

Neighborhood Traffic Study Area 6



Preliminary Report

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Neighborhood Traffic Study – Area 6

SECTION I – EXECUTIVE SUMMARY

The Village of Downers Grove is pursuing the Neighborhood Traffic Study – Area 6 project to address vehicular speeding issues, cut-through traffic, pedestrian safety and to evaluate overall traffic performance within one specific neighborhood. Data collected for the project include midblock traffic speed and volume data, parking data, pedestrian data and intersection peak hour traffic data.

The study recommends intersection control treatments, traffic calming and diversion measures, revisions to roadway lane configurations, and signalized intersection capacity improvement measures. Proposed intersection control modifications include the conversion of all uncontrolled and yield-controlled intersection to stop control.

As part of the data collection effort, TERRA Engineering collected midblock traffic data at 45 locations, intersection turning movement counts at four signalized intersections, and conducted observations of the study area. Crash records were collected by the Village, indicating the crash history within the study area for the most recent 7 years of available data. Field observations and available aerial imagery and photography were used to review the existing pedestrian and bicyclist network.

Recommended measures to meet the goals of the study are divided into short-, mid-, and long-term time frames.

SECTION II – EXISTING CONDITIONS

Study Area and Existing Land Uses

The study area is approximately 0.7 square miles in the northeast portion of the Village of Downers Grove. Figure 1 indicates the location of the study area.

The study area is predominantly residential. However, commercial businesses line the Ogden Avenue corridor. Highland Elementary School is in the northwest corner of the study area, located at the north terminus of Highland Avenue, southeast of the intersection of Main Street and 39th Street. The entire study area is within Highland Elementary's school boundary limits. There are two parks located within the study area: Wallingford Park, located on Elm Street between 41st Street and 40th Street; and Whitlock Park, spanning the block between Fairview Avenue and Cumnor Road, north of 40th Place.

Advocate Good Samaritan Hospital is located just north of the study area, northeast of the intersection of 39th Street and Main Street/Highland Avenue. A Downers Grove Fire Station is located just outside the study area in the southwest corner of the same intersection.

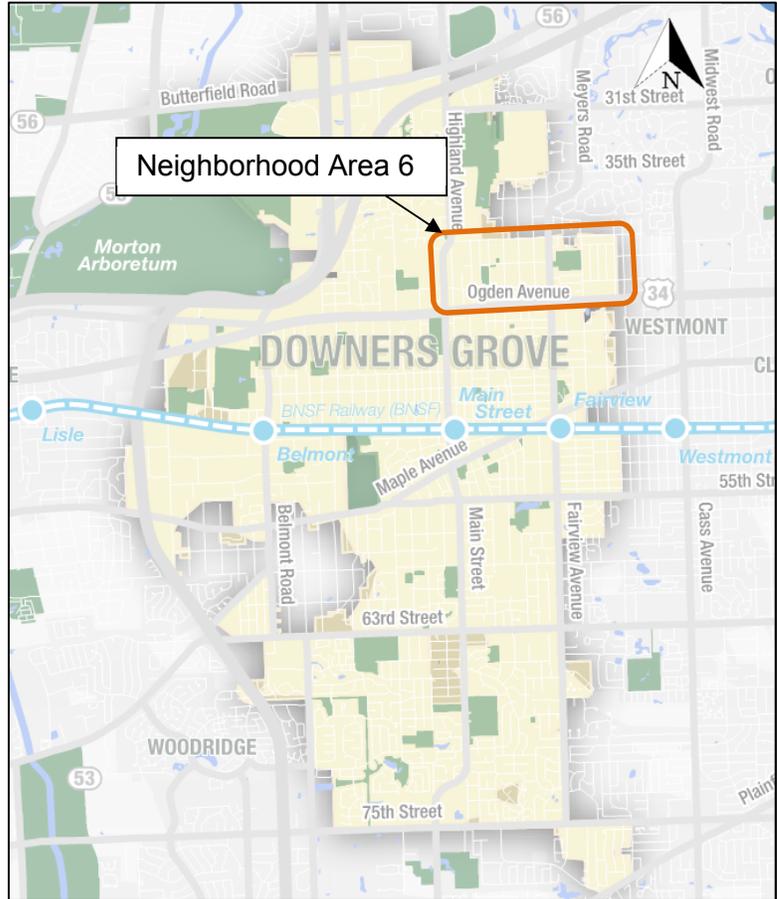


Figure 1 – Map: Location of Neighborhood Area 6

Figure 2 indicates the notable land uses within the study area.

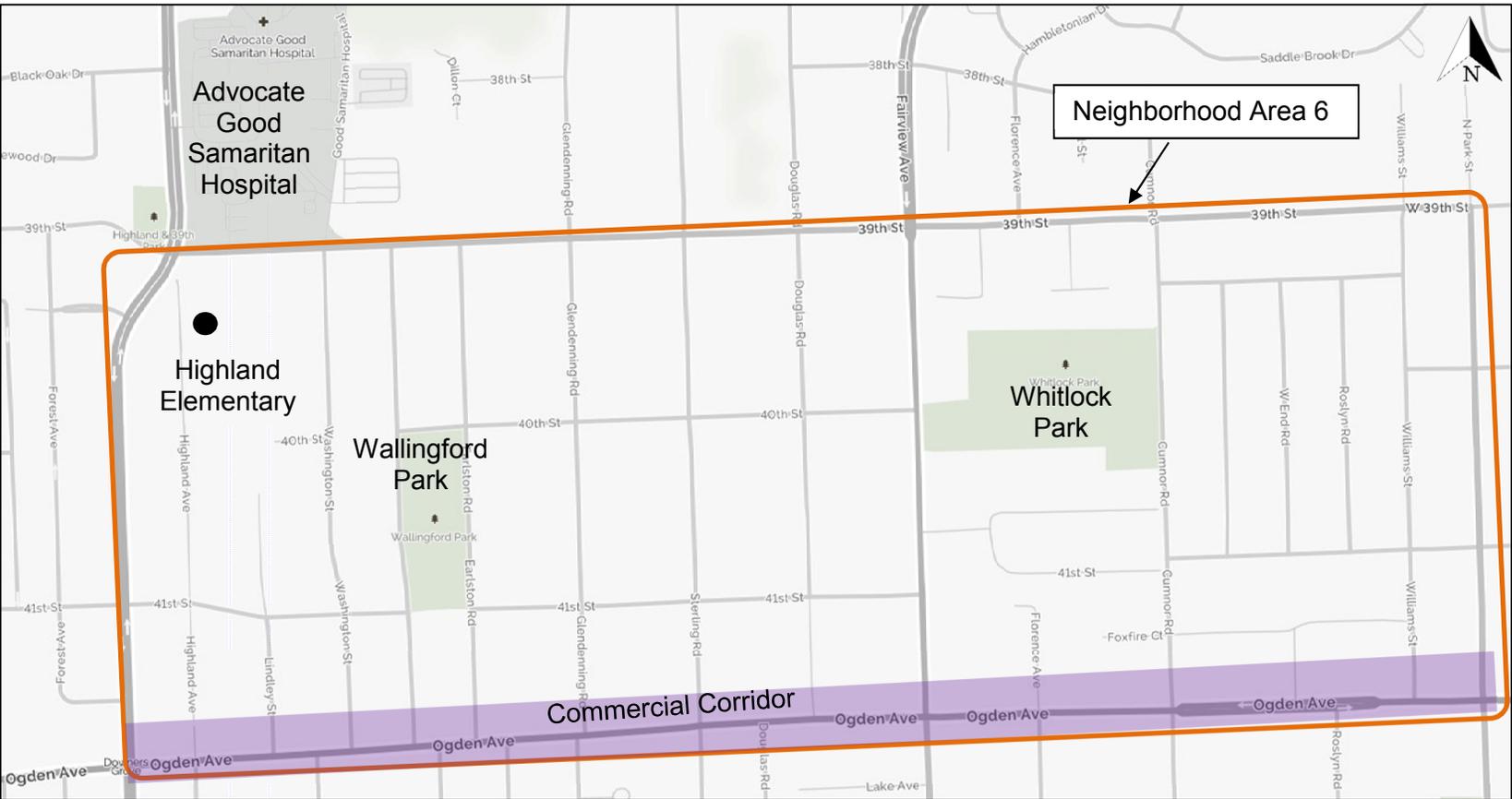


Figure 2 – Map: Notable Land Uses

Existing Roadway System

In the north/south direction, the major roadways include Main Street, Fairview Avenue, and Williams Street. Cumnor Road also accommodates a relatively high traffic volume compared to the other local streets. In the east/west direction, the major roadways are Ogden Avenue and 39th Street. Other east/west roadways are limited in their extent through the neighborhood due to dead ends or T intersections.

Ogden Avenue (US Route 34) is an east/west roadway under the jurisdiction of the Illinois Department of Transportation (IDOT). It has a five-lane section with a posted speed limit of 35 mph within the study limits. Traffic signal control is provided at its intersections with Main Street, Fairview Avenue, and the entrance to Downers Plaza Shopping Center.

Main Street is a north/south roadway under the jurisdiction of DuPage County. It has a 4-lane section, with a posted speed of 30 mph within the study limits. Traffic signal control is provided at its intersections with Ogden Avenue and 39th Street.

Fairview Avenue is a north/south roadway under the jurisdiction of DuPage County. It has a 4-lane section, with a posted speed of 30 mph within the study limits. Traffic signal control is provided at its intersections with Ogden Avenue and 39th Street.

39th Street is an east/west roadway under the jurisdiction of the Village of Downers Grove. It has a 3-lane section west of Washington Street and a 2-lane section east of Washington Street. Traffic signal control is provided at its intersections with Main Street and Fairview Avenue. Curb and gutter are provided on 39th Street east of Cumnor Road and west of Washington Street; between Washington Street and Cumnor Road, 39th Street has a rural section.

The following roadways are north/south roadways with one lane in each direction under the jurisdiction of the Village of Downers Grove, with a posted/regulatory speed of 25 mph:

- Highland Avenue
- Lindley Street
- Washington Street
- Elm Street
- Earlston Road
- Glendenning Road
- Sterling Road
- Douglas Road
- Biltmore Road
- Florence Avenue
- School Street
- Cumnor Road
- Longmeadow Road
- West End Road
- Roslyn Road
- Williams Street

The following roadways are east/west roadways with one lane in each direction under the jurisdiction of the Village of Downers Grove, with a posted/regulatory speed of 25 mph:

- 41st Street
- Foxfire Court
- 40th Place
- Shady Ln
- 40th Street
- Tower Road

Typically, the local streets are signed speed limit 25 mph upon entering the neighborhood. The local streets are also frequently signed with a 5-ton weight limit (except for local deliveries), as shown in the adjacent photo. Figure 3 presents the speed limit signage within the neighborhood, as well as warning signage indicating school zones, park zones and pedestrian crossings. Per Section 14.34 of the Village Municipal Code, the speed limit on all streets – unless signed otherwise or specifically altered in the Municipal Code – is 25 mph. School zone and park zone speed limits (20 mph) are posted for the two parks and the elementary school within the study area, affecting portions of the following roadways: Highland Avenue, 39th Street, Elm Street, and Cumnor Road.



Figure 3 also indicates locations of dead ends within the neighborhood. Compared to typical residential neighborhoods, there are a high number of dead end streets. It is worth noting that between 39th Street and Ogden Avenue the east/west roadways (predominantly 41st Street and 40th Street) do not provide a continuous route due to T intersections and dead ends. In the north/south direction, the following roadways provide a continuous route through the study area: Main Street, Washington Street, Earlston Road, Glendenning Road, Sterling Road, Fairview Avenue, Cumnor Road, and Williams Street.

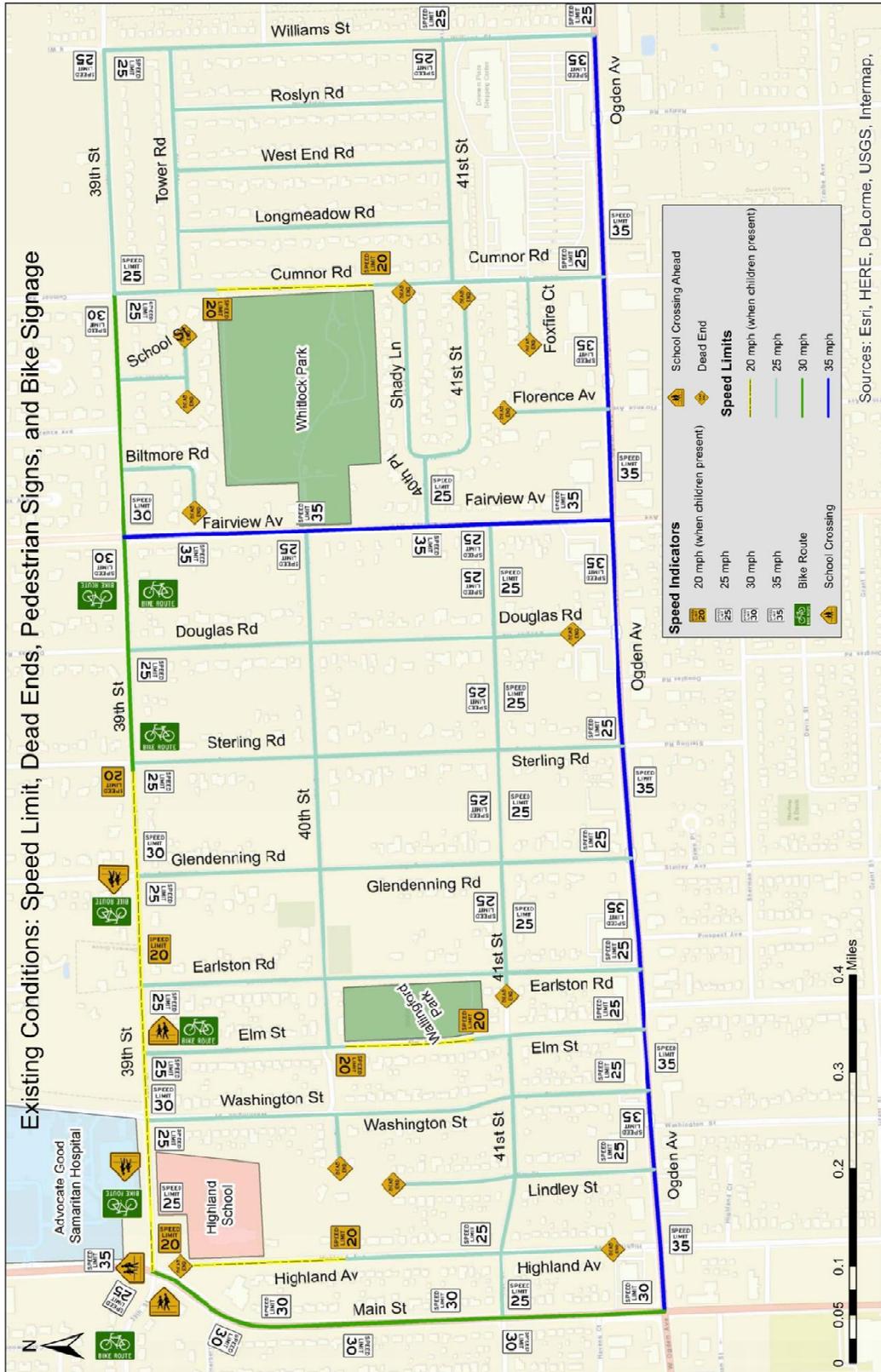


Figure 3 – Existing Speed Limit and Warning Signage

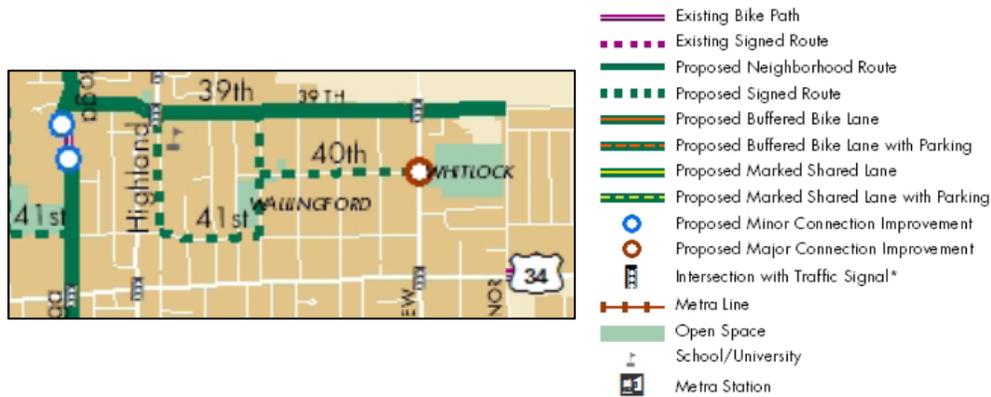
Pedestrian and Bicyclist Facilities

With few exceptions, each roadway within the study area has sidewalk within the right-of-way on at least one side. Figure 4 indicates the locations of sidewalks, marked crosswalks and paths (i.e., paved or gravel paths not adjacent to roadways) within the study area. Note that sidewalk is not indicated on 40th Place, Shady Lane, and 41st Street (all part of the “Shady Lane Estates” sub-neighborhood), but there are existing 3-ft carriage walks immediately adjacent to the curbs. While there is depressed curb, there is no marked/signed crossing allowing pedestrians/bicyclist from the community area west of Fairview Avenue to Whitlock Park (on the east side of Fairview Avenue).

“Bike Route” signage is present on 39th Street from Main Street to Fairview Avenue, as indicated on Figure 3 and in the adjacent photo.



The 2013 *Village of Downers Grove Bicycle and Pedestrian Plan* proposes a three-phase implementation of bicyclist signage and facilities for the Village. The first two phases affect this neighborhood. Specifically, Phase I proposes signed bicyclist routes along Highland, 41st, Earlston and 40th as indicated in the following map. Note that the existing signing along 39th Street does not extend as far to the east as indicated in the map from the Bicycle and Pedestrian Plan.



Phase II of the Bicycle and Pedestrian Plan proposes the implementation of a road diet on Fairview Avenue within the project area.

The Bicycle and Pedestrian Plan also recommends marking all four crosswalks at signalized intersections and at all-way stop intersections.

