	63	7	11	20	4	2	87	16	**254**	96.9%	3.1%
10:00 PM	14	20	3	3	54	6	9	13	4	2	76	16	**220**	96.8%	3.2%
10:15 PM	12	16	3	0	49	4	8	11	2	1	68	9	**183**	95.6%	4.4%
10:30 PM	8	20	3	0	46	4	8	17	2	0	72	10	**190**	96.8%	3.2%
10:45 PM	7	13	2	0	37	4	8	15	1	1	63	6	**157**	96.8%	3.2%
11:00 PM	4	15	1	0	42	4	6	16	0	2	59	5	**154**	96.1%	3.9%
11:15 PM	3	11	1	0	34	4	3	11	0	2	42	4			
11:30 PM	3	4	1	0	22	2	2	2	0	2	23	0			
11:45 PM	2	3	0	0	12	2	0	1	0	1	8	0			
Movement Total	**1322**	**2643**	**284**	**370**	**3521**	**694**	**633**	**2270**	**458**	**263**	**4394**	**541**			Movement Total
PC %	99.2%	98.0%	98.2%	95.4%	94.7%	98.6%	97.6%	98.1%	94.5%	96.6%	95.1%	97.0%			PC %
Heavy Veh %	0.8%	2.0%	1.8%	4.6%	5.3%	1.4%	2.4%	1.9%	5.5%	3.4%	4.9%	3.0%			Heavy Veh %

Study Name: Lake Street & Lathrop Avenue
Start Date: 12/06/2022
Start Time: 12:00 AM

	Lathrop Avenue Southbound			Lake Street Westbound			Lathrop Avenue Northbound			Lake Street Eastbound							
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	**Hourly Total**	PC %	Heavy Veh %	Peak Hour Factor	FILTER
12:00 AM	0	1	1	0	15	1	5	4	1	0	18	7	**53**	100.0%	0.0%		
12:15 AM	0	1	1	0	20	1	5	2	1	0	8	6	**45**	100.0%	0.0%		
12:30 AM	0	2	1	1	18	0	4	2	1	0	7	3	**39**	100.0%	0.0%		
12:45 AM	0	2	0	3	16	0	3	2	1	0	9	2	**38**	100.0%	0.0%		
1:00 AM	0	1	0	3	16	0	4	4	1	0	15	1	**45**	100.0%	0.0%		
1:15 AM	0	3	0	3	12	0	6	4	2	0	14	1	**45**	100.0%	0.0%		
1:30 AM	0	2	0	2	11	0	5	2	3	0	15	2	**42**	100.0%	0.0%		
1:45 AM	0	2	0	0	8	0	6	4	4	0	16	3	**43**	100.0%	0.0%		
2:00 AM	0	2	0	0	6	0	5	2	3	0	12	4	**34**	97.1%	2.9%		
2:15 AM	0	1	0	0	3	0	4	3	2	0	10	6	**29**	96.6%	3.4%		
2:30 AM	0	2	0	0	2	0	4	3	1	0	9	6	**27**	96.3%	3.7%		
2:45 AM	0	2	0	1	4	0	2	2	0	0	5	8	**24**	91.7%	8.3%		
3:00 AM	0	2	0	2	5	0	5	3	0	0	4	9	**30**	96.7%	3.3%		
3:15 AM	0	1	0	5	5	0	5	2	0	0	7	11	**36**	94.4%	5.6%		
3:30 AM	0	0	0	6	13	0	7	3	0	0	9	12	**50**	94.0%	6.0%		
3:45 AM	0	1	0	7	18	0	9	3	0	0	13	10	**61**	91.8%	8.2%		
4:00 AM	0	2	0	6	19	0	11	5	0	0	21	12	**76**	86.8%	13.2%		
4:15 AM	0	5	1	3	32	0	13	7	0	0	26	13	**100**	86.0%	14.0%		
4:30 AM	0	8	1	4	33	0	20	9	0	0	32	18	**125**	88.0%	12.0%		
4:45 AM	1	12	1	2	46	1	25	11	2	0	47	26	**174**	87.9%	12.1%		
5:00 AM	4	20	1	4	52	1	29	13	5	0	55	23	**207**	90.8%	9.2%		
5:15 AM	4	30	2	8	49	1	33	18	6	0	73	31	**255**	93.3%	6.7%		
5:30 AM	6	50	3	9	66	2	35	27	8	2	108	41	**357**	93.8%	6.2%		
5:45 AM	9	67	3	16	77	3	52	47	9	3	159	43	**488**	95.3%	4.7%		
6:00 AM	11	81	4	22	105	4	64	63	12	5	233	51	**655**	95.6%	4.4%		
6:15 AM	21	93	2	30	140	5	77	83	15	8	288	47	**809**	95.6%	4.4%		
6:30 AM	31	110	4	44	150	8	104	115	22	14	344	49	**995**	96.5%	3.5%		
6:45 AM	39	148	6	49	184	11	111	151	25	18	405	49	**1196**	96.8%	3.2%		
7:00 AM	44	169	19	69	223	18	121	186	24	20	415	49	**1357**	96.7%	3.3%		
7:15 AM	51	196	33	88	264	23	128	220	32	24	405	56	**1520**	96.7%	3.3%		
7:30 AM	54	213	41	114	305	22	115	227	31	27	394	45	**1588**	96.5%	3.5%	0.99	**AM Peak**
7:45 AM	63	200	44	122	288	25	108	210	38	23	340	44	**1505**	95.9%	4.1%		
8:00 AM	65	208	36	111	262	28	88	200	47	27	331	44	**1447**	95.9%	4.1%		
8:15 AM	57	194	26	97	230	25	81	191	46	29	329	41	**1346**	95.6%	4.4%		
8:30 AM	52	160	21	74	198	27	69	184	52	21	321	43	**1222**	95.4%	4.6%		
8:45 AM	39	149	23	71	198	23	60	177	50	25	314	53	**1182**	96.0%	4.0%		
9:00 AM	41	137	28	72	195	18	64	160	47	19	293	58	**1132**	95.9%	4.1%		
9:15 AM	44	131	29	64	188	20	55	135	47	12	267	60	**1052**	96.2%	3.8%		

9:30 AM	37	156	28	62	195	26	53	117	49	10	262	60	**1055**	96.1%	3.9%		
9:45 AM	40	135	24	68	210	27	51	117	48	14	267	50	**1051**	95.1%	4.9%		
10:00 AM	44	119	18	65	224	25	56	126	51	19	279	52	**1078**	95.2%	4.8%		
10:15 AM	45	116	19	75	232	26	62	139	49	21	296	54	**1134**	95.2%	4.8%		
10:30 AM	53	103	18	73	237	24	75	155	51	25	282	54	**1150**	95.2%	4.8%		
10:45 AM	57	121	26	68	227	29	77	166	55	21	291	51	**1189**	96.2%	3.8%		
11:00 AM	57	133	26	77	211	39	82	171	54	20	291	44	**1205**	96.8%	3.2%		
11:15 AM	63	138	28	72	218	40	85	170	61	18	299	39	**1231**	97.2%	2.8%		
11:30 AM	64	139	27	73	229	39	78	176	60	17	302	41	**1245**	97.1%	2.9%		
11:45 AM	74	138	20	81	231	30	92	166	55	17	270	57	**1231**	97.4%	2.6%		
12:00 PM	69	131	19	80	243	25	87	162	55	15	250	62	**1198**	97.2%	2.8%		
12:15 PM	67	141	18	85	243	25	86	153	55	20	256	68	**1217**	96.7%	3.3%		
12:30 PM	68	149	21	85	233	26	82	148	52	18	258	76	**1216**	96.5%	3.5%		
12:45 PM	57	159	22	77	241	33	80	146	57	21	266	70	**1229**	95.8%	4.2%		
1:00 PM	61	174	22	80	253	31	76	144	60	23	275	69	**1268**	95.6%	4.4%		
1:15 PM	57	166	16	87	262	29	80	158	60	18	275	62	**1270**	95.7%	4.3%		
1:30 PM	58	156	16	94	277	35	84	148	53	19	275	57	**1272**	96.0%	4.0%		
1:45 PM	62	165	29	100	286	36	86	168	50	14	303	55	**1354**	96.0%	4.0%		
2:00 PM	58	163	46	90	295	41	106	180	47	17	310	54	**1407**	96.5%	3.5%		
2:15 PM	62	166	55	92	309	44	111	189	38	28	316	60	**1470**	96.9%	3.1%		
2:30 PM	70	188	59	110	317	39	121	201	51	39	345	65	**1605**	97.6%	2.4%		
2:45 PM	65	208	47	123	332	36	123	207	51	41	344	74	**1651**	98.1%	1.9%		
3:00 PM	70	224	30	131	331	36	109	227	51	35	371	90	**1705**	98.2%	1.8%		
3:15 PM	73	236	23	127	327	37	102	225	57	33	395	98	**1733**	98.3%	1.7%		
3:30 PM	80	239	20	109	317	34	102	226	45	28	409	100	**1709**	98.2%	1.8%		
3:45 PM	83	231	17	101	315	36	106	233	48	31	430	100	**1731**	98.2%	1.8%		
4:00 PM	78	236	15	106	295	33	118	233	49	38	439	88	**1728**	98.5%	1.5%		
4:15 PM	77	245	17	102	312	34	123	257	55	34	463	88	**1807**	98.5%	1.5%		
4:30 PM	66	240	16	100	312	32	127	281	55	33	467	97	**1826**	98.7%	1.3%	0.93	**PM Peak**
4:45 PM	63	227	16	96	293	34	130	258	55	34	488	107	**1801**	98.8%	1.2%		
5:00 PM	63	216	18	87	315	30	127	245	58	35	497	111	**1802**	98.7%	1.3%		
5:15 PM	59	201	16	86	278	30	131	230	51	36	491	108	**1717**	98.8%	1.2%		
5:30 PM	52	183	14	89	279	33	122	211	56	33	480	98	**1650**	98.7%	1.3%		
5:45 PM	49	174	18	86	277	25	110	213	59	27	426	87	**1551**	98.8%	1.2%		
6:00 PM	39	153	14	80	244	24	97	191	52	19	386	86	**1385**	98.9%	1.1%		
6:15 PM	29	136	13	75	240	20	80	156	52	12	332	90	**1235**	99.0%	1.0%		
6:30 PM	20	119	9	59	216	16	71	141	43	11	278	77	**1060**	98.8%	1.2%		
6:45 PM	15	99	3	46	194	19	58	128	35	11	247	65	**920**	98.6%	1.4%		
7:00 PM	21	86	4	45	191	25	59	118	28	10	202	52	**841**	98.3%	1.7%		
7:15 PM	17	75	2	42	184	24	57	110	19	12	165	42	**749**	98.4%	1.6%		
7:30 PM	18	73	3	44	170	26	53	102	21	8	168	50	**736**	98.5%	1.5%		
7:45 PM	16	70	5	46	165	25	48	95	18	7	152	47	**694**	98.4%	1.6%		
8:00 PM	11	70	5	39	157	16	34	93	27	5	147	50	**654**	98.9%	1.1%		
8:15 PM	12	66	9	43	143	12	33	88	28	2	145	46	**627**	98.4%	1.6%		
8:30 PM	10	60	8	42	143	7	33	72	26	6	117	39	**563**	98.0%	2.0%		
8:45 PM	9	49	7	39	125	7	26	57	21	5	107	37	**489**	98.6%	1.4%		

9:00 PM	5	36	6	40	113	7	32	51	12	5	97	33	**437**	97.5%	2.5%	
9:15 PM	4	31	2	34	92	7	29	47	9	5	88	25	**373**	97.9%	2.1%	
9:30 PM	7	23	2	26	73	9	23	43	9	1	80	20	**316**	97.5%	2.5%	
9:45 PM	6	19	0	18	67	6	25	42	8	1	80	23	**295**	96.6%	3.4%	
10:00 PM	6	17	0	14	53	7	16	35	6	2	68	25	**249**	97.6%	2.4%	
10:15 PM	5	10	0	8	45	6	11	29	6	2	63	22	**207**	96.1%	3.9%	
10:30 PM	1	8	0	6	41	5	12	26	2	2	62	21	**186**	97.3%	2.7%	
10:45 PM	0	5	0	6	32	4	12	20	3	1	57	16	**156**	97.4%	2.6%	
11:00 PM	0	4	0	3	32	3	12	11	2	0	50	11	**128**	95.3%	4.7%	
11:15 PM	0	3	0	0	25	3	10	9	1	0	34	10				
11:30 PM	0	2	0	0	14	1	5	4	1	0	19	7				
11:45 PM	0	2	0	0	9	1	2	0	0	0	6	3				
Movement Total	**747**	**2385**	**312**	**1226**	**3855**	**412**	**1407**	**2627**	**692**	**314**	**5059**	**1085**				Movement Total
PC %	98.3%	98.3%	95.5%	97.8%	95.9%	96.8%	97.5%	99.0%	97.5%	97.1%	96.2%	96.8%				PC %
Heavy Veh %	1.7%	1.7%	4.5%	2.2%	4.1%	3.2%	2.5%	1.0%	2.5%	2.9%	3.8%	3.2%				Heavy Veh %

Study Name	Lake Street & Harlem Avenue
Start Date	12/06/2022
Start Time	12:00 AM

	Harlem Avenue Southbound			Lake Street Westbound			Harlem Avenue Northbound			Lake Street Eastbound							
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	**Hourly Total**	PC %	Heavy Veh %	Peak Hour Factor	FILTER
12:00 AM	12	121	3	7	5	7	8	184	13	4	4	14	**382**	98.4%	1.6%		
12:15 AM	6	101	4	7	6	4	10	149	13	1	6	6	**313**	98.1%	1.9%		
12:30 AM	4	90	4	7	4	4	9	142	10	0	4	6	**284**	98.2%	1.8%		
12:45 AM	3	88	4	6	5	4	9	126	7	0	5	6	**263**	98.1%	1.9%		
1:00 AM	5	86	6	4	5	3	8	129	6	4	6	9	**271**	97.4%	2.6%		
1:15 AM	5	86	4	3	6	3	5	121	3	6	5	7	**254**	96.9%	3.1%		
1:30 AM	5	98	4	1	6	3	5	104	4	6	5	8	**249**	95.6%	4.4%		
1:45 AM	6	100	3	3	4	1	3	89	5	7	4	10	**235**	95.3%	4.7%		
2:00 AM	4	100	2	3	3	2	4	74	9	4	7	6	**218**	94.0%	6.0%		
2:15 AM	5	99	2	4	1	5	4	64	9	3	6	6	**208**	93.3%	6.7%		
2:30 AM	6	84	1	6	1	5	3	58	10	3	5	5	**187**	92.5%	7.5%		
2:45 AM	4	104	2	7	2	5	5	66	10	2	4	2	**213**	90.1%	9.9%		
3:00 AM	4	116	4	6	4	4	4	77	7	2	0	4	**232**	91.8%	8.2%		
3:15 AM	5	149	5	5	4	3	6	97	7	4	0	3	**288**	92.7%	7.3%		
3:30 AM	3	197	7	7	6	4	13	126	7	6	3	2	**381**	92.7%	7.3%		
3:45 AM	5	234	8	7	7	5	19	162	9	8	4	2	**470**	93.2%	6.8%		
4:00 AM	5	287	6	10	6	5	27	194	11	10	6	4	**571**	93.2%	6.8%		
4:15 AM	8	336	9	14	10	3	33	240	17	7	9	10	**696**	91.7%	8.3%		
4:30 AM	12	407	11	17	11	4	34	280	23	6	11	17	**833**	92.9%	7.1%		
4:45 AM	13	462	14	24	21	5	39	325	26	10	17	24	**980**	93.6%	6.4%		
5:00 AM	16	522	18	26	25	7	42	406	35	11	25	29	**1162**	93.9%	6.1%		
5:15 AM	15	646	22	28	25	8	42	472	34	18	35	27	**1372**	95.0%	5.0%		
5:30 AM	19	690	32	30	37	9	56	523	32	26	53	34	**1541**	94.8%	5.2%		
5:45 AM	26	808	40	30	39	11	61	571	36	36	87	67	**1812**	94.8%	5.2%		
6:00 AM	29	928	49	31	51	13	86	636	31	54	120	93	**2121**	94.6%	5.4%		
6:15 AM	34	994	54	36	66	17	110	691	42	58	133	133	**2368**	94.6%	5.4%		
6:30 AM	36	1063	52	41	78	18	120	752	47	71	166	152	**2596**	95.1%	4.9%		
6:45 AM	37	1091	52	56	98	21	141	834	53	83	183	148	**2797**	95.2%	4.8%		
7:00 AM	45	1091	69	70	139	25	150	867	60	79	195	156	**2946**	95.3%	4.7%		
7:15 AM	43	1063	89	75	178	38	172	981	61	85	210	151	**3146**	95.7%	4.3%		
7:30 AM	46	1094	124	82	192	37	183	1037	68	97	205	142	**3307**	95.6%	4.4%	0.95	**AM Peak**
7:45 AM	46	1080	149	77	184	37	181	1054	73	95	191	140	**3307**	95.5%	4.5%	0.95	**AM Peak**
8:00 AM	47	1084	148	74	162	37	175	1055	76	111	180	130	**3279**	95.6%	4.4%		
8:15 AM	50	1013	152	77	139	28	157	952	82	126	178	125	**3079**	95.2%	4.8%		
8:30 AM	56	967	137	80	131	31	159	928	90	127	162	127	**2995**	95.0%	5.0%		
8:45 AM	49	916	125	82	133	36	170	890	87	143	158	122	**2911**	94.9%	5.1%		
9:00 AM	49	857	136	91	132	38	176	874	93	150	156	108	**2860**	95.0%	5.0%		
9:15 AM	52	869	134	97	138	42	180	834	94	144	159	94	**2837**	95.0%	5.0%		

9:30 AM	42	826	135	99	131	44	182	814	83	135	156	90	**2737**	95.1%	4.9%		
9:45 AM	49	797	142	96	147	45	179	767	78	129	167	95	**2691**	95.2%	4.8%		
10:00 AM	50	792	134	85	149	45	191	776	72	130	160	112	**2696**	94.9%	5.1%		
10:15 AM	48	771	151	91	153	38	192	806	69	144	176	123	**2762**	94.4%	5.6%		
10:30 AM	52	777	152	90	169	38	200	844	79	169	190	129	**2889**	94.2%	5.8%		
10:45 AM	62	745	161	89	165	37	205	926	92	167	192	121	**2962**	94.3%	5.7%		
11:00 AM	60	735	177	93	170	43	196	942	114	169	206	120	**3025**	94.7%	5.3%		
11:15 AM	64	739	176	88	185	51	203	946	120	175	207	121	**3075**	95.1%	4.9%		
11:30 AM	69	775	186	90	185	56	204	908	130	176	211	118	**3108**	95.3%	4.7%		
11:45 AM	67	801	190	96	187	57	209	855	118	197	214	127	**3118**	95.5%	4.5%		
12:00 PM	70	836	186	103	181	59	214	848	108	194	221	117	**3137**	95.4%	4.6%		
12:15 PM	66	851	186	101	166	55	231	845	99	195	215	117	**3127**	95.6%	4.4%		
12:30 PM	67	830	196	99	160	55	234	829	95	184	205	117	**3071**	95.8%	4.2%		
12:45 PM	68	849	196	112	148	55	236	802	105	175	195	113	**3054**	95.5%	4.5%		
1:00 PM	61	866	209	111	155	54	242	780	100	182	176	115	**3051**	96.0%	4.0%		
1:15 PM	67	874	197	113	164	58	231	784	98	187	182	121	**3076**	96.2%	3.8%		
1:30 PM	59	928	173	123	179	57	230	863	81	191	184	126	**3194**	96.3%	3.7%		
1:45 PM	58	989	171	124	206	60	224	902	81	198	187	129	**3329**	96.0%	4.0%		
2:00 PM	69	990	142	119	190	53	211	906	73	200	206	137	**3296**	95.9%	4.1%		
2:15 PM	64	1041	135	118	192	52	207	935	89	197	203	134	**3367**	95.8%	4.2%		
2:30 PM	72	1051	166	101	204	49	205	920	90	197	224	134	**3413**	96.2%	3.8%		
2:45 PM	70	1068	181	84	214	43	214	945	80	189	226	138	**3452**	97.0%	3.0%		
3:00 PM	60	1092	199	91	237	51	222	1005	82	191	226	138	**3594**	97.1%	2.9%		
3:15 PM	66	1082	213	93	237	52	227	1031	67	196	234	142	**3640**	97.4%	2.6%	0.98	**PM Peak**
3:30 PM	65	1066	189	97	224	61	218	1024	72	201	232	156	**3605**	97.6%	2.4%		
3:45 PM	60	1019	174	109	213	67	211	1043	73	206	246	165	**3586**	97.6%	2.4%		
4:00 PM	64	974	164	110	206	69	209	1051	71	208	264	176	**3566**	98.0%	2.0%		
4:15 PM	61	1024	166	107	204	66	201	1039	72	212	266	171	**3589**	98.2%	1.8%		
4:30 PM	58	1027	163	115	201	59	205	1013	68	226	276	165	**3576**	98.1%	1.9%		
4:45 PM	63	1039	162	105	190	51	216	1037	66	239	279	171	**3618**	98.3%	1.7%		
5:00 PM	65	1093	161	104	197	45	216	957	73	252	276	179	**3618**	98.2%	1.8%		
5:15 PM	72	1004	158	106	190	52	217	963	81	247	272	194	**3556**	98.1%	1.9%		
5:30 PM	73	996	163	99	196	55	223	980	75	239	254	208	**3561**	98.1%	1.9%		
5:45 PM	72	1024	158	93	196	62	212	940	87	217	232	195	**3488**	98.1%	1.9%		
6:00 PM	78	920	155	91	179	63	213	976	86	198	217	183	**3359**	98.1%	1.9%		
6:15 PM	73	909	133	86	171	64	211	962	86	176	204	165	**3240**	98.3%	1.7%		
6:30 PM	73	810	116	85	150	66	197	910	91	151	184	137	**2970**	98.2%	1.8%		
6:45 PM	80	691	104	86	128	59	179	872	83	144	166	123	**2715**	98.1%	1.9%		
7:00 PM	72	657	87	88	128	56	167	827	81	120	142	100	**2525**	98.2%	1.8%		
7:15 PM	65	606	85	91	119	51	162	774	74	114	119	93	**2353**	98.3%	1.7%		
7:30 PM	61	599	78	89	116	42	147	753	71	106	116	83	**2261**	98.5%	1.5%		
7:45 PM	51	600	70	109	116	41	145	715	65	94	101	80	**2187**	98.7%	1.3%		
8:00 PM	43	603	76	103	104	36	127	696	58	90	89	79	**2104**	98.4%	1.6%		
8:15 PM	40	605	75	99	102	33	124	659	47	87	85	71	**2027**	98.4%	1.6%		
8:30 PM	36	582	83	100	90	36	125	642	51	78	71	63	**1957**	98.3%	1.7%		
8:45 PM	27	551	84	86	78	36	114	623	53	67	74	54	**1847**	98.3%	1.7%		

9:00 PM	26	518	73	82	67	33	109	565	54	59	72	47	**1705**	98.4%	1.6%
9:15 PM	26	490	63	76	60	26	78	548	59	49	65	44	**1584**	98.0%	2.0%
9:30 PM	23	488	46	64	49	21	60	537	48	47	62	47	**1492**	98.1%	1.9%
9:45 PM	21	448	31	50	42	17	54	504	39	43	54	45	**1348**	98.0%	2.0%
10:00 PM	21	408	25	37	35	17	44	469	36	36	41	41	**1210**	98.0%	2.0%
10:15 PM	22	345	17	29	19	16	44	435	29	29	36	34	**1055**	98.1%	1.9%
10:30 PM	19	277	13	24	16	11	39	391	27	22	31	28	**898**	97.8%	2.2%
10:45 PM	18	247	10	20	12	12	25	364	24	18	31	21	**802**	97.6%	2.4%
11:00 PM	12	212	5	18	13	8	20	344	18	15	29	18	**712**	97.2%	2.8%
11:15 PM	4	153	3	12	8	5	12	246	12	10	19	12			
11:30 PM	2	90	1	8	5	4	6	150	8	5	11	9			
11:45 PM	1	39	0	2	4	0	4	70	5	2	3	4			
Movement Total	**967**	**15888**	**2234**	**1557**	**2543**	**773**	**3061**	**15638**	**1367**	**2473**	**3024**	**2115**			Movement Total
PC %	97.7%	96.2%	97.4%	93.6%	95.9%	97.5%	97.6%	96.2%	96.1%	98.5%	96.1%	97.2%			PC %
Heavy Veh %	2.3%	3.8%	2.6%	6.4%	4.1%	2.5%	2.4%	3.8%	3.9%	1.5%	3.9%	2.8%			Heavy Veh %