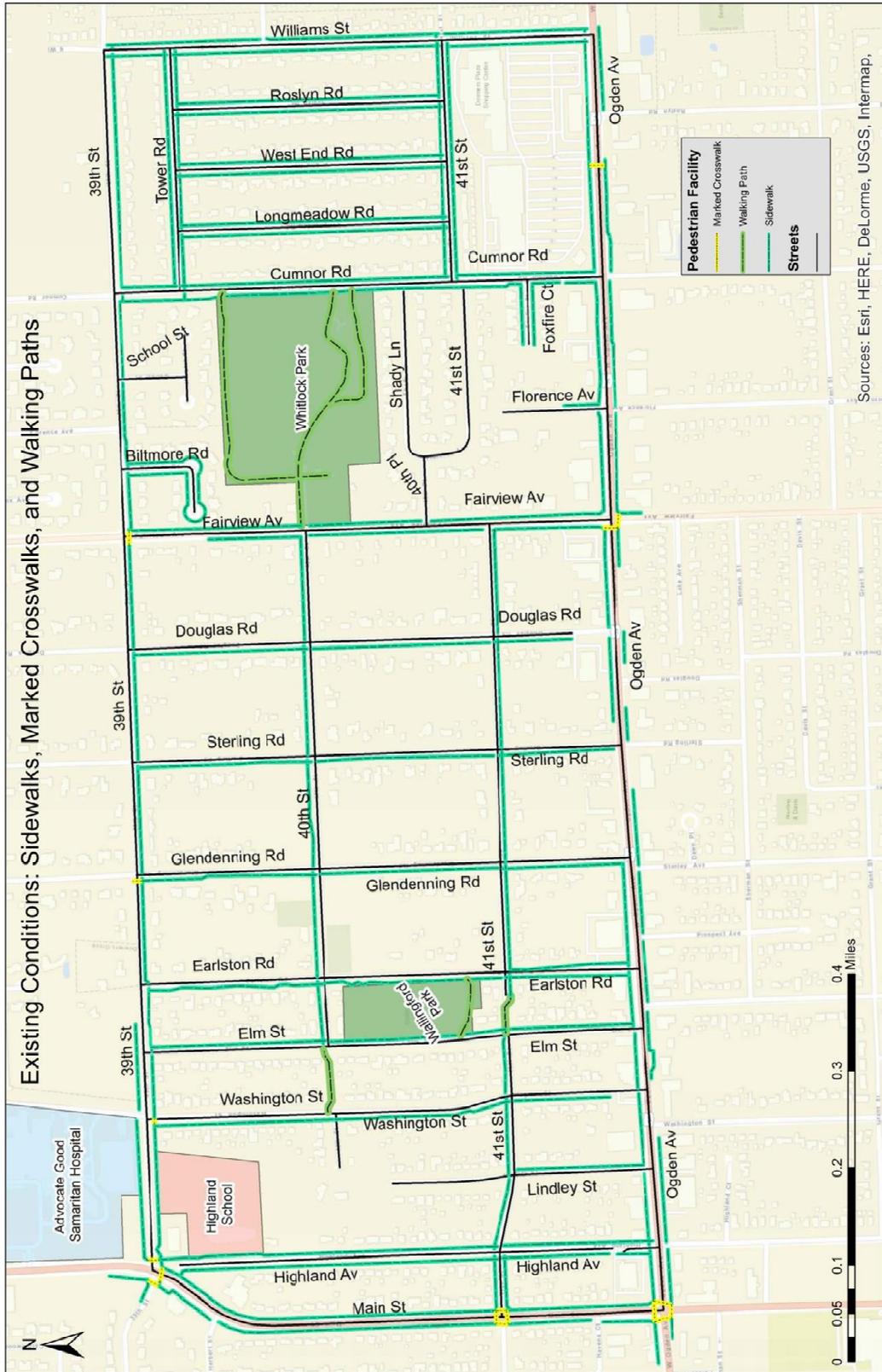


Figure 4 – Existing Pedestrian Facilities

Existing Intersection Traffic Control

Within the study area, intersection control methods range from uncontrolled (20 intersections), yield control (4 intersections), side-street stop control (25 intersections), all-way stop control (2 intersections), and signalized (5 intersections). Figure 5 presents a map with the control method at each intersection in the study area.

Signalized Intersections

There are five signalized intersections located on the boundary of the study area. One serves the access to Downers Plaza Shopping Center, while the other four serve intersections of higher functional classification roadways.

- Fairview Avenue and 39th Street: the signal provides a designated northbound left-turn phase (green arrow); the only crosswalk at the intersection is crossing the south leg, with pedestrian push buttons; the eastbound approach is signed “no turn on red” due to limited visibility caused by the vegetation in the northwest corner.
- Fairview Avenue and Ogden Avenue: crosswalks exist on all four legs, but are worn away; pedestrian signals are push-button activated for crossing Ogden; designated left-turn phases are provided when vehicles are present.
- Main Street and Ogden Avenue: the signal provides designated left-turn phases for all four approaches; there are four crosswalks, all push-button activated, which are striped with continental crosswalk markings. The eastbound left turn movement was observed to be high, and data collection confirms that 445 eastbound vehicles turn left during the morning peak hour.
- Main Street/Highland Avenue and 39th Street: three approaches to this intersection are on curve; northbound, southbound and westbound approaches are provided a designated left-turn phase when vehicles are present; there are push-button activated crosswalks crossing the west, south and east legs, but not on the north leg; the crosswalks have continental markings.
- Ogden Avenue at Downers Plaza Shopping Center: this intersection provides access to the shopping center. Since it does not affect neighborhood traffic circulation, it has not been analyzed in this report.

All-Way Stop Intersections

Both all-way stop controlled intersections within the study area are located on 39th Street. One serves an Advocate Good Samaritan Hospital entrance.

Side-Street Stop Intersections

Constituting 45% of the study area intersections, side-street stop control is the most common method of control. The higher functional classification roadways (Ogden, Main, Fairview, 39th, and Williams) are given priority, allowing traffic to flow freely on them while the intersecting local street is required to stop.

Yield Control Intersections

All four yield controlled intersections are located on 40th Street in succession. At three of the four (Earlston, Glendenning and Sterling), priority is given to east/west traffic, while at the fourth location (Douglas) priority is given to north/south traffic.

Uncontrolled Intersections

17 of the 20 uncontrolled intersections within the study area are “T” intersections. The other three are four-way intersections.



Figure 5 – Existing Intersection Control

Parking

Parking is generally allowed on-street within the study area, with the following exceptions:

- Parking is prohibited on Main Street
- Parking is prohibited on Williams Street south of 41st Street
- Parking is prohibited on Cumnor Road south of 41st Street, and north of 41st Street from 8 AM to 6 PM in the northbound direction
- Parking is prohibited on Florence Avenue on the east side, and on the west side from 6 AM to 6 PM. However, four vehicles were observed to be parked at 10:30 AM.
- Parking is prohibited on 41st Street near Highland from 8 AM to 11 AM.
- Parking is prohibited on Lindley Street from 8 AM to 11 AM (except weekends and holidays)
- Parking is prohibited on Highland Avenue on 8 AM to 11 AM (except weekends and holidays)

Observed on-street parking use was generally low within the study area. Vehicles parked on-street were often parked such that the vehicles right wheels were well into the adjacent turf.

SECTION III – DATA COLLECTION

Data collection efforts include conducting observations in the study area, collecting traffic data, retrieving recent crash reports, and conducting a neighborhood public meeting.

Traffic Data

In addition to conducting observations of the study area, TERRA collected traffic data at 49 locations. Two methods of data collection were used: HiStar portable traffic analyzers were utilized to collect traffic volume, speed and vehicle classification data at 45 midblock locations. The midblock data were collected for 24-hours on October 3, 2017, except at two locations (Rolsyn Road between Tower and 41st, and Fairview Avenue between 40th and 41st) where the data were collected on October 17, 2017. Miovision video cameras were utilized to collect detailed turning movement counts at four signalized intersections on October 3, 2017: Ogden/Main, 39th/Main, 39th/Fairview, and Ogden/Fairview. The fifth signalized intersection within the study area (Ogden at Downers Plaza Shopping Center) was not a focus of the study, as the traffic operation do not impact the neighborhood. Raw traffic data from both methods are included in Appendices A and B. The data collection locations are shown on Figure 6. Raw traffic data information are provided in Appendix B (midblock data) and Appendix C (intersection data).

Figure 6 presents the midblock traffic volumes (over 24-hours), color coded to indicate high traffic volume locations.

Figure 7 presents the peak hour traffic volumes (AM and PM hours with highest traffic volumes) for the four signalized intersections. The measured AM peak hour is from 7:30 to 8:30, while the measured PM peak hour is from 4:45 to 5:45.

Figure 8 presents the 85th percentile speed at each midblock data collection location, color coded to indicate measurements of higher speeds. The 85th percentile speed is the speed at or below which 85% of all vehicles are observed to travel under free-flowing conditions past a monitored point. The *Policy on Geometric Design of Highways and Streets* (6th Edition), published by the American Association of State highway and Transportation Officials, states, “Posted speed limits, as a matter of policy, are not the highest speeds that might be used by drivers. Instead, such limits are usually set to approximate the 85th percentile speed of traffic as determined by measuring the speeds of a sizable sample of vehicles.” While the 85th percentile speed is a nationally-accepted metric utilized in determining speed limits, it’s important to note that drivers are influenced by a number of factors, including the posted speed limit, lane widths and configurations, presence of vertical and horizontal curves, available sight distance and roadside obstructions, and the adjacent land use and developments. With so many factors influencing the speeds on a roadway, the 85th percentile speed becomes a reasonable metric that is accepted as a reasonable number that takes into account these variables.

Figure 9 presents the calculated differential between the 85th percentile speed and the posted or regulatory speed. The map is color coded according to the magnitude of the differential. This is meant to indicate locations where the measured speed is very high (or low) compared to the speed limit on the roadway. In the north/south directions, four locations have been identified as having an 85th percentile speed that is 10 to 14 mph greater than the speed limit: Elm Street between 41st and 40th; Earlston Road between

41st and 40th; Glendenning Road between 39th and 40th; and Williams Street between 41st and Tower. In the east/west direction, one location has been identified as having an 85th percentile speed that is 10 to 14 mph greater than the speed limit: 39th Street between Elm Street and Earlston Road.

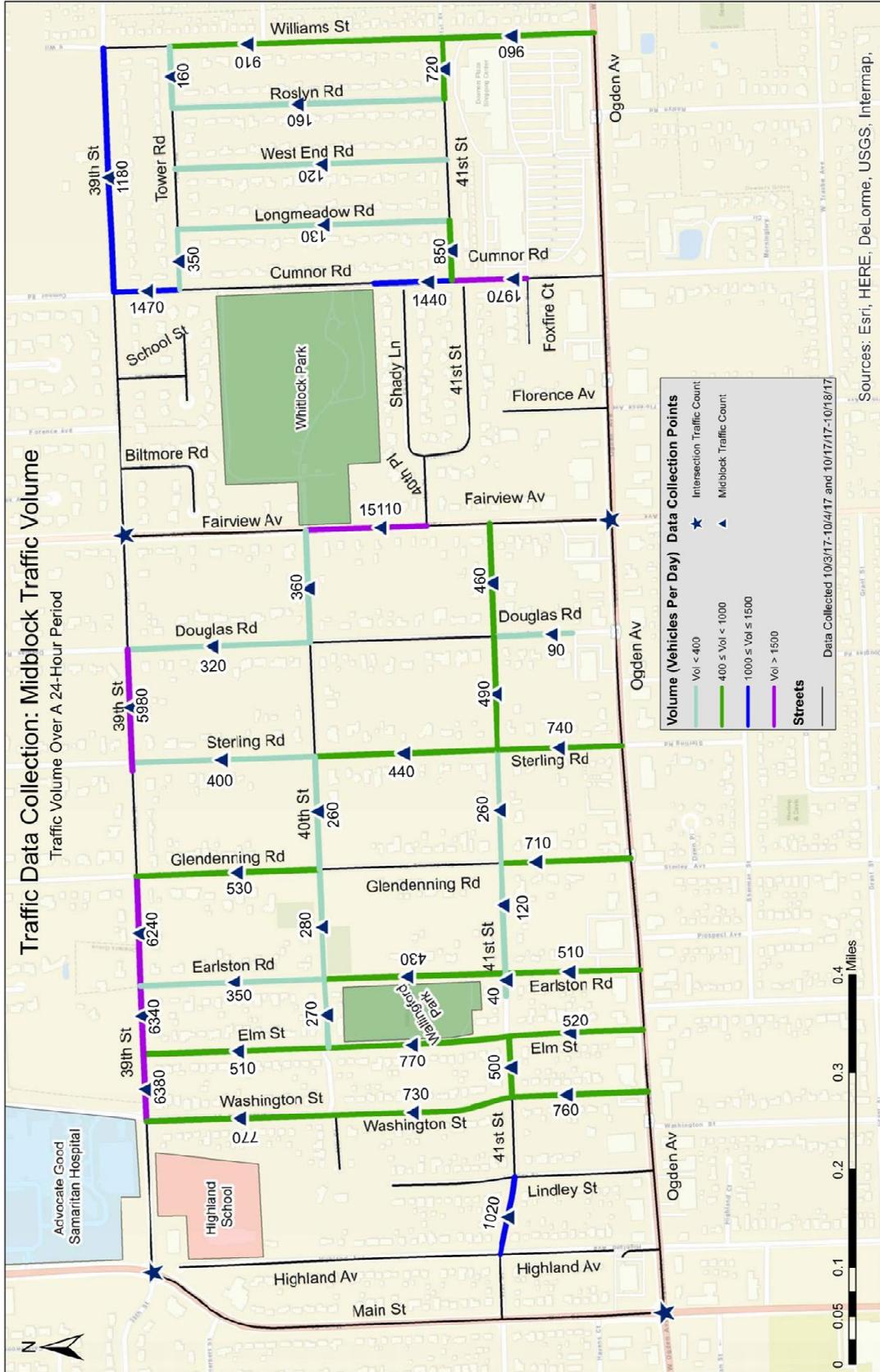


Figure 6 – Midblock Traffic Volume

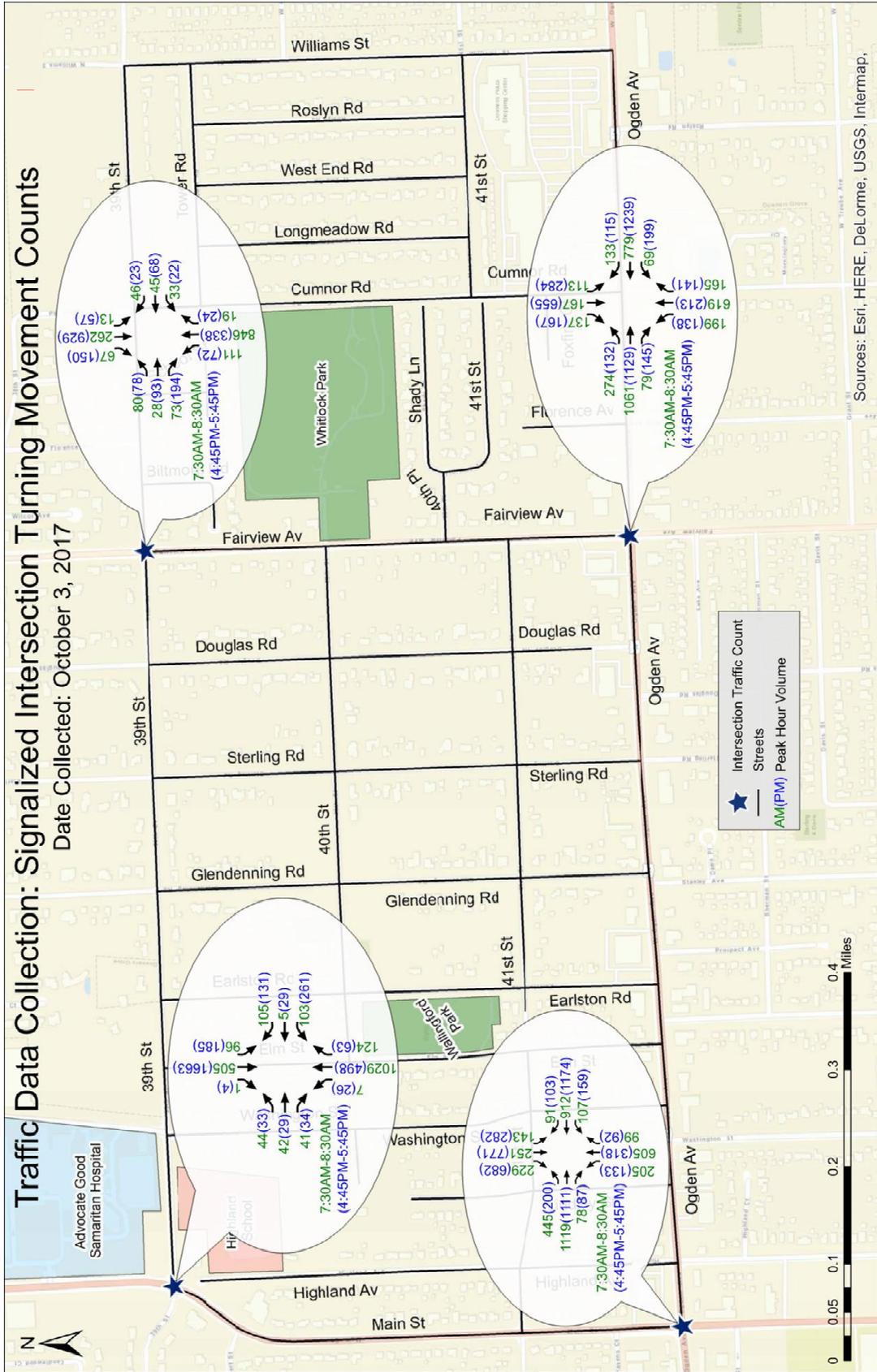


Figure 7 – Signalized Intersection Traffic Volumes

Sources: Esri, HERE, DeLorme, USGS, Intermap,

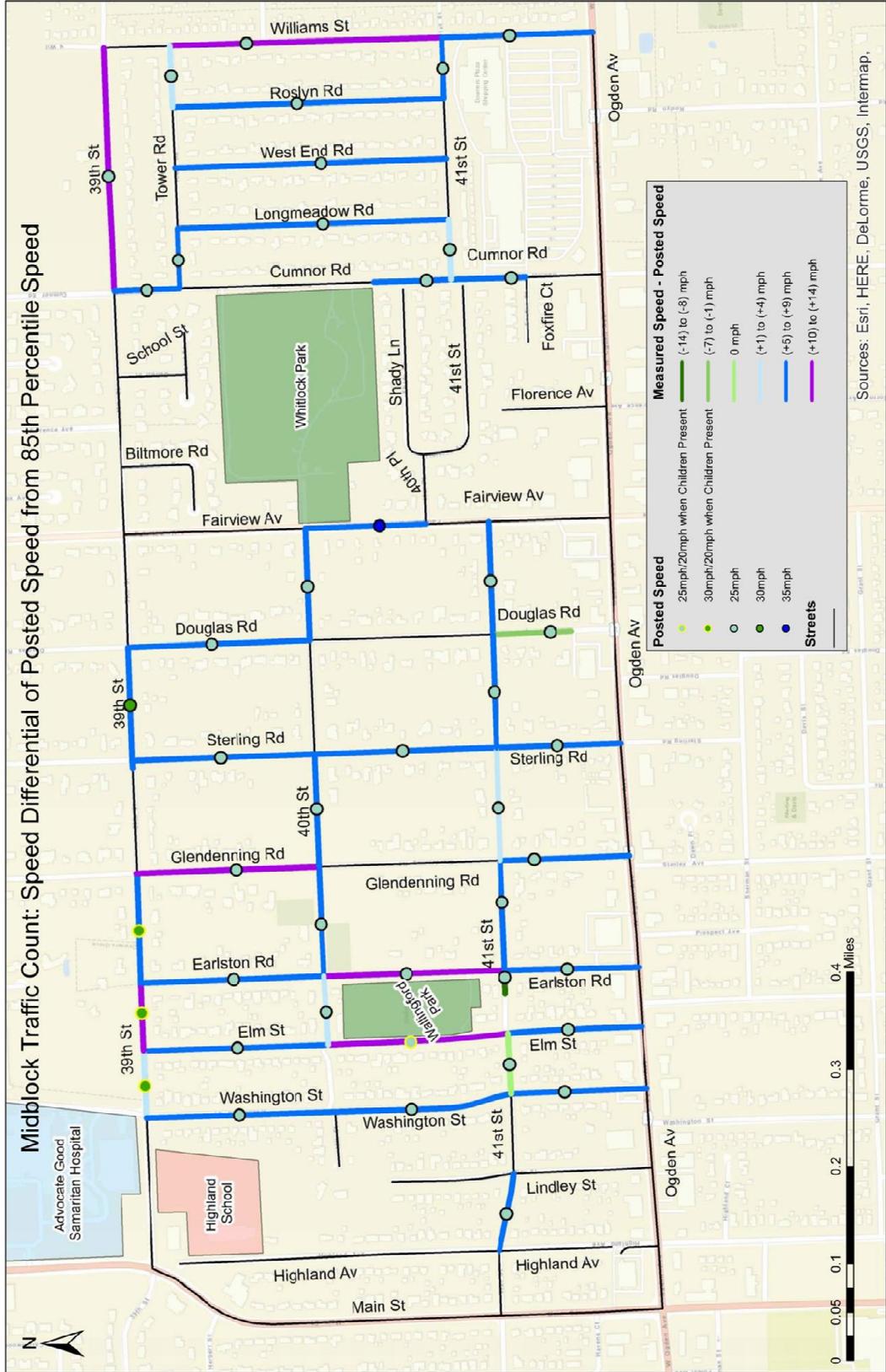


Figure 9 – Speed Differential

Crash History

Records of crashes occurring within the study limits were obtained by the Village of Downers Grove for years 2011 through 2016 and were provided to TERRA in GIS Shapefile format. Additionally, the following map (Figure 10), taken from the 2013 *Village of Downers Grove Bicycle and Pedestrian Plan*, indicates bicyclist and pedestrian crash locations occurring from 2007 through 2011.

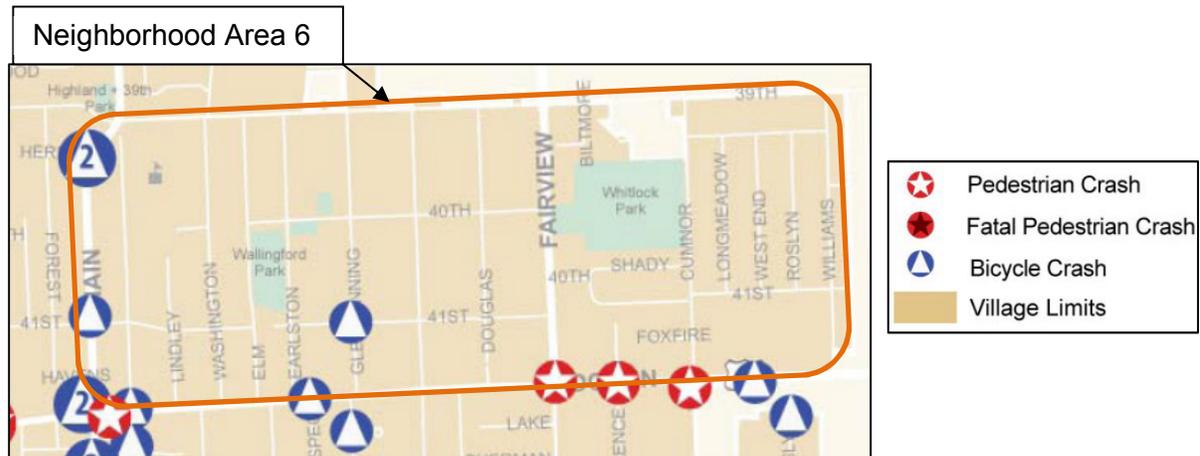


Figure 10 – Bicyclist and Pedestrian crashes occurring from 2007 through 2011 (source: *Village of Downers Grove Bicycle and Pedestrian Plan, March 2013*)

Figure 11 presents crash type and severity for years 2011 through 2016. Crash severity is divided into the following categories:

- Fatal
- A-injury, defined as any injury, other than a fatal injury, which prevents the injured person from walking, driving, or normally continuing the activities he/she was cable of performing before the injury
- B-injury, defined as any injury, other than fatal or incapacitating injury, that is evident to observers at the scene of the crash
- C-injury, defined as any injury reported or claimed that is not either an “A”, “B” or fatal injury.
- Property damage (PD) only, defined as a crash occurring without injury

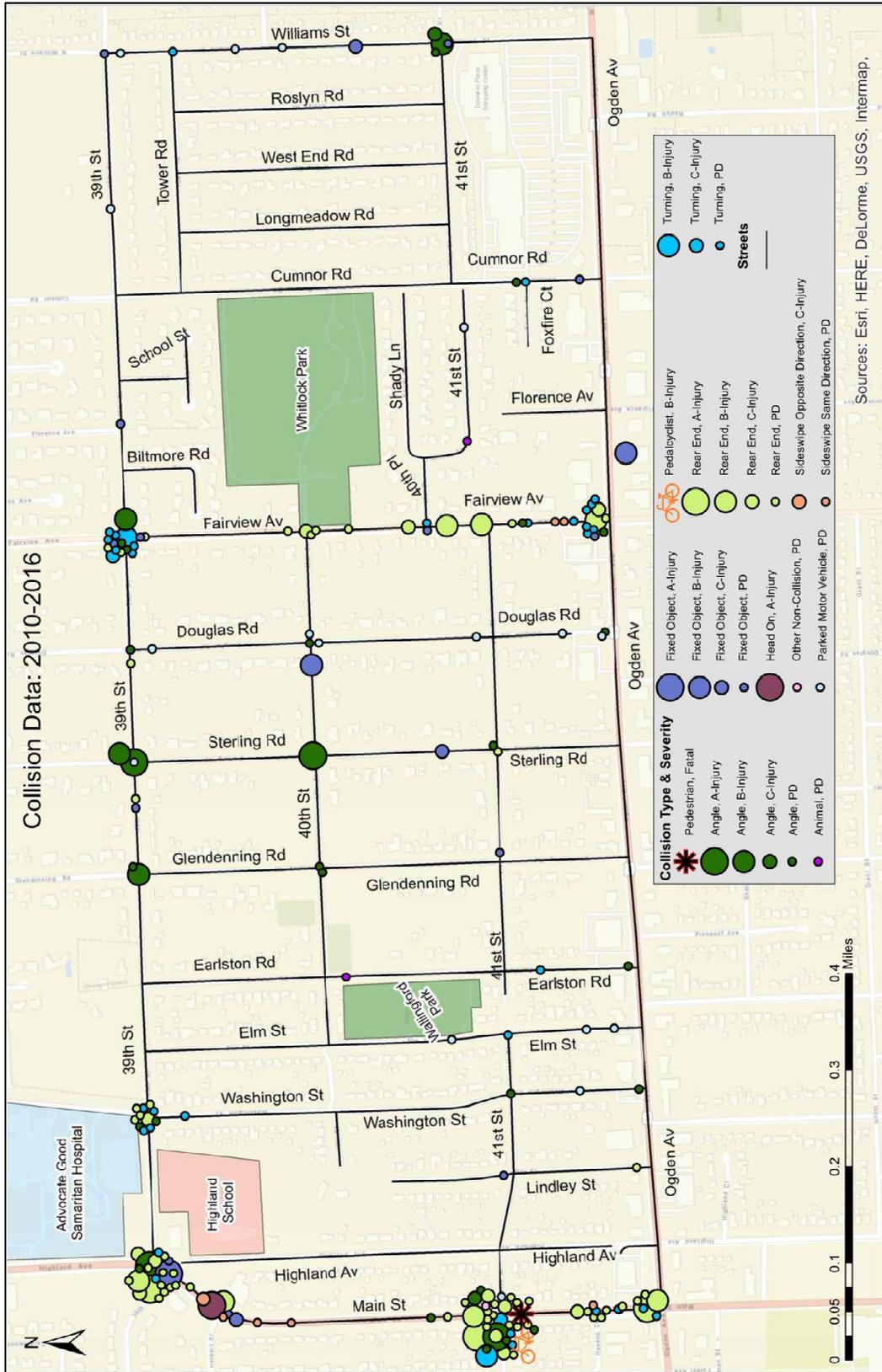


Figure 11 – Crash History 2010 through 2016

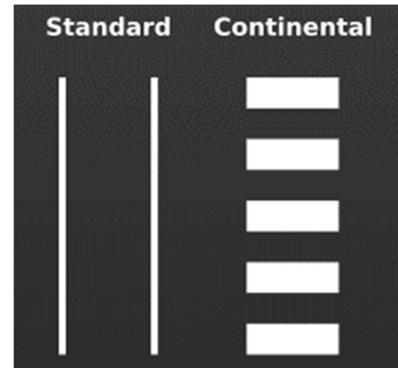
Additional Field Observations

TERRA conducted field observations of the study area on October 13, 2017. In addition to the information already presented in this report, the following information was noted.

PACE operates bus routes 722 and 834 along Main Street within the study area. Bus stops are present at the Ogden Avenue/Main Street intersection and at the 41st Street/Main Street intersection.

The intersection of Highland Avenue and Ogden Avenue has signage prohibiting left turns onto Highland Avenue from both eastbound and westbound Ogden Avenue. Additionally, northbound and southbound Highland Avenue is signed as “right turn only” at the stop sign. These movement-control signs are likely in place due to the development of the westbound left-turn lane on Ogden Avenue for its intersection with Main Street.

Continental crosswalks and crosswalk warning signage were installed at the intersection of Main Street and 41st Street in late 2015 or early 2016. It is likely that this improvement was made to address the crash history at this location, discussed later in this report. Continental crosswalk markings are compared to standard crosswalk markings in the adjacent image.



Pick-up/drop-off operations at Highland Elementary School were also observed. During school pick-up (observed to affect Highland Avenue between 2:35 and 3:10 PM), the northbound queue length on Highland Avenue was observed to be a maximum of 25. Since Highland Avenue has a cul-de-sac just north of the school and does not intersect with another roadway for over 1,400 feet south of the school (at 41st Street), the queue did not have a significant impact on the traffic operations on Highland Avenue or the overall roadway network.

A tabular summary of field observations is included in Appendix A.

Public Involvement

An overview of the information provided in this report is scheduled to be presented at the Transportation and Parking Commission Meeting on July 11, 2018. Invitations have been mailed to the 1,067 residences within the study area.

SECTION IV – DATA EVALUATION

Speeds

For the purpose of this (and all similar traffic studies), the 85th percentile speed is often used in comparison to the posted speed limit, with some variation being acceptable. However, when speeds often exceed it, additional steps can be taken to help resolve any speed issues. The measured 85th percentile exceeds the posted speed on the following roadways:

- 41st Street between Highland and Lindley, between Earlston Fairview, between Cumnor and Longmeadow, and between Roslyn and Williams
- 40th Street between Elm Street and Sterling Road, and between Douglas Road and Fairview Avenue
- 39th Street between Washington and Glendenning, between Sterling and Douglas, and between Cumnor and Williams
- Tower Road between Cumnor and Longmeadow and between Roslyn and Williams
- Elm Street between 39th and Ogden
- Washington Street between 39th and Ogden
- Earlston Road between 39th and Ogden
- Glendenning Road between 41st and Ogden and between 39th and 40th
- Sterling Road between 39th and Ogden
- Douglas Road between 39th and 40th
- Fairview Avenue between 40th and 41st
- Cumnor Road between 39th and Tower and between Whitlock Park and Foxfire Court
- Longmeadow Road between Tower and 41st
- West End Road between Tower and 41st
- Roslyn Road between Tower and 41st
- Williams Street between Tower and Ogden

Volumes

“Cut-through traffic” means vehicular traffic passing through a residential area without stopping or without at least an origin or destination within the area. Based on the functional classification of the roadways, Ogden Avenue, Main Street, Fairview Avenue, 39th Street and Williams Street should be accommodating traffic that is passing through the area, potentially not having an origin or destination within the study area. The other roadways, however, should be utilized for local access only.

Previous Village studies have defined an approximate daily traffic volume of 1,500 as an acceptable maximum for neighborhood streets. The measured traffic volume on the neighborhood streets within the study area is less than this cutoff, except for Cumnor Road south of 41st Street, which was measured as having 1,970 vehicles per day. This may be due to Cumnor’s network connectivity extending south of Ogden. While Williams Street provides access to homes both east and west of the roadway, Cumnor (within the study area) connects only to local streets to the east. With its access to Whitlock Park, local street functional classification, and relatively high average daily traffic volume, it is

reasonable to conclude that Cumnor Road is experiencing some degree of cut-through traffic and would benefit from a traffic volume deterrent.

West of Fairview Avenue, the east/west roadway network is discontinuous: 40th Street and 41st Street do not connect Main Street to Fairview Avenue. The measured volume on these roads is near or close to the cutoff of a “very low volume road” of 400 vehicles/day, which is based roughly on a volume when the number of vehicles in the busiest hour of the day is about 1 vehicle per minute. No cut-through traffic has been identified on these east/west streets. In the north/south direction, there are five roadways with local functional classifications that connect Ogden Avenue with 39th Street. Measured daily traffic volumes on these local north/south streets range from 350 to 770 vehicles with the heaviest volume occurring on Washington Street between 40th and 39th and on Elm Street next to Wallingford Park. Cut-through traffic may be occurring on these roadways, but the traffic volumes indicate that the five roadways are sharing the traffic. If a volume deterrent is installed on one or several of these roadways, traffic volume would likely re-balance with the adjacent north/south roadways. Elm Street, with its access to Wallingford Park and relatively daily traffic volume, is a reasonable candidate for a traffic volume deterrent. Glendenning Road, too, may be a reasonable candidate for a volume deterrent or closure based on the natural land use surrounding the intersection of Glendenning and 40th. Note that none of the traffic volumes on these roadways is greater than 1,000 vehicles per day, which is considered a typical cut off for low-volume to high-volume.

Intersection Traffic Control

The study area intersections that are currently uncontrolled, under yield control, or under stop control have been evaluated. Uncontrolled and yield controlled intersections are proposed to be converted to stop controlled intersections, in accordance with the Village’s goals to reduce crash potential and clarify right of way assignment. The Manual on Uniform Traffic Control Devices (MUTCD) provides criteria to assist in determining whether side-street stop control and all-way stop control are warranted at a given intersection. The following relevant criteria were considered per MUTCD (*in italics*).

Side street stop control:

MUTCD Section 2B.06: *The use of STOP signs on the minor-street approaches should be considered if engineering judgment indicates that a stop is always required because of one or more of the following conditions:*

- A. *The vehicular traffic volumes on the through street or highway exceed 6,000 vehicles per day;*
- B. *A restricted view exists that requires road users to stop in order to adequately observe conflicting traffic on the through street or highway; and/or*
- C. *Crash records indicate that three or more crashes that are susceptible to correction by the installation of a STOP sign have been reported within a 12-month period, or that five or more such crashes have been reported within a 2-year period. Such crashes include right-angle collisions involving road users on the minor-street approach failing to yield the right-of-way to traffic on the through street or highway.*

All-way stop control:

The MUTCD states that the criteria should be considered for multi-way stop sign installation; if any one criterion is met, multi-way stop control should be considered.

Section 2B.07 – B: *“Five or more reported crashes in a 12-month period that are susceptible to correction by a multi-way stop installation. Such crashes include right-turn and left-turn collisions as well as right-angle collisions.”*

The available crash data for 2010 through 2016 indicates that the neighborhood intersections under consideration for all-way stop control do not meet this condition.

Section 2B.07 – C: *“The vehicular volume entering the intersection from the major street approaches (total of both approaches) averages at least 300 vehicles per hour for any 8 hours of an average day; and the combined vehicular, pedestrian, and bicycle volume entering the intersection from the minor street approaches (total of both approaches) averages at least 200 units per hour for the same 8 hours, with an average delay to minor-street vehicular traffic of at least 30 seconds per vehicle during the highest hour; but if the 85th-percentile approach speed of the major-street traffic exceeds 40 mph, the minimum vehicular volume warrants are 70 percent of the values provided in Items 1 and 2.”*

From the traffic volume data collected, this condition is not met for any intersection of two locally classified roadways within the study area.

Optional criterion that is relevant to this location per MUTCD is as follows:

“Locations where a road user, after stopping, cannot see conflicting traffic and is not able to negotiate the intersection unless conflicting cross traffic is also required to stop”

Note that visibility at the intersection of 40th Street and Douglas road was identified to be low. See the adjacent photo for a view looking west from southbound Douglas road. Per Section 28-3.03 of the IDOT *Bureau of Local Roads and Streets Manual*, the calculated intersection sight distance for a side-street stop condition (with a 25 mph design speed and a passenger design vehicle) is approximately 275-ft. The available sight distance is approximately 195-ft. For this reason, this intersection would benefit from being converted to all-way stop control.



Intersection Capacity Analysis

Level of Service (LOS) analysis is a means of determining the ability of an intersection to accommodate vehicular traffic volumes. The analysis is based on intersection geometrics, traffic controls and traffic (vehicle, pedestrian, and bicycle) volumes. The analysis

produces an indication of the LOS at which an intersection is functioning or is expected to function in the future.

LOS is defined by letter characters that range from A to F, with A representing the best traffic operating conditions that have little or no delay to vehicles utilizing the intersection and F characterizing poor conditions that have significant delay. Typically, LOS A through D is considered acceptable and LOS E is considered representative of conditions where improvements are needed. LOS F operating conditions are unacceptable and indicate that improvements may be needed, in the form of traffic control modification, geometric changes, or a combination of both, for the purpose of reducing vehicle delay. The delay limits for each LOS category, based on the Transportation Research Board's *Highway Capacity Manual* (HCM), are shown in Table 1.

| Table 1 – Level of Service Thresholds for Control Delay (seconds/vehicle) | | |
|--|--|---------------------|
| Level of Service | Control Delay per Vehicle (sec/veh) | |
| | Signalized | Unsignalized |
| A | 0-10 sec | 0-10 sec |
| B | > 10-20 sec | > 10-15 sec |
| C | > 20-35 sec | > 15-25 sec |
| D | > 35-55 sec | > 25-35 sec |
| E | > 55-80 sec | > 35-50 sec |
| F | > 80 sec | > 50 sec |

As stated above, LOS is a measure of the acceptability of the amount of delay, therefore it is considered slightly subjective as what is acceptable in a major metropolitan area may not be acceptable in a small city or rural area. These delays are computed as the average control delay per vehicle arriving at the intersection. IDOT typically accepts an overall LOS of D on corridors.

Synchro version 10, a software program that implements concepts from the HCM for signalized and unsignalized intersections, was utilized to analyze and provide LOS and delay for each approach at the four analyzed signalized intersections. Analysis results were based on HCM methodology.

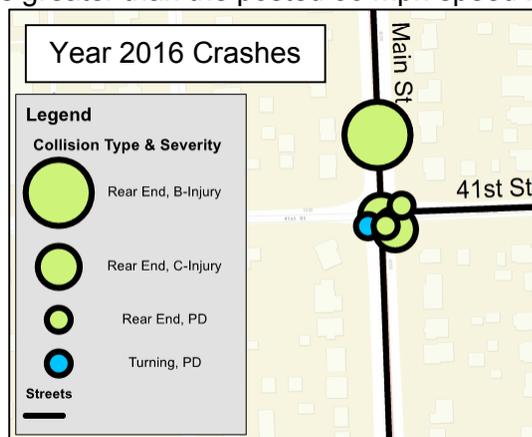
Refer to Appendix D for a summary table of the Intersection Capacity Analysis for the existing condition AM and PM peak hours, as well as the detailed capacity analyses. It is notable that the northbound and southbound approaches at intersections with Ogden Avenue operate at low levels of service (LOS E or F) depending on the time of day. Since Ogden Avenue is a State Route in a highly urbanized area, this is not an unusual condition.

Crash History

Available recent crash history indicates only one bicyclist crash and one pedestrian crash within the study area. However, the pedestrian crash was a fatality, occurring in 2013 in the 10 PM hour under dry conditions.