Study Name	Chicago Avenue & Thatcher Avenue
Start Date	12/08/2022
Start Time	12:00 AM

	Thatcher Avenue Southbound			Chicago Avenue Westbound			Thatcher Avenue Northbound			Chicago Avenue Eastbound							
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	**Hourly Total**	PC %	Heavy Veh %	Peak Hour Factor	FILTER
12:00 AM	3	9	8	0	10	2	1	12	1	1	11	3	**61**	96.7%	3.3%		
12:15 AM	2	8	7	0	14	2	1	7	1	2	6	3	**53**	96.2%	3.8%		
12:30 AM	1	8	3	0	11	2	1	6	1	1	7	3	**44**	97.7%	2.3%		
12:45 AM	2	7	3	0	10	0	1	9	0	1	4	3	**40**	97.5%	2.5%		
1:00 AM	1	7	3	0	10	0	1	8	0	2	4	1	**37**	100.0%	0.0%		
1:15 AM	3	5	3	0	5	0	1	8	0	1	5	0	**31**	100.0%	0.0%		
1:30 AM	3	4	3	0	3	1	1	7	0	1	5	0	**28**	96.4%	3.6%		
1:45 AM	2	5	4	0	2	1	1	4	0	3	3	0	**25**	96.0%	4.0%		
2:00 AM	2	5	4	0	1	1	0	4	0	2	5	0	**24**	95.8%	4.2%		
2:15 AM	1	6	5	0	1	2	0	3	0	2	4	0	**24**	95.8%	4.2%		
2:30 AM	1	6	5	0	1	1	0	3	0	2	4	0	**23**	100.0%	0.0%		
2:45 AM	2	6	3	1	4	1	0	2	0	0	6	0	**25**	100.0%	0.0%		
3:00 AM	2	7	2	1	7	1	0	2	0	0	5	0	**27**	100.0%	0.0%		
3:15 AM	1	9	1	1	9	0	0	1	1	0	5	0	**28**	100.0%	0.0%		
3:30 AM	1	13	1	1	11	0	0	4	1	0	8	0	**40**	100.0%	0.0%		
3:45 AM	1	15	3	0	11	2	0	4	1	0	10	0	**47**	100.0%	0.0%		
4:00 AM	1	15	5	0	15	2	0	6	1	0	10	0	**55**	100.0%	0.0%		
4:15 AM	1	18	5	0	22	3	0	9	0	1	14	0	**73**	98.6%	1.4%		
4:30 AM	5	21	8	0	27	4	1	9	1	2	12	4	**94**	98.9%	1.1%		
4:45 AM	5	31	10	0	36	3	2	19	1	5	17	5	**134**	99.3%	0.7%		
5:00 AM	7	39	9	2	35	4	3	24	1	7	26	7	**164**	98.2%	1.8%		
5:15 AM	8	47	10	3	36	5	3	32	2	10	31	14	**201**	98.0%	2.0%		
5:30 AM	7	67	14	8	48	7	3	43	4	12	47	10	**270**	97.8%	2.2%		
5:45 AM	9	78	15	9	59	10	2	49	6	19	74	15	**345**	96.8%	3.2%		
6:00 AM	28	122	23	9	76	12	3	74	10	24	116	19	**516**	97.7%	2.3%		
6:15 AM	38	154	33	9	97	17	10	96	15	42	163	25	**699**	97.7%	2.3%		
6:30 AM	54	190	37	7	114	22	13	128	19	59	213	36	**892**	98.1%	1.9%		
6:45 AM	69	228	54	14	148	28	26	168	29	78	256	48	**1146**	98.3%	1.7%		
7:00 AM	73	273	70	19	184	34	30	206	35	112	274	55	**1365**	98.5%	1.5%		
7:15 AM	80	294	80	24	232	32	44	241	38	113	293	54	**1525**	98.7%	1.3%		
7:30 AM	76	311	88	34	250	29	54	243	44	115	280	52	**1576**	98.7%	1.3%	0.91	**AM Peak**
7:45 AM	72	311	80	36	247	25	53	235	42	108	245	45	**1499**	98.6%	1.4%		
8:00 AM	60	266	67	33	234	22	51	208	40	77	216	39	**1313**	98.2%	1.8%		
8:15 AM	52	229	57	28	193	23	35	169	34	76	178	34	**1108**	97.7%	2.3%		
8:30 AM	42	183	41	20	170	26	26	154	26	61	160	32	**941**	97.1%	2.9%		
8:45 AM	46	168	42	12	151	25	18	146	18	53	159	26	**864**	96.2%	3.8%		
9:00 AM	43	146	39	12	134	24	32	133	14	58	157	32	**824**	96.4%	3.6%		
9:15 AM	43	148	40	15	133	25	39	126	14	48	144	34	**809**	97.2%	2.8%		

9:30 AM	51	161	44	15	136	28	38	122	10	47	136	37	**825**	97.3%	2.7%		
9:45 AM	40	147	34	19	137	34	38	104	9	40	118	38	**758**	98.8%	1.2%		
10:00 AM	40	150	36	17	145	36	25	100	8	31	123	31	**742**	98.2%	1.8%		
10:15 AM	40	142	32	15	139	40	19	104	7	30	135	29	**732**	97.8%	2.2%		
10:30 AM	35	132	47	15	154	31	23	110	10	37	132	30	**756**	97.4%	2.6%		
10:45 AM	41	140	50	13	162	26	28	119	12	38	136	30	**795**	97.0%	3.0%		
11:00 AM	41	134	53	14	169	27	28	129	17	42	129	31	**814**	97.3%	2.7%		
11:15 AM	45	156	56	16	172	24	30	137	19	39	120	42	**856**	97.8%	2.2%		
11:30 AM	51	153	48	14	157	30	28	129	16	31	128	44	**829**	98.2%	1.8%		
11:45 AM	49	148	53	13	153	30	31	147	21	29	146	51	**871**	97.8%	2.2%		
12:00 PM	54	173	54	17	148	25	35	147	16	32	143	55	**899**	98.0%	2.0%		
12:15 PM	60	163	53	15	149	22	36	136	15	37	155	41	**882**	97.7%	2.3%		
12:30 PM	54	180	51	14	165	17	40	138	17	40	161	43	**920**	98.0%	2.0%		
12:45 PM	67	201	56	18	173	20	36	110	15	49	167	49	**961**	98.5%	1.5%		
1:00 PM	63	194	58	13	180	35	50	106	19	47	179	50	**994**	98.7%	1.3%		
1:15 PM	61	202	63	18	198	38	49	114	20	46	191	55	**1055**	98.6%	1.4%		
1:30 PM	77	215	70	25	194	41	43	124	23	58	206	47	**1123**	98.2%	1.8%		
1:45 PM	80	225	66	27	196	38	45	160	25	60	209	40	**1171**	98.5%	1.5%		
2:00 PM	96	259	74	31	205	24	30	176	22	76	221	42	**1256**	98.3%	1.7%		
2:15 PM	115	295	75	31	218	20	31	206	25	85	237	50	**1388**	98.6%	1.4%		
2:30 PM	125	320	89	40	230	23	39	223	24	78	246	60	**1497**	98.6%	1.4%		
2:45 PM	123	328	103	49	257	27	43	238	24	80	244	61	**1577**	98.1%	1.9%		
3:00 PM	125	337	105	57	275	31	51	262	26	74	278	60	**1681**	98.0%	2.0%		
3:15 PM	117	355	111	58	278	46	52	275	26	70	300	57	**1745**	97.9%	2.1%		
3:30 PM	115	365	103	49	293	43	48	289	25	99	309	61	**1799**	97.7%	2.3%		
3:45 PM	122	380	103	45	286	44	44	268	25	111	342	55	**1825**	98.0%	2.0%	0.98	**PM Peak**
4:00 PM	125	368	96	37	281	39	37	267	33	118	327	55	**1783**	98.5%	1.5%		
4:15 PM	127	343	100	35	293	26	39	261	36	127	345	51	**1783**	98.7%	1.3%		
4:30 PM	127	324	91	32	292	38	36	264	40	116	347	45	**1752**	99.2%	0.8%		
4:45 PM	134	304	76	24	308	48	38	270	42	108	324	52	**1728**	99.2%	0.8%		
5:00 PM	140	293	68	28	291	55	33	269	35	114	347	55	**1728**	99.1%	0.9%		
5:15 PM	146	295	52	30	259	54	30	256	30	109	328	58	**1647**	99.0%	1.0%		
5:30 PM	135	265	52	34	231	45	27	240	27	97	334	52	**1539**	99.2%	0.8%		
5:45 PM	120	248	48	32	184	30	20	218	29	91	347	50	**1417**	99.4%	0.6%		
6:00 PM	96	214	51	28	172	26	22	182	26	76	304	42	**1239**	99.4%	0.6%		
6:15 PM	65	161	50	20	159	25	15	167	24	75	264	33	**1058**	99.7%	0.3%		
6:30 PM	53	145	47	13	140	18	17	128	20	70	220	31	**902**	99.4%	0.6%		
6:45 PM	41	112	58	14	137	14	17	106	13	63	175	23	**773**	99.5%	0.5%		
7:00 PM	39	112	52	11	121	16	15	85	10	53	140	18	**672**	99.7%	0.3%		
7:15 PM	47	122	56	12	107	15	13	61	10	37	113	18	**611**	99.7%	0.3%		
7:30 PM	49	109	48	9	103	15	10	62	10	32	95	16	**558**	100.0%	0.0%		
7:45 PM	39	107	37	4	88	14	5	57	7	29	72	16	**475**	100.0%	0.0%		
8:00 PM	28	86	40	1	78	8	2	57	9	24	83	16	**432**	100.0%	0.0%		
8:15 PM	22	71	36	4	74	7	6	62	8	24	82	20	**416**	99.8%	0.2%		
8:30 PM	19	72	36	5	64	7	6	57	9	21	82	20	**398**	99.5%	0.5%		
8:45 PM	21	72	28	6	62	7	10	58	7	16	86	21	**394**	99.5%	0.5%		

9:00 PM	25	71	19	9	61	5	9	50	5	15	65	18	**352**	99.4%	0.6%	
9:15 PM	18	66	11	7	51	7	5	41	3	14	56	10	**289**	99.3%	0.7%	
9:30 PM	13	60	7	7	44	7	4	37	2	13	52	7	**253**	99.6%	0.4%	
9:45 PM	12	51	9	6	30	6	3	35	3	14	47	4	**220**	99.5%	0.5%	
10:00 PM	8	52	10	3	24	6	4	33	4	12	41	7	**204**	99.5%	0.5%	
10:15 PM	7	48	9	2	21	2	4	32	4	12	33	7	**181**	99.4%	0.6%	
10:30 PM	5	34	10	1	19	1	5	27	3	8	23	5	**141**	99.3%	0.7%	
10:45 PM	3	31	8	1	19	2	2	23	2	6	18	5	**120**	99.2%	0.8%	
11:00 PM	5	22	5	1	21	2	1	25	0	6	18	4	**110**	98.2%	1.8%	
11:15 PM	5	13	4	0	16	2	1	14	0	3	14	4				
11:30 PM	4	10	2	0	13	1	0	9	0	2	9	4				
11:45 PM	3	4	1	0	8	0	0	5	0	1	6	2				
Movement Total	**1105**	**3354**	**951**	**343**	**2877**	**437**	**463**	**2565**	**332**	**1003**	**3222**	**640**				Movement Total
PC %	98.6%	98.6%	98.5%	93.9%	98.3%	97.5%	99.8%	98.7%	95.5%	98.7%	98.5%	99.7%				PC %
Heavy Veh %	1.4%	1.4%	1.5%	6.1%	1.7%	2.5%	0.2%	1.3%	4.5%	1.3%	1.5%	0.3%				Heavy Veh %

Study Name: Chicago Avenue & Lathrop Avenue
Start Date: 12/08/2022
Start Time: 12:00 AM

	Lathrop Avenue Southbound			Chicago Avenue Westbound			Lathrop Avenue Northbound			Chicago Avenue Eastbound							
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	**Hourly Total**	PC %	Heavy Veh %	Peak Hour Factor	FILTER
12:00 AM	0	2	0	2	14	0	0	6	0	1	15	0	**40**	95.0%	5.0%		
12:15 AM	0	2	0	0	16	0	0	3	0	1	10	0	**32**	93.8%	6.3%		
12:30 AM	0	3	1	0	13	0	0	3	0	1	10	0	**31**	93.5%	6.5%		
12:45 AM	0	2	1	0	13	0	0	3	0	1	6	0	**26**	96.2%	3.8%		
1:00 AM	0	1	1	0	9	0	0	3	0	0	4	0	**18**	100.0%	0.0%		
1:15 AM	0	2	1	0	6	0	0	2	0	0	4	0	**15**	100.0%	0.0%		
1:30 AM	0	1	0	0	5	1	1	1	0	0	5	0	**14**	100.0%	0.0%		
1:45 AM	0	1	0	0	1	1	1	1	0	0	3	0	**8**	100.0%	0.0%		
2:00 AM	0	1	0	0	1	1	1	1	0	0	4	1	**10**	100.0%	0.0%		
2:15 AM	0	0	0	0	1	1	1	1	0	0	4	1	**9**	100.0%	0.0%		
2:30 AM	0	0	0	0	1	0	0	2	0	1	3	1	**8**	100.0%	0.0%		
2:45 AM	0	0	0	0	6	0	0	1	0	2	4	1	**14**	100.0%	0.0%		
3:00 AM	0	0	0	0	8	0	0	3	0	2	5	0	**18**	100.0%	0.0%		
3:15 AM	0	1	0	0	10	0	0	4	0	2	7	0	**24**	100.0%	0.0%		
3:30 AM	0	3	0	0	11	0	0	4	0	1	9	0	**28**	100.0%	0.0%		
3:45 AM	0	3	0	0	10	0	0	5	0	0	15	0	**33**	100.0%	0.0%		
4:00 AM	0	5	0	0	18	0	0	4	0	0	15	0	**42**	100.0%	0.0%		
4:15 AM	0	5	1	0	23	0	0	4	0	0	17	0	**50**	98.0%	2.0%		
4:30 AM	0	8	1	1	31	0	0	5	0	0	23	2	**71**	97.2%	2.8%		
4:45 AM	0	10	2	2	39	0	0	8	2	0	27	2	**92**	97.8%	2.2%		
5:00 AM	1	13	2	2	37	0	0	13	3	2	35	2	**110**	97.3%	2.7%		
5:15 AM	2	22	1	3	42	0	0	15	3	3	40	3	**134**	97.0%	3.0%		
5:30 AM	4	29	3	7	55	1	1	20	4	4	53	1	**182**	97.3%	2.7%		
5:45 AM	7	44	2	8	71	1	3	23	3	4	88	6	**260**	96.2%	3.8%		
6:00 AM	8	53	4	11	94	1	5	42	5	3	138	11	**375**	97.1%	2.9%		
6:15 AM	10	76	6	13	115	3	6	56	11	6	193	17	**512**	97.7%	2.3%		
6:30 AM	15	101	8	12	137	3	10	85	16	12	238	26	**663**	98.3%	1.7%		
6:45 AM	24	131	9	17	185	10	14	133	24	14	325	31	**917**	98.7%	1.3%		
7:00 AM	26	186	11	21	228	13	24	171	31	22	336	34	**1103**	98.5%	1.5%		
7:15 AM	33	203	12	26	276	15	33	189	41	31	380	44	**1283**	98.2%	1.8%		
7:30 AM	39	222	15	37	300	17	45	223	57	33	402	48	**1438**	98.1%	1.9%	0.94	**AM Peak**
7:45 AM	32	220	16	34	272	13	49	202	53	34	344	43	**1312**	98.1%	1.9%		
8:00 AM	31	187	16	32	243	13	42	185	49	30	332	38	**1198**	97.8%	2.2%		
8:15 AM	22	170	13	33	215	13	33	180	41	21	267	26	**1034**	97.9%	2.1%		
8:30 AM	11	146	8	26	189	12	22	146	26	15	220	17	**838**	97.6%	2.4%		
8:45 AM	10	130	9	29	178	10	17	145	31	13	209	13	**794**	96.6%	3.4%		
9:00 AM	9	117	8	31	170	13	18	128	34	13	197	13	**751**	97.1%	2.9%		
9:15 AM	11	118	11	30	158	10	22	125	30	11	198	13	**737**	97.4%	2.6%		

9:30 AM	16	106	11	31	150	10	20	115	31	9	194	15	**708**	97.5%	2.5%		
9:45 AM	16	111	10	35	161	15	22	108	29	10	163	18	**698**	98.9%	1.1%		
10:00 AM	20	111	9	32	171	9	18	119	29	10	170	20	**718**	97.9%	2.1%		
10:15 AM	19	111	7	33	175	13	22	130	32	8	183	18	**751**	98.0%	2.0%		
10:30 AM	14	119	8	33	183	14	27	152	37	7	192	14	**800**	97.4%	2.6%		
10:45 AM	16	113	11	28	188	13	26	166	40	12	209	18	**840**	97.1%	2.9%		
11:00 AM	15	128	12	37	186	18	31	176	36	8	199	21	**867**	98.0%	2.0%		
11:15 AM	23	135	17	33	187	15	28	179	36	9	185	25	**872**	98.3%	1.7%		
11:30 AM	22	139	15	29	185	14	23	159	33	11	183	28	**841**	98.8%	1.2%		
11:45 AM	19	145	15	32	174	15	24	152	33	5	182	28	**824**	98.7%	1.3%		
12:00 PM	18	149	13	27	174	14	23	143	34	7	191	26	**819**	98.3%	1.7%		
12:15 PM	12	163	7	30	175	13	20	151	42	10	193	32	**848**	98.0%	2.0%		
12:30 PM	17	161	9	33	191	12	18	168	39	10	194	34	**886**	98.1%	1.9%		
12:45 PM	17	165	6	30	205	12	15	176	39	11	200	38	**914**	98.6%	1.4%		
1:00 PM	20	161	8	28	213	11	14	176	43	20	221	38	**953**	99.0%	1.0%		
1:15 PM	16	150	12	26	224	18	15	171	34	19	239	31	**955**	98.7%	1.3%		
1:30 PM	13	163	13	27	233	22	14	158	39	22	259	34	**997**	98.6%	1.4%		
1:45 PM	15	169	13	32	235	20	15	161	33	22	291	32	**1038**	98.3%	1.7%		
2:00 PM	11	172	17	36	239	20	11	162	35	12	306	44	**1065**	97.9%	2.1%		
2:15 PM	22	168	18	40	259	15	11	164	38	14	342	48	**1139**	98.4%	1.6%		
2:30 PM	25	197	19	42	271	19	25	201	48	15	376	50	**1288**	98.7%	1.3%		
2:45 PM	24	206	20	40	309	24	28	205	53	15	388	46	**1358**	98.4%	1.6%		
3:00 PM	29	234	18	49	341	31	35	230	51	20	407	42	**1487**	98.5%	1.5%		
3:15 PM	22	248	17	51	342	31	42	264	54	17	422	42	**1552**	98.1%	1.9%	0.94	**PM Peak**
3:30 PM	19	225	16	46	342	26	36	260	51	20	429	46	**1516**	98.0%	2.0%		
3:45 PM	19	220	14	47	321	20	40	270	52	24	449	46	**1522**	98.4%	1.6%		
4:00 PM	16	197	12	45	296	18	42	270	57	29	448	48	**1478**	98.4%	1.6%		
4:15 PM	22	196	11	43	306	20	36	246	61	32	456	46	**1475**	98.8%	1.2%		
4:30 PM	23	210	11	47	329	27	41	249	56	30	459	43	**1525**	99.1%	0.9%		
4:45 PM	21	217	13	47	354	27	35	249	54	26	447	44	**1534**	99.1%	0.9%		
5:00 PM	21	216	13	39	362	22	30	244	51	20	472	38	**1528**	99.3%	0.7%		
5:15 PM	11	226	15	35	327	21	33	259	42	19	491	43	**1522**	99.4%	0.6%		
5:30 PM	8	202	13	33	288	15	32	257	36	17	481	53	**1435**	99.6%	0.4%		
5:45 PM	8	184	14	29	233	16	30	254	41	20	478	52	**1359**	99.8%	0.2%		
6:00 PM	3	164	14	22	215	16	31	231	46	19	418	50	**1229**	99.8%	0.2%		
6:15 PM	9	130	14	25	200	17	26	203	42	21	332	38	**1057**	99.5%	0.5%		
6:30 PM	12	116	15	20	165	14	19	175	39	21	275	18	**889**	99.3%	0.7%		
6:45 PM	16	104	15	18	165	13	16	159	32	17	224	14	**793**	99.4%	0.6%		
7:00 PM	20	99	13	19	145	14	14	135	19	13	182	10	**683**	99.4%	0.6%		
7:15 PM	18	97	12	14	138	11	13	118	19	9	159	11	**619**	99.8%	0.2%		
7:30 PM	14	95	9	12	133	14	9	105	18	7	146	8	**570**	99.8%	0.2%		
7:45 PM	9	86	7	10	114	13	11	84	17	6	108	7	**472**	99.8%	0.2%		
8:00 PM	6	83	6	11	103	10	7	91	16	6	113	3	**455**	99.6%	0.4%		
8:15 PM	2	67	6	8	99	10	6	78	18	6	108	2	**410**	99.5%	0.5%		
8:30 PM	3	61	7	10	93	7	5	75	15	4	104	4	**388**	99.5%	0.5%		
8:45 PM	4	50	6	11	87	6	3	73	10	5	103	4	**362**	99.4%	0.6%		

9:00 PM	3	39	6	10	71	6	4	63	7	6	83	6	**304**	99.7%	0.3%	
9:15 PM	3	42	2	9	59	7	3	62	3	6	68	6	**270**	99.6%	0.4%	
9:30 PM	2	30	1	6	59	6	3	49	4	6	59	5	**230**	100.0%	0.0%	
9:45 PM	0	28	0	3	45	6	3	40	6	5	55	4	**195**	100.0%	0.0%	
10:00 PM	0	30	1	2	46	5	2	36	7	3	50	4	**186**	100.0%	0.0%	
10:15 PM	0	23	2	3	35	2	2	30	7	1	40	3	**148**	99.3%	0.7%	
10:30 PM	2	21	2	4	22	1	1	24	5	0	28	2	**112**	99.1%	0.9%	
10:45 PM	2	19	2	4	22	0	0	18	2	0	23	2	**94**	98.9%	1.1%	
11:00 PM	2	12	1	2	22	0	0	13	2	0	22	0	**76**	98.7%	1.3%	
11:15 PM	2	5	0	1	17	0	0	7	1	0	19	0				
11:30 PM	0	2	0	0	14	0	0	4	1	0	14	0				
11:45 PM	0	1	0	0	8	0	0	3	1	0	9	0				
Movement Total	**259**	**2360**	**185**	**458**	**3406**	**235**	**352**	**2645**	**555**	**246**	**4363**	**449**				Movement Total
PC %	98.1%	99.1%	96.8%	97.8%	98.1%	99.6%	100.0%	98.9%	98.7%	99.2%	98.3%	98.9%				PC %
Heavy Veh %	1.9%	0.9%	3.2%	2.2%	1.9%	0.4%	0.0%	1.1%	1.3%	0.8%	1.7%	1.1%				Heavy Veh %

Study Name: Chicago Avenue & Harlem Avenue
Start Date: 12/06/2022
Start Time: 12:00 AM