From the crash diagram shown in Figure 11 (indicating crash type and severity from 2010 through 2016), clusters of crashes and notable trends are present at the following locations:

- Intersection of Main Street and 41st Street: This intersection was improved in late 2015/early 2016 to provide high visibility crosswalks with signage and to upgrade the sidewalk ramps for ADA compliance. See the before and after photos from this improvement. There is a street light attached to a utility pole in the southwest corner. The crash history at this location indicates frequent rear end crashes, angle crashes and turning crashes. The year 2016 crash history (post improvement) indicates a continued trend of rear end crashes. See the following diagram for crashes that occurred in 2016 at this intersection. Contributing factors to this trend may include frequent driveways near the intersection, limited visibility of intersecting traffic due to roadside obstructions, and the “feel” of the street may be encouraging speeds greater than the posted 30 mph speed limit.



- Intersection of Main Street and 39th Street
- Intersection of Fairview Avenue and 39th Street

- Intersection of Fairview Avenue and Ogden Avenue
- The reverse curves on Main Street just south of 39th Street: these curves meet the policy value for horizontal curves on a roadway with normal crown presented in IDOT's *Bureau of Local Roads and Streets Manual*, which indicates a minimum curve radius of 495-ft for a 35 mph design speed (5 mph greater than the posted speed). The approximate curve radii are 600-ft. Nevertheless, the crash history indicates a trend of sideswipe crashes, two fixed object crashes, a rear end crash, and an A-injury head-on crash at this location. Curve warning signage is present for the northbound and southbound approaches.
- Angle crashes at the yield controlled intersections along 40th Street at Glendenning Road, Sterling Road, and Douglas Road: this type of crash may be reduced by installing stop control in place of the existing yield control, as angle crashes are a result of a failure to yield.
- Rear end crashes on Fairview Avenue between Ogden Avenue and 40th Street
- Intersection of Washington Street and 39th Street: a mix of turning, rear end, and angle crashes.
- Intersection of Williams Street and 41st Street: angle crashes

Pedestrian/Bicyclist Network

Overall, the study area's pedestrian accommodations provide a reasonable level of connectivity, typically providing at least one sidewalk per block.

At the intersection of Fairview/40th, there is an unmarked crosswalk crossing the north leg, connecting the community west of Fairview to Whitlock Park. Since Fairview Avenue is free-flow through this intersection with a posted speed limit of 35 mph, this crosswalk may benefit from additional pavement markings and signage, as well as curb ramps that meet current ADA/PROWAG standards.

Fairview Avenue has been identified as a top ten roadway for bicycling and in need of bicyclist improvements. With a measured average daily traffic (ADT) of just over 15,000 vehicles per day, the roadway is a viable candidate for a road diet, reducing the number of vehicular lanes from four to three. Installation of a road diet would create opportunities for on-street bike lanes and pedestrian refuge islands.

The unmarked crosswalk crossing Elm Street at 39th Street is located on the south side of the northbound stop sign and stop bar. This is a very unconventional placement of the crosswalk, since it may increase the risk of a pedestrian collision. Refer to the adjacent aerial image. A similar condition exists on Earlston Road at 39th Street.

Along 39th Street near/within the school zone, there is sidewalk on



both sides. However, there is no designated crosswalk crossing 39th Street between Highland Avenue (signalized) and Glendenning Road (signed with crosswalk warning), which are approximately 0.4 miles apart. Since the intersection of 39th/Washington is an existing all-way stop and is near Highland Elementary School and Advocate Good Samaritan Hospital, a new crosswalk crossing 39th Street at this intersection would provide additional benefit to the pedestrian network while taking advantage of the existing all-way stop control.

Parking Evaluation

While vehicles were observed to be illegally parked on Florence Avenue, this is a short dead-end street serving several residences. While on-street parking limits the traversable roadway width, the parking was not observed to deteriorate roadway operations since the traffic volume is very low.

Other parking restrictions within the study area were observed to have a high level of compliance and appear to be appropriate for preventing long term on-street parking and prioritizing traffic flow during critical hours of the day.

Signage

Existing school zone signage on 39th Street should be accompanied by a “school zone ends” sign, per the MUTCD Section 7B.15.

Existing park zone speed limit signage is accompanied by a sign indicating “when children are present”. However, there is poor visibility for drivers traveling northbound on Cumnor Road to see whether children are present due to existing vegetation at the right-of-way edge. Additionally, the message of a speed limit contingent on a visible child’s presence offers justification for the driver to ignore the advised 20 mph speed limit. Both park zones have also been measured to be locations of frequent speeding:

- On Elm Street by Wallingford Park the measured 85th percentile speed was 37 mph. The speed limit is 25 mph, but this location is a school zone (i.e., 20 mph when children are present).
- On Cumnor Road just south of Whitlock Park, the measured 85th percentile speed was 34 mph. The speed limit is 25 mph, but this location is a school zone (i.e., 20 mph when children are present).

For these reasons (visibility and speeding), the removal of the “when children are present” signage may be beneficial in reducing the speeds.

An additional measure to calm traffic in the park zones would be the installation of portable speed radar signs. While these signs sometimes lose their effectiveness over time, they typically produce measurable results. Speed radar signs could be placed on both approaches to each park zone.

SECTION V – RECOMMENDATIONS

Recommendations are categorized by short-, mid- and long-term timeframes, which correspond to the level of effort and cost associated with each improvement.

Short-term Recommendations

The following short-term improvement recommendations generally have lower costs or address immediate concerns.

| Table 2 – Short-term Recommendations | | |
|--|---|---|
| Location | Identified Issue | Recommendation |
| 39 th Street, immediately east of Glendenning Road (eastbound) | MUTCD compliance & speed limit clarity | Install “School zone ends” signage (MUTCD sign code S5-3) |
| 39 th Street, east of Elm Street (westbound) | Speed limit clarity | Install additional school zone 20 mph sign, indicating the beginning of the westbound school zone corresponding with the location of sidewalk on the north side of 39 th . |
| Washington Street; Elm Street; Earlston Road; Glendenning Road; Cumnor Road (full limits of study area) | Speeding Issues | Install centerline pavement marking, with stop bars at stop signs, clearly defining a northbound and southbound lane, creating a narrower feel to the roadway |
| Intersection: 39 th /Washington | Sidewalk network connectivity | Install new sidewalk ramps and crosswalk across the west leg of the intersection, connecting the sidewalks on the north and south sides of 39 th Street |
| Crosswalks within School Zones | Driver awareness of the crosswalks | Install continental crosswalk pavement markings at all crosswalks within and near the school zones |
| Intersection: Fairview/Ogden | Driver awareness of the crosswalks | Install continental crosswalk pavement markings, since existing (traditional crosswalk) marking are worn away |
| Intersection: Fairview/40 th | Pedestrian network connectivity; Driver awareness of the crosswalks | Install continental crosswalk pavement markings with pedestrian crossing warning signage on the north leg of the intersection, increasing awareness of the crosswalk connecting the community west of Fairview to Whitlock Park |

| Table 2 – Short-term Recommendations (continued) | | |
|--|-------------------------|--|
| Location | Identified Issue | Recommendation |
| Full neighborhood, with a focus on school and park zones | Excessive Speeding | Increase police enforcement, especially in the school and park zones |

The following table recommends intersection traffic control modifications:

| Table 3 – Short-term Recommendations – Intersection Control | | |
|--|--------------------------------------|---|
| Intersection Location | Existing Condition | Recommended Condition |
| Earlston Rd / 40 th St | Yield Control (on 40 th) | All-way stop |
| Glendenning Rd / 40 th St | Yield Control (on 40 th) | Stop signs on both Glendenning Rd approaches |
| Sterling Rd / 40 th St | Yield Control (on 40 th) | Stop signs on both 40 th St approaches |
| Douglas Rd / 40 th St | Yield Control (on Douglas) | All-way stop |
| Washington St / 40 th St | Uncontrolled T | All-way stop |
| Elm St / 40 th St | Uncontrolled T | All-way stop |
| Elm St / 41 st St | Uncontrolled T | All-way stop |
| Earlston Rd / 41 st St | Uncontrolled 4-way | All-way stop |
| Douglas Rd / 41 st St | Uncontrolled 4-way | Stop signs on both Douglas Road approaches |
| Biltmore Rd / 39 th St | Uncontrolled T | Stop sign on Biltmore Rd |
| 40 th Pl / 41 st St / Shady Ln | Uncontrolled T | Stop sign on the 40 th Place approach |
| School St / 39 th St | Uncontrolled T | Stop Sign on School St |
| School St / Herbert St | Uncontrolled T | Stop Sign on School St |
| Cumnor Rd / Tower Rd | Uncontrolled T | Stop Sign on Tower Rd |
| Cumnor Rd / 41 st St | Uncontrolled T | Stop sign on 41 st St |
| Cumnor Rd / Foxfire Ct | Uncontrolled T | Stop sign on Foxfire Ct |
| Longmeadow Rd / Tower Rd | Uncontrolled T | Stop sign on Longmeadow Rd |
| Longmeadow Rd / 41 st St | Uncontrolled T | Stop sign on Longmeadow Rd |
| West End Rd / Tower Rd | Uncontrolled T | Stop sign on West End Rd |
| West End Rd / 41 st St | Uncontrolled T | Stop sign on West End Rd |
| Roslyn Rd / Tower Rd | Uncontrolled T | Stop sign on Roslyn Rd |
| Roslyn Rd / 41 st St | Uncontrolled T | Stop sign on Roslyn Rd |
| Williams St / 39 th St | Uncontrolled 4-way | Stop signs on both Williams St approaches |
| Williams St / Tower Rd | Uncontrolled T | Stop sign on Tower Rd |
| Williams St / 40 th St | Uncontrolled T | Stop sign on 40 th St |

Mid-term Recommendations

The following mid-term improvement recommendations represent improvements that require additional effort or cost, but provide a significant benefit to the neighborhood in terms of the goal of the study.

Speed Radar Signs

Installation of temporary speed radar signs within the neighborhood are recommended at identified locations of excessive speeding. The temporary speed radar signs should be relocated within the neighborhood periodically to promote their effectiveness. Recommended priority locations are at each approach to both park zones (on Elm Street and on Cumnor Road) are recommended to deter speeding in areas where lower speeds are essential for continued safety. Two radar signs should be sufficient, intermittently relocated within the neighborhood area.

Elm Street and Earlston Road Crosswalk Relocation at 39th Street

The unmarked crosswalks crossing Elm Street and crossing Earlston Street at 39th Street should be relocated to the north (including the installation of new ADA/PROWAG compliant curb ramps), and the northbound stop bar and sign should be relocated to the south. The crosswalks are within a school zone and are recommended to be striped with continental crosswalk markings. The final condition should allow northbound vehicles to stop at the stop sign, evaluate the intersection for pedestrian conflicts, evaluate the intersection for vehicular conflicts, and then proceed.



This may require the removal of trees/vegetation to accommodate the needed intersection sight distance. The adjacent image indicates an approximation of this recommendation on Elm. A similar condition is recommended to be installed at Earlston.

New Crosswalk on 39th Street at Washington Street

A new crosswalk is recommended to be installed crossing the west leg of the intersection of 39th Street and Washington Street. The crosswalk is recommended to be marked with continental crosswalk markings. The new pedestrian network connection expands the connectivity within the school zone (while utilizing an existing all-way stop intersection to accommodate pedestrian crossings) and adjacent to a hospital. The adjacent image indicates an approximation of this recommendation.



Long-term Recommendations

The following long-term improvement recommendations require significant effort or cost, but come with a transformational benefit to the neighborhood by addressing traffic calming needs and balancing the needs of all users of the right-of-way. The recommendations may also require additional study, or may benefit from additional analysis beyond this study's scope/limits.

Curb Elm St between 40th Street and 41st Street

Elm Street was identified to have a high occurrence of speeding adjacent to Wallingford Park. A long-term traffic calming effect can be achieved by converting the roadway from a rural section (i.e., no curb/gutter, with roadside ditches) to an urban section (i.e., curbed). This change in the nature of the roadway will have a calming effect, especially when vehicles are parked on-street. Installing curb along this portion of Elm Street should be considered if the Village pursues drainage improvement projects in this area. To further encourage traffic calming, curb extensions (sometimes called “bump outs”) may be installed at the intersections of Elm and 40th and at the intersection of Elm/41st. Curb extensions are an effective tool in creating a tighter “feel” to the roadway and promoting awareness to drivers that the roadway is intended to be low speed.

Fairview Avenue Road Diet

Fairview Avenue consists of two lanes in each direction. A road diet should be considered along Fairview Avenue if the entire corridor is to be improved. Applying a road diet (reducing the vehicular lanes from 4 to 3) is a viable option based on the measured average daily traffic and peak hour analysis at the intersection of Fairview and 39th. A road diet can result in traffic calming, and creates an opportunity to install a pedestrian refuge island at the Whitlock Park entrance (on the north leg of the intersection of Fairview and

40th) and to provide on-street bicyclist accommodations. The existing roadway is typically a 44-ft section. The proposed roadway section would consist of 5-ft bike lanes on both sides (adjacent to the curbs), 11-ft vehicle lanes, and a 12-ft two-way left-turn lane. The following images indicate this change.



Intersection capacity analysis (using Synchro software) indicates that the intersection of Fairview and Ogden would result in LOS E and F for some movements. The intersection is already belabored due to the high traffic volumes on Ogden Avenue, and the signal cycle length is relatively long (130 seconds, coordinated along Ogden). By reducing the lane capacity on Fairview, the LOS drops further on Fairview, or phase time must be pulled from the Ogden approaches. For this reason, the transition from the existing section to the proposed road diet section is proposed to occur immediately north of Ogden. At Fairview and 39th, peak hour intersection capacity analysis indicates that LOS C or better can be maintained during AM and PM peak hours for all movements. Note, however, that a southbound right-turn lane should be maintained.

A road diet on Fairview is consistent with the recommendations presented in the 2013 *Village of Downers Grove Bicycle and Pedestrian Plan*, which notes that Fairview Avenue was voted in the top ten of best bicycling routes and needing bicycle improvements.

With the Fairview Avenue road diet, a pedestrian crosswalk and refuge island is recommended on Fairview Avenue at 40th Street (i.e., the Whitlock Park Entrance). The new crosswalk should be accompanied by crosswalk warning signage and advance warning signage. This will provide pedestrian network continuity across Fairview Avenue, connecting the walking community on the west side of Fairview Avenue with Whitlock Park.

The road diet on Fairview Avenue is further recommended to be studied along Fairview Avenue to the north and south of the Neighborhood Area 6 study limits to determine logical starting and ending points in the broader context of the roadway within the Village.

...

Figure 12 presents many of the recommendations graphically.



Figure 12 – Proposed Conditions

Appendix A

Additional Field Observations

| Summary of Observations | |
|---|--|
| Roadway | Observations |
| Main Street | Dupage County route 9; Speed limit: 30 mph; signed and marked pedestrian crosswalks at 41 st Street; 2 lanes in each direction with painted 4-ft median; widens at intersections for left-turn lanes; horizontal curve south of 39 th Street; no parking |
| 39 th Street | Signed bike route from east of Washington to west of Fairview; Speed limit 25 mph west of Washington, but 30 mph east of Washington; School zone speed limit 20 mph east of Highland; not clear where school zone speed limit ends for eastbound travel; 3 lanes west of Washington, and 2 lanes east of Washington; pedestrian crosswalks and signage at Glendenning; no centerline pavement markings east of Florence; east of Cummings, the roadway widens and curb/gutter is present |
| Williams Street | Approximately 30-ft wide; curbed; no pavement markings; speed limit 25 mph; free flow from 39 th to Ogden, but with uncontrolled intersection at 40 th Street; parking is prohibited south of 41 st Street |
| Tower Road | Approximately 30-ft wide; curbed; no pavement markings; parking is allowed |
| Cumnor Road | Approximately 30-ft wide; curbed; park zone speed limit 20 mph (when children present) from south of Tower to south of Whitlock Park; “no parking” adjacent to park from 8 AM to 6 PM northbound; no parking south of 41 st ; no parking north of 41 st Street 8 AM to 6 PM northbound, southbound not signed; long southbound right-turn lane at Ogden; park visibility: difficult to determine if children are present at the park until the driver is immediately adjacent to the park. |
| 41 st Street (Cumnor to Williams) | Approximately 30-ft wide; curbed; no signs |
| Ogden Avenue | Illinois Route 34; 5-lane section; speed limit 35 mph; commercial corridor; 3 signalized intersections within study area |
| Fairview Avenue | Dupage County Route 25; Speed limit 35 mph; 2 lanes in each direction; no median; widens at Ogden and at 39 th to develop left-turn lanes |
| 40 th Place, Shady Lane, 41 st Street | “Shady Lane Estates”; relatively wide roadways; speed limit 25 mph; 3-ft carriage walks adjacent to the curb; dense foliage adjacent to the roadway |
| 41 st Street | Relatively narrow roadway (estimated 20-ft to 22-ft) with patches of aggregate shoulder; speed limit 25 mph; no parking 8 AM to 11 AM near Highland |
| 40 th Street | Relatively narrow roadway (estimated 20-ft to 22-ft) with patches of aggregate shoulder |
| Lindley Street | No parking 8 AM to 11 AM; speed limit 25 mph; school zone speed limit 20 mph near Highland Elementary; no parking 8 AM to 9 AM and 2 PM to 3 PM near school; Speedway gas station lot entrance on Lindley (at Ogden) is signed “no right turn” onto Lindley |
| Washington Street | No curb, but appears to be wider than the other neighborhood rural-section roadways; hill at 40 th St; signed “no left turn” into Washington from Ogden 6 AM to 9 AM |

| | |
|------------------|--|
| Earlston Road | Speed limit 25 mph; hill north of 40 th ; poor visibility for northbound left-turn at 39 th due to vegetation |
| Elm Street | Speed limit 25 mph; park zone speed limit 20 mph south of 40 th |
| Glendenning Road | Speed limit 25 mph; relatively narrow roadway, but observed some parked cars; broad sag vertical curve at 40 th |
| Sterling Road | Speed limit 25 mph; "blind hill" signed south of 41 st ; another crest vertical curve at 41 st |
| Douglas Road | Relatively narrow (estimated 20-ft); recently paved; poor yield visibility at 40 th looking southbound right; dead end (fence) at south is gapped for pedestrians, with sidewalk on west side |

Appendix B

Midblock Traffic Data
(HiStar Magnetic Detection)

Downers Grove - Neighborhood Traffic Study Area 6



| Location # | On Road | Location | Street Direction | Posted Speed | Count Date | Count Duration | Volume | | | 85th Percentile Speed | | | Differential: (85th Percentile Speed) - (Posted Speed) | Veh Length < 24' | | | Veh Length: 24' - 39' | | | Veh Length > 39' | | |
|------------|----------------|-------------------------|------------------|--------------|------------|----------------|--------|-------|-------|-----------------------|-------|-------|--|------------------|-------|-------|-----------------------|-------|-------|------------------|-------|-------|
| | | | | | | | EB/NB | WB/SB | Total | EB/NB | WB/SB | Total | | EB/NB | WB/SB | Total | EB/NB | WB/SB | Total | EB/NB | WB/SB | Total |
| 001 | 39th St | Washington to Elm | E/W | 30 | 10/3/2017 | 24 hrs | 3303 | 3076 | 6379 | 34 | 32 | 33 | 3 | 3139 | 2973 | 6112 | 121 | 76 | 197 | 43 | 27 | 70 |
| 002 | 39th St | Elm to Ealston | E/W | 30 | 10/3/2017 | 24 hrs | 3297 | 3042 | 6339 | 41 | 37 | 40 | 10 | 3078 | 2930 | 6008 | 180 | 86 | 266 | 39 | 26 | 65 |
| 003 | 39th St | Earlston to Glendenning | E/W | 30 | 10/3/2017 | 24 hrs | 3256 | 2986 | 6242 | 36 | 35 | 35 | 5 | 3182 | 2911 | 6093 | 55 | 49 | 104 | 19 | 26 | 45 |
| 004 | 39th St | Sterling to Douglas | E/W | 30 | 10/3/2017 | 24 hrs | 3136 | 2843 | 5979 | 35 | 37 | 36 | 6 | 3068 | 2761 | 5829 | 51 | 60 | 111 | 17 | 22 | 39 |
| 005 | 39th St | Cumnor to Williams | E/W | 25 | 10/3/2017 | 24 hrs | 637 | 539 | 1176 | 37.3 | 36 | 37 | 12 | 604 | 504 | 1108 | 25 | 25 | 50 | 8 | 10 | 18 |
| 006 | Tower Rd | Williams to Roslyn | E/W | 25 | 10/3/2017 | 24 hrs | 88 | 73 | 161 | 28.65 | 27.9 | 28 | 3 | 75 | 62 | 137 | 9 | 9 | 18 | 4 | 2 | 6 |
| 007 | Tower Rd | Longmeadow to Cumnor | E/W | 25 | 10/3/2017 | 24 hrs | 168 | 179 | 347 | 30 | 30 | 30 | 5 | 143 | 168 | 311 | 16 | 8 | 24 | 9 | 3 | 12 |
| 008 | Cumnor Rd | Tower to 39th | N/S | 25 | 10/3/2017 | 24 hrs | 807 | 666 | 1473 | 31 | 33 | 32 | 7 | 782 | 617 | 1399 | 20 | 40 | 60 | 5 | 9 | 14 |
| 009 | Williams St | 39th to 40th | N/S | 25 | 10/3/2017 | 24 hrs | 331 | 579 | 910 | 38 | 34 | 35 | 10 | 290 | 530 | 820 | 32 | 31 | 63 | 9 | 18 | 27 |
| 010 | Roslyn Rd | Tower to 41st | N/S | 25 | 10/17/2017 | 24 hrs | 94 | 66 | 160 | 29 | 32 | 30 | 5 | 86 | 61 | 147 | 7 | 4 | 11 | 1 | 1 | 2 |
| 011 | W End Rd | Tower to 41st | N/S | 25 | 10/3/2017 | 24 hrs | 39 | 85 | 124 | 28 | 31 | 30 | 5 | 36 | 79 | 115 | 2 | 4 | 6 | 1 | 2 | 3 |
| 012 | Longmeadow Rd | Tower to 41st | N/S | 25 | 10/3/2017 | 24 hrs | 66 | 63 | 129 | 30 | 33.8 | 31.8 | 6.8 | 55 | 50 | 105 | 6 | 11 | 17 | 5 | 2 | 7 |
| 013 | Cumnor Rd | Tower to 41st | N/S | 25 | 10/3/2017 | 24 hrs | 779 | 657 | 1436 | 34 | 34 | 34 | 9 | 752 | 626 | 1378 | 20 | 25 | 45 | 7 | 6 | 13 |
| 014 | 41st St | Cumnor to Longmeadow | E/W | 25 | 10/3/2017 | 24 hrs | 357 | 492 | 849 | 29 | 28.05 | 28 | 3 | 333 | 463 | 796 | 14 | 15 | 29 | 10 | 14 | 24 |
| 015 | 41st St | Roslyn to Williams | E/W | 25 | 10/3/2017 | 24 hrs | 331 | 384 | 715 | 31 | 31 | 31 | 6 | 313 | 370 | 683 | 16 | 8 | 24 | 2 | 6 | 8 |
| 016 | Williams St | 41st to US-34 | N/S | 25 | 10/3/2017 | 24 hrs | 532 | 426 | 958 | 31.05 | 30 | 31 | 6 | 470 | 406 | 876 | 45 | 14 | 59 | 17 | 6 | 23 |
| 017 | Cumnor Rd | 41st to US-34 | N/S | 25 | 10/3/2017 | 24 hrs | 1030 | 941 | 1971 | 33 | 32 | 32.5 | 7.5 | 948 | 863 | 1811 | 61 | 57 | 118 | 21 | 21 | 42 |
| 018 | Fairview Ave | 40th to 41st | N/S | 35 | 10/17/2017 | 24 hrs | 7191 | 7917 | 15108 | 41 | 40 | 41 | 6 | 7016 | 7737 | 14753 | 122 | 112 | 234 | 53 | 68 | 121 |
| 019 | 40th St | Fairview to Douglas | E/W | 25 | 10/3/2017 | 24 hrs | 258 | 102 | 360 | 29 | 36 | 30 | 5 | 242 | 88 | 330 | 10 | 10 | 20 | 6 | 4 | 10 |
| 020 | 40th St | Glendenning to Earlston | E/W | 25 | 10/3/2017 | 24 hrs | 173 | 111 | 284 | 30 | 30 | 30 | 5 | 162 | 103 | 265 | 8 | 3 | 11 | 3 | 5 | 8 |
| 021 | 40th St | Earlston to Elm | E/W | 25 | 10/3/2017 | 24 hrs | 173 | 98 | 271 | 28 | 29 | 28 | 3 | 162 | 92 | 254 | 6 | 5 | 11 | 5 | 1 | 6 |
| 022 | 40th Street | Glendenning to Sterling | E/W | 25 | 10/3/2017 | 24 hrs | 148 | 111 | 259 | 31 | 30 | 30 | 5 | 141 | 95 | 236 | 3 | 12 | 15 | 4 | 4 | 8 |
| 023 | 41st st | Highland to Lindley | E/W | 25 | 10/3/2017 | 24 hrs | 594 | 424 | 1018 | 27 | 31 | 30 | 5 | 582 | 398 | 980 | 8 | 22 | 30 | 4 | 4 | 8 |
| 024 | 41st st | Washington to Elm | E/W | 25 | 10/3/2017 | 24 hrs | 295 | 200 | 495 | 25 | 19 | 25 | 0 | 289 | 189 | 478 | 3 | 4 | 7 | 3 | 7 | 10 |
| 025 | 41st st | Elm to Earlston | E/W | 25 | 10/3/2017 | 24 hrs | 19 | 18 | 37 | 17 | 11 | 10.6 | -14.4 | 18 | 17 | 35 | 0 | 0 | 0 | 1 | 1 | 2 |
| 026 | 41st st | Earlston to Glendenning | E/W | 25 | 10/3/2017 | 24 hrs | 57 | 63 | 120 | 29 | 34.4 | 33 | 8 | 54 | 59 | 113 | 3 | 2 | 5 | 0 | 2 | 2 |
| 027 | 41st st | Glendenning to Sterling | E/W | 25 | 10/3/2017 | 24 hrs | 120 | 138 | 258 | 27 | 28 | 28 | 3 | 112 | 132 | 244 | 5 | 5 | 10 | 3 | 1 | 4 |
| 028 | 41st st | Sterling to Douglas | E/W | 25 | 10/3/2017 | 24 hrs | 237 | 249 | 486 | 33.3 | 36 | 34 | 9 | 220 | 236 | 456 | 16 | 10 | 26 | 1 | 3 | 4 |
| 029 | 41st st | Douglas to Fairview | E/W | 25 | 10/3/2017 | 24 hrs | 197 | 266 | 463 | 29 | 32 | 31 | 6 | 188 | 260 | 448 | 6 | 4 | 10 | 3 | 2 | 5 |
| 030 | Douglas Rd | US-34 to 41st | N/S | 25 | 10/3/2017 | 24 hrs | 56 | 32 | 88 | 16.45 | 20.05 | 18 | -7 | 52 | 31 | 83 | 3 | 1 | 4 | 1 | 0 | 1 |
| 031 | Douglas Rd | 40th to 39th | N/S | 25 | 10/3/2017 | 24 hrs | 206 | 115 | 321 | 31 | 36 | 32 | 7 | 195 | 104 | 299 | 7 | 9 | 16 | 4 | 2 | 6 |
| 032 | Sterling Rd | 39th to 40th | N/S | 25 | 10/3/2017 | 24 hrs | 216 | 187 | 403 | 31 | 32 | 31 | 6 | 198 | 162 | 360 | 11 | 17 | 28 | 7 | 8 | 15 |
| 033 | Sterling Rd | 40th to 41st | N/S | 25 | 10/3/2017 | 24 hrs | 227 | 210 | 437 | 33 | 32 | 33 | 8 | 196 | 198 | 394 | 27 | 9 | 36 | 4 | 3 | 7 |
| 034 | Sterling Rd | 41st to US-34 | N/S | 25 | 10/3/2017 | 24 hrs | 370 | 365 | 735 | 30 | 32 | 31 | 6 | 334 | 339 | 673 | 28 | 19 | 47 | 8 | 7 | 15 |
| 035 | Glendenning Rd | US-34 to 41st | N/S | 25 | 10/3/2017 | 24 hrs | 335 | 371 | 706 | 31 | 35 | 34 | 9 | 312 | 357 | 669 | 15 | 9 | 24 | 8 | 5 | 13 |
| 036 | Glendenning Rd | 40th to 39th | N/S | 25 | 10/3/2017 | 24 hrs | 258 | 274 | 532 | 34.15 | 37 | 36 | 11 | 240 | 249 | 489 | 11 | 16 | 27 | 7 | 9 | 16 |
| 037 | Earlston Rd | 39th to 40th | N/S | 25 | 10/3/2017 | 24 hrs | 186 | 166 | 352 | 32 | 32 | 32 | 7 | 179 | 159 | 338 | 6 | 7 | 13 | 1 | 0 | 1 |
| 038 | Earlston Rd | 40th to 41st | N/S | 25 | 10/3/2017 | 24 hrs | 213 | 212 | 425 | 36 | 40 | 39 | 14 | 198 | 196 | 394 | 12 | 8 | 20 | 3 | 8 | 11 |
| 039 | Earlston Rd | 41st to US-34 | N/S | 25 | 10/3/2017 | 24 hrs | 242 | 265 | 507 | 31 | 32 | 31 | 6 | 235 | 255 | 490 | 6 | 4 | 10 | 1 | 6 | 7 |
| 040 | Elm St | US-34 to 41st | N/S | 25 | 10/3/2017 | 24 hrs | 328 | 190 | 518 | 31 | 34.35 | 32 | 7 | 313 | 174 | 487 | 10 | 13 | 23 | 5 | 3 | 8 |
| 041 | Elm St | 41st to 40th | N/S | 25 | 10/3/2017 | 24 hrs | 433 | 338 | 771 | 36 | 37 | 37 | 12 | 380 | 294 | 674 | 43 | 32 | 75 | 10 | 12 | 22 |
| 042 | Elm St | 40th to 39th | N/S | 25 | 10/3/2017 | 24 hrs | 293 | 217 | 510 | 33 | 34 | 33 | 8 | 281 | 201 | 482 | 10 | 11 | 21 | 2 | 5 | 7 |
| 043 | Washington St | 39th to 40th | N/S | 25 | 10/3/2017 | 24 hrs | 476 | 296 | 772 | 31 | 35 | 32 | 7 | 449 | 270 | 719 | 10 | 16 | 26 | 17 | 10 | 27 |
| 044 | Washington St | 40th to 41st | N/S | 25 | 10/3/2017 | 24 hrs | 366 | 368 | 734 | 32 | 33 | 33 | 8 | 351 | 343 | 694 | 13 | 14 | 27 | 2 | 11 | 13 |
| 045 | Washington St | 41st to US-34 | N/S | 25 | 10/3/2017 | 24 hrs | 270 | 490 | 760 | 33 | 30 | 31 | 6 | 242 | 473 | 715 | 18 | 10 | 28 | 10 | 7 | 17 |

Appendix C

Signalized Intersection Traffic Data

(Miovision Video Turning Movement Counts)



309-999-0123 ccoad@terraengineering.com

Count Name: 39th St at Fairview Ave
 Site Code:
 Start Date: 10/03/2017
 Page No: 1

Turning Movement Data

| Start Time | Fairview Ave Southbound | | | | | | 39th Street Westbound | | | | | | Fairview Ave Northbound | | | | | | 39th Street Eastbound | | | | | | Int. Total | |
|---------------|-------------------------|------|-------|--------|------|------------|-----------------------|------|-------|--------|------|------------|-------------------------|------|-------|--------|------|------------|-----------------------|------|-------|--------|------|------------|------------|---|
| | Left | Thru | Right | U-Turn | Peds | App. Total | Left | Thru | Right | U-Turn | Peds | App. Total | Left | Thru | Right | U-Turn | Peds | App. Total | Left | Thru | Right | U-Turn | Peds | App. Total | | |
| 6:00 AM | 0 | 22 | 6 | 0 | 0 | 28 | 1 | 3 | 5 | 0 | 0 | 9 | 14 | 36 | 0 | 0 | 0 | 50 | 3 | 1 | 7 | 0 | 0 | 11 | 98 | |
| 6:15 AM | 0 | 24 | 9 | 0 | 0 | 33 | 1 | 5 | 4 | 0 | 0 | 10 | 19 | 51 | 0 | 0 | 0 | 70 | 11 | 0 | 3 | 0 | 0 | 14 | 127 | |
| 6:30 AM | 1 | 36 | 8 | 0 | 0 | 45 | 3 | 6 | 4 | 0 | 0 | 13 | 27 | 72 | 0 | 0 | 0 | 99 | 10 | 4 | 5 | 0 | 0 | 19 | 176 | |
| 6:45 AM | 0 | 43 | 10 | 0 | 0 | 53 | 5 | 7 | 12 | 0 | 0 | 24 | 35 | 117 | 3 | 0 | 0 | 155 | 8 | 5 | 4 | 0 | 0 | 17 | 249 | |
| Hourly Total | 1 | 125 | 33 | 0 | 0 | 159 | 10 | 21 | 25 | 0 | 0 | 56 | 95 | 276 | 3 | 0 | 0 | 374 | 32 | 10 | 19 | 0 | 0 | 61 | 650 | |
| 7:00 AM | 1 | 57 | 16 | 0 | 0 | 74 | 2 | 11 | 12 | 0 | 0 | 25 | 20 | 132 | 0 | 0 | 0 | 152 | 6 | 2 | 11 | 0 | 0 | 19 | 270 | |
| 7:15 AM | 2 | 62 | 15 | 0 | 0 | 79 | 11 | 14 | 8 | 0 | 0 | 33 | 19 | 198 | 1 | 0 | 1 | 218 | 15 | 5 | 16 | 0 | 0 | 36 | 366 | |
| 7:30 AM | 2 | 69 | 16 | 0 | 0 | 87 | 14 | 9 | 14 | 0 | 0 | 37 | 23 | 199 | 3 | 0 | 0 | 225 | 23 | 4 | 21 | 0 | 0 | 48 | 397 | |
| 7:45 AM | 3 | 67 | 26 | 0 | 0 | 96 | 12 | 14 | 12 | 0 | 0 | 38 | 35 | 256 | 7 | 0 | 0 | 298 | 18 | 6 | 18 | 0 | 0 | 42 | 474 | |
| Hourly Total | 8 | 255 | 73 | 0 | 0 | 336 | 39 | 48 | 46 | 0 | 0 | 133 | 97 | 785 | 11 | 0 | 1 | 893 | 62 | 17 | 66 | 0 | 0 | 145 | 1507 | |
| 8:00 AM | 7 | 73 | 12 | 0 | 0 | 92 | 4 | 14 | 7 | 0 | 0 | 25 | 31 | 192 | 6 | 0 | 0 | 229 | 23 | 5 | 17 | 0 | 0 | 45 | 391 | |
| 8:15 AM | 1 | 53 | 13 | 0 | 0 | 67 | 3 | 8 | 13 | 0 | 0 | 24 | 26 | 215 | 6 | 0 | 0 | 247 | 16 | 13 | 17 | 0 | 0 | 46 | 384 | |
| 8:30 AM | 7 | 77 | 13 | 0 | 0 | 97 | 4 | 17 | 13 | 0 | 0 | 34 | 29 | 171 | 1 | 0 | 3 | 201 | 18 | 7 | 15 | 0 | 0 | 40 | 372 | |
| 8:45 AM | 4 | 73 | 12 | 0 | 0 | 89 | 2 | 9 | 6 | 0 | 0 | 17 | 37 | 170 | 3 | 0 | 1 | 210 | 15 | 3 | 16 | 0 | 0 | 34 | 350 | |
| Hourly Total | 19 | 276 | 50 | 0 | 0 | 345 | 13 | 48 | 39 | 0 | 0 | 100 | 123 | 748 | 16 | 0 | 4 | 887 | 72 | 28 | 65 | 0 | 0 | 165 | 1497 | |
| *** BREAK *** | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 3:00 PM | 6 | 106 | 6 | 0 | 0 | 118 | 1 | 5 | 11 | 0 | 0 | 17 | 14 | 56 | 6 | 0 | 0 | 76 | 8 | 12 | 38 | 0 | 0 | 58 | 269 | |
| 3:15 PM | 9 | 86 | 10 | 0 | 0 | 105 | 7 | 10 | 5 | 0 | 0 | 22 | 8 | 71 | 5 | 0 | 0 | 84 | 7 | 18 | 38 | 0 | 0 | 63 | 274 | |
| 3:30 PM | 9 | 136 | 11 | 0 | 0 | 156 | 5 | 12 | 9 | 0 | 0 | 26 | 20 | 80 | 6 | 0 | 0 | 106 | 17 | 13 | 51 | 0 | 0 | 81 | 369 | |
| 3:45 PM | 8 | 134 | 17 | 0 | 0 | 159 | 6 | 18 | 5 | 0 | 0 | 29 | 25 | 82 | 5 | 0 | 0 | 112 | 16 | 8 | 44 | 0 | 0 | 68 | 368 | |
| Hourly Total | 32 | 462 | 44 | 0 | 0 | 538 | 19 | 45 | 30 | 0 | 0 | 94 | 67 | 289 | 22 | 0 | 0 | 378 | 48 | 51 | 171 | 0 | 0 | 270 | 1280 | |
| 4:00 PM | 2 | 176 | 23 | 0 | 0 | 201 | 5 | 12 | 6 | 0 | 0 | 23 | 16 | 84 | 4 | 0 | 0 | 104 | 25 | 15 | 42 | 0 | 0 | 82 | 410 | |
| 4:15 PM | 10 | 200 | 21 | 0 | 0 | 231 | 3 | 14 | 7 | 0 | 0 | 24 | 16 | 88 | 6 | 0 | 0 | 110 | 20 | 14 | 42 | 0 | 0 | 76 | 441 | |
| 4:30 PM | 17 | 216 | 22 | 0 | 0 | 255 | 6 | 8 | 8 | 0 | 0 | 22 | 18 | 88 | 6 | 0 | 0 | 112 | 20 | 25 | 57 | 0 | 0 | 102 | 491 | |
| 4:45 PM | 14 | 203 | 30 | 0 | 0 | 247 | 4 | 16 | 3 | 0 | 0 | 23 | 22 | 91 | 6 | 0 | 0 | 119 | 13 | 20 | 48 | 0 | 0 | 81 | 470 | |
| Hourly Total | 43 | 795 | 96 | 0 | 0 | 934 | 18 | 50 | 24 | 0 | 0 | 92 | 72 | 351 | 22 | 0 | 0 | 445 | 78 | 74 | 189 | 0 | 0 | 341 | 1812 | |
| 5:00 PM | 17 | 243 | 28 | 0 | 0 | 288 | 6 | 8 | 7 | 0 | 0 | 21 | 20 | 88 | 6 | 0 | 1 | 114 | 26 | 26 | 46 | 0 | 0 | 98 | 521 | |
| 5:15 PM | 11 | 273 | 55 | 0 | 0 | 339 | 6 | 19 | 7 | 0 | 0 | 32 | 11 | 73 | 6 | 0 | 2 | 90 | 16 | 20 | 55 | 0 | 0 | 91 | 552 | |
| 5:30 PM | 15 | 210 | 37 | 0 | 0 | 262 | 6 | 25 | 6 | 0 | 0 | 37 | 19 | 88 | 6 | 0 | 1 | 113 | 23 | 27 | 45 | 0 | 0 | 95 | 507 | |
| 5:45 PM | 12 | 160 | 26 | 0 | 0 | 198 | 5 | 19 | 9 | 0 | 0 | 33 | 29 | 85 | 4 | 0 | 1 | 118 | 9 | 19 | 21 | 0 | 0 | 49 | 398 | |
| Hourly Total | 55 | 886 | 146 | 0 | 0 | 1087 | 23 | 71 | 29 | 0 | 0 | 123 | 79 | 334 | 22 | 0 | 5 | 435 | 74 | 92 | 167 | 0 | 0 | 333 | 1978 | |
| Grand Total | 158 | 2799 | 442 | 0 | 0 | 3399 | 122 | 283 | 193 | 0 | 0 | 598 | 533 | 2783 | 96 | 0 | 10 | 3412 | 366 | 272 | 677 | 0 | 0 | 1315 | 8724 | |
| Approach % | 4.6 | 82.3 | 13.0 | 0.0 | - | - | 20.4 | 47.3 | 32.3 | 0.0 | - | - | 15.6 | 81.6 | 2.8 | 0.0 | - | - | 27.8 | 20.7 | 51.5 | 0.0 | - | - | - | - |
| Total % | 1.8 | 32.1 | 5.1 | 0.0 | - | 39.0 | 1.4 | 3.2 | 2.2 | 0.0 | - | 6.9 | 6.1 | 31.9 | 1.1 | 0.0 | - | 39.1 | 4.2 | 3.1 | 7.8 | 0.0 | - | 15.1 | - | |
| Lights | 153 | 2754 | 438 | 0 | - | 3345 | 119 | 273 | 190 | 0 | - | 582 | 527 | 2742 | 89 | 0 | - | 3358 | 360 | 270 | 669 | 0 | - | 1299 | 8584 | |
| % Lights | 96.8 | 98.4 | 99.1 | - | - | 98.4 | 97.5 | 96.5 | 98.4 | - | - | 97.3 | 98.9 | 98.5 | 92.7 | - | - | 98.4 | 98.4 | 99.3 | 98.8 | - | - | 98.8 | 98.4 | |
| Mediums | 5 | 41 | 4 | 0 | - | 50 | 3 | 9 | 3 | 0 | - | 15 | 6 | 38 | 3 | 0 | - | 47 | 6 | 2 | 8 | 0 | - | 16 | 128 | |