	Harlem Avenue Southbound			Chicago Avenue Westbound			Harlem Avenue Northbound			Chicago Avenue Eastbound							
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	**Hourly Total**	PC %	Heavy Veh %	Peak Hour Factor	FILTER
12:00 AM	6	123	1	6	7	7	4	169	16	0	9	3	**351**	98.0%	2.0%		
12:15 AM	6	114	0	1	6	6	3	141	12	0	10	1	**300**	98.0%	2.0%		
12:30 AM	5	99	0	3	5	5	2	125	12	0	6	1	**263**	98.5%	1.5%		
12:45 AM	5	93	0	4	5	6	1	124	4	0	3	0	**245**	98.4%	1.6%		
1:00 AM	4	90	0	4	3	4	2	124	6	0	4	0	**241**	97.9%	2.1%		
1:15 AM	2	87	0	6	4	3	1	116	5	0	3	0	**227**	96.5%	3.5%		
1:30 AM	5	96	0	4	3	3	1	105	4	0	5	1	**227**	94.3%	5.7%		
1:45 AM	4	99	0	7	3	1	2	87	4	0	5	1	**213**	94.4%	5.6%		
2:00 AM	6	97	0	7	3	2	2	75	3	0	4	1	**200**	93.0%	7.0%		
2:15 AM	6	97	0	4	2	1	2	70	5	0	2	1	**190**	93.2%	6.8%		
2:30 AM	3	86	1	5	2	2	2	60	4	0	2	1	**168**	93.5%	6.5%		
2:45 AM	5	104	1	2	3	4	2	66	5	0	2	2	**196**	91.3%	8.7%		
3:00 AM	6	122	1	4	6	5	2	79	4	0	3	4	**236**	93.6%	6.4%		
3:15 AM	10	156	1	7	7	6	2	97	3	0	4	4	**297**	94.3%	5.7%		
3:30 AM	11	211	0	8	10	5	2	121	4	0	7	3	**382**	94.8%	5.2%		
3:45 AM	11	250	1	11	10	7	2	168	3	0	12	6	**481**	95.8%	4.2%		
4:00 AM	10	296	2	14	9	10	3	191	6	0	13	4	**558**	95.9%	4.1%		
4:15 AM	11	358	3	16	16	18	4	230	7	1	15	6	**685**	95.0%	5.0%		
4:30 AM	15	434	3	19	22	28	7	282	8	3	11	9	**841**	95.8%	4.2%		
4:45 AM	18	508	2	22	34	28	8	318	10	4	20	7	**979**	96.2%	3.8%		
5:00 AM	26	570	3	22	37	29	13	403	9	6	35	9	**1162**	95.9%	4.1%		
5:15 AM	33	675	2	32	46	32	18	467	13	5	40	14	**1377**	96.3%	3.7%		
5:30 AM	37	716	3	43	58	33	16	518	20	6	65	15	**1530**	95.8%	4.2%		
5:45 AM	49	826	5	60	61	43	18	563	37	11	90	25	**1788**	95.7%	4.3%		
6:00 AM	58	948	6	76	86	51	22	617	54	17	134	32	**2101**	95.5%	4.5%		
6:15 AM	65	1004	8	85	101	50	25	664	72	22	185	34	**2315**	95.6%	4.4%		
6:30 AM	83	1063	14	89	134	54	31	712	80	24	226	38	**2548**	95.8%	4.2%		
6:45 AM	90	1075	18	93	185	60	38	796	79	29	274	39	**2776**	95.9%	4.1%		
7:00 AM	94	1107	23	104	214	63	41	824	88	32	279	50	**2919**	96.1%	3.9%		
7:15 AM	97	1103	27	119	261	74	54	905	92	36	293	55	**3116**	96.2%	3.8%		
7:30 AM	96	1120	32	143	267	83	67	940	108	40	305	57	**3258**	96.5%	3.5%	0.96	**AM Peak**
7:45 AM	97	1135	33	146	256	92	72	931	122	34	270	58	**3246**	96.4%	3.6%		
8:00 AM	92	1102	34	152	262	99	65	930	117	26	282	50	**3211**	96.4%	3.6%		
8:15 AM	83	1040	30	140	213	93	52	863	106	23	268	43	**2954**	96.2%	3.8%		
8:30 AM	70	1010	20	123	191	92	49	845	102	24	230	41	**2797**	95.7%	4.3%		
8:45 AM	59	935	17	123	177	84	47	834	95	23	208	34	**2636**	95.4%	4.6%		
9:00 AM	62	902	14	117	143	82	48	842	97	23	177	33	**2540**	95.1%	4.9%		
9:15 AM	64	897	17	129	138	95	49	820	104	26	152	38	**2529**	94.7%	5.3%		

9:30 AM	66	855	20	124	137	86	40	827	104	20	145	43	**2467**	94.6%	5.4%		
9:45 AM	72	829	19	117	135	76	36	784	107	24	156	45	**2400**	94.9%	5.1%		
10:00 AM	70	832	15	114	145	82	39	787	125	31	159	45	**2444**	94.9%	5.1%		
10:15 AM	68	836	18	106	164	75	37	820	124	33	167	44	**2492**	94.7%	5.3%		
10:30 AM	69	868	19	108	180	76	41	848	131	38	158	41	**2577**	94.5%	5.5%		
10:45 AM	60	870	24	118	181	86	45	913	120	37	172	44	**2670**	94.2%	5.8%		
11:00 AM	58	837	26	122	179	89	55	905	116	35	156	47	**2625**	94.6%	5.4%		
11:15 AM	66	840	23	120	177	88	65	882	126	34	159	55	**2635**	95.2%	4.8%		
11:30 AM	70	835	24	118	171	95	69	860	122	30	190	53	**2637**	95.4%	4.6%		
11:45 AM	71	818	20	120	178	100	71	820	126	32	195	62	**2613**	96.1%	3.9%		
12:00 PM	78	863	21	108	177	90	61	829	128	32	200	64	**2651**	95.9%	4.1%		
12:15 PM	74	870	22	112	174	84	63	838	121	32	213	55	**2658**	95.9%	4.1%		
12:30 PM	61	881	23	117	173	76	60	810	118	37	205	58	**2619**	96.0%	4.0%		
12:45 PM	64	914	24	106	189	75	61	785	123	34	201	49	**2625**	95.5%	4.5%		
1:00 PM	56	916	25	118	191	88	70	784	110	36	200	45	**2639**	96.2%	3.8%		
1:15 PM	59	925	23	109	195	94	57	825	114	41	191	50	**2683**	96.4%	3.6%		
1:30 PM	68	941	27	122	214	102	53	917	111	42	191	54	**2842**	96.5%	3.5%		
1:45 PM	71	991	27	133	214	104	43	967	115	50	210	56	**2981**	96.4%	3.6%		
2:00 PM	79	982	32	138	245	94	34	981	127	53	249	58	**3072**	96.2%	3.8%		
2:15 PM	80	1030	35	159	264	110	45	1001	116	52	275	52	**3219**	96.2%	3.8%		
2:30 PM	88	1049	28	162	296	113	63	960	110	54	315	60	**3298**	96.6%	3.4%		
2:45 PM	92	1074	31	170	336	121	68	969	108	55	329	58	**3411**	97.2%	2.8%		
3:00 PM	89	1075	24	163	348	129	70	1007	120	52	342	65	**3484**	97.4%	2.6%		
3:15 PM	95	1056	23	162	359	128	71	1019	140	55	362	76	**3546**	97.6%	2.4%		
3:30 PM	88	1059	24	150	342	131	61	1023	156	57	372	76	**3539**	97.7%	2.3%		
3:45 PM	88	1021	22	139	314	129	75	1029	162	56	373	87	**3495**	97.6%	2.4%		
4:00 PM	94	1058	21	147	317	136	80	1008	154	59	391	99	**3564**	97.9%	2.1%	0.93	**PM Peak**
4:15 PM	96	1058	23	138	329	125	85	997	148	58	390	94	**3541**	98.1%	1.9%		
4:30 PM	97	1044	25	134	346	123	94	985	149	60	404	82	**3543**	98.2%	1.8%		
4:45 PM	88	1043	21	148	344	119	88	992	150	69	409	72	**3543**	98.4%	1.6%		
5:00 PM	83	997	19	139	343	105	87	949	131	68	388	54	**3363**	98.4%	1.6%		
5:15 PM	80	968	19	143	314	119	72	938	133	63	378	55	**3282**	98.5%	1.5%		
5:30 PM	78	970	14	152	268	114	64	945	126	57	354	60	**3202**	98.6%	1.4%		
5:45 PM	91	1005	14	138	243	110	56	935	123	41	331	62	**3149**	98.6%	1.4%		
6:00 PM	90	964	17	132	200	101	58	955	132	35	300	61	**3045**	98.6%	1.4%		
6:15 PM	81	918	12	124	184	80	66	959	123	32	259	56	**2894**	98.6%	1.4%		
6:30 PM	78	836	10	105	167	70	60	929	116	30	201	46	**2648**	98.6%	1.4%		
6:45 PM	67	720	9	89	150	60	59	912	109	26	171	42	**2414**	98.6%	1.4%		
7:00 PM	59	674	11	82	129	56	51	874	95	27	151	33	**2242**	98.7%	1.3%		
7:15 PM	52	641	9	70	107	56	46	800	93	20	133	30	**2057**	98.7%	1.3%		
7:30 PM	44	613	9	63	85	52	41	748	80	13	116	32	**1896**	98.5%	1.5%		
7:45 PM	36	605	10	54	74	53	43	697	77	16	91	25	**1781**	98.7%	1.3%		
8:00 PM	38	613	5	57	68	50	39	650	71	10	71	29	**1701**	98.2%	1.8%		
8:15 PM	38	605	7	59	70	47	32	620	62	10	53	31	**1634**	98.3%	1.7%		
8:30 PM	39	587	9	60	71	54	28	614	65	11	51	26	**1615**	98.3%	1.7%		
8:45 PM	34	564	7	63	60	50	18	581	60	10	44	27	**1518**	98.2%	1.8%		

9:00 PM	26	509	8	51	55	45	17	530	57	12	38	22	**1370**	98.3%	1.7%	
9:15 PM	20	477	5	38	41	41	21	505	55	12	43	15	**1273**	98.0%	2.0%	
9:30 PM	20	466	3	36	34	34	22	488	49	12	43	13	**1220**	98.4%	1.6%	
9:45 PM	22	402	3	29	30	29	24	451	51	9	41	8	**1099**	98.4%	1.6%	
10:00 PM	22	380	3	25	24	28	20	441	47	7	37	7	**1041**	98.5%	1.5%	
10:15 PM	22	337	3	23	23	20	15	412	44	6	32	7	**944**	98.3%	1.7%	
10:30 PM	17	271	2	18	18	16	13	371	40	3	25	7	**801**	98.3%	1.7%	
10:45 PM	16	246	2	16	17	14	9	359	25	1	17	8	**730**	98.1%	1.9%	
11:00 PM	11	207	0	13	14	14	9	329	24	0	13	6	**640**	97.3%	2.7%	
11:15 PM	7	141	0	7	8	11	5	238	14	0	6	3				
11:30 PM	5	83	0	3	7	8	3	144	10	0	2	2				
11:45 PM	2	41	0	1	1	3	2	63	6	0	2	1				
Movement Total	**1217**	**16264**	**311**	**1915**	**3205**	**1459**	**892**	**15283**	**1837**	**561**	**3635**	**821**				Movement Total
PC %	97.8%	96.2%	96.8%	97.3%	98.1%	97.7%	98.8%	96.2%	96.9%	98.2%	98.2%	98.2%				PC %
Heavy Veh %	2.2%	3.8%	3.2%	2.7%	1.9%	2.3%	1.2%	3.8%	3.1%	1.8%	1.8%	1.8%				Heavy Veh %

Study Name: Augusta Street & Thatcher Avenue
Start Date: 12/08/2022
Start Time: 12:00 AM

	Thatcher Avenue Southbound			Augusta Street Westbound			Thatcher Avenue Northbound			0 0							
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	0	0	0	**Hourly Total**	PC %	Heavy Veh %	Peak Hour Factor	FILTER
12:00 AM	1	19	0	0	0	1	0	14	1	0	0	0	**36**	100.0%	0.0%		
12:15 AM	0	16	0	0	0	1	0	10	2	0	0	0	**29**	100.0%	0.0%		
12:30 AM	0	11	0	0	0	1	0	8	1	0	0	0	**21**	100.0%	0.0%		
12:45 AM	0	11	0	0	0	1	0	7	2	0	0	0	**21**	100.0%	0.0%		
1:00 AM	0	11	0	1	0	1	0	8	2	0	0	0	**23**	100.0%	0.0%		
1:15 AM	0	10	0	1	0	1	0	8	1	0	0	0	**21**	100.0%	0.0%		
1:30 AM	0	10	0	1	0	1	0	8	1	0	0	0	**21**	95.2%	4.8%		
1:45 AM	0	10	0	1	0	0	0	9	0	0	0	0	**20**	95.0%	5.0%		
2:00 AM	0	10	0	0	0	0	0	7	0	0	0	0	**17**	94.1%	5.9%		
2:15 AM	0	12	0	0	0	0	0	7	0	0	0	0	**19**	94.7%	5.3%		
2:30 AM	2	11	0	0	0	1	0	6	0	0	0	0	**20**	100.0%	0.0%		
2:45 AM	2	11	0	0	0	3	0	3	0	0	0	0	**19**	100.0%	0.0%		
3:00 AM	2	11	0	0	0	3	0	3	0	0	0	0	**19**	100.0%	0.0%		
3:15 AM	2	11	0	0	0	4	0	1	0	0	0	0	**18**	100.0%	0.0%		
3:30 AM	0	15	0	0	0	4	0	4	0	0	0	0	**23**	100.0%	0.0%		
3:45 AM	0	16	0	2	0	3	0	6	0	0	0	0	**27**	100.0%	0.0%		
4:00 AM	0	19	0	2	0	4	0	7	0	0	0	0	**32**	100.0%	0.0%		
4:15 AM	0	21	0	4	0	3	0	13	0	0	0	0	**41**	100.0%	0.0%		
4:30 AM	0	27	0	6	0	5	0	15	0	0	0	0	**53**	100.0%	0.0%		
4:45 AM	0	40	0	4	0	6	0	24	1	0	0	0	**75**	100.0%	0.0%		
5:00 AM	0	49	0	4	0	7	0	34	2	0	0	0	**96**	96.9%	3.1%		
5:15 AM	0	61	0	2	0	9	0	45	3	0	0	0	**120**	97.5%	2.5%		
5:30 AM	0	85	0	1	0	14	0	59	4	0	0	0	**163**	97.5%	2.5%		
5:45 AM	0	103	0	2	0	15	0	74	7	0	0	0	**201**	97.0%	3.0%		
6:00 AM	1	164	0	10	0	17	0	103	7	0	0	0	**302**	98.7%	1.3%		
6:15 AM	1	213	0	15	0	22	0	134	19	0	0	0	**404**	98.3%	1.7%		
6:30 AM	1	272	0	15	0	31	0	179	33	0	0	0	**531**	98.7%	1.3%		
6:45 AM	2	341	0	19	0	47	0	240	37	0	0	0	**686**	98.7%	1.3%		
7:00 AM	3	388	0	27	0	58	0	306	50	0	0	0	**832**	99.0%	1.0%		
7:15 AM	3	415	0	40	0	69	0	347	47	0	0	0	**921**	99.2%	0.8%		
7:30 AM	5	427	0	51	0	67	0	351	41	0	0	0	**942**	99.0%	1.0%	0.85	**AM Peak**
7:45 AM	4	405	0	55	0	58	0	327	47	0	0	0	**896**	99.0%	1.0%		
8:00 AM	2	354	0	40	0	55	0	274	38	0	0	0	**763**	98.4%	1.6%		
8:15 AM	2	306	0	29	0	45	0	237	34	0	0	0	**653**	97.1%	2.9%		
8:30 AM	1	243	0	20	0	43	0	213	29	0	0	0	**549**	96.4%	3.6%		
8:45 AM	2	227	0	18	0	42	0	210	16	0	0	0	**515**	95.9%	4.1%		
9:00 AM	2	204	0	22	0	38	0	208	14	0	0	0	**488**	95.5%	4.5%		
9:15 AM	3	206	0	19	0	41	0	193	12	0	0	0	**474**	96.4%	3.6%		

9:30 AM	2	229	0	22	0	40	0	189	12	0	0	0	**494**	97.2%	2.8%		
9:45 AM	1	205	0	17	0	37	0	167	12	0	0	0	**439**	97.7%	2.3%		
10:00 AM	2	212	0	15	0	40	0	153	10	0	0	0	**432**	98.1%	1.9%		
10:15 AM	2	199	0	15	0	37	0	159	9	0	0	0	**421**	98.3%	1.7%		
10:30 AM	2	200	0	13	0	31	0	161	10	0	0	0	**417**	98.3%	1.7%		
10:45 AM	3	219	0	14	0	34	0	167	10	0	0	0	**447**	98.7%	1.3%		
11:00 AM	4	210	0	15	0	35	0	181	14	0	0	0	**459**	98.5%	1.5%		
11:15 AM	5	246	0	15	0	43	0	181	16	0	0	0	**506**	98.8%	1.2%		
11:30 AM	6	238	0	18	0	47	0	181	12	0	0	0	**502**	98.6%	1.4%		
11:45 AM	5	236	0	20	0	52	0	197	12	0	0	0	**522**	97.5%	2.5%		
12:00 PM	3	267	0	21	0	47	0	192	12	0	0	0	**542**	98.0%	2.0%		
12:15 PM	3	257	0	24	0	40	0	190	7	0	0	0	**521**	98.1%	1.9%		
12:30 PM	6	269	0	24	0	45	0	186	8	0	0	0	**538**	98.5%	1.5%		
12:45 PM	8	298	0	24	0	38	0	167	9	0	0	0	**544**	99.1%	0.9%		
1:00 PM	8	284	0	26	0	40	0	179	6	0	0	0	**543**	99.1%	0.9%		
1:15 PM	8	301	0	23	0	43	0	181	12	0	0	0	**568**	98.8%	1.2%		
1:30 PM	6	331	0	25	0	42	0	199	17	0	0	0	**620**	98.7%	1.3%		
1:45 PM	7	347	0	24	0	40	0	237	18	0	0	0	**673**	99.3%	0.7%		
2:00 PM	10	410	0	25	0	49	0	251	25	0	0	0	**770**	99.1%	0.9%		
2:15 PM	8	453	0	29	0	63	0	273	33	0	0	0	**859**	99.2%	0.8%		
2:30 PM	6	502	0	31	0	68	0	291	32	0	0	0	**930**	98.9%	1.1%		
2:45 PM	4	520	0	40	0	80	0	295	46	0	0	0	**985**	98.4%	1.6%		
3:00 PM	4	529	0	46	0	83	0	304	50	0	0	0	**1016**	97.7%	2.3%		
3:15 PM	14	544	0	47	0	78	0	343	46	0	0	0	**1072**	97.6%	2.4%		
3:30 PM	19	547	0	49	0	85	0	366	56	0	0	0	**1122**	97.3%	2.7%		
3:45 PM	20	571	0	44	0	89	0	364	56	0	0	0	**1144**	97.7%	2.3%	0.92	**PM Peak**
4:00 PM	17	565	0	38	0	94	0	371	54	0	0	0	**1139**	98.5%	1.5%		
4:15 PM	11	560	0	38	0	91	0	356	59	0	0	0	**1115**	98.8%	1.2%		
4:30 PM	12	525	0	32	0	80	0	363	52	0	0	0	**1064**	99.2%	0.8%		
4:45 PM	12	488	0	26	0	67	0	385	40	0	0	0	**1018**	99.1%	0.9%		
5:00 PM	12	486	0	19	0	41	0	414	30	0	0	0	**1002**	99.0%	1.0%		
5:15 PM	10	473	0	11	0	23	0	406	15	0	0	0	**938**	99.1%	0.9%		
5:30 PM	6	438	0	10	0	14	0	386	11	0	0	0	**865**	99.3%	0.7%		
5:45 PM	6	412	0	13	0	17	0	329	12	0	0	0	**789**	99.6%	0.4%		
6:00 PM	7	342	0	14	0	21	0	267	19	0	0	0	**670**	99.7%	0.3%		
6:15 PM	6	266	0	14	0	29	0	244	23	0	0	0	**582**	99.7%	0.3%		
6:30 PM	5	240	0	13	0	29	0	188	25	0	0	0	**500**	99.4%	0.6%		
6:45 PM	5	206	0	14	0	24	0	166	21	0	0	0	**436**	99.3%	0.7%		
7:00 PM	4	197	0	14	0	21	0	139	15	0	0	0	**390**	99.5%	0.5%		
7:15 PM	3	202	0	13	0	18	0	104	12	0	0	0	**352**	99.4%	0.6%		
7:30 PM	4	183	0	9	0	16	0	102	8	0	0	0	**322**	100.0%	0.0%		
7:45 PM	2	164	0	3	0	12	0	94	8	0	0	0	**283**	100.0%	0.0%		
8:00 PM	2	138	0	3	0	14	0	83	7	0	0	0	**247**	100.0%	0.0%		
8:15 PM	3	127	0	4	0	11	0	87	7	0	0	0	**239**	100.0%	0.0%		
8:30 PM	1	123	0	4	0	10	0	77	5	0	0	0	**220**	100.0%	0.0%		
8:45 PM	1	115	0	5	0	10	0	75	3	0	0	0	**209**	100.0%	0.0%		

9:00 PM	2	113	0	6	0	9	0	65	2	0	0	0	**197**	100.0%	0.0%	
9:15 PM	1	89	0	5	0	8	0	57	3	0	0	0	**163**	99.4%	0.6%	
9:30 PM	1	77	0	5	0	8	0	57	4	0	0	0	**152**	99.3%	0.7%	
9:45 PM	1	70	0	4	0	7	0	50	6	0	0	0	**138**	99.3%	0.7%	
10:00 PM	0	65	0	2	0	5	0	49	6	0	0	0	**127**	99.2%	0.8%	
10:15 PM	0	63	0	3	0	5	0	39	6	0	0	0	**116**	100.0%	0.0%	
10:30 PM	0	47	0	2	0	2	0	33	4	0	0	0	**88**	100.0%	0.0%	
10:45 PM	0	42	0	2	0	1	0	31	2	0	0	0	**78**	100.0%	0.0%	
11:00 PM	0	33	0	1	0	2	0	31	2	0	0	0	**69**	100.0%	0.0%	
11:15 PM	0	22	0	0	0	1	0	22	0	0	0	0				
11:30 PM	0	16	0	0	0	1	0	12	0	0	0	0				
11:45 PM	0	7	0	0	0	1	0	6	0	0	0	0				
Movement Total	**86**	**5080**	**0**	**351**	**0**	**685**	**0**	**3643**	**366**	**0**	**0**	**0**				Movement Total
PC %	96.5%	98.7%		96.6%		98.5%		98.8%	97.5%							PC %
Heavy Veh %	3.5%	1.3%		3.4%		1.5%		1.2%	2.5%							Heavy Veh %

Study Name: Augusta Street & Lathrop Avenue
Start Date: 12/08/2022
Start Time: 12:00 AM