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------|-----|-----|-----|---|---|-----|-----|-----|-----|---|---|-----|-----|-----|-----|---|------|-----|-----|-----|-----|---|---|-----|-----|
| % Mediums | 3.2 | 1.5 | 0.9 | - | - | 1.5 | 2.5 | 3.2 | 1.6 | - | - | 2.5 | 1.1 | 1.4 | 3.1 | - | - | 1.4 | 1.6 | 0.7 | 1.2 | - | - | 1.2 | 1.5 |
| Articulated Trucks | 0 | 3 | 0 | 0 | - | 3 | 0 | 0 | 0 | 0 | - | 0 | 0 | 2 | 4 | 0 | - | 6 | 0 | 0 | 0 | 0 | - | 0 | 9 |
| % Articulated Trucks | 0.0 | 0.1 | 0.0 | - | - | 0.1 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 | 0.1 | 4.2 | - | - | 0.2 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.1 |
| Bicycles on Road | 0 | 1 | 0 | 0 | - | 1 | 0 | 1 | 0 | 0 | - | 1 | 0 | 1 | 0 | 0 | - | 1 | 0 | 0 | 0 | 0 | - | 0 | 3 |
| % Bicycles on Road | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 | 0.4 | 0.0 | - | - | 0.2 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 |
| Bicycles on Crosswalk | - | - | - | - | 0 | - | - | - | - | 0 | - | - | - | - | - | - | 6 | - | - | - | - | 0 | - | - | - |
| % Bicycles on Crosswalk | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 60.0 | - | - | - | - | - | - | - | - |
| Pedestrians | - | - | - | - | 0 | - | - | - | - | 0 | - | - | - | - | - | - | 4 | - | - | - | - | 0 | - | - | - |
| % Pedestrians | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 40.0 | - | - | - | - | - | - | - | - |



309-999-0123 ccoad@terraengineering.com

Count Name: 39th St at Fairview Ave
 Site Code:
 Start Date: 10/03/2017
 Page No: 4

Turning Movement Peak Hour Data (7:30 AM)

| Start Time | Fairview Ave Southbound | | | | | | 39th Street Westbound | | | | | | Fairview Ave Northbound | | | | | | 39th Street Eastbound | | | | | | Int. Total |
|-------------------------|-------------------------|-------|-------|--------|------|------------|-----------------------|-------|-------|--------|------|------------|-------------------------|-------|-------|--------|------|------------|-----------------------|-------|-------|--------|------|------------|------------|
| | Left | Thru | Right | U-Turn | Peds | App. Total | Left | Thru | Right | U-Turn | Peds | App. Total | Left | Thru | Right | U-Turn | Peds | App. Total | Left | Thru | Right | U-Turn | Peds | App. Total | |
| 7:30 AM | 2 | 69 | 16 | 0 | 0 | 87 | 14 | 9 | 14 | 0 | 0 | 37 | 23 | 199 | 3 | 0 | 0 | 225 | 23 | 4 | 21 | 0 | 0 | 48 | 397 |
| 7:45 AM | 3 | 67 | 26 | 0 | 0 | 96 | 12 | 14 | 12 | 0 | 0 | 38 | 35 | 256 | 7 | 0 | 0 | 298 | 18 | 6 | 18 | 0 | 0 | 42 | 474 |
| 8:00 AM | 7 | 73 | 12 | 0 | 0 | 92 | 4 | 14 | 7 | 0 | 0 | 25 | 31 | 192 | 6 | 0 | 0 | 229 | 23 | 5 | 17 | 0 | 0 | 45 | 391 |
| 8:15 AM | 1 | 53 | 13 | 0 | 0 | 67 | 3 | 8 | 13 | 0 | 0 | 24 | 26 | 215 | 6 | 0 | 0 | 247 | 16 | 13 | 17 | 0 | 0 | 46 | 384 |
| Total | 13 | 262 | 67 | 0 | 0 | 342 | 33 | 45 | 46 | 0 | 0 | 124 | 115 | 862 | 22 | 0 | 0 | 999 | 80 | 28 | 73 | 0 | 0 | 181 | 1646 |
| Approach % | 3.8 | 76.6 | 19.6 | 0.0 | - | - | 26.6 | 36.3 | 37.1 | 0.0 | - | - | 11.5 | 86.3 | 2.2 | 0.0 | - | - | 44.2 | 15.5 | 40.3 | 0.0 | - | - | - |
| Total % | 0.8 | 15.9 | 4.1 | 0.0 | - | 20.8 | 2.0 | 2.7 | 2.8 | 0.0 | - | 7.5 | 7.0 | 52.4 | 1.3 | 0.0 | - | 60.7 | 4.9 | 1.7 | 4.4 | 0.0 | - | 11.0 | - |
| PHF | 0.464 | 0.897 | 0.644 | 0.000 | - | 0.891 | 0.589 | 0.804 | 0.821 | 0.000 | - | 0.816 | 0.821 | 0.842 | 0.786 | 0.000 | - | 0.838 | 0.870 | 0.538 | 0.869 | 0.000 | - | 0.943 | 0.868 |
| Lights | 10 | 247 | 65 | 0 | - | 322 | 33 | 41 | 46 | 0 | - | 120 | 111 | 846 | 19 | 0 | - | 976 | 80 | 26 | 70 | 0 | - | 176 | 1594 |
| % Lights | 76.9 | 94.3 | 97.0 | - | - | 94.2 | 100.0 | 91.1 | 100.0 | - | - | 96.8 | 96.5 | 98.1 | 86.4 | - | - | 97.7 | 100.0 | 92.9 | 95.9 | - | - | 97.2 | 96.8 |
| Mediums | 3 | 14 | 2 | 0 | - | 19 | 0 | 3 | 0 | 0 | - | 3 | 4 | 14 | 1 | 0 | - | 19 | 0 | 2 | 3 | 0 | - | 5 | 46 |
| % Mediums | 23.1 | 5.3 | 3.0 | - | - | 5.6 | 0.0 | 6.7 | 0.0 | - | - | 2.4 | 3.5 | 1.6 | 4.5 | - | - | 1.9 | 0.0 | 7.1 | 4.1 | - | - | 2.8 | 2.8 |
| Articulated Trucks | 0 | 1 | 0 | 0 | - | 1 | 0 | 0 | 0 | 0 | - | 0 | 0 | 1 | 2 | 0 | - | 3 | 0 | 0 | 0 | 0 | - | 0 | 4 |
| % Articulated Trucks | 0.0 | 0.4 | 0.0 | - | - | 0.3 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 | 0.1 | 9.1 | - | - | 0.3 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.2 |
| Bicycles on Road | 0 | 0 | 0 | 0 | - | 0 | 0 | 1 | 0 | 0 | - | 1 | 0 | 1 | 0 | 0 | - | 1 | 0 | 0 | 0 | 0 | - | 0 | 2 |
| % Bicycles on Road | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 | 2.2 | 0.0 | - | - | 0.8 | 0.0 | 0.1 | 0.0 | - | - | 0.1 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.1 |
| Bicycles on Crosswalk | - | - | - | - | 0 | - | - | - | - | - | 0 | - | - | - | - | - | 0 | - | - | - | - | - | 0 | - | - |
| % Bicycles on Crosswalk | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Pedestrians | - | - | - | - | 0 | - | - | - | - | - | 0 | - | - | - | - | - | 0 | - | - | - | - | - | 0 | - | - |
| % Pedestrians | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |



309-999-0123 ccoad@terraengineering.com

Count Name: 39th St at Fairview Ave
 Site Code:
 Start Date: 10/03/2017
 Page No: 6

Turning Movement Peak Hour Data (4:45 PM)

| Start Time | Fairview Ave Southbound | | | | | | 39th Street Westbound | | | | | | Fairview Ave Northbound | | | | | | 39th Street Eastbound | | | | | | Int. Total |
|-------------------------|-------------------------|------------|------------|----------|----------|-------------|-----------------------|-----------|-----------|----------|----------|------------|-------------------------|------------|-----------|----------|----------|------------|-----------------------|-----------|------------|----------|----------|------------|-------------|
| | Left | Thru | Right | U-Turn | Peds | App. Total | Left | Thru | Right | U-Turn | Peds | App. Total | Left | Thru | Right | U-Turn | Peds | App. Total | Left | Thru | Right | U-Turn | Peds | App. Total | |
| 4:45 PM | 14 | 203 | 30 | 0 | 0 | 247 | 4 | 16 | 3 | 0 | 0 | 23 | 22 | 91 | 6 | 0 | 0 | 119 | 13 | 20 | 48 | 0 | 0 | 81 | 470 |
| 5:00 PM | 17 | 243 | 28 | 0 | 0 | 288 | 6 | 8 | 7 | 0 | 0 | 21 | 20 | 88 | 6 | 0 | 1 | 114 | 26 | 26 | 46 | 0 | 0 | 98 | 521 |
| 5:15 PM | 11 | 273 | 55 | 0 | 0 | 339 | 6 | 19 | 7 | 0 | 0 | 32 | 11 | 73 | 6 | 0 | 2 | 90 | 16 | 20 | 55 | 0 | 0 | 91 | 552 |
| 5:30 PM | 15 | 210 | 37 | 0 | 0 | 262 | 6 | 25 | 6 | 0 | 0 | 37 | 19 | 88 | 6 | 0 | 1 | 113 | 23 | 27 | 45 | 0 | 0 | 95 | 507 |
| Total | 57 | 929 | 150 | 0 | 0 | 1136 | 22 | 68 | 23 | 0 | 0 | 113 | 72 | 340 | 24 | 0 | 4 | 436 | 78 | 93 | 194 | 0 | 0 | 365 | 2050 |
| Approach % | 5.0 | 81.8 | 13.2 | 0.0 | - | - | 19.5 | 60.2 | 20.4 | 0.0 | - | - | 16.5 | 78.0 | 5.5 | 0.0 | - | - | 21.4 | 25.5 | 53.2 | 0.0 | - | - | - |
| Total % | 2.8 | 45.3 | 7.3 | 0.0 | - | 55.4 | 1.1 | 3.3 | 1.1 | 0.0 | - | 5.5 | 3.5 | 16.6 | 1.2 | 0.0 | - | 21.3 | 3.8 | 4.5 | 9.5 | 0.0 | - | 17.8 | - |
| PHF | 0.838 | 0.851 | 0.682 | 0.000 | - | 0.838 | 0.917 | 0.680 | 0.821 | 0.000 | - | 0.764 | 0.818 | 0.934 | 1.000 | 0.000 | - | 0.916 | 0.750 | 0.861 | 0.882 | 0.000 | - | 0.931 | 0.928 |
| Lights | 55 | 924 | 149 | 0 | - | 1128 | 22 | 68 | 23 | 0 | - | 113 | 72 | 338 | 24 | 0 | - | 434 | 77 | 93 | 194 | 0 | - | 364 | 2039 |
| % Lights | 96.5 | 99.5 | 99.3 | - | - | 99.3 | 100.0 | 100.0 | 100.0 | - | - | 100.0 | 100.0 | 99.4 | 100.0 | - | - | 99.5 | 98.7 | 100.0 | 100.0 | - | - | 99.7 | 99.5 |
| Mediums | 2 | 5 | 1 | 0 | - | 8 | 0 | 0 | 0 | 0 | - | 0 | 0 | 2 | 0 | 0 | - | 2 | 1 | 0 | 0 | 0 | - | 1 | 11 |
| % Mediums | 3.5 | 0.5 | 0.7 | - | - | 0.7 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 | 0.6 | 0.0 | - | - | 0.5 | 1.3 | 0.0 | 0.0 | - | - | 0.3 | 0.5 |
| Articulated Trucks | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 |
| % Articulated Trucks | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 |
| Bicycles on Road | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 |
| % Bicycles on Road | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 |
| Bicycles on Crosswalk | - | - | - | - | 0 | - | - | - | - | - | 0 | - | - | - | - | - | 3 | - | - | - | - | - | 0 | - | - |
| % Bicycles on Crosswalk | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 75.0 | - | - | - | - | - | - | - | - |
| Pedestrians | - | - | - | - | 0 | - | - | - | - | - | 0 | - | - | - | - | - | 1 | - | - | - | - | - | 0 | - | - |
| % Pedestrians | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 25.0 | - | - | - | - | - | - | - | - |



309-999-0123 ccoad@terraengineering.com

Count Name: 39th Street at Main St/Highland Ave
 Site Code:
 Start Date: 10/03/2017
 Page No: 1

Turning Movement Data

| Start Time | Highland Ave Southbound | | | | | | 39th Street Westbound | | | | | | Main St Northbound | | | | | | 39th Street Eastbound | | | | | | Int. Total |
|---------------|-------------------------|------|-------|--------|------|------------|-----------------------|------|-------|--------|------|------------|--------------------|------|-------|--------|------|------------|-----------------------|------|-------|--------|------|------------|------------|
| | Left | Thru | Right | U-Turn | Peds | App. Total | Left | Thru | Right | U-Turn | Peds | App. Total | Left | Thru | Right | U-Turn | Peds | App. Total | Left | Thru | Right | U-Turn | Peds | App. Total | |
| 6:00 AM | 19 | 36 | 0 | 0 | 0 | 55 | 9 | 0 | 11 | 0 | 0 | 20 | 1 | 65 | 19 | 0 | 0 | 85 | 0 | 2 | 3 | 0 | 1 | 5 | 165 |
| 6:15 AM | 21 | 60 | 0 | 0 | 0 | 81 | 6 | 0 | 11 | 0 | 0 | 17 | 1 | 111 | 39 | 0 | 0 | 151 | 1 | 2 | 7 | 0 | 1 | 10 | 259 |
| 6:30 AM | 40 | 66 | 0 | 0 | 0 | 106 | 5 | 0 | 21 | 0 | 0 | 26 | 0 | 115 | 37 | 0 | 0 | 152 | 2 | 2 | 5 | 0 | 1 | 9 | 293 |
| 6:45 AM | 32 | 100 | 0 | 0 | 0 | 132 | 9 | 2 | 17 | 0 | 0 | 28 | 4 | 148 | 57 | 0 | 0 | 209 | 6 | 3 | 14 | 0 | 0 | 23 | 392 |
| Hourly Total | 112 | 262 | 0 | 0 | 0 | 374 | 29 | 2 | 60 | 0 | 0 | 91 | 6 | 439 | 152 | 0 | 0 | 597 | 9 | 9 | 29 | 0 | 3 | 47 | 1109 |
| 7:00 AM | 21 | 101 | 1 | 0 | 0 | 123 | 18 | 0 | 26 | 0 | 0 | 44 | 0 | 172 | 35 | 0 | 1 | 207 | 2 | 1 | 14 | 0 | 1 | 17 | 391 |
| 7:15 AM | 26 | 113 | 0 | 0 | 0 | 139 | 24 | 2 | 32 | 0 | 0 | 58 | 3 | 242 | 41 | 0 | 2 | 286 | 14 | 5 | 11 | 0 | 1 | 30 | 513 |
| 7:30 AM | 25 | 132 | 0 | 0 | 0 | 157 | 31 | 1 | 24 | 0 | 0 | 56 | 1 | 238 | 22 | 0 | 0 | 261 | 5 | 7 | 15 | 0 | 1 | 27 | 501 |
| 7:45 AM | 27 | 142 | 1 | 0 | 0 | 170 | 26 | 1 | 24 | 0 | 0 | 51 | 3 | 285 | 29 | 0 | 0 | 317 | 16 | 15 | 9 | 0 | 0 | 40 | 578 |
| Hourly Total | 99 | 488 | 2 | 0 | 0 | 589 | 99 | 4 | 106 | 0 | 0 | 209 | 7 | 937 | 127 | 0 | 3 | 1071 | 37 | 28 | 49 | 0 | 3 | 114 | 1983 |
| 8:00 AM | 21 | 111 | 0 | 0 | 0 | 132 | 26 | 1 | 35 | 0 | 0 | 62 | 0 | 244 | 36 | 0 | 22 | 280 | 10 | 13 | 7 | 0 | 0 | 30 | 504 |
| 8:15 AM | 23 | 120 | 0 | 0 | 0 | 143 | 20 | 2 | 22 | 0 | 0 | 44 | 3 | 282 | 41 | 0 | 20 | 326 | 13 | 7 | 10 | 0 | 0 | 30 | 543 |
| 8:30 AM | 25 | 101 | 0 | 0 | 0 | 126 | 28 | 0 | 27 | 0 | 0 | 55 | 2 | 241 | 27 | 0 | 1 | 270 | 9 | 7 | 10 | 0 | 0 | 26 | 477 |
| 8:45 AM | 21 | 113 | 0 | 0 | 0 | 134 | 17 | 3 | 32 | 0 | 0 | 52 | 3 | 251 | 36 | 0 | 0 | 290 | 4 | 9 | 9 | 0 | 0 | 22 | 498 |
| Hourly Total | 90 | 445 | 0 | 0 | 0 | 535 | 91 | 6 | 116 | 0 | 0 | 213 | 8 | 1018 | 140 | 0 | 43 | 1166 | 36 | 36 | 36 | 0 | 0 | 108 | 2022 |
| *** BREAK *** | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 3:00 PM | 26 | 221 | 1 | 0 | 0 | 248 | 36 | 3 | 18 | 0 | 0 | 57 | 3 | 124 | 24 | 0 | 38 | 151 | 3 | 3 | 7 | 0 | 1 | 13 | 469 |
| 3:15 PM | 35 | 205 | 0 | 0 | 0 | 240 | 45 | 2 | 28 | 0 | 0 | 75 | 3 | 109 | 11 | 0 | 0 | 123 | 6 | 8 | 10 | 0 | 0 | 24 | 462 |
| 3:30 PM | 31 | 279 | 4 | 0 | 0 | 314 | 55 | 2 | 34 | 0 | 0 | 91 | 9 | 141 | 21 | 0 | 3 | 171 | 3 | 6 | 11 | 0 | 0 | 20 | 596 |
| 3:45 PM | 35 | 336 | 1 | 0 | 0 | 372 | 50 | 1 | 39 | 0 | 0 | 90 | 5 | 145 | 18 | 0 | 0 | 168 | 5 | 5 | 8 | 0 | 0 | 18 | 648 |
| Hourly Total | 127 | 1041 | 6 | 0 | 0 | 1174 | 186 | 8 | 119 | 0 | 0 | 313 | 20 | 519 | 74 | 0 | 41 | 613 | 17 | 22 | 36 | 0 | 1 | 75 | 2175 |
| 4:00 PM | 28 | 329 | 0 | 0 | 0 | 357 | 59 | 6 | 32 | 0 | 0 | 97 | 3 | 126 | 12 | 0 | 0 | 141 | 6 | 7 | 8 | 0 | 0 | 21 | 616 |
| 4:15 PM | 42 | 378 | 2 | 0 | 0 | 422 | 53 | 10 | 24 | 0 | 0 | 87 | 5 | 131 | 20 | 0 | 0 | 156 | 5 | 10 | 6 | 0 | 0 | 21 | 686 |
| 4:30 PM | 56 | 394 | 0 | 0 | 0 | 450 | 59 | 4 | 29 | 0 | 0 | 92 | 4 | 134 | 12 | 0 | 0 | 150 | 5 | 16 | 9 | 0 | 0 | 30 | 722 |
| 4:45 PM | 43 | 420 | 1 | 0 | 0 | 464 | 57 | 8 | 26 | 0 | 0 | 91 | 4 | 114 | 19 | 0 | 0 | 137 | 10 | 5 | 4 | 0 | 0 | 19 | 711 |
| Hourly Total | 169 | 1521 | 3 | 0 | 0 | 1693 | 228 | 28 | 111 | 0 | 0 | 367 | 16 | 505 | 63 | 0 | 0 | 584 | 26 | 38 | 27 | 0 | 0 | 91 | 2735 |
| 5:00 PM | 46 | 433 | 1 | 0 | 0 | 480 | 70 | 7 | 29 | 0 | 0 | 106 | 6 | 133 | 13 | 0 | 0 | 152 | 6 | 8 | 8 | 0 | 0 | 22 | 760 |
| 5:15 PM | 53 | 413 | 1 | 0 | 0 | 467 | 71 | 9 | 36 | 0 | 0 | 116 | 9 | 135 | 15 | 0 | 1 | 159 | 8 | 4 | 10 | 0 | 0 | 22 | 764 |
| 5:30 PM | 43 | 397 | 1 | 0 | 0 | 441 | 63 | 5 | 40 | 0 | 0 | 108 | 7 | 122 | 16 | 0 | 0 | 145 | 9 | 12 | 12 | 0 | 3 | 33 | 727 |
| 5:45 PM | 36 | 319 | 1 | 0 | 0 | 356 | 51 | 5 | 34 | 0 | 0 | 90 | 3 | 115 | 17 | 0 | 1 | 135 | 5 | 6 | 17 | 0 | 0 | 28 | 609 |
| Hourly Total | 178 | 1562 | 4 | 0 | 0 | 1744 | 255 | 26 | 139 | 0 | 0 | 420 | 25 | 505 | 61 | 0 | 2 | 591 | 28 | 30 | 47 | 0 | 3 | 105 | 2860 |
| Grand Total | 775 | 5319 | 15 | 0 | 0 | 6109 | 888 | 74 | 651 | 0 | 0 | 1613 | 82 | 3923 | 617 | 0 | 89 | 4622 | 153 | 163 | 224 | 0 | 10 | 540 | 12884 |
| Approach % | 12.7 | 87.1 | 0.2 | 0.0 | - | - | 55.1 | 4.6 | 40.4 | 0.0 | - | - | 1.8 | 84.9 | 13.3 | 0.0 | - | - | 28.3 | 30.2 | 41.5 | 0.0 | - | - | - |
| Total % | 6.0 | 41.3 | 0.1 | 0.0 | - | 47.4 | 6.9 | 0.6 | 5.1 | 0.0 | - | 12.5 | 0.6 | 30.4 | 4.8 | 0.0 | - | 35.9 | 1.2 | 1.3 | 1.7 | 0.0 | - | 4.2 | - |
| Lights | 750 | 5211 | 15 | 0 | - | 5976 | 869 | 70 | 627 | 0 | - | 1566 | 80 | 3855 | 601 | 0 | - | 4536 | 151 | 155 | 215 | 0 | - | 521 | 12599 |
| % Lights | 96.8 | 98.0 | 100.0 | - | - | 97.8 | 97.9 | 94.6 | 96.3 | - | - | 97.1 | 97.6 | 98.3 | 97.4 | - | - | 98.1 | 98.7 | 95.1 | 96.0 | - | - | 96.5 | 97.8 |
| Mediums | 21 | 94 | 0 | 0 | - | 115 | 18 | 3 | 22 | 0 | - | 43 | 2 | 63 | 15 | 0 | - | 80 | 2 | 5 | 9 | 0 | - | 16 | 254 |

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------|-----|-----|-----|---|---|-----|-----|-----|-----|---|---|-----|-----|-----|-----|---|------|-----|-----|-----|-----|---|------|-----|-----|
| % Mediums | 2.7 | 1.8 | 0.0 | - | - | 1.9 | 2.0 | 4.1 | 3.4 | - | - | 2.7 | 2.4 | 1.6 | 2.4 | - | - | 1.7 | 1.3 | 3.1 | 4.0 | - | - | 3.0 | 2.0 |
| Articulated Trucks | 4 | 13 | 0 | 0 | - | 17 | 1 | 0 | 2 | 0 | - | 3 | 0 | 3 | 1 | 0 | - | 4 | 0 | 0 | 0 | 0 | - | 0 | 24 |
| % Articulated Trucks | 0.5 | 0.2 | 0.0 | - | - | 0.3 | 0.1 | 0.0 | 0.3 | - | - | 0.2 | 0.0 | 0.1 | 0.2 | - | - | 0.1 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.2 |
| Bicycles on Road | 0 | 1 | 0 | 0 | - | 1 | 0 | 1 | 0 | 0 | - | 1 | 0 | 2 | 0 | 0 | - | 2 | 0 | 3 | 0 | 0 | - | 3 | 7 |
| % Bicycles on Road | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 | 1.4 | 0.0 | - | - | 0.1 | 0.0 | 0.1 | 0.0 | - | - | 0.0 | 0.0 | 1.8 | 0.0 | - | - | 0.6 | 0.1 |
| Bicycles on Crosswalk | - | - | - | - | 0 | - | - | - | - | - | 0 | - | - | - | - | - | 1 | - | - | - | - | - | 1 | - | - |
| % Bicycles on Crosswalk | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1.1 | - | - | - | - | - | 10.0 | - | - |
| Pedestrians | - | - | - | - | 0 | - | - | - | - | - | 0 | - | - | - | - | - | 88 | - | - | - | - | - | 9 | - | - |
| % Pedestrians | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 98.9 | - | - | - | - | - | 90.0 | - | - |

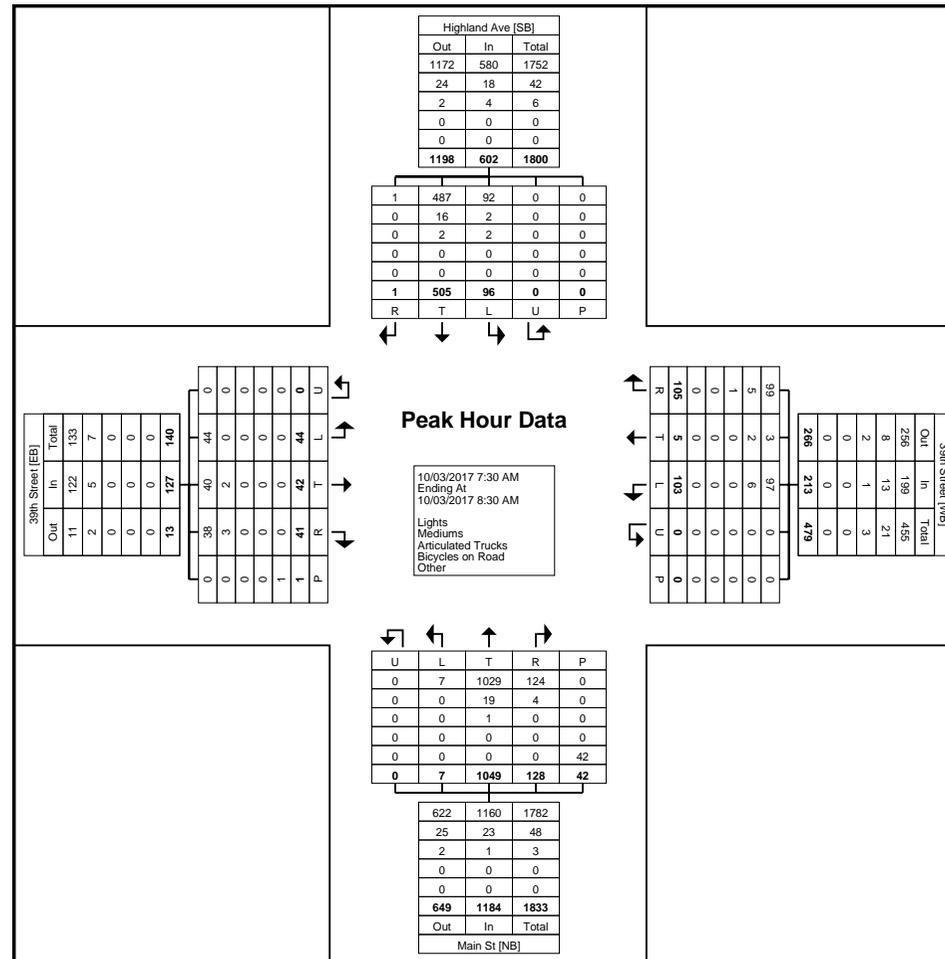


309-999-0123 ccoad@terraengineering.com

Count Name: 39th Street at Main St/Highland Ave
 Site Code:
 Start Date: 10/03/2017
 Page No: 4

Turning Movement Peak Hour Data (7:30 AM)

| Start Time | Highland Ave Southbound | | | | | | 39th Street Westbound | | | | | | Main St Northbound | | | | | | 39th Street Eastbound | | | | | | Int. Total | |
|-------------------------|-------------------------|------------|----------|----------|----------|------------|-----------------------|----------|------------|----------|----------|------------|--------------------|-------------|------------|----------|-----------|-------------|-----------------------|-----------|-----------|----------|----------|------------|-------------|------|
| | Left | Thru | Right | U-Turn | Peds | App. Total | Left | Thru | Right | U-Turn | Peds | App. Total | Left | Thru | Right | U-Turn | Peds | App. Total | Left | Thru | Right | U-Turn | Peds | App. Total | | |
| 7:30 AM | 25 | 132 | 0 | 0 | 0 | 157 | 31 | 1 | 24 | 0 | 0 | 56 | 1 | 238 | 22 | 0 | 0 | 261 | 5 | 7 | 15 | 0 | 1 | 27 | 501 | |
| 7:45 AM | 27 | 142 | 1 | 0 | 0 | 170 | 26 | 1 | 24 | 0 | 0 | 51 | 3 | 285 | 29 | 0 | 0 | 317 | 16 | 15 | 9 | 0 | 0 | 40 | 578 | |
| 8:00 AM | 21 | 111 | 0 | 0 | 0 | 132 | 26 | 1 | 35 | 0 | 0 | 62 | 0 | 244 | 36 | 0 | 22 | 280 | 10 | 13 | 7 | 0 | 0 | 30 | 504 | |
| 8:15 AM | 23 | 120 | 0 | 0 | 0 | 143 | 20 | 2 | 22 | 0 | 0 | 44 | 3 | 282 | 41 | 0 | 20 | 326 | 13 | 7 | 10 | 0 | 0 | 30 | 543 | |
| Total | 96 | 505 | 1 | 0 | 0 | 602 | 103 | 5 | 105 | 0 | 0 | 213 | 7 | 1049 | 128 | 0 | 42 | 1184 | 44 | 42 | 41 | 0 | 1 | 127 | 2126 | |
| Approach % | 15.9 | 83.9 | 0.2 | 0.0 | - | - | 48.4 | 2.3 | 49.3 | 0.0 | - | - | 0.6 | 88.6 | 10.8 | 0.0 | - | - | 34.6 | 33.1 | 32.3 | 0.0 | - | - | - | |
| Total % | 4.5 | 23.8 | 0.0 | 0.0 | - | 28.3 | 4.8 | 0.2 | 4.9 | 0.0 | - | 10.0 | 0.3 | 49.3 | 6.0 | 0.0 | - | 55.7 | 2.1 | 2.0 | 1.9 | 0.0 | - | 6.0 | - | |
| PHF | 0.889 | 0.889 | 0.250 | 0.000 | - | 0.885 | 0.831 | 0.625 | 0.750 | 0.000 | - | 0.859 | 0.583 | 0.920 | 0.780 | 0.000 | - | 0.908 | 0.688 | 0.700 | 0.683 | 0.000 | - | 0.794 | 0.920 | |
| Lights | 92 | 487 | 1 | 0 | - | 580 | 97 | 3 | 99 | 0 | - | 199 | 7 | 1029 | 124 | 0 | - | 1160 | 44 | 40 | 38 | 0 | - | 122 | 2061 | |
| % Lights | 95.8 | 96.4 | 100.0 | - | - | 96.3 | 94.2 | 60.0 | 94.3 | - | - | 93.4 | 100.0 | 98.1 | 96.9 | - | - | 98.0 | 100.0 | 95.2 | 92.7 | - | - | - | 96.1 | 96.9 |
| Mediums | 2 | 16 | 0 | 0 | - | 18 | 6 | 2 | 5 | 0 | - | 13 | 0 | 19 | 4 | 0 | - | 23 | 0 | 2 | 3 | 0 | - | 5 | 59 | |
| % Mediums | 2.1 | 3.2 | 0.0 | - | - | 3.0 | 5.8 | 40.0 | 4.8 | - | - | 6.1 | 0.0 | 1.8 | 3.1 | - | - | 1.9 | 0.0 | 4.8 | 7.3 | - | - | 3.9 | 2.8 | |
| Articulated Trucks | 2 | 2 | 0 | 0 | - | 4 | 0 | 0 | 1 | 0 | - | 1 | 0 | 1 | 0 | 0 | - | 1 | 0 | 0 | 0 | 0 | - | 0 | 6 | |
| % Articulated Trucks | 2.1 | 0.4 | 0.0 | - | - | 0.7 | 0.0 | 0.0 | 1.0 | - | - | 0.5 | 0.0 | 0.1 | 0.0 | - | - | 0.1 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.3 | |
| Bicycles on Road | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | |
| % Bicycles on Road | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 | |
| Bicycles on Crosswalk | - | - | - | - | 0 | - | - | - | - | - | 0 | - | - | - | - | - | 0 | - | - | - | - | - | 1 | - | - | |
| % Bicycles on Crosswalk | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.0 | - | - | - | - | - | 100.0 | - | - | |
| Pedestrians | - | - | - | - | 0 | - | - | - | - | - | 0 | - | - | - | - | - | 42 | - | - | - | - | - | 0 | - | - | |
| % Pedestrians | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 100.0 | - | - | - | - | - | 0.0 | - | - | |



Turning Movement Peak Hour Data Plot (7:30 AM)



309-999-0123 ccoad@terraengineering.com

Count Name: 39th Street at Main St/Highland Ave
 Site Code:
 Start Date: 10/03/2017
 Page No: 6

Turning Movement Peak Hour Data (4:45 PM)

| Start Time | Highland Ave Southbound | | | | | | 39th Street Westbound | | | | | | Main St Northbound | | | | | | 39th Street Eastbound | | | | | | Int. Total |
|-------------------------|-------------------------|-------------|----------|----------|----------|-------------|-----------------------|-----------|------------|----------|----------|------------|--------------------|------------|-----------|----------|----------|------------|-----------------------|-----------|-----------|----------|----------|------------|-------------|
| | Left | Thru | Right | U-Turn | Peds | App. Total | Left | Thru | Right | U-Turn | Peds | App. Total | Left | Thru | Right | U-Turn | Peds | App. Total | Left | Thru | Right | U-Turn | Peds | App. Total | |
| 4:45 PM | 43 | 420 | 1 | 0 | 0 | 464 | 57 | 8 | 26 | 0 | 0 | 91 | 4 | 114 | 19 | 0 | 0 | 137 | 10 | 5 | 4 | 0 | 0 | 19 | 711 |
| 5:00 PM | 46 | 433 | 1 | 0 | 0 | 480 | 70 | 7 | 29 | 0 | 0 | 106 | 6 | 133 | 13 | 0 | 0 | 152 | 6 | 8 | 8 | 0 | 0 | 22 | 760 |
| 5:15 PM | 53 | 413 | 1 | 0 | 0 | 467 | 71 | 9 | 36 | 0 | 0 | 116 | 9 | 135 | 15 | 0 | 1 | 159 | 8 | 4 | 10 | 0 | 0 | 22 | 764 |
| 5:30 PM | 43 | 397 | 1 | 0 | 0 | 441 | 63 | 5 | 40 | 0 | 0 | 108 | 7 | 122 | 16 | 0 | 0 | 145 | 9 | 12 | 12 | 0 | 3 | 33 | 727 |
| Total | 185 | 1663 | 4 | 0 | 0 | 1852 | 261 | 29 | 131 | 0 | 0 | 421 | 26 | 504 | 63 | 0 | 1 | 593 | 33 | 29 | 34 | 0 | 3 | 96 | 2962 |
| Approach % | 10.0 | 89.8 | 0.2 | 0.0 | - | - | 62.0 | 6.9 | 31.1 | 0.0 | - | - | 4.4 | 85.0 | 10.6 | 0.0 | - | - | 34.4 | 30.2 | 35.4 | 0.0 | - | - | - |
| Total % | 6.2 | 56.1 | 0.1 | 0.0 | - | 62.5 | 8.8 | 1.0 | 4.4 | 0.0 | - | 14.2 | 0.9 | 17.0 | 2.1 | 0.0 | - | 20.0 | 1.1 | 1.0 | 1.1 | 0.0 | - | 3.2 | - |
| PHF | 0.873 | 0.960 | 1.000 | 0.000 | - | 0.965 | 0.919 | 0.806 | 0.819 | 0.000 | - | 0.907 | 0.722 | 0.933 | 0.829 | 0.000 | - | 0.932 | 0.825 | 0.604 | 0.708 | 0.000 | - | 0.727 | 0.969 |
| Lights | 183 | 1649 | 4 | 0 | - | 1836 | 259 | 28 | 128 | 0 | - | 415 | 26 | 498 | 63 | 0 | - | 587 | 31 | 28 | 33 | 0 | - | 92 | 2930 |
| % Lights | 98.9 | 99.2 | 100.0 | - | - | 99.1 | 99.2 | 96.6 | 97.7 | - | - | 98.6 | 100.0 | 98.8 | 100.0 | - | - | 99.0 | 93.9 | 96.6 | 97.1 | - | - | 95.8 | 98.9 |
| Mediums | 1 | 12 | 0 | 0 | - | 13 | 2 | 0 | 3 | 0 | - | 5 | 0 | 6 | 0 | 0 | - | 6 | 2 | 0 | 1 | 0 | - | 3 | 27 |
| % Mediums | 0.5 | 0.7 | 0.0 | - | - | 0.7 | 0.8 | 0.0 | 2.3 | - | - | 1.2 | 0.0 | 1.2 | 0.0 | - | - | 1.0 | 6.1 | 0.0 | 2.9 | - | - | 3.1 | 0.9 |
| Articulated Trucks | 1 | 1 | 0 | 0 | - | 2 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 2 |
| % Articulated Trucks | 0.5 | 0.1 | 0.0 | - | - | 0.1 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.1 |
| Bicycles on Road | 0 | 1 | 0 | 0 | - | 1 | 0 | 1 | 0 | 0 | - | 1 | 0 | 0 | 0 | 0 | - | 0 | 0 | 1 | 0 | 0 | - | 1 | 3 |
| % Bicycles on Road | 0.0 | 0.1 | 0.0 | - | - | 0.1 | 0.0 | 3.4 | 0.0 | - | - | 0.2 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 | 3.4 | 0.0 | - | - | 1.0 | 0.1 |
| Bicycles on Crosswalk | - | - | - | - | 0 | - | - | - | - | - | 0 | - | - | - | - | - | 0 | - | - | - | - | - | 0 | - | - |
| % Bicycles on Crosswalk | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.0 | - | - | - | - | - | 0.0 | - | - |
| Pedestrians | - | - | - | - | 0 | - | - | - | - | - | 0 | - | - | - | - | - | 1 | - | - | - | - | - | 3 | - | - |
| % Pedestrians | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 100.0 | - | - | - | - | - | 100.0 | - | - |