	Lathrop Avenue Southbound			Augusta Street Westbound			Lathrop Avenue Northbound			Augusta Street Eastbound							
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	**Hourly Total**	PC %	Heavy Veh %	Peak Hour Factor	FILTER
12:00 AM	0	3	0	0	1	1	0	8	0	2	6	0	**21**	100.0%	0.0%		
12:15 AM	0	3	0	0	1	2	0	4	0	2	4	0	**16**	100.0%	0.0%		
12:30 AM	0	4	0	0	1	1	0	4	0	1	2	0	**13**	100.0%	0.0%		
12:45 AM	0	3	0	0	0	1	0	3	0	0	2	0	**9**	100.0%	0.0%		
1:00 AM	0	2	0	0	1	1	0	3	0	0	1	0	**8**	100.0%	0.0%		
1:15 AM	0	3	0	0	1	0	0	2	0	0	1	0	**7**	100.0%	0.0%		
1:30 AM	0	1	0	0	1	0	0	1	0	0	1	0	**4**	100.0%	0.0%		
1:45 AM	0	1	0	0	1	0	0	2	0	0	1	0	**5**	100.0%	0.0%		
2:00 AM	0	1	0	0	0	0	0	1	0	0	1	0	**3**	100.0%	0.0%		
2:15 AM	0	0	0	0	0	0	0	1	0	0	0	0	**1**	100.0%	0.0%		
2:30 AM	0	0	0	0	0	0	0	2	1	0	2	0	**5**	100.0%	0.0%		
2:45 AM	0	0	0	0	1	0	0	2	1	0	2	0	**6**	100.0%	0.0%		
3:00 AM	0	0	0	0	1	0	1	3	1	0	2	0	**8**	100.0%	0.0%		
3:15 AM	0	1	0	0	1	0	1	4	1	0	2	0	**10**	100.0%	0.0%		
3:30 AM	0	2	0	1	2	0	1	4	0	0	0	0	**10**	100.0%	0.0%		
3:45 AM	0	2	0	1	4	0	1	3	0	0	0	0	**11**	100.0%	0.0%		
4:00 AM	0	4	0	1	5	0	0	4	0	0	1	0	**15**	100.0%	0.0%		
4:15 AM	0	3	1	2	8	0	0	4	0	0	1	0	**19**	100.0%	0.0%		
4:30 AM	0	5	1	3	12	0	0	4	1	0	1	0	**27**	100.0%	0.0%		
4:45 AM	1	6	1	4	12	0	0	9	1	0	2	0	**36**	100.0%	0.0%		
5:00 AM	2	11	1	4	15	0	0	11	4	0	2	0	**50**	98.0%	2.0%		
5:15 AM	2	18	0	5	16	0	1	14	4	0	6	2	**68**	97.1%	2.9%		
5:30 AM	2	28	1	4	22	0	1	22	4	0	12	2	**98**	98.0%	2.0%		
5:45 AM	1	44	1	4	26	0	1	21	7	0	15	4	**124**	97.6%	2.4%		
6:00 AM	1	55	1	6	34	2	1	43	4	1	16	5	**169**	98.8%	1.2%		
6:15 AM	3	77	2	9	45	2	0	58	8	2	32	4	**242**	99.2%	0.8%		
6:30 AM	7	103	1	10	58	2	1	78	19	3	59	6	**347**	99.1%	0.9%		
6:45 AM	13	142	3	13	79	6	3	123	28	3	103	7	**523**	98.5%	1.5%		
7:00 AM	21	187	5	20	109	16	3	157	36	2	148	10	**714**	98.2%	1.8%		
7:15 AM	21	212	4	22	158	24	7	185	37	1	155	13	**839**	98.3%	1.7%		
7:30 AM	20	233	4	28	171	31	11	227	42	0	155	12	**934**	98.3%	1.7%	0.91	**AM Peak**
7:45 AM	18	210	3	33	166	30	10	212	35	2	136	12	**867**	98.6%	1.4%		
8:00 AM	15	181	1	28	147	24	10	189	40	2	98	10	**745**	98.8%	1.2%		
8:15 AM	13	160	1	23	101	23	8	173	46	3	85	7	**643**	98.6%	1.4%		
8:30 AM	12	126	1	23	85	17	4	129	40	5	60	8	**510**	97.8%	2.2%		
8:45 AM	12	122	1	16	83	17	4	128	37	5	38	6	**469**	97.2%	2.8%		
9:00 AM	8	115	1	14	71	13	8	119	30	5	45	7	**436**	96.8%	3.2%		
9:15 AM	10	108	3	14	72	11	7	107	22	5	37	9	**405**	96.5%	3.5%		

9:30 AM	11	106	3	9	64	14	9	104	11	4	38	7	**380**	97.6%	2.4%		
9:45 AM	9	108	2	16	60	12	12	103	13	2	38	7	**382**	98.7%	1.3%		
10:00 AM	9	112	3	14	65	10	8	109	16	2	26	4	**378**	98.7%	1.3%		
10:15 AM	9	117	2	14	67	12	8	132	18	1	26	2	**408**	98.8%	1.2%		
10:30 AM	10	121	2	15	64	14	7	145	25	1	26	4	**434**	98.4%	1.6%		
10:45 AM	10	126	4	10	60	17	9	152	30	1	26	6	**451**	97.8%	2.2%		
11:00 AM	10	136	3	14	63	20	11	160	27	7	33	7	**491**	98.0%	2.0%		
11:15 AM	13	148	2	19	65	20	10	162	28	8	39	6	**520**	98.3%	1.7%		
11:30 AM	12	150	2	17	79	15	11	150	23	7	38	6	**510**	98.6%	1.4%		
11:45 AM	13	147	0	19	88	17	7	142	18	9	34	3	**497**	98.8%	1.2%		
12:00 PM	12	146	1	19	85	16	7	144	18	3	32	4	**487**	99.0%	1.0%		
12:15 PM	8	150	1	21	85	12	7	148	20	3	31	4	**490**	98.4%	1.6%		
12:30 PM	8	158	2	24	81	12	7	154	22	4	33	2	**507**	98.4%	1.6%		
12:45 PM	7	164	3	20	76	14	6	175	19	3	35	6	**528**	98.5%	1.5%		
1:00 PM	12	159	2	25	79	13	5	184	18	4	31	4	**536**	98.5%	1.5%		
1:15 PM	14	150	3	24	78	16	8	179	14	3	30	8	**527**	99.1%	0.9%		
1:30 PM	13	145	2	26	85	21	7	186	15	4	34	10	**548**	98.7%	1.3%		
1:45 PM	12	148	2	35	86	16	6	176	18	3	44	7	**553**	98.9%	1.1%		
2:00 PM	10	150	2	31	101	21	9	170	15	3	62	7	**581**	99.0%	1.0%		
2:15 PM	9	163	3	31	127	26	9	175	16	3	81	5	**648**	98.9%	1.1%		
2:30 PM	19	204	7	33	147	29	9	203	18	2	94	5	**770**	98.7%	1.3%		
2:45 PM	23	205	7	31	176	32	12	216	19	2	101	8	**832**	98.4%	1.6%		
3:00 PM	23	232	7	42	182	37	9	245	20	3	101	12	**913**	97.9%	2.1%		
3:15 PM	25	225	7	45	171	29	7	268	23	3	105	11	**919**	97.7%	2.3%	0.88	**PM Peak**
3:30 PM	17	196	3	41	177	25	8	272	23	3	114	11	**890**	97.9%	2.1%		
3:45 PM	17	194	2	43	169	27	8	275	27	3	122	8	**895**	98.2%	1.8%		
4:00 PM	15	164	3	41	168	16	11	256	37	4	127	10	**852**	98.7%	1.3%		
4:15 PM	16	162	1	43	166	18	12	242	40	8	134	12	**854**	99.1%	0.9%		
4:30 PM	20	172	3	52	148	17	13	242	41	9	130	13	**860**	99.2%	0.8%		
4:45 PM	17	179	4	54	140	13	13	236	42	9	122	13	**842**	99.2%	0.8%		
5:00 PM	20	190	7	47	135	16	13	238	40	7	104	7	**824**	99.3%	0.7%		
5:15 PM	18	206	8	46	124	15	11	231	34	5	80	5	**783**	99.4%	0.6%		
5:30 PM	18	189	6	35	107	14	10	223	34	3	73	5	**717**	99.4%	0.6%		
5:45 PM	20	176	6	24	96	17	9	219	28	5	65	6	**671**	99.6%	0.4%		
6:00 PM	16	156	2	20	68	16	8	198	20	6	70	9	**589**	99.8%	0.2%		
6:15 PM	13	130	1	8	56	13	11	189	23	5	60	11	**520**	99.8%	0.2%		
6:30 PM	8	119	3	11	53	12	11	162	20	7	43	9	**458**	100.0%	0.0%		
6:45 PM	8	115	5	11	48	8	13	144	25	8	35	7	**427**	99.8%	0.2%		
7:00 PM	9	110	6	11	51	8	13	125	23	8	28	5	**397**	99.5%	0.5%		
7:15 PM	10	109	11	15	50	7	11	109	17	9	28	3	**379**	99.5%	0.5%		
7:30 PM	9	102	9	9	41	7	10	100	15	8	24	2	**336**	99.1%	0.9%		
7:45 PM	6	89	7	9	33	6	7	86	9	7	20	3	**282**	98.9%	1.1%		
8:00 PM	4	84	9	7	29	7	7	86	9	6	20	2	**270**	99.3%	0.7%		
8:15 PM	4	71	6	4	23	9	8	74	8	6	25	2	**240**	99.2%	0.8%		
8:30 PM	2	63	10	7	21	8	9	69	6	5	22	4	**226**	99.6%	0.4%		
8:45 PM	1	52	10	5	19	6	10	70	3	3	22	3	**204**	100.0%	0.0%		

9:00 PM	1	42	8	4	20	5	8	63	3	2	17	4	**177**	100.0%	0.0%	
9:15 PM	0	37	6	4	21	3	7	63	2	0	9	3	**155**	100.0%	0.0%	
9:30 PM	0	30	2	1	21	2	5	50	1	0	14	1	**127**	100.0%	0.0%	
9:45 PM	0	26	1	1	19	2	3	40	1	2	12	1	**108**	100.0%	0.0%	
10:00 PM	0	29	1	2	14	1	2	33	2	2	10	0	**96**	100.0%	0.0%	
10:15 PM	0	23	2	2	9	1	2	27	2	3	9	0	**80**	100.0%	0.0%	
10:30 PM	0	24	2	2	5	1	1	22	3	3	4	0	**67**	100.0%	0.0%	
10:45 PM	0	22	2	2	4	1	1	15	3	1	4	0	**55**	100.0%	0.0%	
11:00 PM	0	15	2	1	4	2	1	13	1	1	4	0	**44**	100.0%	0.0%	
11:15 PM	0	8	1	0	3	2	0	6	1	0	2	0				
11:30 PM	0	2	1	0	3	2	0	3	0	0	1	0				
11:45 PM	0	1	1	0	1	2	0	3	0	0	1	0				
Movement Total	**188**	**2284**	**65**	**351**	**1448**	**245**	**135**	**2562**	**364**	**70**	**985**	**107**				Movement Total
PC %	98.9%	99.0%	98.5%	97.7%	98.1%	99.2%	100.0%	98.9%	99.5%	98.6%	98.4%	97.2%				PC %
Heavy Veh %	1.1%	1.0%	1.5%	2.3%	1.9%	0.8%	0.0%	1.1%	0.5%	1.4%	1.6%	2.8%				Heavy Veh %

Study Name: Augusta Street & Harlem Avenue
Start Date: 12/06/2022
Start Time: 12:00 AM

	Harlem Avenue Southbound			Augusta Street Westbound			Harlem Avenue Northbound			Augusta Street Eastbound							
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	**Hourly Total**	PC %	Heavy Veh %	Peak Hour Factor	FILTER
12:00 AM	7	124	1	3	3	2	9	167	3	0	2	2	**323**	97.8%	2.2%		
12:15 AM	4	110	0	2	2	0	6	136	3	0	0	1	**264**	97.7%	2.3%		
12:30 AM	2	100	0	2	1	2	3	128	3	0	0	0	**241**	97.9%	2.1%		
12:45 AM	1	94	0	2	2	3	2	126	2	0	0	0	**232**	98.3%	1.7%		
1:00 AM	1	92	0	1	2	3	1	122	1	0	0	0	**223**	97.8%	2.2%		
1:15 AM	2	88	0	1	2	3	1	120	0	1	0	0	**218**	96.8%	3.2%		
1:30 AM	1	101	0	1	2	1	1	110	0	1	0	0	**218**	94.5%	5.5%		
1:45 AM	1	104	0	0	1	0	2	90	0	1	0	0	**199**	95.0%	5.0%		
2:00 AM	1	104	1	0	0	0	1	80	1	1	0	0	**189**	94.2%	5.8%		
2:15 AM	0	104	1	0	0	0	1	69	1	0	0	0	**176**	93.2%	6.8%		
2:30 AM	0	93	1	0	0	0	1	60	1	0	0	0	**156**	93.6%	6.4%		
2:45 AM	1	109	1	0	0	0	0	67	1	0	0	0	**179**	91.6%	8.4%		
3:00 AM	1	128	0	0	1	0	2	80	0	0	0	0	**212**	93.9%	6.1%		
3:15 AM	2	158	0	1	1	2	2	99	0	0	1	0	**266**	94.4%	5.6%		
3:30 AM	3	203	0	1	1	3	2	124	1	0	1	0	**339**	94.7%	5.3%		
3:45 AM	4	245	1	1	4	7	2	173	1	0	1	0	**439**	95.0%	5.0%		
4:00 AM	6	278	1	1	3	9	0	194	1	0	1	1	**495**	94.9%	5.1%		
4:15 AM	8	364	3	1	5	9	1	237	1	0	0	1	**630**	94.6%	5.4%		
4:30 AM	8	460	3	2	8	9	3	292	1	0	0	1	**787**	95.6%	4.4%		
4:45 AM	6	545	2	2	6	12	4	333	3	1	1	2	**917**	96.1%	3.9%		
5:00 AM	9	637	3	3	11	11	5	412	5	1	2	2	**1101**	95.6%	4.4%		
5:15 AM	10	717	1	8	14	11	7	473	6	1	4	4	**1256**	96.0%	4.0%		
5:30 AM	13	748	1	11	21	11	8	528	8	2	9	7	**1367**	95.6%	4.4%		
5:45 AM	22	856	1	15	27	6	9	587	10	3	13	7	**1556**	95.3%	4.7%		
6:00 AM	35	967	0	22	29	10	13	644	22	4	25	8	**1779**	95.5%	4.5%		
6:15 AM	52	1021	0	29	44	14	14	686	31	7	53	11	**1962**	95.5%	4.5%		
6:30 AM	66	1083	5	33	55	19	14	717	43	6	77	12	**2130**	95.7%	4.3%		
6:45 AM	91	1080	10	36	79	25	27	772	55	8	137	13	**2333**	96.0%	4.0%		
7:00 AM	91	1076	17	43	125	32	40	820	65	10	174	23	**2516**	95.9%	4.1%		
7:15 AM	91	1104	26	42	163	40	69	893	86	14	169	26	**2723**	96.4%	3.6%		
7:30 AM	99	1108	31	54	173	48	79	950	82	18	184	34	**2860**	96.3%	3.7%	0.93	**AM Peak**
7:45 AM	91	1110	33	66	166	51	79	962	78	16	143	36	**2831**	96.2%	3.8%		
8:00 AM	88	1109	33	57	145	46	76	973	64	19	111	33	**2754**	96.3%	3.7%		
8:15 AM	84	1010	28	53	113	35	55	946	46	17	100	30	**2517**	95.8%	4.2%		
8:30 AM	68	965	23	49	108	24	62	907	50	16	66	25	**2363**	95.6%	4.4%		
8:45 AM	51	901	20	40	99	15	61	873	48	17	54	24	**2203**	95.4%	4.6%		
9:00 AM	44	815	18	48	81	13	55	837	48	14	51	19	**2043**	94.9%	5.1%		
9:15 AM	37	821	17	51	76	12	53	823	45	11	42	17	**2005**	94.5%	5.5%		

9:30 AM	36	797	18	44	83	17	43	820	37	10	39	14	**1958**	94.2%	5.8%		
9:45 AM	37	783	19	46	83	23	36	816	39	12	32	17	**1943**	94.3%	5.7%		
10:00 AM	33	830	17	46	86	19	38	835	37	11	30	19	**2001**	94.7%	5.3%		
10:15 AM	28	848	16	51	75	23	42	839	40	11	33	24	**2030**	94.3%	5.7%		
10:30 AM	32	857	17	54	54	22	53	855	40	13	30	27	**2054**	94.3%	5.7%		
10:45 AM	30	851	17	55	55	21	56	893	44	9	39	27	**2097**	94.0%	6.0%		
11:00 AM	35	814	16	52	53	30	50	874	46	9	39	28	**2046**	94.1%	5.9%		
11:15 AM	46	791	17	53	65	27	44	870	47	13	45	25	**2043**	94.7%	5.3%		
11:30 AM	40	789	15	54	68	27	34	850	54	14	58	24	**2027**	94.9%	5.1%		
11:45 AM	39	780	14	51	68	31	33	828	51	14	66	25	**2000**	95.6%	4.5%		
12:00 PM	38	788	16	53	71	29	44	827	58	15	74	30	**2043**	95.3%	4.7%		
12:15 PM	31	817	18	50	60	30	46	832	55	10	73	35	**2057**	95.5%	4.5%		
12:30 PM	35	841	19	51	67	31	42	823	53	7	66	36	**2071**	95.6%	4.4%		
12:45 PM	37	884	19	47	65	35	42	791	50	7	51	34	**2062**	95.1%	4.9%		
1:00 PM	38	923	21	50	71	34	32	810	42	6	39	28	**2094**	95.6%	4.4%		
1:15 PM	38	925	21	49	79	33	32	849	47	8	40	21	**2142**	95.7%	4.3%		
1:30 PM	36	939	18	47	83	35	33	937	50	9	44	23	**2254**	96.1%	3.9%		
1:45 PM	51	959	16	53	103	38	37	993	65	11	56	31	**2413**	96.4%	3.6%		
2:00 PM	60	958	11	50	113	37	41	1012	71	11	70	35	**2469**	96.5%	3.5%		
2:15 PM	67	993	9	48	122	44	53	1008	74	13	106	49	**2586**	96.6%	3.4%		
2:30 PM	68	1021	13	59	144	50	57	1000	76	15	127	55	**2685**	96.7%	3.3%		
2:45 PM	54	1031	21	67	154	52	57	1008	80	14	130	57	**2725**	97.0%	3.0%		
3:00 PM	49	1005	32	70	172	61	65	1016	87	19	150	62	**2788**	96.8%	3.2%		
3:15 PM	52	1019	32	73	193	66	58	1049	84	20	133	53	**2832**	96.9%	3.1%		
3:30 PM	63	1038	29	60	181	62	57	1054	86	19	134	47	**2830**	97.1%	2.9%		
3:45 PM	63	1072	23	58	177	58	51	1066	79	23	152	39	**2861**	97.2%	2.8%		
4:00 PM	66	1108	16	58	174	54	43	1086	78	17	157	36	**2893**	97.7%	2.3%	0.98	**PM Peak**
4:15 PM	72	1067	25	59	177	53	38	1060	81	16	176	38	**2862**	98.0%	2.0%		
4:30 PM	68	999	23	72	177	61	35	1025	81	16	189	39	**2785**	98.0%	2.0%		
4:45 PM	85	941	29	71	186	60	40	1006	85	14	200	43	**2760**	98.3%	1.7%		
5:00 PM	88	909	28	69	167	57	36	955	82	16	192	40	**2639**	98.3%	1.7%		
5:15 PM	85	909	17	66	144	49	37	962	87	14	161	39	**2570**	98.4%	1.6%		
5:30 PM	77	932	16	56	130	39	36	967	85	12	143	39	**2532**	98.6%	1.4%		
5:45 PM	61	993	8	45	94	30	37	942	71	9	114	30	**2434**	98.2%	1.8%		
6:00 PM	58	1002	6	36	73	26	45	963	61	6	89	25	**2390**	98.3%	1.7%		
6:15 PM	49	960	12	29	62	27	43	916	54	4	78	25	**2259**	98.2%	1.8%		
6:30 PM	49	888	12	22	52	28	43	866	50	3	58	20	**2091**	98.1%	1.9%		
6:45 PM	44	760	12	23	45	25	41	837	46	5	45	24	**1907**	98.2%	1.8%		
7:00 PM	38	684	14	26	42	25	32	766	54	5	40	23	**1749**	98.1%	1.9%		
7:15 PM	31	644	8	23	28	21	33	746	42	4	36	16	**1632**	98.3%	1.7%		
7:30 PM	27	617	9	20	28	10	28	711	34	4	32	12	**1532**	98.4%	1.6%		
7:45 PM	29	615	7	16	26	8	23	694	35	3	29	10	**1495**	98.7%	1.3%		
8:00 PM	23	613	4	16	29	7	21	656	27	6	24	17	**1443**	98.3%	1.7%		
8:15 PM	19	584	5	23	31	9	19	620	30	6	22	21	**1389**	98.2%	1.8%		
8:30 PM	16	587	3	24	21	13	20	621	31	5	22	20	**1383**	98.2%	1.8%		
8:45 PM	11	553	3	28	22	15	21	598	26	3	17	22	**1319**	98.0%	2.0%		

9:00 PM	14	509	3	22	16	14	22	561	22	0	14	16	**1213**	98.1%	1.9%	
9:15 PM	15	496	1	15	10	15	18	525	19	0	12	11	**1137**	98.0%	2.0%	
9:30 PM	16	468	3	11	11	13	22	507	19	0	7	16	**1093**	98.1%	1.9%	
9:45 PM	16	419	3	4	6	14	16	461	22	0	7	11	**979**	98.2%	1.8%	
10:00 PM	10	395	2	4	6	14	16	451	20	0	7	8	**933**	98.3%	1.7%	
10:15 PM	11	351	2	3	8	8	17	407	18	0	7	9	**841**	98.2%	1.8%	
10:30 PM	9	285	0	5	6	6	14	364	14	0	5	4	**712**	98.2%	1.8%	
10:45 PM	10	253	0	6	6	2	17	343	9	0	4	4	**654**	98.0%	2.0%	
11:00 PM	11	207	0	4	4	2	14	314	10	0	2	3	**571**	97.4%	2.6%	
11:15 PM	7	137	0	3	2	2	9	232	7	0	0	1				
11:30 PM	6	83	0	1	1	2	5	139	5	0	0	1				
11:45 PM	2	39	0	0	1	2	1	61	3	0	0	0				
Movement Total	**844**	**16075**	**260**	**734**	**1477**	**535**	**701**	**15455**	**905**	**170**	**1293**	**458**				Movement Total
PC %	97.7%	96.2%	92.7%	96.3%	98.6%	98.5%	98.7%	96.3%	97.2%	95.9%	98.5%	98.7%				PC %
Heavy Veh %	2.3%	3.8%	7.3%	3.7%	1.4%	1.5%	1.3%	3.7%	2.8%	4.1%	1.5%	1.3%				Heavy Veh %

Study Name: Division Street & Thatcher Avenue
Start Date: 12/08/2022
Start Time: 12:00 AM

	Thatcher Avenue Southbound			Division Street Westbound			Thatcher Avenue Northbound			0 0							
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	0	0	0	**Hourly Total**	PC %	Heavy Veh %	Peak Hour Factor	FILTER
12:00 AM	6	14	0	4	0	2	0	14	1	0	0	0	**41**	100.0%	0.0%		
12:15 AM	3	13	0	4	0	1	0	9	1	0	0	0	**31**	100.0%	0.0%		
12:30 AM	4	10	0	1	0	1	0	8	0	0	0	0	**24**	100.0%	0.0%		
12:45 AM	2	8	0	2	0	1	0	6	1	0	0	0	**20**	100.0%	0.0%		
1:00 AM	2	9	0	2	0	1	0	7	2	0	0	0	**23**	100.0%	0.0%		
1:15 AM	2	8	0	1	0	2	0	7	2	0	0	0	**22**	100.0%	0.0%		
1:30 AM	1	9	0	1	0	2	0	7	2	0	0	0	**22**	95.5%	4.5%		
1:45 AM	1	9	0	1	0	2	0	8	2	0	0	0	**23**	95.7%	4.3%		
2:00 AM	0	8	0	2	0	2	0	6	1	0	0	0	**19**	94.7%	5.3%		
2:15 AM	0	10	0	2	0	1	0	5	2	0	0	0	**20**	95.0%	5.0%		
2:30 AM	1	11	0	2	0	2	0	5	2	0	0	0	**23**	100.0%	0.0%		
2:45 AM	1	12	0	1	0	4	0	5	1	0	0	0	**24**	100.0%	0.0%		
3:00 AM	1	13	0	0	0	9	0	6	1	0	0	0	**30**	100.0%	0.0%		
3:15 AM	1	14	0	0	0	12	0	6	0	0	0	0	**33**	100.0%	0.0%		
3:30 AM	0	15	0	0	0	14	0	8	1	0	0	0	**38**	100.0%	0.0%		
3:45 AM	2	16	0	1	0	13	0	9	1	0	0	0	**42**	100.0%	0.0%		
4:00 AM	3	18	0	2	0	10	0	8	1	0	0	0	**42**	100.0%	0.0%		
4:15 AM	5	18	0	3	0	10	0	15	2	0	0	0	**53**	100.0%	0.0%		
4:30 AM	7	24	0	5	0	10	0	19	1	0	0	0	**66**	100.0%	0.0%		
4:45 AM	5	35	0	6	0	18	0	28	3	0	0	0	**95**	100.0%	0.0%		
5:00 AM	8	43	0	6	0	23	0	41	4	0	0	0	**125**	98.4%	1.6%		
5:15 AM	11	53	0	8	0	29	0	50	5	0	0	0	**156**	98.7%	1.3%		
5:30 AM	19	77	0	8	0	36	0	67	6	0	0	0	**213**	98.1%	1.9%		
5:45 AM	28	96	0	8	0	40	0	81	7	0	0	0	**260**	98.1%	1.9%		
6:00 AM	55	157	0	11	0	53	0	108	10	0	0	0	**394**	98.7%	1.3%		
6:15 AM	70	205	0	11	0	69	0	131	26	0	0	0	**512**	99.0%	1.0%		
6:30 AM	96	256	0	19	0	79	0	171	38	0	0	0	**659**	99.4%	0.6%		
6:45 AM	125	310	0	35	0	94	0	222	61	0	0	0	**847**	99.4%	0.6%		
7:00 AM	136	349	0	46	0	104	0	261	101	0	0	0	**997**	99.7%	0.3%		
7:15 AM	146	367	0	55	0	108	0	304	106	0	0	0	**1086**	99.4%	0.6%		
7:30 AM	140	376	0	60	0	115	0	316	106	0	0	0	**1113**	99.1%	0.9%	0.86	**AM Peak**
7:45 AM	129	355	0	53	0	114	0	288	98	0	0	0	**1037**	99.0%	1.0%		
8:00 AM	114	302	0	44	0	107	0	271	65	0	0	0	**903**	98.6%	1.4%		
8:15 AM	109	263	0	37	0	96	0	231	58	0	0	0	**794**	97.7%	2.3%		
8:30 AM	97	208	0	27	0	85	0	203	55	0	0	0	**675**	97.5%	2.5%		
8:45 AM	92	200	0	23	0	87	0	207	50	0	0	0	**659**	96.8%	3.2%		
9:00 AM	78	178	0	28	0	101	0	192	50	0	0	0	**627**	96.7%	3.3%		
9:15 AM	68	175	0	30	0	108	0	188	42	0	0	0	**611**	97.4%	2.6%		

9:30 AM	65	200	0	29	0	112	0	188	39	0	0	0	**633**	97.8%	2.2%		
9:45 AM	52	176	0	27	0	99	0	177	29	0	0	0	**560**	98.4%	1.6%		
10:00 AM	55	190	0	21	0	87	0	171	23	0	0	0	**547**	98.7%	1.3%		
10:15 AM	68	180	0	20	0	95	0	174	22	0	0	0	**559**	98.7%	1.3%		
10:30 AM	77	164	0	35	0	102	0	170	20	0	0	0	**568**	98.9%	1.1%		
10:45 AM	85	181	0	41	0	106	0	172	23	0	0	0	**608**	99.0%	1.0%		
11:00 AM	97	169	0	44	0	103	0	185	26	0	0	0	**624**	98.6%	1.4%		
11:15 AM	91	199	0	49	0	96	0	197	27	0	0	0	**659**	98.8%	1.2%		
11:30 AM	87	203	0	39	0	89	0	205	27	0	0	0	**650**	98.5%	1.5%		
11:45 AM	93	204	0	36	0	90	0	229	25	0	0	0	**677**	97.8%	2.2%		
12:00 PM	90	232	0	36	0	102	0	226	27	0	0	0	**713**	98.3%	1.7%		
12:15 PM	99	229	0	33	0	108	0	211	26	0	0	0	**706**	98.4%	1.6%		
12:30 PM	94	242	0	34	0	120	0	206	26	0	0	0	**722**	98.3%	1.7%		
12:45 PM	98	266	0	41	0	126	0	173	34	0	0	0	**738**	99.1%	0.9%		
1:00 PM	100	252	0	41	0	112	0	182	32	0	0	0	**719**	99.0%	1.0%		
1:15 PM	97	260	0	46	0	111	0	190	31	0	0	0	**735**	98.9%	1.1%		
1:30 PM	121	281	0	50	0	102	0	200	39	0	0	0	**793**	99.2%	0.8%		
1:45 PM	132	304	0	48	0	107	0	222	45	0	0	0	**858**	99.4%	0.6%		
2:00 PM	147	361	0	58	0	111	0	236	63	0	0	0	**976**	99.4%	0.6%		
2:15 PM	151	406	0	57	0	111	0	260	81	0	0	0	**1066**	99.3%	0.7%		
2:30 PM	163	447	0	70	0	130	0	279	81	0	0	0	**1170**	99.1%	0.9%		
2:45 PM	175	457	0	73	0	137	0	300	89	0	0	0	**1231**	98.9%	1.1%		
3:00 PM	184	467	0	70	0	155	0	301	88	0	0	0	**1265**	98.5%	1.5%		
3:15 PM	216	490	0	73	0	162	0	343	77	0	0	0	**1361**	98.5%	1.5%		
3:30 PM	223	506	0	60	0	166	0	355	95	0	0	0	**1405**	98.2%	1.8%		
3:45 PM	242	526	0	63	0	171	0	359	93	0	0	0	**1454**	98.3%	1.7%		
4:00 PM	240	516	0	68	0	183	0	368	94	0	0	0	**1469**	98.8%	1.2%	0.96	**PM Peak**
4:15 PM	229	505	0	67	0	180	0	340	107	0	0	0	**1428**	98.9%	1.1%		
4:30 PM	230	472	0	69	0	170	0	347	100	0	0	0	**1388**	99.2%	0.8%		
4:45 PM	224	440	0	65	0	174	0	347	100	0	0	0	**1350**	99.0%	1.0%		
5:00 PM	220	447	0	55	0	168	0	331	123	0	0	0	**1344**	99.0%	1.0%		
5:15 PM	236	428	0	63	0	179	0	293	129	0	0	0	**1328**	98.9%	1.1%		
5:30 PM	226	393	0	55	0	174	0	263	127	0	0	0	**1238**	99.2%	0.8%		
5:45 PM	208	373	0	47	0	147	0	227	114	0	0	0	**1116**	99.5%	0.5%		
6:00 PM	196	303	0	44	0	119	0	195	89	0	0	0	**946**	99.5%	0.5%		
6:15 PM	145	240	0	27	0	91	0	186	83	0	0	0	**772**	99.7%	0.3%		
6:30 PM	123	219	0	23	0	69	0	143	74	0	0	0	**651**	99.5%	0.5%		
6:45 PM	98	175	0	28	0	67	0	117	73	0	0	0	**558**	99.5%	0.5%		
7:00 PM	82	167	0	31	0	65	0	107	54	0	0	0	**506**	99.6%	0.4%		
7:15 PM	76	165	0	36	0	58	0	93	31	0	0	0	**459**	99.6%	0.4%		
7:30 PM	67	144	0	40	0	61	0	92	25	0	0	0	**429**	100.0%	0.0%		
7:45 PM	62	135	0	34	0	53	0	90	16	0	0	0	**390**	100.0%	0.0%		
8:00 PM	59	111	0	30	0	46	0	77	15	0	0	0	**338**	100.0%	0.0%		
8:15 PM	60	101	0	31	0	48	0	78	20	0	0	0	**338**	100.0%	0.0%		
8:30 PM	52	97	0	27	0	49	0	71	17	0	0	0	**313**	100.0%	0.0%		
8:45 PM	53	91	0	23	0	56	0	64	20	0	0	0	**307**	100.0%	0.0%		

9:00 PM	51	96	0	18	0	52	0	57	18	0	0	0	**292**	100.0%	0.0%	
9:15 PM	45	80	0	8	0	47	0	46	14	0	0	0	**240**	99.6%	0.4%	
9:30 PM	47	69	0	7	0	37	0	48	14	0	0	0	**222**	99.5%	0.5%	
9:45 PM	40	64	0	7	0	22	0	43	11	0	0	0	**187**	99.5%	0.5%	
10:00 PM	30	54	0	11	0	18	0	44	9	0	0	0	**166**	99.4%	0.6%	
10:15 PM	25	54	0	11	0	13	0	37	7	0	0	0	**147**	100.0%	0.0%	
10:30 PM	20	38	0	10	0	12	0	31	4	0	0	0	**115**	100.0%	0.0%	
10:45 PM	11	32	0	10	0	12	0	28	5	0	0	0	**98**	100.0%	0.0%	
11:00 PM	15	27	0	6	0	10	0	27	6	0	0	0	**91**	100.0%	0.0%	
11:15 PM	13	15	0	5	0	7	0	20	4	0	0	0				
11:30 PM	6	13	0	3	0	4	0	10	3	0	0	0				
11:45 PM	6	6	0	1	0	1	0	6	1	0	0	0				
Movement Total	**1969**	**4483**	**0**	**678**	**0**	**1743**	**0**	**3421**	**903**	**0**	**0**	**0**				Movement Total
PC %	99.6%	98.6%		98.8%		99.1%		98.9%	98.9%							PC %
Heavy Veh %	0.4%	1.4%		1.2%		0.9%		1.1%	1.1%							Heavy Veh %

Study Name: Division Street & Lathrop Avenue
Start Date: 12/06/2022
Start Time: 12:00 AM

	Lathrop Avenue Southbound			Division Street Westbound			Lathrop Avenue Northbound			Division Street Eastbound							
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	**Hourly Total**	PC %	Heavy Veh %	Peak Hour Factor	FILTER
12:00 AM	0	4	0	0	3	2	1	3	0	1	5	1	**20**	100.0%	0.0%		
12:15 AM	0	4	0	0	3	2	1	2	0	1	9	1	**23**	100.0%	0.0%		
12:30 AM	0	5	0	0	3	1	0	2	0	1	10	1	**23**	100.0%	0.0%		
12:45 AM	0	3	0	0	5	0	0	2	0	1	10	1	**22**	100.0%	0.0%		
1:00 AM	0	2	0	0	4	0	0	3	0	0	10	0	**19**	100.0%	0.0%		
1:15 AM	0	2	0	0	4	0	0	3	0	0	4	0	**13**	100.0%	0.0%		
1:30 AM	0	0	0	0	4	0	0	1	0	0	1	0	**6**	100.0%	0.0%		
1:45 AM	0	0	0	0	1	0	0	2	0	0	1	0	**4**	100.0%	0.0%		
2:00 AM	0	0	0	0	0	0	0	1	0	0	1	0	**2**	100.0%	0.0%		
2:15 AM	0	0	0	0	0	0	0	1	0	0	1	0	**2**	100.0%	0.0%		
2:30 AM	0	1	0	0	1	0	0	1	0	0	1	0	**4**	100.0%	0.0%		
2:45 AM	0	1	0	0	2	0	0	3	0	0	2	0	**8**	100.0%	0.0%		
3:00 AM	0	1	0	0	4	0	0	5	0	0	2	0	**12**	100.0%	0.0%		
3:15 AM	0	1	0	0	6	1	0	5	0	0	2	0	**15**	100.0%	0.0%		
3:30 AM	0	0	0	0	7	2	0	6	0	0	3	0	**18**	100.0%	0.0%		
3:45 AM	1	0	0	0	10	2	0	4	0	1	3	0	**21**	100.0%	0.0%		
4:00 AM	1	1	0	0	10	3	1	3	0	1	4	0	**24**	100.0%	0.0%		
4:15 AM	1	3	0	0	13	2	1	5	0	1	9	0	**35**	100.0%	0.0%		
4:30 AM	1	4	0	0	15	2	1	6	1	1	8	0	**39**	100.0%	0.0%		
4:45 AM	1	9	0	0	19	2	3	8	1	0	12	0	**55**	98.2%	1.8%		
5:00 AM	1	13	1	1	27	1	2	9	1	0	16	0	**72**	98.6%	1.4%		
5:15 AM	3	19	1	1	36	3	3	12	1	0	16	1	**96**	97.9%	2.1%		
5:30 AM	3	25	1	4	49	2	4	14	1	1	24	6	**134**	97.0%	3.0%		
5:45 AM	2	34	1	4	59	2	3	19	2	2	35	7	**170**	97.1%	2.9%		
6:00 AM	4	49	0	6	77	5	5	29	7	3	54	9	**248**	98.0%	2.0%		
6:15 AM	6	65	1	10	91	7	7	42	8	4	79	8	**328**	97.0%	3.0%		
6:30 AM	13	93	1	11	107	9	6	53	14	4	98	5	**414**	97.3%	2.7%		
6:45 AM	20	126	4	17	126	13	11	75	24	4	140	6	**566**	97.0%	3.0%		
7:00 AM	27	155	7	17	148	20	15	97	33	6	170	7	**702**	97.0%	3.0%		
7:15 AM	26	172	8	17	186	27	17	122	40	9	208	13	**845**	97.5%	2.5%		
7:30 AM	22	178	11	21	232	35	24	160	41	24	260	22	**1030**	97.7%	2.3%		
7:45 AM	22	167	14	19	239	39	21	171	41	24	258	23	**1038**	98.1%	1.9%	0.81	**AM Peak**
8:00 AM	20	158	14	27	234	41	22	168	38	24	240	26	**1012**	97.9%	2.1%		
8:15 AM	23	135	15	32	206	41	23	146	41	21	215	23	**921**	97.7%	2.3%		
8:30 AM	28	124	14	35	167	49	18	127	39	8	161	13	**783**	97.6%	2.4%		
8:45 AM	23	113	10	38	166	46	23	109	35	13	140	13	**729**	96.8%	3.2%		
9:00 AM	18	106	11	35	172	34	21	90	28	12	142	8	**677**	96.8%	3.2%		
9:15 AM	17	111	10	28	167	25	17	93	20	12	124	7	**631**	97.1%	2.9%		

9:30 AM	10	98	10	23	152	10	18	82	19	10	118	11	**561**	96.4%	3.6%		
9:45 AM	9	88	11	19	139	7	12	83	15	7	103	10	**503**	97.0%	3.0%		
10:00 AM	10	75	8	16	129	11	7	101	12	7	88	11	**475**	97.3%	2.7%		
10:15 AM	9	78	7	18	125	14	10	113	13	10	94	12	**503**	97.4%	2.6%		
10:30 AM	14	85	7	18	159	17	13	111	13	12	126	11	**586**	98.1%	1.9%		
10:45 AM	16	96	7	22	164	22	15	124	15	10	140	10	**641**	98.6%	1.4%		
11:00 AM	15	107	10	20	156	25	17	118	19	11	145	11	**654**	98.6%	1.4%		
11:15 AM	16	113	9	18	158	25	16	124	17	13	151	9	**669**	98.8%	1.2%		
11:30 AM	13	113	9	15	129	24	14	133	19	16	133	8	**626**	99.2%	0.8%		
11:45 AM	13	121	11	12	133	21	14	130	19	21	141	12	**648**	98.9%	1.1%		
12:00 PM	18	124	8	12	154	18	19	140	18	22	148	14	**695**	98.8%	1.2%		
12:15 PM	15	118	11	16	162	16	22	127	22	17	162	14	**702**	98.4%	1.6%		
12:30 PM	12	129	11	17	169	18	20	121	20	15	155	14	**701**	98.0%	2.0%		
12:45 PM	10	122	6	14	166	18	25	127	23	13	138	12	**674**	97.8%	2.2%		
1:00 PM	5	114	10	15	142	19	20	125	24	13	134	9	**630**	97.1%	2.9%		
1:15 PM	4	120	10	13	141	19	18	127	22	14	118	12	**618**	96.9%	3.1%		
1:30 PM	7	111	9	16	140	19	19	132	22	14	158	13	**660**	97.4%	2.6%		
1:45 PM	9	123	10	26	156	18	14	145	18	13	194	15	**741**	97.4%	2.6%		
2:00 PM	9	128	8	35	156	24	18	157	20	9	218	16	**798**	98.1%	1.9%		
2:15 PM	14	132	11	38	171	35	23	174	24	10	240	17	**889**	98.5%	1.5%		
2:30 PM	20	155	13	53	204	41	25	185	30	11	259	23	**1019**	98.2%	1.8%		
2:45 PM	20	153	19	49	204	46	28	183	34	11	266	21	**1034**	98.3%	1.7%		
3:00 PM	19	156	17	46	228	45	26	194	41	16	290	28	**1106**	98.4%	1.6%		
3:15 PM	25	164	11	50	224	38	19	196	45	14	322	27	**1135**	98.3%	1.7%		
3:30 PM	21	150	9	33	216	29	21	197	46	14	319	26	**1081**	98.4%	1.6%		
3:45 PM	25	153	3	32	215	27	19	201	52	16	327	31	**1101**	98.7%	1.3%		
4:00 PM	32	159	5	38	217	30	22	204	49	14	353	27	**1150**	98.7%	1.3%		
4:15 PM	25	146	8	39	224	36	26	212	45	20	340	28	**1149**	98.8%	1.2%		
4:30 PM	28	143	10	44	228	42	25	225	44	17	342	24	**1172**	99.0%	1.0%	0.90	**PM Peak**
4:45 PM	27	128	14	44	227	52	22	216	37	16	362	20	**1165**	99.1%	0.9%		
5:00 PM	21	113	12	33	216	49	18	194	38	15	332	21	**1062**	99.1%	0.9%		
5:15 PM	19	113	11	28	196	46	17	179	36	13	323	19	**1000**	99.2%	0.8%		
5:30 PM	17	112	8	25	175	44	16	166	35	15	291	20	**924**	99.5%	0.5%		
5:45 PM	13	122	4	30	163	30	20	152	36	12	245	20	**847**	99.4%	0.6%		
6:00 PM	15	123	5	30	145	22	19	140	31	10	216	16	**772**	99.4%	0.6%		
6:15 PM	17	108	4	26	136	20	16	123	27	5	180	14	**676**	99.0%	1.0%		
6:30 PM	11	91	5	19	109	16	16	101	22	2	162	11	**565**	98.6%	1.4%		
6:45 PM	10	71	5	8	92	16	12	90	17	4	130	11	**466**	98.5%	1.5%		
7:00 PM	9	61	3	5	80	17	11	88	18	5	99	9	**405**	99.0%	1.0%		
7:15 PM	7	53	6	8	73	11	10	81	17	5	87	9	**367**	99.2%	0.8%		
7:30 PM	11	49	5	8	75	9	6	82	18	5	73	7	**348**	99.1%	0.9%		
7:45 PM	14	47	5	9	67	8	6	76	18	3	82	5	**340**	98.8%	1.2%		
8:00 PM	15	39	6	10	70	8	7	66	15	3	91	5	**335**	98.5%	1.5%		
8:15 PM	13	39	2	10	61	7	6	60	15	3	87	4	**307**	98.7%	1.3%		
8:30 PM	10	38	3	10	56	7	7	46	9	4	83	4	**277**	98.6%	1.4%		
8:45 PM	7	30	4	9	55	6	7	39	7	3	80	3	**250**	98.8%	1.2%		

9:00 PM	3	23	3	10	46	3	6	39	5	2	72	5	**217**	99.1%	0.9%	
9:15 PM	4	17	4	4	41	3	6	28	5	2	67	7	**188**	98.9%	1.1%	
9:30 PM	3	9	4	5	32	1	6	28	7	0	58	6	**159**	98.7%	1.3%	
9:45 PM	3	8	2	5	23	1	5	27	6	1	49	5	**135**	98.5%	1.5%	
10:00 PM	3	8	2	1	17	2	4	20	3	1	35	4	**100**	98.0%	2.0%	
10:15 PM	2	7	1	2	15	1	3	23	2	1	30	3	**90**	98.9%	1.1%	
10:30 PM	2	7	0	1	13	1	2	19	1	1	25	3	**75**	100.0%	0.0%	
10:45 PM	1	4	0	1	10	1	1	15	3	0	12	3	**51**	100.0%	0.0%	
11:00 PM	1	3	1	1	13	1	1	13	3	0	13	1	**51**	100.0%	0.0%	
11:15 PM	0	2	1	0	9	1	1	8	3	0	8	0				
11:30 PM	0	1	1	0	6	1	0	6	2	0	5	0				
11:45 PM	0	0	1	0	6	1	0	3	0	0	3	0				
Movement Total	**246**	**1722**	**131**	**358**	**2448**	**380**	**262**	**2007**	**403**	**175**	**2878**	**228**				Movement Total
PC %	97.6%	98.1%	96.9%	98.9%	98.4%	98.7%	94.3%	98.9%	97.8%	98.9%	98.3%	97.8%				PC %
Heavy Veh %	2.4%	1.9%	3.1%	1.1%	1.6%	1.3%	5.7%	1.1%	2.2%	1.1%	1.7%	2.2%				Heavy Veh %

Study Name: Division Street & Harlem Avenue
Start Date: 12/08/2022
Start Time: 12:00 AM

	Harlem Avenue Southbound			Division Street Westbound			Harlem Avenue Northbound			Division Street Eastbound							
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	**Hourly Total**	PC %	Heavy Veh %	Peak Hour Factor	FILTER
12:00 AM	5	168	3	3	1	2	6	196	9	2	3	11	**409**	96.6%	3.4%		
12:15 AM	3	141	2	2	2	3	4	167	7	2	2	4	**339**	96.8%	3.2%		
12:30 AM	2	98	3	3	2	3	2	150	5	2	2	6	**278**	97.5%	2.5%		
12:45 AM	1	91	3	3	3	2	3	140	3	1	2	3	**255**	98.0%	2.0%		
1:00 AM	0	85	2	1	3	3	2	139	4	1	2	3	**245**	98.0%	2.0%		
1:15 AM	0	81	3	1	2	2	1	120	3	1	2	4	**220**	97.7%	2.3%		
1:30 AM	0	98	1	1	3	3	1	118	2	0	2	1	**230**	96.5%	3.5%		
1:45 AM	1	98	1	1	2	3	0	103	3	0	2	2	**216**	96.3%	3.7%		
2:00 AM	1	95	1	1	2	2	1	82	1	0	2	2	**190**	96.8%	3.2%		
2:15 AM	1	106	0	1	2	2	1	76	1	0	3	1	**194**	95.4%	4.6%		
2:30 AM	3	97	0	0	3	0	1	69	1	0	3	2	**179**	94.4%	5.6%		
2:45 AM	2	115	0	1	3	0	2	82	0	1	2	1	**209**	92.3%	7.7%		
3:00 AM	3	137	0	1	4	0	2	85	1	2	1	2	**238**	91.2%	8.8%		
3:15 AM	3	174	0	1	6	1	4	99	2	2	0	2	**294**	91.8%	8.2%		
3:30 AM	1	223	1	5	6	1	5	105	3	2	0	2	**354**	91.2%	8.8%		
3:45 AM	2	255	1	5	7	2	5	141	5	1	1	3	**428**	92.5%	7.5%		
4:00 AM	2	286	1	8	9	3	5	190	6	0	1	2	**513**	93.6%	6.4%		
4:15 AM	4	330	2	15	12	3	3	233	5	1	3	2	**613**	93.5%	6.5%		
4:30 AM	4	413	6	14	16	9	2	299	6	1	4	1	**775**	94.7%	5.3%		
4:45 AM	3	489	8	17	24	16	2	332	5	5	5	3	**909**	95.4%	4.6%		
5:00 AM	4	586	9	21	25	19	3	381	4	6	8	8	**1074**	95.4%	4.6%		
5:15 AM	6	647	9	22	30	24	9	431	8	6	10	13	**1215**	95.9%	4.1%		
5:30 AM	12	737	7	33	33	20	18	498	12	11	12	17	**1410**	95.7%	4.3%		
5:45 AM	15	770	7	40	40	17	23	542	16	12	16	20	**1518**	95.1%	4.9%		
6:00 AM	21	851	7	46	66	21	30	592	21	16	45	16	**1732**	94.8%	5.2%		
6:15 AM	31	975	10	54	83	18	34	660	25	23	74	18	**2005**	94.5%	5.5%		
6:30 AM	43	989	16	66	110	23	38	673	37	24	118	22	**2159**	95.1%	4.9%		
6:45 AM	58	1085	24	87	155	23	57	717	49	28	150	30	**2463**	95.7%	4.3%		
7:00 AM	70	1088	37	104	202	20	102	783	60	36	170	48	**2720**	96.1%	3.9%		
7:15 AM	70	1020	52	125	245	23	137	801	75	38	171	50	**2807**	96.7%	3.3%		
7:30 AM	70	1003	57	128	257	24	155	838	74	54	163	61	**2884**	96.3%	3.7%	0.91	**AM Peak**
7:45 AM	70	979	58	123	234	31	153	845	74	55	160	58	**2840**	96.2%	3.8%		
8:00 AM	59	932	54	125	205	40	124	821	75	52	131	53	**2671**	96.3%	3.7%		
8:15 AM	49	889	45	112	165	38	95	780	67	51	122	53	**2466**	95.9%	4.1%		
8:30 AM	45	858	51	106	150	39	74	730	68	47	113	43	**2324**	96.0%	4.0%		
8:45 AM	33	819	54	100	145	34	69	725	62	43	99	41	**2224**	95.8%	4.2%		
9:00 AM	33	815	55	80	124	23	71	736	52	39	91	38	**2157**	94.9%	5.1%		
9:15 AM	35	814	52	81	125	28	78	751	43	37	85	37	**2166**	95.2%	4.8%		

9:30 AM	37	797	39	77	116	27	82	765	37	25	73	33	**2108**	95.2%	4.8%		
9:45 AM	41	774	33	80	106	25	75	782	34	28	69	31	**2078**	94.9%	5.1%		
10:00 AM	43	769	24	91	102	29	62	773	42	31	68	26	**2060**	95.6%	4.4%		
10:15 AM	42	722	26	87	103	30	54	812	54	43	75	37	**2085**	95.5%	4.5%		
10:30 AM	40	721	45	90	107	27	60	808	56	52	78	47	**2131**	95.8%	4.2%		
10:45 AM	43	711	43	97	114	30	66	789	62	56	89	52	**2152**	96.1%	3.9%		
11:00 AM	45	715	51	99	110	29	67	803	58	57	86	64	**2184**	95.9%	4.1%		
11:15 AM	51	759	50	110	102	29	66	787	48	56	81	55	**2194**	96.0%	4.0%		
11:30 AM	48	778	37	109	89	31	53	840	50	56	80	53	**2224**	96.0%	4.0%		
11:45 AM	39	790	38	105	80	33	48	848	55	56	74	57	**2223**	95.7%	4.3%		
12:00 PM	39	776	35	102	89	36	56	869	57	54	88	53	**2254**	96.0%	4.0%		
12:15 PM	41	784	32	106	103	37	55	876	63	52	97	56	**2302**	95.7%	4.3%		
12:30 PM	40	777	25	112	114	47	62	883	61	46	99	57	**2323**	95.6%	4.4%		
12:45 PM	47	768	25	112	130	47	61	896	61	43	102	52	**2344**	96.1%	3.9%		
1:00 PM	51	776	23	111	126	47	55	852	62	42	95	47	**2287**	96.0%	4.0%		
1:15 PM	48	766	27	98	114	42	61	844	57	42	96	60	**2255**	96.4%	3.6%		
1:30 PM	52	798	27	96	117	40	57	829	60	48	114	62	**2300**	96.7%	3.3%		
1:45 PM	52	868	27	98	110	37	61	855	64	52	123	71	**2418**	96.7%	3.3%		
2:00 PM	52	893	31	97	118	36	67	916	67	56	144	82	**2559**	97.0%	3.0%		
2:15 PM	57	936	28	104	139	42	76	946	80	53	140	74	**2675**	97.0%	3.0%		
2:30 PM	61	888	28	107	173	40	108	937	83	68	164	90	**2747**	97.2%	2.8%		
2:45 PM	65	826	25	109	195	61	112	976	77	72	202	84	**2804**	97.5%	2.5%		
3:00 PM	62	804	17	116	210	70	108	975	77	78	233	80	**2830**	97.3%	2.7%		
3:15 PM	66	800	18	116	224	86	98	984	73	80	274	79	**2898**	97.7%	2.3%		
3:30 PM	77	838	19	120	208	103	79	1035	76	67	288	55	**2965**	97.8%	2.2%		
3:45 PM	88	831	21	120	216	93	88	977	73	71	297	64	**2939**	97.9%	2.1%		
4:00 PM	96	859	24	124	219	98	83	971	70	78	319	70	**3011**	98.4%	1.6%		
4:15 PM	104	868	22	124	222	92	87	986	75	72	319	67	**3038**	98.4%	1.6%		
4:30 PM	100	870	25	124	235	92	83	959	75	73	309	74	**3019**	98.4%	1.6%		
4:45 PM	93	881	24	119	215	103	79	1008	79	67	301	72	**3041**	98.6%	1.4%	0.97	**PM Peak**
5:00 PM	102	867	29	115	205	104	80	976	84	56	291	67	**2976**	98.4%	1.6%		
5:15 PM	96	832	29	124	179	99	82	939	75	63	302	71	**2891**	98.5%	1.5%		
5:30 PM	91	797	23	113	147	82	84	942	81	53	284	70	**2767**	98.4%	1.6%		
5:45 PM	91	796	22	110	131	68	80	880	87	46	257	59	**2627**	98.3%	1.7%		
6:00 PM	78	754	21	109	123	55	77	890	81	39	225	49	**2501**	98.2%	1.8%		
6:15 PM	67	724	21	82	100	54	72	845	78	32	176	47	**2298**	98.2%	1.8%		
6:30 PM	62	691	29	78	96	50	69	806	66	29	150	40	**2166**	98.2%	1.8%		
6:45 PM	51	667	33	73	97	42	61	768	51	33	127	49	**2052**	98.4%	1.6%		
7:00 PM	38	669	32	54	74	36	66	729	52	32	100	50	**1932**	98.6%	1.4%		
7:15 PM	37	659	34	56	77	21	57	717	49	32	89	63	**1891**	98.4%	1.6%		
7:30 PM	28	629	23	43	63	21	52	691	39	34	82	63	**1768**	98.4%	1.6%		
7:45 PM	31	580	18	35	49	18	47	714	47	26	74	55	**1694**	98.4%	1.6%		
8:00 PM	32	548	16	34	55	18	48	680	41	25	64	55	**1616**	98.5%	1.5%		
8:15 PM	28	513	10	27	46	22	42	644	40	19	55	36	**1482**	98.9%	1.1%		
8:30 PM	32	546	15	33	43	19	36	604	44	17	51	37	**1477**	98.9%	1.1%		
8:45 PM	29	540	13	28	39	17	33	562	35	18	46	32	**1392**	99.0%	1.0%		

9:00 PM	26	486	9	30	36	17	22	546	39	17	41	26	**1295**	98.9%	1.1%	
9:15 PM	23	469	10	28	33	14	23	555	36	17	41	23	**1272**	98.9%	1.1%	
9:30 PM	19	413	4	18	28	10	21	521	31	15	33	23	**1136**	98.8%	1.2%	
9:45 PM	16	384	5	17	21	9	24	494	25	10	27	23	**1055**	98.7%	1.3%	
10:00 PM	14	361	6	12	12	7	27	444	18	8	24	23	**956**	98.3%	1.7%	
10:15 PM	13	347	7	10	7	5	28	397	21	7	15	20	**877**	98.4%	1.6%	
10:30 PM	10	311	7	12	7	7	27	379	20	6	16	18	**820**	98.5%	1.5%	
10:45 PM	5	284	5	9	7	6	22	327	23	8	15	12	**723**	98.3%	1.7%	
11:00 PM	5	268	3	7	5	6	13	306	19	7	13	10	**662**	98.5%	1.5%	
11:15 PM	4	184	0	4	4	6	7	216	12	5	12	6				
11:30 PM	1	114	0	2	2	2	3	135	7	3	6	0				
11:45 PM	1	52	0	1	1	2	1	72	2	0	3	0				
Movement Total	**881**	**14588**	**490**	**1491**	**2125**	**721**	**1177**	**14735**	**1000**	**734**	**2245**	**885**				Movement Total
PC %	99.0%	96.3%	98.2%	98.9%	98.9%	98.5%	98.1%	96.2%	98.3%	96.5%	99.0%	98.0%				PC %
Heavy Veh %	1.0%	3.7%	1.8%	1.1%	1.1%	1.5%	1.9%	3.8%	1.7%	3.5%	1.0%	2.0%				Heavy Veh %

Study Name: North Avenue & Thatcher Avenue
Start Date: 12/08/2022
Start Time: 12:00 AM

	Thatcher Avenue Southbound			North Avenue Westbound			Thatcher Avenue Northbound			North Avenue Eastbound							
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	**Hourly Total**	PC %	Heavy Veh %	Peak Hour Factor	FILTER
12:00 AM	8	2	5	2	143	9	10	12	3	9	252	15	**470**	98.5%	1.5%		
12:15 AM	2	2	2	3	126	6	9	7	1	7	219	15	**399**	98.2%	1.8%		
12:30 AM	1	2	1	2	107	3	3	6	2	5	199	14	**345**	98.3%	1.7%		
12:45 AM	1	2	0	2	94	4	1	4	1	3	172	9	**293**	98.6%	1.4%		
1:00 AM	3	3	0	3	105	7	2	3	2	3	176	8	**315**	98.7%	1.3%		
1:15 AM	3	4	1	2	106	7	3	3	2	4	192	6	**333**	98.5%	1.5%		
1:30 AM	3	4	2	2	100	8	5	3	1	5	185	8	**326**	97.9%	2.1%		
1:45 AM	2	3	2	2	107	5	7	2	1	5	189	8	**333**	98.2%	1.8%		
2:00 AM	0	2	3	3	116	2	6	2	0	3	166	6	**309**	97.4%	2.6%		
2:15 AM	0	2	2	3	142	3	4	1	1	2	129	6	**295**	97.6%	2.4%		
2:30 AM	0	2	1	3	173	1	4	1	1	2	107	6	**301**	97.3%	2.7%		
2:45 AM	1	3	1	3	214	2	5	0	2	2	102	7	**342**	97.1%	2.9%		
3:00 AM	1	4	0	2	261	3	10	1	2	3	103	8	**398**	97.2%	2.8%		
3:15 AM	5	4	1	8	284	2	13	2	1	4	106	6	**436**	97.9%	2.1%		
3:30 AM	6	5	3	9	372	3	18	3	2	5	115	5	**546**	98.2%	1.8%		
3:45 AM	6	6	3	11	468	2	18	4	1	4	131	6	**660**	98.5%	1.5%		
4:00 AM	9	5	5	12	562	5	14	3	1	5	156	6	**783**	97.8%	2.2%		
4:15 AM	6	6	6	8	716	8	17	4	2	6	204	10	**993**	97.2%	2.8%		
4:30 AM	10	10	10	10	869	12	17	4	2	7	249	13	**1213**	96.9%	3.1%		
4:45 AM	16	9	14	15	1038	17	31	5	4	10	297	14	**1470**	97.3%	2.7%		
5:00 AM	18	13	14	22	1158	20	44	6	6	12	353	17	**1683**	97.0%	3.0%		
5:15 AM	26	15	15	28	1197	25	50	13	8	14	426	22	**1839**	96.8%	3.2%		
5:30 AM	38	19	16	39	1222	24	66	20	13	20	567	38	**2082**	96.6%	3.4%		
5:45 AM	47	30	21	49	1224	25	70	32	16	20	761	56	**2351**	95.7%	4.3%		
6:00 AM	63	53	30	64	1275	32	84	48	24	28	976	107	**2784**	95.7%	4.3%		
6:15 AM	78	76	35	79	1304	39	107	63	28	39	1157	133	**3138**	95.7%	4.3%		
6:30 AM	94	114	40	79	1386	48	132	90	34	43	1277	176	**3513**	95.9%	4.1%		
6:45 AM	117	158	50	90	1457	53	166	107	44	60	1375	218	**3895**	96.3%	3.7%		
7:00 AM	143	201	61	92	1505	52	205	116	49	60	1375	265	**4124**	96.9%	3.1%		
7:15 AM	166	222	67	104	1608	59	233	126	61	56	1329	292	**4323**	96.6%	3.4%		
7:30 AM	164	234	72	125	1602	58	244	120	64	56	1293	321	**4353**	96.1%	3.9%	0.96	**AM Peak**
7:45 AM	149	225	74	118	1509	65	236	111	63	48	1171	315	**4084**	95.7%	4.3%		
8:00 AM	122	199	75	110	1414	64	218	109	65	45	1158	261	**3840**	94.9%	5.1%		
8:15 AM	90	174	84	91	1276	52	191	87	58	52	1122	248	**3525**	94.5%	5.5%		
8:30 AM	73	144	79	68	1170	50	174	75	54	50	1028	191	**3156**	94.3%	5.7%		
8:45 AM	67	127	68	62	1068	37	181	67	55	55	1026	191	**3004**	94.0%	6.0%		
9:00 AM	64	122	64	65	1031	32	188	64	48	61	906	184	**2829**	94.1%	5.9%		
9:15 AM	61	111	52	62	1011	37	198	69	44	56	850	186	**2737**	94.8%	5.2%		

9:30 AM	59	98	52	61	972	37	203	64	45	63	818	208	**2680**	95.0%	5.0%		
9:45 AM	54	85	61	52	1028	42	178	68	35	67	710	179	**2559**	95.2%	4.8%		
10:00 AM	52	59	56	44	997	44	174	66	30	71	696	183	**2472**	94.6%	5.4%		
10:15 AM	56	65	61	42	975	42	182	74	28	82	720	179	**2506**	94.8%	5.2%		
10:30 AM	61	76	68	48	1029	45	205	85	34	88	783	177	**2699**	95.4%	4.6%		
10:45 AM	55	82	70	56	979	46	223	91	38	93	837	196	**2766**	95.9%	4.1%		
11:00 AM	64	92	74	56	1037	55	210	93	46	100	923	214	**2964**	96.6%	3.4%		
11:15 AM	62	91	76	54	1073	60	214	97	46	109	936	222	**3040**	96.8%	3.2%		
11:30 AM	59	82	80	46	1018	59	191	103	37	108	942	221	**2946**	96.5%	3.5%		
11:45 AM	73	78	77	46	1070	72	188	113	44	106	975	230	**3072**	96.3%	3.7%		
12:00 PM	65	90	75	49	997	67	215	123	56	98	961	239	**3035**	96.3%	3.7%		
12:15 PM	71	86	72	58	1069	70	210	118	60	91	997	256	**3158**	96.0%	4.0%		
12:30 PM	67	91	66	61	1081	70	224	112	59	96	1036	250	**3213**	96.0%	4.0%		
12:45 PM	65	96	70	63	1122	62	229	97	50	103	1110	272	**3339**	95.9%	4.1%		
1:00 PM	65	83	76	64	1183	63	214	99	36	112	1152	267	**3414**	95.7%	4.3%		
1:15 PM	60	99	71	58	1102	56	216	110	38	107	1204	253	**3374**	96.0%	4.0%		
1:30 PM	64	99	76	60	1191	65	210	121	45	111	1266	291	**3599**	96.1%	3.9%		
1:45 PM	70	115	74	65	1165	72	210	140	61	105	1301	306	**3684**	96.7%	3.3%		
2:00 PM	73	148	68	61	1172	87	209	141	67	109	1357	322	**3814**	97.1%	2.9%		
2:15 PM	86	151	73	69	1193	87	219	152	71	146	1387	345	**3979**	97.5%	2.5%		
2:30 PM	92	177	77	79	1191	88	241	157	67	166	1424	383	**4142**	97.7%	2.3%		
2:45 PM	91	182	74	74	1219	86	270	157	68	188	1408	404	**4221**	97.7%	2.3%		
3:00 PM	89	174	81	81	1278	80	288	178	64	200	1386	428	**4327**	97.6%	2.4%		
3:15 PM	104	212	88	83	1363	93	312	195	68	191	1432	465	**4606**	97.8%	2.2%		
3:30 PM	114	222	82	74	1327	85	317	209	80	193	1387	490	**4580**	97.9%	2.1%		
3:45 PM	114	227	80	79	1370	82	323	222	70	196	1451	501	**4715**	98.0%	2.0%	0.93	**PM Peak**
4:00 PM	127	234	72	73	1297	80	331	235	78	204	1458	501	**4690**	98.4%	1.6%		
4:15 PM	110	211	65	73	1259	70	314	214	75	199	1418	494	**4502**	98.3%	1.7%		
4:30 PM	101	212	64	65	1319	78	305	223	72	190	1465	464	**4558**	98.6%	1.4%		
4:45 PM	101	217	70	58	1262	71	312	223	74	192	1434	460	**4474**	98.6%	1.4%		
5:00 PM	92	212	78	54	1291	64	292	193	70	191	1465	473	**4475**	98.6%	1.4%		
5:15 PM	93	204	76	52	1268	70	287	185	74	198	1452	471	**4430**	98.7%	1.3%		
5:30 PM	101	172	71	60	1137	65	280	165	72	213	1456	439	**4231**	98.7%	1.3%		
5:45 PM	97	141	60	61	1118	68	223	138	67	193	1467	412	**4045**	98.8%	1.2%		
6:00 PM	91	116	44	57	1028	68	199	127	64	180	1379	357	**3710**	98.8%	1.2%		
6:15 PM	84	90	44	44	954	59	169	118	54	153	1287	285	**3341**	98.8%	1.2%		
6:30 PM	62	81	43	37	953	48	116	88	41	112	1173	257	**3011**	98.9%	1.1%		
6:45 PM	46	63	44	31	843	46	111	75	37	100	1079	218	**2693**	99.0%	1.0%		
7:00 PM	37	49	41	40	806	44	113	65	33	76	995	190	**2489**	99.2%	0.8%		
7:15 PM	28	43	30	43	751	36	91	59	24	71	986	190	**2352**	99.1%	0.9%		
7:30 PM	32	36	23	38	654	38	100	60	23	69	905	163	**2141**	99.2%	0.8%		
7:45 PM	34	35	20	38	663	39	92	60	22	60	816	141	**2020**	99.4%	0.6%		
8:00 PM	39	34	24	32	661	40	73	51	18	64	798	117	**1951**	99.3%	0.7%		
8:15 PM	37	34	32	24	664	43	75	50	23	63	758	118	**1921**	99.5%	0.5%		
8:30 PM	33	32	29	25	641	46	70	48	28	59	740	108	**1859**	99.7%	0.3%		
8:45 PM	34	32	30	25	601	37	72	48	28	59	720	103	**1789**	99.7%	0.3%		

9:00 PM	32	36	26	24	526	32	65	43	26	54	674	110	**1648**	99.6%	0.4%	
9:15 PM	29	35	22	23	481	29	66	35	22	43	607	82	**1474**	99.5%	0.5%	
9:30 PM	27	30	20	26	463	21	62	29	16	42	573	81	**1390**	99.3%	0.7%	
9:45 PM	26	34	13	23	416	21	44	25	10	40	528	66	**1246**	99.2%	0.8%	
10:00 PM	22	24	11	22	404	14	39	25	9	32	522	52	**1176**	99.2%	0.8%	
10:15 PM	18	21	8	25	350	9	24	20	11	33	517	49	**1085**	99.2%	0.8%	
10:30 PM	16	18	9	18	319	7	15	21	12	27	486	37	**985**	99.0%	1.0%	
10:45 PM	10	9	8	16	269	4	15	15	13	24	455	27	**865**	98.8%	1.2%	
11:00 PM	7	6	7	12	238	4	14	18	10	22	426	28	**792**	98.9%	1.1%	
11:15 PM	5	2	4	8	171	3	11	13	5	14	303	21				
11:30 PM	2	0	2	7	104	2	7	7	1	8	191	11				
11:45 PM	2	0	1	3	58	1	2	6	0	2	95	8				
Movement Total	**1286**	**1961**	**990**	**1044**	**20485**	**968**	**3217**	**1821**	**807**	**1742**	**19813**	**4358**				Movement Total
PC %	98.2%	98.7%	99.3%	98.4%	96.7%	98.1%	98.8%	99.1%	98.6%	99.1%	96.1%	99.1%				PC %
Heavy Veh %	1.8%	1.3%	0.7%	1.6%	3.3%	1.9%	1.2%	0.9%	1.4%	0.9%	3.9%	0.9%				Heavy Veh %

12 Hour Traffic Counts

Study Name	3.William Street @ Division Street
Start Date	05/31/2023
Start Time	7:00 AM

*Hourly totals given in 15 minute intervals

	William St. Southbound		Division St. Westbound		Division St. Eastbound						
Start Time	Left	Right	Thru	Right	Left	Thru	**Hourly Total**	PC %	Heavy Veh %	Peak Hour Factor	FILTER
7:00 AM	16	11	193	32	7	242	**501**	97.8%	2.2%		
7:15 AM	24	17	209	36	13	284	**583**	98.1%	1.9%		
7:30 AM	26	25	228	54	23	296	**652**	98.0%	2.0%	0.85	**AM Peak**
7:45 AM	27	28	212	54	26	265	**612**	98.0%	2.0%		
8:00 AM	27	25	192	44	25	213	**526**	97.9%	2.1%		
8:15 AM	21	23	163	40	22	163	**432**	97.9%	2.1%		
8:30 AM	17	16	137	19	13	121	**323**	98.1%	1.9%		
8:45 AM	16	13	127	17	9	126	**308**	98.1%	1.9%		
9:00 AM	16	12	109	22	5	126	**290**	97.9%	2.1%		
9:15 AM	15	9	120	22	4	139	**309**	97.7%	2.3%		
9:30 AM	15	7	122	26	7	139	**316**	97.5%	2.5%		
9:45 AM	12	6	120	25	9	141	**313**	97.1%	2.9%		
10:00 AM	9	7	121	22	12	142	**313**	97.4%	2.6%		
10:15 AM	8	10	115	26	14	131	**304**	96.7%	3.3%		
10:30 AM	9	13	126	31	13	159	**351**	96.9%	3.1%		
10:45 AM	14	17	138	39	12	151	**371**	96.5%	3.5%		
11:00 AM	15	21	136	39	10	151	**372**	96.8%	3.2%		
11:15 AM	19	22	146	39	9	165	**400**	97.8%	2.3%		
11:30 AM	17	21	151	35	10	143	**377**	97.9%	2.1%		
11:45 AM	13	17	149	27	13	155	**374**	98.9%	1.1%		
12:00 PM	13	13	159	24	14	140	**363**	98.3%	1.7%		
12:15 PM	11	14	153	21	12	131	**342**	98.0%	2.0%		
12:30 PM	14	15	141	17	8	141	**336**	97.9%	2.1%		
12:45 PM	12	14	133	19	5	139	**322**	97.5%	2.5%		

1:00 PM	14	13	127	24	4	161	**343**	98.3%	1.7%		
1:15 PM	19	13	129	28	6	183	**378**	98.1%	1.9%		
1:30 PM	20	15	142	29	6	199	**411**	98.8%	1.2%		
1:45 PM	24	15	153	35	6	201	**434**	98.8%	1.2%		
2:00 PM	20	19	169	39	8	212	**467**	98.3%	1.7%		
2:15 PM	13	18	180	43	11	210	**475**	98.7%	1.3%		
2:30 PM	14	15	180	47	20	260	**536**	98.3%	1.7%		
2:45 PM	17	16	200	51	25	306	**615**	98.7%	1.3%		
3:00 PM	20	15	220	47	26	323	**651**	98.3%	1.7%		
3:15 PM	23	14	228	46	24	360	**695**	98.6%	1.4%		
3:30 PM	27	18	255	54	20	349	**723**	98.5%	1.5%		
3:45 PM	26	17	270	51	18	363	**745**	98.5%	1.5%		
4:00 PM	34	16	269	52	18	384	**773**	99.4%	0.6%		
4:15 PM	36	18	305	49	18	402	**828**	99.3%	0.7%		
4:30 PM	39	14	341	46	18	432	**890**	99.8%	0.2%		
4:45 PM	39	15	371	54	17	426	**922**	99.9%	0.1%		
5:00 PM	35	18	394	65	14	425	**951**	99.9%	0.1%	0.90	**PM Peak**
5:15 PM	34	18	376	67	14	388	**897**	100.0%	0.0%		
5:30 PM	25	18	338	67	9	341	**798**	99.9%	0.1%		
5:45 PM	23	18	287	55	6	316	**705**	99.9%	0.1%		
6:00 PM	18	14	256	48	5	299	**640**	99.8%	0.2%		
6:15 PM	12	8	183	35	1	222	**461**	99.8%	0.2%		
6:30 PM	8	5	113	22	1	148	**297**	100.0%	0.0%		
6:45 PM	3	2	61	14	1	79	**160**	100.0%	0.0%		
Movement Total	237	184	2345	458	148	2818					Movement Total
PC %	97.05%	95.65%	98.76%	97.60%	97.30%	98.90%					PC %
Heavy Veh %	2.95%	4.35%	1.24%	2.40%	2.70%	1.10%					Heavy Veh %

Study Name	2.William St @ Le Moyne Parkway
Start Date	05/31/2023
Start Time	7:00 AM

*Hourly totals given in 15 minute intervals

	William St. Southbound			Le Moyne Parkway Westbound			William St. Northbound			Le Moyne Parkway Eastbound							
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	**Hourly Total**	PC %	Heavy Veh %	Peak Hour Factor	FILTER
7:00 AM	21	22	14	1	16	0	4	10	3	0	26	1	**118**	98.3%	1.7%		
7:15 AM	26	31	14	2	23	1	6	13	6	1	33	3	**159**	98.1%	1.9%		
7:30 AM	25	40	19	2	25	1	5	30	10	3	33	3	**196**	98.0%	2.0%		
7:45 AM	22	39	20	2	25	1	7	31	10	5	26	2	**190**	97.9%	2.1%		
8:00 AM	25	44	21	2	25	1	6	34	7	5	25	2	**197**	98.5%	1.5%	0.76	**AM Peak**
8:15 AM	21	38	24	2	17	0	4	32	6	5	15	1	**165**	98.2%	1.8%		
8:30 AM	19	24	16	3	15	2	3	14	2	3	11	1	**113**	97.3%	2.7%		
8:45 AM	17	19	9	2	11	2	0	11	4	2	13	2	**92**	95.7%	4.3%		
9:00 AM	18	22	8	4	8	2	0	12	5	2	14	2	**97**	93.8%	6.2%		
9:15 AM	18	19	7	5	9	4	0	11	4	3	17	2	**99**	93.9%	6.1%		
9:30 AM	15	21	11	4	10	3	0	15	5	3	24	2	**113**	95.6%	4.4%		
9:45 AM	15	19	15	4	10	4	2	14	3	3	19	1	**109**	95.4%	4.6%		
10:00 AM	15	8	17	2	15	4	3	15	4	4	15	1	**103**	97.1%	2.9%		
10:15 AM	13	11	15	0	17	2	4	22	3	3	16	0	**106**	97.2%	2.8%		
10:30 AM	16	19	15	0	18	2	5	21	4	5	12	0	**117**	95.7%	4.3%		
10:45 AM	17	26	14	0	20	3	3	21	7	5	19	1	**136**	96.3%	3.7%		
11:00 AM	14	32	12	0	23	4	2	17	5	5	22	2	**138**	96.4%	3.6%		
11:15 AM	15	33	11	1	20	4	1	10	5	4	20	2	**126**	96.8%	3.2%		
11:30 AM	11	27	8	2	19	3	0	14	6	2	25	2	**119**	97.5%	2.5%		
11:45 AM	11	22	5	2	24	1	0	13	4	1	21	1	**105**	98.1%	1.9%		
12:00 PM	8	22	4	4	21	1	0	11	4	0	22	0	**97**	99.0%	1.0%		
12:15 PM	10	21	6	4	24	2	0	17	5	4	21	2	**116**	98.3%	1.7%		
12:30 PM	9	17	6	5	25	2	1	12	5	4	16	2	**104**	97.1%	2.9%		
12:45 PM	10	15	9	5	19	2	1	14	5	4	14	3	**101**	96.0%	4.0%		
1:00 PM	9	13	13	4	19	2	1	15	8	4	15	4	**107**	95.3%	4.7%		
1:15 PM	6	17	12	3	16	2	2	11	8	1	28	2	**108**	96.3%	3.7%		
1:30 PM	10	22	14	2	14	5	1	13	6	3	30	4	**124**	98.4%	1.6%		
1:45 PM	11	24	11	3	18	5	1	13	9	3	35	3	**136**	97.1%	2.9%		
2:00 PM	13	26	14	7	16	4	1	18	11	7	36	3	**156**	95.5%	4.5%		
2:15 PM	17	19	22	7	22	4	1	19	13	6	28	5	**163**	95.7%	4.3%		
2:30 PM	18	21	23	6	24	2	2	25	17	4	34	3	**179**	96.1%	3.9%		
2:45 PM	17	27	22	6	23	3	3	24	16	7	38	5	**191**	97.4%	2.6%		
3:00 PM	20	30	23	1	24	4	5	26	13	7	47	4	**204**	99.5%	0.5%		
3:15 PM	16	43	19	1	24	3	6	26	11	7	46	2	**204**	99.5%	0.5%		
3:30 PM	14	47	23	2	25	4	7	23	7	8	53	2	**215**	98.1%	1.9%		
3:45 PM	15	45	31	1	24	3	7	23	6	6	57	2	**220**	97.7%	2.3%		
4:00 PM	11	45	24	1	31	3	5	19	4	5	57	3	**208**	97.1%	2.9%		
4:15 PM	11	39	22	1	28	4	7	17	4	6	74	3	**216**	97.2%	2.8%		

4:30 PM	11	39	19	1	27	4	8	17	5	7	67	3	**208**	98.6%	1.4%		
4:45 PM	10	39	13	1	30	5	8	25	3	6	70	1	**211**	99.5%	0.5%		
5:00 PM	12	41	15	1	25	5	10	31	6	5	70	0	**221**	99.5%	0.5%	0.89	**PM Peak**
5:15 PM	13	39	18	1	23	7	7	34	7	6	51	1	**207**	99.5%	0.5%		
5:30 PM	12	29	15	0	26	11	6	29	8	6	52	2	**196**	99.5%	0.5%		
5:45 PM	11	29	17	1	23	13	7	26	13	6	44	3	**193**	99.0%	1.0%		
6:00 PM	11	20	13	2	27	13	5	22	11	5	39	4	**172**	99.4%	0.6%		
6:15 PM	9	13	6	2	23	10	4	16	9	3	34	3	**132**	99.2%	0.8%		
6:30 PM	7	11	4	2	14	4	2	14	6	1	22	2	**89**	98.9%	1.1%		
6:45 PM	5	2	0	1	10	1	0	7	1	1	12	1	**41**	100.0%	0.0%		
Movement Total	177	325	178	29	250	43	42	230	81	49	388	26					Movement Total
PC %	97.74%	97.85%	98.31%	79.31%	98.00%	100.00%	100.00%	98.70%	91.36%	100.00%	98.97%	92.31%					PC %
Heavy Veh %	2.26%	2.15%	1.69%	20.69%	2.00%	0.00%	0.00%	1.30%	8.64%	0.00%	1.03%	7.69%					Heavy Veh %

Study Name	1.Monroe Avenue @ Le Moyne Parkway
Start Date	05/31/2023
Start Time	7:00 AM

*Hourly totals given in 15 minute intervals

	Monroe Ave. Southbound			Le Moyne Parkway Westbound			Monroe Ave. Northbound			Le Moyne Parkway Eastbound							
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	**Hourly Total**	PC %	Heavy Veh %	Peak Hour Factor	FILTER
7:00 AM	9	46	12	4	24	5	8	14	1	0	17	5	**145**	98.6%	1.4%		
7:15 AM	16	56	12	5	33	5	6	17	2	1	19	7	**179**	98.9%	1.1%		
7:30 AM	17	51	12	4	39	5	8	20	6	1	16	4	**183**	98.9%	1.1%	0.79	AM Peak
7:45 AM	15	48	11	5	46	2	10	24	6	1	11	3	**182**	98.9%	1.1%		
8:00 AM	15	39	6	3	48	2	5	25	6	1	10	4	**164**	100.0%	0.0%		
8:15 AM	9	28	7	1	40	4	7	26	6	0	7	3	**138**	99.3%	0.7%		
8:30 AM	7	30	8	1	32	3	6	21	2	0	7	3	**120**	99.2%	0.8%		
8:45 AM	10	27	10	0	18	3	6	19	2	0	7	4	**106**	95.3%	4.7%		
9:00 AM	10	30	7	0	14	3	6	13	2	0	7	2	**94**	94.7%	5.3%		
9:15 AM	10	33	6	1	15	1	4	12	4	1	8	1	**96**	95.8%	4.2%		
9:30 AM	14	29	6	1	19	0	6	17	4	1	10	1	**108**	96.3%	3.7%		
9:45 AM	11	29	3	2	23	0	4	18	3	1	8	0	**102**	99.0%	1.0%		
10:00 AM	8	26	6	4	28	1	4	20	4	1	8	0	**110**	97.3%	2.7%		
10:15 AM	11	22	7	3	30	2	4	20	1	0	7	0	**107**	94.4%	5.6%		
10:30 AM	11	24	7	4	30	4	2	21	1	0	5	0	**109**	94.5%	5.5%		
10:45 AM	16	23	9	4	29	5	2	16	1	0	8	0	**113**	93.8%	6.2%		
11:00 AM	21	28	8	3	29	6	3	23	0	0	8	0	**129**	93.0%	7.0%		
11:15 AM	19	35	8	3	22	5	3	21	0	0	7	0	**123**	95.1%	4.9%		
11:30 AM	20	37	8	2	21	4	2	18	0	2	8	0	**122**	95.1%	4.9%		
11:45 AM	14	39	6	1	24	3	5	25	0	3	8	1	**129**	96.1%	3.9%		
12:00 PM	12	35	4	0	22	2	4	18	0	3	9	1	**110**	99.1%	0.9%		
12:15 PM	13	27	4	1	25	3	3	20	3	3	11	3	**116**	99.1%	0.9%		
12:30 PM	8	26	5	3	21	4	5	19	3	1	12	3	**110**	98.2%	1.8%		
12:45 PM	8	22	10	4	18	4	4	21	3	0	11	3	**108**	97.2%	2.8%		
1:00 PM	8	21	12	5	22	3	6	22	6	0	10	3	**118**	97.5%	2.5%		
1:15 PM	14	31	11	5	22	2	7	22	6	0	11	1	**132**	97.0%	3.0%		
1:30 PM	18	30	12	4	24	0	7	24	7	0	11	1	**138**	97.8%	2.2%		
1:45 PM	18	34	7	3	25	1	8	15	8	0	14	0	**133**	99.2%	0.8%		
2:00 PM	23	33	14	2	27	1	7	21	6	0	17	0	**151**	97.4%	2.6%		
2:15 PM	18	29	14	4	37	2	9	25	4	0	16	1	**159**	98.1%	1.9%		
2:30 PM	18	44	11	5	41	2	8	29	5	0	18	1	**182**	98.4%	1.6%		
2:45 PM	20	53	13	7	38	3	6	43	7	1	22	1	**214**	98.1%	1.9%		
3:00 PM	23	62	7	8	40	4	6	41	8	2	25	1	**227**	99.6%	0.4%		
3:15 PM	22	69	6	8	37	5	5	40	7	4	25	0	**228**	99.6%	0.4%		
3:30 PM	25	63	9	6	41	7	6	36	7	4	31	0	**235**	97.9%	2.1%		
3:45 PM	28	60	10	4	52	6	6	32	6	4	32	2	**242**	97.9%	2.1%		
4:00 PM	25	60	8	4	50	7	7	33	8	3	33	4	**242**	97.9%	2.1%		
4:15 PM	27	55	15	3	47	9	7	32	11	2	47	5	**260**	98.1%	1.9%	0.90	**PM Peak**

4:30 PM	22	56	12	3	47	8	8	31	10	3	47	5	**252**	99.6%	0.4%	
4:45 PM	22	62	11	3	42	8	8	25	8	3	49	3	**244**	100.0%	0.0%	
5:00 PM	19	60	11	2	41	7	10	21	5	3	54	1	**234**	100.0%	0.0%	
5:15 PM	13	64	5	0	43	5	10	23	2	2	44	1	**212**	99.5%	0.5%	
5:30 PM	14	56	6	0	42	5	8	23	4	3	42	2	**205**	99.5%	0.5%	
5:45 PM	12	45	4	0	40	6	8	21	4	2	37	2	**181**	99.4%	0.6%	
6:00 PM	11	39	6	0	41	5	4	25	5	2	31	2	**171**	99.4%	0.6%	
6:15 PM	11	23	4	0	30	3	2	16	5	2	24	1	**121**	100.0%	0.0%	
6:30 PM	8	15	3	0	18	2	1	12	2	0	15	0	**76**	100.0%	0.0%	
6:45 PM	4	6	3	0	11	0	0	9	2	0	8	0	**43**	100.0%	0.0%	
Movement Total	**184**	**479**	**101**	**35**	**386**	**46**	**70**	**276**	**51**	**15**	**229**	**23**				Movement Total
PC %	97.8%	98.5%	94.1%	100.0%	99.0%	95.7%	97.1%	97.5%	100.0%	100.0%	99.6%	95.7%				PC %
Heavy Veh %	2.2%	1.5%	5.9%	0.0%	1.0%	4.3%	2.9%	2.5%	0.0%	0.0%	0.4%	4.3%				Heavy Veh %

Study Name: Franklin Avenue @ Washington Boulevard
Start Date: 05/31/2023
Start Time: 7:00 AM

*Hourly totals given in 15 minute intervals

	Franklin Ave. Southbound				Washington Blvd. Westbound				Franklin Ave. Northbound				Park Dr. Northeastbound				Washington Blvd. Eastbound								
Start Time	Left	Thru	Bear Right	Right	Left	Bear Left	Thru	Right	Hard Left	Left	Thru	Right	Hard Left	Bear Left	Bear Right	Hard Right	Left	Thru	Right	Hard Right	**Hourly Total**	PC %	Heavy Veh %	Peak Hour Factor	FILTER
7:00 AM	9	15	1	7	7	2	160	6	0	2	12	13	0	0	0	0	3	388	2	1	**628**	36.1%	63.9%		
7:15 AM	11	20	1	8	9	1	195	9	0	3	22	14	0	0	0	0	5	381	3	1	**683**	41.6%	58.4%		
7:30 AM	15	21	1	10	12	3	216	17	0	3	28	13	0	0	0	0	7	359	5	1	**711**	46.4%	53.6%	1.91	**AM Peak**
7:45 AM	16	23	0	10	13	2	192	20	0	4	29	15	0	0	0	0	9	324	5	1	**663**	47.7%	52.3%		
8:00 AM	13	27	0	6	9	3	187	22	0	2	29	12	0	0	0	0	7	280	4	0	**601**	49.6%	50.4%		
8:15 AM	10	27	0	3	11	3	163	19	0	2	21	12	0	0	0	0	6	235	3	0	**515**	50.7%	49.3%		
8:30 AM	8	26	0	1	11	2	136	12	0	3	15	13	0	0	0	0	4	183	2	0	**416**	52.2%	47.8%		
8:45 AM	3	26	0	1	10	2	138	9	0	2	15	13	0	0	0	0	2	158	3	0	**382**	54.2%	45.8%		
9:00 AM	6	22	1	1	11	1	121	11	0	2	14	13	0	0	0	0	4	156	4	0	**367**	54.0%	46.0%		
9:15 AM	6	22	3	3	9	1	114	10	0	2	11	10	0	0	0	0	5	144	4	0	**344**	53.8%	46.2%		
9:30 AM	5	20	3	4	7	1	112	10	0	1	12	11	0	0	0	0	5	144	4	0	**339**	53.4%	46.6%		
9:45 AM	6	16	3	4	6	1	108	12	1	1	15	9	0	0	0	0	5	130	2	0	**319**	55.8%	44.2%		
10:00 AM	2	16	2	4	5	1	105	7	1	1	16	9	0	0	0	0	5	146	1	0	**321**	51.7%	48.3%		
10:15 AM	4	16	0	3	6	1	108	7	1	2	18	12	0	0	0	0	5	145	3	0	**331**	53.2%	46.8%		
10:30 AM	3	26	1	3	5	0	108	6	1	3	21	11	0	0	0	0	5	138	2	0	**333**	55.9%	44.1%		
10:45 AM	7	28	1	5	6	0	111	5	0	3	21	11	0	0	0	0	6	142	3	0	**349**	56.7%	43.3%		
11:00 AM	10	28	4	6	7	0	120	4	0	3	21	10	0	0	0	0	8	132	4	0	**357**	59.7%	40.3%		
11:15 AM	9	28	5	5	6	2	114	4	0	2	21	6	0	0	0	0	10	149	2	0	**363**	55.6%	44.4%		
11:30 AM	13	18	4	3	8	4	124	7	0	1	16	7	0	0	0	0	13	179	2	0	**399**	50.6%	49.4%		
11:45 AM	10	16	4	2	8	5	133	9	0	1	13	7	0	0	0	0	14	196	3	0	**421**	48.0%	52.0%		
12:00 PM	9	16	1	3	12	6	122	9	1	1	11	6	0	0	0	0	10	207	3	0	**417**	45.6%	54.4%		
12:15 PM	11	18	1	5	13	4	146	9	1	0	10	13	0	0	1	0	8	209	4	0	**453**	49.2%	50.8%		
12:30 PM	11	17	1	6	10	2	151	6	1	1	12	15	0	0	1	0	5	202	4	0	**445**	51.2%	48.8%		
12:45 PM	10	21	1	6	12	1	152	4	1	1	12	17	0	0	1	0	5	205	3	0	**452**	52.2%	47.8%		
1:00 PM	9	21	2	5	9	1	185	6	0	3	12	18	0	0	1	0	9	212	2	0	**495**	54.5%	45.5%		
1:15 PM	8	15	2	4	8	1	179	7	0	5	16	13	0	0	0	0	9	202	1	0	**470**	54.7%	45.3%		
1:30 PM	8	17	2	3	8	2	197	7	0	5	17	9	0	0	0	0	10	207	1	0	**493**	55.6%	44.4%		
1:45 PM	11	15	2	3	6	4	213	5	0	5	23	11	0	0	0	0	11	224	2	0	**535**	55.3%	44.7%		
2:00 PM	11	21	1	3	8	5	212	5	0	3	28	14	0	0	0	0	9	247	3	0	**570**	54.0%	46.0%		
2:15 PM	11	25	1	3	8	7	220	6	0	1	33	20	0	0	0	0	13	288	3	0	**639**	52.1%	47.9%		
2:30 PM	10	36	2	8	12	7	226	5	0	1	37	22	0	0	0	0	13	318	3	0	**700**	51.9%	48.1%		
2:45 PM	10	46	2	9	15	6	225	7	0	3	33	21	0	0	0	0	12	353	3	0	**745**	49.7%	50.3%		
3:00 PM	15	45	2	11	14	8	257	6	0	3	30	25	0	0	0	0	12	369	4	0	**801**	50.4%	49.6%		
3:15 PM	13	46	1	11	15	6	283	9	0	5	31	26	0	0	0	0	9	370	4	0	**829**	52.0%	48.0%		
3:30 PM	10	35	1	7	15	5	300	10	0	5	29	33	0	0	0	0	10	385	5	0	**850**	51.3%	48.7%	1.99	**PM Peak**
3:45 PM	8	27	1	6	13	4	319	10	0	5	34	37	0	0	0	0	9	359	5	0	**837**	54.2%	45.8%		
4:00 PM	5	28	1	5	12	0	292	10	0	5	36	34	0	0	0	0	7	358	3	0	**796**	53.3%	46.7%		
4:15 PM	7	26	2	7	11	1	282	7	1	7	35	29	0	0	0	0	5	353	4	1	**778**	53.2%	46.8%		
4:30 PM	10	31	2	7	10	1	258	7	1	6	35	25	0	0	0	0	5	350	5	1	**754**	52.0%	48.0%		
4:45 PM	12	32	2	8	12	2	255	7	1	4	36	26	0	0	0	0	9	351	5	1	**763**	52.0%	48.0%		
5:00 PM	13	29	3	9	10	2	251	8	1	4	42	28	0	0	0	0	14	353	6	1	**774**	51.3%	48.7%		
5:15 PM	13	29	2	7	11	2	231	5	0	1	40	28	0	0	0	0	14	345	7	0	**735**	49.7%	50.3%		
5:30 PM	13	26	1	10	10	2	220	7	0	2	38	24	0	0	0	0	12	316	5	0	**686**	50.9%	49.1%		
5:45 PM	9	21	1	10	9	1	184	6	0	2	35	15	0	0	0	0	8	288	3	0	**592**	48.5%	51.5%		
6:00 PM	10	21	0	8	10	1	149	5	0	3	30	8	0	0	0	0	5	240	2	0	**492**	49.2%	50.8%		
6:15 PM	8	16	0	7	7	0	105	5	0	2	21	4	0	0	0	0	4	167	0	0	**346**	50.0%	50.0%		
6:30 PM	5	10	0	3	5	0	57	2	0	1	17	2	0	0	0	0	3	99	0	0	**204**	49.0%	51.0%		
6:45 PM	5	7	0	1	2	0	21	1	0	1	8	1	0	0	0	0	2	47	0	0	**96**	49.0%	51.0%		
Movement Total	112	289	18	68	114	30	2161	99	3	32	281	190	0	0	1	0	93	3088	38	2					Movement Total
PC %	100.00%	99.31%	100.00%	97.06%	100.00%	96.67%	97.73%	98.99%	100.00%	96.88%	99.29%	98.95%			100.00%		95.70%	98.12%	97.37%	100.00%					PC %
Heavy Veh %	0.00%	0.69%	0.00%	2.94%	0.00%	3.33%	2.27%	1.01%	0.00%	3.13%	0.71%	1.05%			0.00%		4.30%	1.88%	2.63%	0.00%					Heavy Veh %

Study Name	5.William Street @ Chicago Street
Start Date	05/31/2023
Start Time	7:00 AM

*Hourly totals given in 15 minute intervals

	William St. Southbound			Chicago Ave. Westbound			William St. Northbound			Chicago Ave. Eastbound							
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	**Hourly Total**	PC %	Heavy Veh %	Peak Hour Factor	FILTER
7:00 AM	6	25	5	13	265	4	9	14	8	3	418	15	**785**	98.9%	1.1%		
7:15 AM	6	32	6	14	312	4	11	23	14	3	417	15	**857**	98.8%	1.2%		
7:30 AM	9	35	6	13	335	4	16	28	16	2	414	20	**898**	99.0%	1.0%		
7:45 AM	8	35	5	12	350	4	16	30	17	4	405	20	**906**	98.9%	1.1%	0.91	**AM Peak**
8:00 AM	8	27	6	11	336	5	12	29	15	5	373	20	**847**	98.7%	1.3%		
8:15 AM	9	22	7	11	303	4	14	25	12	5	332	18	**762**	98.7%	1.3%		
8:30 AM	6	21	6	10	258	5	12	19	15	6	309	15	**682**	98.7%	1.3%		
8:45 AM	7	14	5	14	228	5	13	18	20	3	303	10	**640**	98.1%	1.9%		
9:00 AM	7	14	3	19	219	2	12	18	24	2	298	6	**624**	97.6%	2.4%		
9:15 AM	6	13	0	19	230	4	8	20	22	1	321	6	**650**	97.5%	2.5%		
9:30 AM	7	12	0	23	251	5	6	24	19	0	325	3	**675**	96.9%	3.1%		
9:45 AM	6	14	2	21	248	5	5	28	15	0	298	3	**645**	97.1%	2.9%		
10:00 AM	5	14	3	17	249	6	10	24	14	0	281	5	**628**	97.3%	2.7%		
10:15 AM	5	18	3	20	227	7	11	26	15	1	287	6	**626**	97.4%	2.6%		
10:30 AM	3	19	5	14	208	6	10	24	18	3	286	9	**605**	97.7%	2.3%		
10:45 AM	6	18	3	13	214	6	10	22	17	3	296	14	**622**	98.1%	1.9%		
11:00 AM	7	15	5	14	226	5	8	21	16	4	291	15	**627**	98.2%	1.8%		
11:15 AM	8	10	5	16	261	2	9	15	22	3	274	14	**639**	98.0%	2.0%		
11:30 AM	11	8	4	21	270	3	11	14	22	4	292	13	**673**	98.1%	1.9%		
11:45 AM	8	7	4	25	271	4	15	14	24	4	307	12	**695**	98.3%	1.7%		
12:00 PM	6	10	1	26	256	8	14	16	28	6	345	9	**725**	98.1%	1.9%		
12:15 PM	10	11	3	26	249	10	13	19	22	7	350	12	**732**	98.5%	1.5%		
12:30 PM	7	15	2	22	270	9	11	17	21	5	342	12	**733**	98.8%	1.2%		
12:45 PM	7	18	2	18	275	8	6	19	21	6	345	10	**735**	98.4%	1.6%		
1:00 PM	7	16	4	18	300	6	4	20	15	7	334	12	**743**	97.8%	2.2%		
1:15 PM	2	17	3	14	302	5	3	20	13	7	350	15	**751**	97.3%	2.7%		
1:30 PM	5	15	4	14	314	6	2	31	9	7	357	12	**776**	96.9%	3.1%		
1:45 PM	7	15	5	18	345	5	1	27	8	6	357	12	**806**	96.7%	3.3%		
2:00 PM	7	18	4	20	350	5	6	30	10	4	362	14	**830**	97.5%	2.5%		
2:15 PM	8	17	5	23	374	6	10	30	15	4	379	11	**882**	97.8%	2.2%		
2:30 PM	8	22	5	27	378	7	14	30	23	6	409	17	**946**	98.2%	1.8%		
2:45 PM	9	23	5	25	363	11	16	35	21	7	461	19	**995**	98.7%	1.3%		
3:00 PM	12	22	6	18	390	10	15	34	22	6	468	15	**1018**	98.8%	1.2%		
3:15 PM	11	28	6	17	395	12	16	37	23	6	493	14	**1058**	98.5%	1.5%		
3:30 PM	10	22	6	18	400	10	14	35	20	6	480	13	**1034**	98.7%	1.3%		
3:45 PM	8	24	7	24	417	9	16	30	27	11	440	12	**1025**	98.6%	1.4%		
4:00 PM	5	27	5	27	395	10	13	36	30	11	450	15	**1024**	98.6%	1.4%		
4:15 PM	5	24	5	28	399	8	8	42	26	12	442	13	**1012**	99.1%	0.9%		

4:30 PM	6	28	4	23	426	9	6	39	26	11	448	11	**1037**	99.0%	1.0%		
4:45 PM	6	27	5	20	425	10	4	42	32	7	485	9	**1072**	99.3%	0.7%		
5:00 PM	9	26	5	18	454	8	4	36	31	7	491	13	**1102**	98.9%	1.1%		
5:15 PM	10	26	3	18	445	10	9	31	35	7	501	16	**1111**	99.2%	0.8%	0.97	**PM Peak**
5:30 PM	9	25	3	22	416	11	11	28	34	6	489	14	**1068**	99.2%	0.8%		
5:45 PM	8	20	0	17	406	9	9	28	22	8	461	15	**1003**	98.9%	1.1%		
6:00 PM	6	16	1	17	359	11	8	25	17	9	437	10	**916**	99.5%	0.5%		
6:15 PM	4	10	1	11	259	7	2	15	10	7	302	6	**634**	99.2%	0.8%		
6:30 PM	2	4	1	5	164	4	0	11	5	6	201	5	**408**	99.3%	0.7%		
6:45 PM	1	3	1	3	72	2	0	4	3	2	94	3	**188**	100.0%	0.0%		
Movement Total	85	230	48	218	3799	80	115	303	230	64	4548	149					Movement Total
PC %	100.00%	99.57%	100.00%	98.17%	98.26%	97.50%	100.00%	99.01%	98.70%	96.88%	98.37%	98.66%					PC %
Heavy Veh %	0.00%	0.43%	0.00%	1.83%	1.74%	2.50%	0.00%	0.99%	1.30%	3.13%	1.63%	1.34%					Heavy Veh %

Study Name	6. William Street @ Lake Street
Start Date	05/31/2023
Start Time	7:00 AM

*Hourly totals given in 15 minute intervals

	William St. Southbound			Lake St. Westbound			William St. Northbound			Lake St. Eastbound							
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	**Hourly Total**	PC %	Heavy Veh %	Peak Hour Factor	FILTER
7:00 AM	4	20	24	31	281	4	5	4	10	8	496	22	**909**	94.8%	5.2%		
7:15 AM	7	24	33	31	319	6	6	8	14	11	455	33	**947**	95.8%	4.2%		
7:30 AM	7	28	41	37	339	11	4	10	23	16	465	27	**1008**	95.8%	4.2%		
7:45 AM	7	26	38	43	370	12	8	11	28	23	475	34	**1075**	96.2%	3.8%	0.97	**AM Peak**
8:00 AM	9	21	30	45	346	15	7	11	38	23	457	38	**1040**	96.3%	3.7%		
8:15 AM	7	18	26	54	332	13	12	9	37	20	430	34	**992**	96.5%	3.5%		
8:30 AM	8	16	23	56	297	9	16	8	34	15	410	35	**927**	96.7%	3.3%		
8:45 AM	7	17	21	60	269	8	16	7	35	12	373	35	**860**	95.9%	4.1%		
9:00 AM	4	17	29	72	265	5	18	8	36	9	378	37	**878**	96.1%	3.9%		
9:15 AM	6	17	27	69	292	5	16	8	41	12	386	37	**916**	96.2%	3.8%		
9:30 AM	6	19	25	72	338	4	14	12	43	12	386	48	**979**	96.3%	3.7%		
9:45 AM	9	20	23	72	351	6	15	19	42	12	379	55	**1003**	96.9%	3.1%		
10:00 AM	9	20	19	72	357	8	17	20	43	12	390	55	**1022**	96.7%	3.3%		
10:15 AM	7	24	23	78	359	12	14	20	46	12	408	55	**1058**	96.7%	3.3%		
10:30 AM	7	19	25	72	364	15	17	17	47	17	390	50	**1040**	96.1%	3.9%		
10:45 AM	4	20	30	63	399	17	15	9	47	19	414	46	**1083**	96.5%	3.5%		
11:00 AM	4	24	31	47	419	14	14	7	40	20	434	47	**1101**	96.8%	3.2%		
11:15 AM	5	20	40	45	443	12	18	6	43	22	447	49	**1150**	97.0%	3.0%		
11:30 AM	6	23	39	45	444	11	15	6	45	24	470	39	**1167**	97.0%	3.0%		
11:45 AM	9	21	43	48	435	10	14	10	44	24	473	34	**1165**	96.2%	3.8%		
12:00 PM	9	16	41	53	452	10	12	9	50	27	469	30	**1178**	96.2%	3.8%		
12:15 PM	6	18	38	55	445	9	12	12	45	24	464	26	**1154**	96.5%	3.5%		
12:30 PM	6	17	39	65	444	8	13	9	40	22	493	37	**1193**	97.4%	2.6%		
12:45 PM	3	14	32	65	457	5	14	8	46	24	482	43	**1193**	97.9%	2.1%		
1:00 PM	2	15	30	62	456	7	15	8	42	22	473	42	**1174**	98.2%	1.8%		
1:15 PM	4	16	23	61	453	8	12	6	40	21	460	41	**1145**	98.0%	2.0%		
1:30 PM	2	17	21	59	461	7	17	9	40	21	433	38	**1125**	97.7%	2.3%		
1:45 PM	5	17	25	57	481	5	16	10	32	18	471	35	**1172**	97.8%	2.2%		
2:00 PM	7	16	30	58	481	7	15	12	30	17	475	42	**1190**	97.7%	2.3%		
2:15 PM	8	17	32	53	486	7	18	13	34	26	480	46	**1220**	97.9%	2.1%		
2:30 PM	13	14	35	42	503	8	14	13	42	33	491	42	**1250**	97.8%	2.2%		
2:45 PM	14	20	33	47	498	8	14	10	39	30	496	45	**1254**	97.9%	2.1%		
3:00 PM	12	20	29	47	526	6	15	8	42	32	509	43	**1289**	97.9%	2.1%		
3:15 PM	14	20	31	46	544	11	14	10	37	29	506	34	**1296**	98.1%	1.9%		
3:30 PM	9	20	32	44	539	13	14	10	29	23	525	43	**1301**	98.2%	1.8%		
3:45 PM	5	17	39	36	539	15	16	12	35	29	523	37	**1303**	98.3%	1.7%		
4:00 PM	6	19	40	30	546	16	15	13	30	35	543	34	**1327**	98.2%	1.8%		
4:15 PM	4	21	38	28	522	16	12	9	34	36	567	40	**1327**	98.0%	2.0%		

4:30 PM	5	21	36	27	519	15	10	10	31	34	586	34	**1328**	98.0%	2.0%		
4:45 PM	6	18	31	21	524	14	6	12	26	33	607	31	**1329**	98.3%	1.7%	0.93	**PM Peak**
5:00 PM	10	14	30	21	501	13	3	11	25	31	627	27	**1313**	98.4%	1.6%		
5:15 PM	9	8	28	16	511	7	3	14	15	29	658	29	**1327**	98.6%	1.4%		
5:30 PM	11	7	33	16	484	7	2	13	13	32	643	24	**1285**	98.6%	1.4%		
5:45 PM	13	6	31	18	460	9	2	10	10	30	605	23	**1217**	98.4%	1.6%		
6:00 PM	8	8	30	14	433	7	3	10	6	27	573	21	**1140**	98.4%	1.6%		
6:15 PM	6	6	24	12	309	6	2	6	5	20	407	10	**813**	98.3%	1.7%		
6:30 PM	3	4	12	7	209	4	1	3	3	12	264	5	**527**	98.1%	1.9%		
6:45 PM	0	4	6	3	98	1	1	1	1	6	142	2	**265**	98.5%	1.5%		
Movement Total	84	210	363	552	5063	112	139	121	392	263	5824	438					Movement Total
PC %	97.62%	98.57%	98.35%	98.01%	97.16%	97.32%	99.28%	98.35%	98.98%	99.24%	96.72%	99.54%					PC %
Heavy Veh %	2.38%	1.43%	1.65%	1.99%	2.84%	2.68%	0.72%	1.65%	1.02%	0.76%	3.28%	0.46%					Heavy Veh %

Rail Crossing Inventory

U. S. DOT CROSSING INVENTORY FORM

DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION

OMB No. 2130-0017

Instructions for the initial reporting of the following types of new or previously unreported crossings: For public highway-rail grade crossings, complete the entire inventory Form. For private highway-rail grade crossings, complete the Header, Parts I and II, and the Submission Information section. For public pathway grade crossings (including pedestrian station grade crossings), complete the Header, Parts I and II, and the Submission Information section. For Private pathway grade crossings, complete the Header, Parts I and II, and the Submission Information section. For grade-separated highway-rail or pathway crossings (including pedestrian station crossings), complete the Header, Part I, and the Submission Information section. For changes to existing data, complete the Header, Part I Items 1-3, and the Submission Information section, in addition to the updated data fields. Note: For private crossings only, Part I Item 20 and Part III Item 2.K. are required unless otherwise noted. An asterisk * denotes an optional field.

A. Revision Date (MM/DD/YYYY)	B. Reporting Agency	C. Reason for Update (Select only one)	D. DOT Crossing Inventory Number
07 / 05 / 2023	☐ Railroad ☐ Transit ☒ State ☐ Other	☒ Change in Data ☐ New Crossing ☐ Closed ☐ No Train Traffic ☐ Quiet Zone Update ☐ Re-Open ☐ Date Change Only ☐ Change in Primary Operating RR ☐ Admin. Correction	689627S

Part I: Location and Classification Information

1. Primary Operating Railroad	2. State	3. County
WISCONSIN CENTRAL LTD. [WC]	ILLINOIS	COOK

4. City / Municipality	5. Street/Road Name & Block Number	6. Highway Type & No.
☒ In ☐ Near RIVER FOREST	THATCHER AVE (Street/Road Name) | 0 (* Block Number)	FAU2753

7. Do Other Railroads Operate a Separate Track at Crossing?	8. Do Other Railroads Operate Over Your Track at Crossing?
☐ Yes ☒ No If Yes, Specify RR	☐ Yes ☒ No If Yes, Specify RR

9. Railroad Division or Region	10. Railroad Subdivision or District	11. Branch or Line Name	12. RR Milepost
☐ None CHICAGO	☐ None WAUKESHA	☐ None MAIN	(prefix) | 0012.390 (nnnn.nnn) | (suffix)

13. Line Segment *	14. Nearest RR Timetable Station *	15. Parent RR (if applicable)	16. Crossing Owner (if applicable)
SC00052044	RIVER FOREST	☐ N/A CN	☐ N/A WC

17. Crossing Type	18. Crossing Purpose	19. Crossing Position	20. Public Access (if Private Crossing)	21. Type of Train	22. Average Passenger Train Count Per Day
☒ Public ☐ Private	☒ Highway ☐ Pathway, Ped. ☐ Station, Ped.	☒ At Grade ☐ RR Under ☐ RR Over	☐ Yes ☐ No	☒ Freight ☐ Intercity Passenger ☐ Commuter ☐ Transit ☐ Shared Use Transit ☐ Tourist/Other	☐ Less Than One Per Day ☐ Number Per Day 0

23. Type of Land Use
☐ Open Space ☐ Farm ☒ Residential ☐ Commercial ☐ Industrial ☐ Institutional ☐ Recreational ☐ RR Yard

24. Is there an Adjacent Crossing with a Separate Number?	25. Quiet Zone (FRA provided)
☐ Yes ☒ No If Yes, Provide Crossing Number	☐ No ☐ 24 Hr ☐ Partial ☒ Chicago Excused Date Established

26. HSR Corridor ID	27. Latitude in decimal degrees	28. Longitude in decimal degrees	29. Lat/Long Source
☒ N/A	(WGS84 std: nn.nnnnnnn) 41.899592	(WGS84 std: -nnn.nnnnnnn) -87.825936	☒ Actual ☐ Estimated

30.A. Railroad Use *	31.A. State Use *
30.B. Railroad Use *	31.B. State Use * LAT/LONG PER ICC-SL 2018
30.C. Railroad Use *	31.C. State Use *
30.D. Railroad Use *	31.D. State Use * 7/5/23-AADT; Year; % Truck Updated per IDOT March 2023 Y
32.A. Narrative (Railroad Use) *	32.B. Narrative (State Use) * ICC 7/5/23 - Updated AADT, Year, % Truck, State N

33. Emergency Notification Telephone No. (posted)	34. Railroad Contact (Telephone No.)	35. State Contact (Telephone No.)
800-465-9239	888-888-5909	217-785-9026

Part II: Railroad Information

1. Estimated Number of Daily Train Movements

1.A. Total Day Thru Trains (6 AM to 6 PM)	1.B. Total Night Thru Trains (6 PM to 6 AM)	1.C. Total Switching Trains	1.D. Total Transit Trains	1.E. Check if Less Than One Movement Per Day ☐ How many trains per week?
5	1	0	0	

2. Year of Train Count Data (YYYY)	3. Speed of Train at Crossing
2016	3.A. Maximum Timetable Speed (mph) 60 3.B. Typical Speed Range Over Crossing (mph) From 1 to 60

4. Type and Count of Tracks
Main 1 Siding 0 Yard 0 Transit 0 Industry 0

5. Train Detection (Main Track only)
☒ Constant Warning Time ☐ Motion Detection ☐ AFO ☐ PTC ☐ DC ☐ Other ☐ None

6. Is Track Signaled?	7.A. Event Recorder	7.B. Remote Health Monitoring
☐ Yes ☒ No	☐ Yes ☐ No	☐ Yes ☐ No

U. S. DOT CROSSING INVENTORY FORM

A. Revision Date *(MM/DD/YYYY)*	PAGE 2	D. Crossing Inventory Number *(7 char.)*
07/05/2023		689627S

Part III: Highway or Pathway Traffic Control Device Information

1. Are there Signs or Signals? ☒ Yes ☐ No

2. Types of Passive Traffic Control Devices associated with the Crossing

2.A. Crossbuck Assemblies *(count)*	2.B. STOP Signs *(R1-1) (count)*	2.C. YIELD Signs *(R1-2) (count)*	2.D. Advance Warning Signs *(Check all that apply; include count)* ☒ None
2	0	0	☐ W10-1 0 ☐ W10-2 0 ☐ W10-3 0 ☐ W10-4 0 ☐ W10-11 0 ☐ W10-12 0

2.E. Low Ground Clearance Sign *(W10-5)*	2.F. Pavement Markings	2.G. Channelization Devices/Medians	2.H. EXEMPT Sign *(R15-3)*	2.I. ENS Sign *(I-13)* Displayed
☐ Yes *(count* 0 *)* ☒ No	☒ Stop Lines ☒ RR Xing Symbols ☐ Dynamic Envelope ☐ None	☐ All Approaches ☐ Median ☐ One Approach ☐ None	☐ Yes ☒ No	☒ Yes ☐ No

2.J. Other MUTCD Signs	2.K. Private Crossing Signs *(if private)*	2.L. LED Enhanced Signs *(List types)*
☐ Yes ☒ No Specify Type _____ Count 0 Specify Type _____ Count 0 Specify Type _____ Count 0	☐ Yes ☐ No	

3. Types of Train Activated Warning Devices at the Grade Crossing *(specify count of each device for all that apply)*

3.A. Gate Arms *(count)*	3.B. Gate Configuration	3.C. Cantilevered *(or Bridged)* Flashing Light Structures *(count)*	3.D. Mast Mounted Flashing Lights *(count of masts)* 2	3.E. Total Count of Flashing Light Pairs
Roadway 2 Pedestrian 0	☒ 2 Quad ☐ 3 Quad ☐ 4 Quad ☐ Full *(Barrier)* Resistance ☐ Median Gates	Over Traffic Lane 2 ☐ Incandescent Not Over Traffic Lane 0 ☐ LED	☐ Incandescent ☐ LED ☐ Back Lights Included ☐ Side Lights Included	8

3.F. Installation Date of Current Active Warning Devices: *(MM/YYYY)*	3.G. Wayside Horn	3.H. Highway Traffic Signals Controlling Crossing	3.I. Bells *(count)*
_____/_____ ☐ Not Required	☐ Yes Installed on *(MM/YYYY)* _____/_____ ☒ No	☐ Yes ☒ No	4

3.J. Non-Train Active Warning	3.K. Other Flashing Lights or Warning Devices
☐ Flagging/Flagman ☐ Manually Operated Signals ☐ Watchman ☐ Floodlighting ☐ None	Count 0 Specify type _____

4.A. Does nearby Hwy Intersection have Traffic Signals?	4.B. Hwy Traffic Signal Interconnection	4.C. Hwy Traffic Signal Preemption	5. Highway Traffic Pre-Signals	6. Highway Monitoring Devices *(Check all that apply)*
☐ Yes ☒ No	☒ Not Interconnected ☐ For Traffic Signals ☐ For Warning Signs	☐ Simultaneous ☐ Advance	☐ Yes ☐ No Storage Distance * 0 Stop Line Distance * 0	☐ Yes - Photo/Video Recording ☐ Yes – Vehicle Presence Detection ☐ None

Part IV: Physical Characteristics

1. Traffic Lanes Crossing Railroad	2. Is Roadway/Pathway Paved?	3. Does Track Run Down a Street?	4. Is Crossing Illuminated? *(Street lights within approx. 50 feet from nearest rail)*
☐ One-way Traffic ☒ Two-way Traffic ☐ Divided Traffic Number of Lanes 02	☒ Yes ☐ No	☐ Yes ☒ No	☐ Yes ☒ No

5. Crossing Surface *(on Main Track, multiple types allowed)* Installation Date * *(MM/YYYY)* _____/_____ Width * _____ Length * _____
☐ 1 Timber ☐ 2 Asphalt ☐ 3 Asphalt and Timber ☐ 4 Concrete ☐ 5 Concrete and Rubber ☒ 6 Rubber ☐ 7 Metal
☐ 8 Unconsolidated ☐ 9 Composite ☐ 10 Other *(specify)* _____

6. Intersecting Roadway within 500 feet?	7. Smallest Crossing Angle	8. Is Commercial Power Available? *
☐ Yes ☒ No If Yes, Approximate Distance *(feet)* _____	☐ 0° – 29° ☐ 30° – 59° ☒ 60° - 90°	☒ Yes ☐ No

Part V: Public Highway Information

1. Highway System	2. Functional Classification of Road at Crossing	3. Is Crossing on State Highway System?	4. Highway Speed Limit
☐ (01) Interstate Highway System ☐ (02) Other Nat Hwy System (NHS) ☒ (03) Federal AID, Not NHS ☐ (08) Non-Federal Aid	☐ (0) Rural ☒ (1) Urban ☐ (1) Interstate ☒ (5) Major Collector ☐ (2) Other Freeways and Expressways ☐ (3) Other Principal Arterial ☐ (6) Minor Collector ☐ (4) Minor Arterial ☐ (7) Local	☒ Yes ☐ No	25 MPH ☒ Posted ☐ Statutory

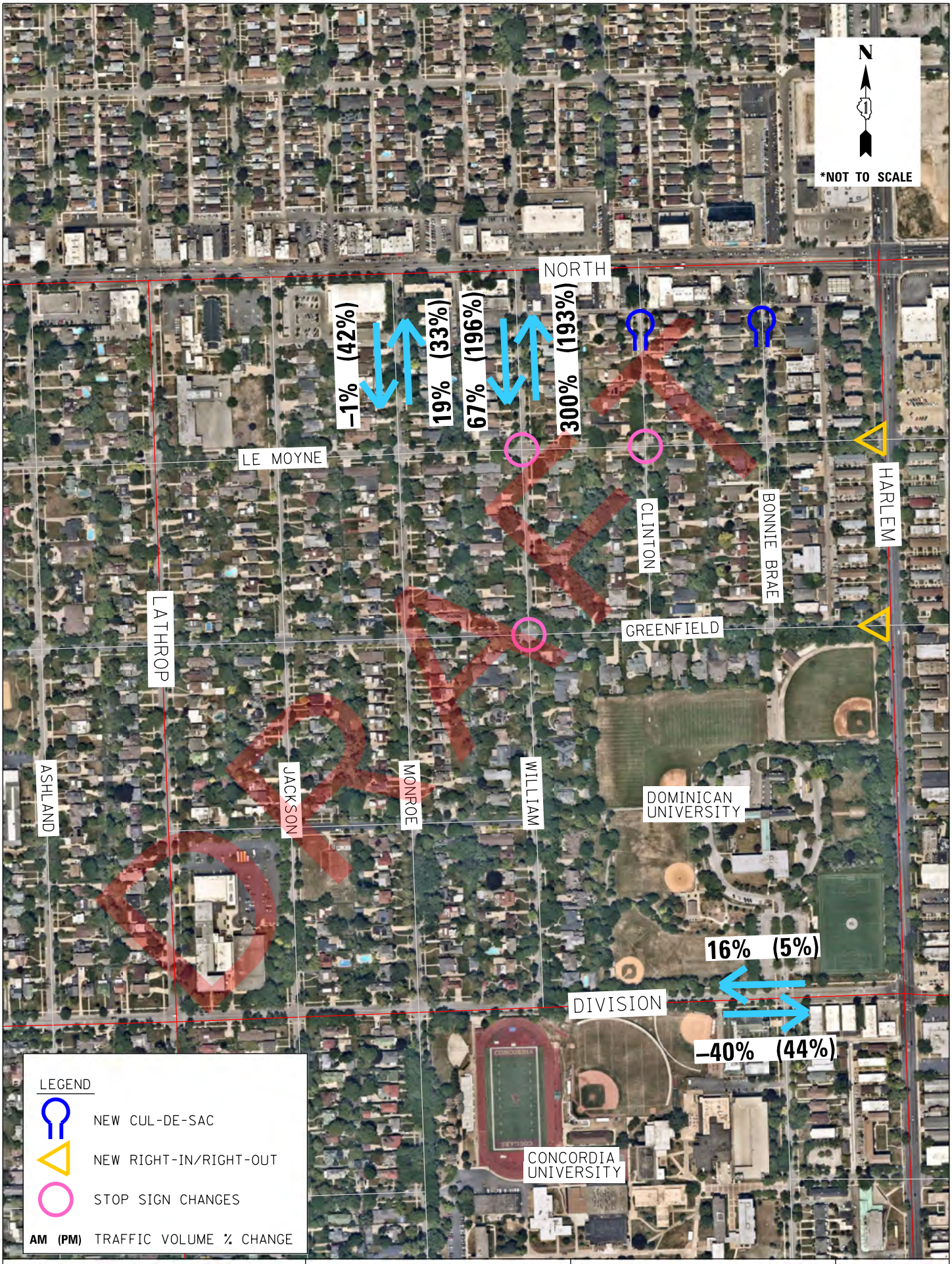
5. Linear Referencing System *(LRS Route ID)* * 016 92753 000000
6. LRS Milepost * 2.12

7. Annual Average Daily Traffic *(AADT)*	8. Estimated Percent Trucks	9. Regularly Used by School Buses?	10. Emergency Services Route
Year 2022 AADT 11600	3 %	☐ Yes ☒ No Average Number per Day 0	☐ Yes ☐ No

Submission Information - *This information is used for administrative purposes and is not available on the public website.*

Submitted by _____ Organization _____ Phone _____ Date _____

NE Quadrant Traffic Counts



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RIVER FOREST
Proud Heritage • Bright Future

NORTHEAST COUNT COMPARISON

SHEET NO. 1
DRAWING NO. 1 OF 1