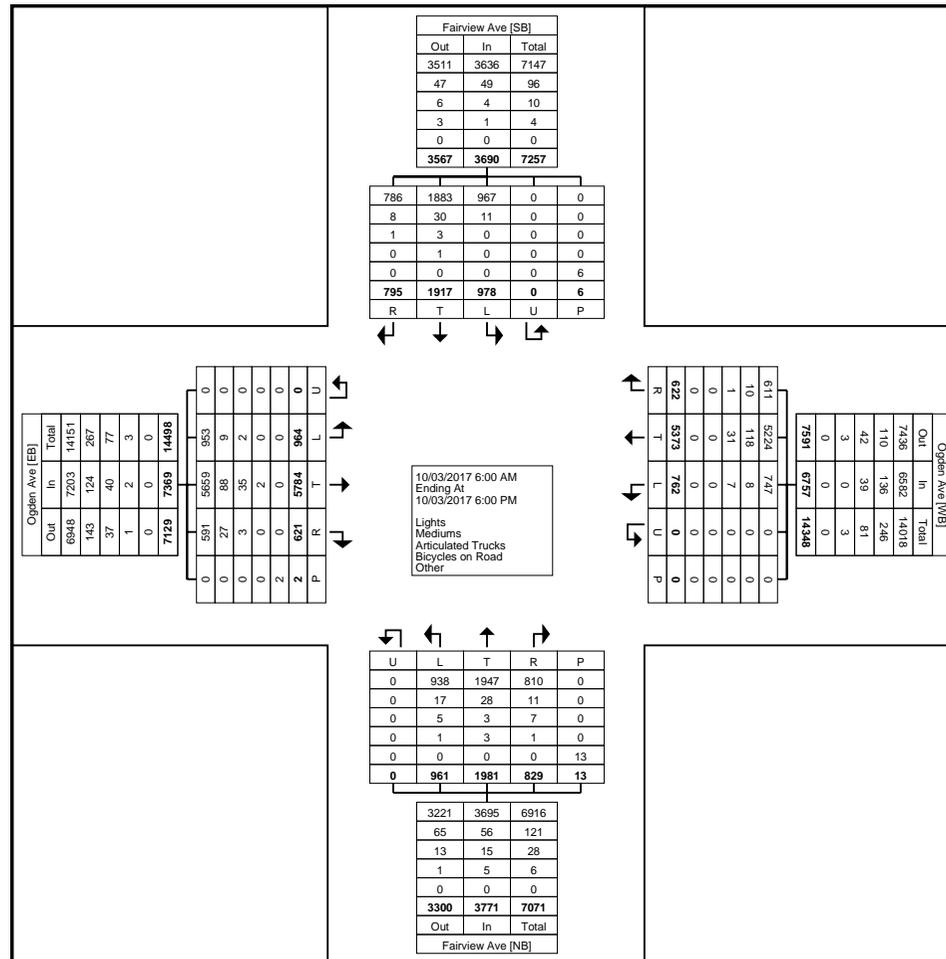
309-999-0123 ccoad@terraengineering.com

Count Name: Fairview Ave at Ogdan Ave
 Site Code:
 Start Date: 10/03/2017
 Page No: 1

Turning Movement Data

| Start Time | Fairview Ave Southbound | | | | | | Ogdan Ave Westbound | | | | | | Fairview Ave Northbound | | | | | | Ogdan Ave Eastbound | | | | | | Int. Total |
|---------------|-------------------------|------|-------|--------|------|------------|---------------------|------|-------|--------|------|------------|-------------------------|------|-------|--------|------|------------|---------------------|------|-------|--------|------|------------|------------|
| | Left | Thru | Right | U-Turn | Peds | App. Total | Left | Thru | Right | U-Turn | Peds | App. Total | Left | Thru | Right | U-Turn | Peds | App. Total | Left | Thru | Right | U-Turn | Peds | App. Total | |
| 6:00 AM | 7 | 17 | 6 | 0 | 0 | 30 | 8 | 97 | 10 | 0 | 0 | 115 | 15 | 28 | 19 | 0 | 0 | 62 | 11 | 82 | 9 | 0 | 0 | 102 | 309 |
| 6:15 AM | 6 | 16 | 11 | 0 | 0 | 33 | 15 | 112 | 15 | 0 | 0 | 142 | 22 | 41 | 16 | 0 | 0 | 79 | 11 | 137 | 7 | 0 | 0 | 155 | 409 |
| 6:30 AM | 7 | 23 | 19 | 0 | 0 | 49 | 10 | 129 | 24 | 0 | 0 | 163 | 30 | 48 | 27 | 0 | 0 | 105 | 35 | 153 | 10 | 0 | 0 | 198 | 515 |
| 6:45 AM | 13 | 22 | 22 | 0 | 0 | 57 | 12 | 145 | 25 | 0 | 0 | 182 | 32 | 94 | 24 | 0 | 0 | 150 | 35 | 217 | 18 | 0 | 0 | 270 | 659 |
| Hourly Total | 33 | 78 | 58 | 0 | 0 | 169 | 45 | 483 | 74 | 0 | 0 | 602 | 99 | 211 | 86 | 0 | 0 | 396 | 92 | 589 | 44 | 0 | 0 | 725 | 1892 |
| 7:00 AM | 20 | 23 | 22 | 0 | 1 | 65 | 16 | 195 | 23 | 0 | 0 | 234 | 39 | 93 | 33 | 0 | 0 | 165 | 34 | 214 | 13 | 0 | 1 | 261 | 725 |
| 7:15 AM | 15 | 48 | 26 | 0 | 0 | 89 | 31 | 196 | 24 | 0 | 0 | 251 | 64 | 142 | 42 | 0 | 0 | 248 | 59 | 236 | 20 | 0 | 0 | 315 | 903 |
| 7:30 AM | 30 | 42 | 54 | 0 | 0 | 126 | 14 | 181 | 29 | 0 | 0 | 224 | 61 | 158 | 54 | 0 | 0 | 273 | 80 | 275 | 19 | 0 | 0 | 374 | 997 |
| 7:45 AM | 35 | 46 | 27 | 0 | 0 | 108 | 22 | 222 | 38 | 0 | 0 | 282 | 50 | 182 | 30 | 0 | 0 | 262 | 75 | 292 | 19 | 0 | 0 | 386 | 1038 |
| Hourly Total | 100 | 159 | 129 | 0 | 1 | 388 | 83 | 794 | 114 | 0 | 0 | 991 | 214 | 575 | 159 | 0 | 0 | 948 | 248 | 1017 | 71 | 0 | 1 | 1336 | 3663 |
| 8:00 AM | 26 | 46 | 27 | 0 | 0 | 99 | 15 | 182 | 37 | 0 | 0 | 234 | 42 | 135 | 39 | 0 | 0 | 216 | 51 | 246 | 20 | 0 | 0 | 317 | 866 |
| 8:15 AM | 22 | 33 | 29 | 0 | 0 | 84 | 18 | 194 | 29 | 0 | 0 | 241 | 50 | 158 | 49 | 0 | 0 | 257 | 68 | 248 | 21 | 0 | 0 | 337 | 919 |
| 8:30 AM | 36 | 46 | 22 | 0 | 0 | 104 | 23 | 200 | 25 | 0 | 0 | 248 | 52 | 117 | 46 | 0 | 0 | 215 | 59 | 277 | 13 | 0 | 1 | 349 | 916 |
| 8:45 AM | 31 | 36 | 26 | 0 | 0 | 93 | 21 | 199 | 34 | 0 | 0 | 254 | 37 | 130 | 31 | 0 | 0 | 198 | 45 | 245 | 20 | 0 | 0 | 310 | 855 |
| Hourly Total | 115 | 161 | 104 | 0 | 0 | 380 | 77 | 775 | 125 | 0 | 0 | 977 | 181 | 540 | 165 | 0 | 0 | 886 | 223 | 1016 | 74 | 0 | 1 | 1313 | 3556 |
| *** BREAK *** | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 3:00 PM | 39 | 77 | 28 | 0 | 2 | 144 | 40 | 264 | 24 | 0 | 0 | 328 | 34 | 38 | 25 | 0 | 0 | 97 | 18 | 214 | 25 | 0 | 0 | 257 | 826 |
| 3:15 PM | 50 | 66 | 27 | 0 | 0 | 143 | 37 | 220 | 13 | 0 | 0 | 270 | 41 | 49 | 30 | 0 | 0 | 120 | 31 | 258 | 24 | 0 | 0 | 313 | 846 |
| 3:30 PM | 47 | 104 | 43 | 0 | 0 | 194 | 43 | 224 | 25 | 0 | 0 | 292 | 36 | 68 | 30 | 0 | 0 | 134 | 35 | 243 | 48 | 0 | 0 | 326 | 946 |
| 3:45 PM | 54 | 94 | 34 | 0 | 0 | 182 | 49 | 261 | 23 | 0 | 0 | 333 | 42 | 52 | 37 | 0 | 1 | 131 | 38 | 274 | 38 | 0 | 0 | 350 | 996 |
| Hourly Total | 190 | 341 | 132 | 0 | 2 | 663 | 169 | 969 | 85 | 0 | 0 | 1223 | 153 | 207 | 122 | 0 | 1 | 482 | 122 | 989 | 135 | 0 | 0 | 1246 | 3614 |
| 4:00 PM | 65 | 130 | 47 | 0 | 0 | 242 | 41 | 256 | 24 | 0 | 0 | 321 | 47 | 58 | 45 | 0 | 1 | 150 | 35 | 243 | 33 | 0 | 0 | 311 | 1024 |
| 4:15 PM | 67 | 130 | 58 | 0 | 0 | 255 | 50 | 314 | 25 | 0 | 0 | 389 | 31 | 54 | 29 | 0 | 0 | 114 | 39 | 256 | 33 | 0 | 0 | 328 | 1086 |
| 4:30 PM | 75 | 139 | 38 | 0 | 0 | 252 | 42 | 275 | 34 | 0 | 0 | 351 | 44 | 55 | 29 | 0 | 3 | 128 | 31 | 275 | 47 | 0 | 0 | 353 | 1084 |
| 4:45 PM | 72 | 178 | 40 | 0 | 3 | 290 | 42 | 291 | 25 | 0 | 0 | 358 | 36 | 58 | 46 | 0 | 0 | 140 | 25 | 264 | 31 | 0 | 0 | 320 | 1108 |
| Hourly Total | 279 | 577 | 183 | 0 | 3 | 1039 | 175 | 1136 | 108 | 0 | 0 | 1419 | 158 | 225 | 149 | 0 | 4 | 532 | 130 | 1038 | 144 | 0 | 0 | 1312 | 4302 |
| 5:00 PM | 65 | 143 | 39 | 0 | 0 | 247 | 43 | 333 | 21 | 0 | 0 | 397 | 28 | 62 | 22 | 0 | 0 | 112 | 37 | 306 | 31 | 0 | 0 | 374 | 1130 |
| 5:15 PM | 78 | 177 | 48 | 0 | 0 | 303 | 49 | 312 | 29 | 0 | 0 | 390 | 41 | 53 | 41 | 0 | 4 | 135 | 30 | 268 | 38 | 0 | 0 | 336 | 1164 |
| 5:30 PM | 69 | 157 | 40 | 0 | 0 | 266 | 65 | 303 | 40 | 0 | 0 | 408 | 35 | 41 | 33 | 0 | 2 | 109 | 40 | 291 | 45 | 0 | 0 | 376 | 1159 |
| 5:45 PM | 49 | 124 | 62 | 0 | 0 | 235 | 56 | 268 | 26 | 0 | 0 | 350 | 52 | 67 | 52 | 0 | 2 | 171 | 42 | 270 | 39 | 0 | 0 | 351 | 1107 |
| Hourly Total | 261 | 601 | 189 | 0 | 0 | 1051 | 213 | 1216 | 116 | 0 | 0 | 1545 | 156 | 223 | 148 | 0 | 8 | 527 | 149 | 1135 | 153 | 0 | 0 | 1437 | 4560 |
| Grand Total | 978 | 1917 | 795 | 0 | 6 | 3690 | 762 | 5373 | 622 | 0 | 0 | 6757 | 961 | 1981 | 829 | 0 | 13 | 3771 | 964 | 5784 | 621 | 0 | 2 | 7369 | 21587 |
| Approach % | 26.5 | 52.0 | 21.5 | 0.0 | - | - | 11.3 | 79.5 | 9.2 | 0.0 | - | - | 25.5 | 52.5 | 22.0 | 0.0 | - | - | 13.1 | 78.5 | 8.4 | 0.0 | - | - | - |
| Total % | 4.5 | 8.9 | 3.7 | 0.0 | - | 17.1 | 3.5 | 24.9 | 2.9 | 0.0 | - | 31.3 | 4.5 | 9.2 | 3.8 | 0.0 | - | 17.5 | 4.5 | 26.8 | 2.9 | 0.0 | - | 34.1 | - |
| Lights | 967 | 1883 | 786 | 0 | - | 3636 | 747 | 5224 | 611 | 0 | - | 6582 | 938 | 1947 | 810 | 0 | - | 3695 | 953 | 5659 | 591 | 0 | - | 7203 | 21116 |
| % Lights | 98.9 | 98.2 | 98.9 | - | - | 98.5 | 98.0 | 97.2 | 98.2 | - | - | 97.4 | 97.6 | 98.3 | 97.7 | - | - | 98.0 | 98.9 | 97.8 | 95.2 | - | - | 97.7 | 97.8 |
| Mediums | 11 | 30 | 8 | 0 | - | 49 | 8 | 118 | 10 | 0 | - | 136 | 17 | 28 | 11 | 0 | - | 56 | 9 | 88 | 27 | 0 | - | 124 | 365 |

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------|-----|-----|-----|---|------|-----|-----|-----|-----|---|---|-----|-----|-----|-----|---|------|-----|-----|-----|-----|---|-------|-----|-----|
| % Mediums | 1.1 | 1.6 | 1.0 | - | - | 1.3 | 1.0 | 2.2 | 1.6 | - | - | 2.0 | 1.8 | 1.4 | 1.3 | - | - | 1.5 | 0.9 | 1.5 | 4.3 | - | - | 1.7 | 1.7 |
| Articulated Trucks | 0 | 3 | 1 | 0 | - | 4 | 7 | 31 | 1 | 0 | - | 39 | 5 | 3 | 7 | 0 | - | 15 | 2 | 35 | 3 | 0 | - | 40 | 98 |
| % Articulated Trucks | 0.0 | 0.2 | 0.1 | - | - | 0.1 | 0.9 | 0.6 | 0.2 | - | - | 0.6 | 0.5 | 0.2 | 0.8 | - | - | 0.4 | 0.2 | 0.6 | 0.5 | - | - | 0.5 | 0.5 |
| Bicycles on Road | 0 | 1 | 0 | 0 | - | 1 | 0 | 0 | 0 | 0 | - | 0 | 1 | 3 | 1 | 0 | - | 5 | 0 | 2 | 0 | 0 | - | 2 | 8 |
| % Bicycles on Road | 0.0 | 0.1 | 0.0 | - | - | 0.0 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.1 | 0.2 | 0.1 | - | - | 0.1 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 |
| Bicycles on Crosswalk | - | - | - | - | 1 | - | - | - | - | - | 0 | - | - | - | - | - | 3 | - | - | - | - | - | 0 | - | - |
| % Bicycles on Crosswalk | - | - | - | - | 16.7 | - | - | - | - | - | - | - | - | - | - | - | 23.1 | - | - | - | - | - | 0.0 | - | - |
| Pedestrians | - | - | - | - | 5 | - | - | - | - | - | 0 | - | - | - | - | - | 10 | - | - | - | - | - | 2 | - | - |
| % Pedestrians | - | - | - | - | 83.3 | - | - | - | - | - | - | - | - | - | - | - | 76.9 | - | - | - | - | - | 100.0 | - | - |



Turning Movement Data Plot

Turning Movement Peak Hour Data (7:30 AM)

| Start Time | Fairview Ave Southbound | | | | | | Ogden Ave Westbound | | | | | | Fairview Ave Northbound | | | | | | Ogden Ave Eastbound | | | | | | Int. Total |
|-------------------------|-------------------------|-------|-------|--------|------|------------|---------------------|-------|-------|--------|------|------------|-------------------------|-------|-------|--------|------|------------|---------------------|-------|-------|--------|------|------------|------------|
| | Left | Thru | Right | U-Turn | Peds | App. Total | Left | Thru | Right | U-Turn | Peds | App. Total | Left | Thru | Right | U-Turn | Peds | App. Total | Left | Thru | Right | U-Turn | Peds | App. Total | |
| 7:30 AM | 30 | 42 | 54 | 0 | 0 | 126 | 14 | 181 | 29 | 0 | 0 | 224 | 61 | 158 | 54 | 0 | 0 | 273 | 80 | 275 | 19 | 0 | 0 | 374 | 997 |
| 7:45 AM | 35 | 46 | 27 | 0 | 0 | 108 | 22 | 222 | 38 | 0 | 0 | 282 | 50 | 182 | 30 | 0 | 0 | 262 | 75 | 292 | 19 | 0 | 0 | 386 | 1038 |
| 8:00 AM | 26 | 46 | 27 | 0 | 0 | 99 | 15 | 182 | 37 | 0 | 0 | 234 | 42 | 135 | 39 | 0 | 0 | 216 | 51 | 246 | 20 | 0 | 0 | 317 | 866 |
| 8:15 AM | 22 | 33 | 29 | 0 | 0 | 84 | 18 | 194 | 29 | 0 | 0 | 241 | 50 | 158 | 49 | 0 | 0 | 257 | 68 | 248 | 21 | 0 | 0 | 337 | 919 |
| Total | 113 | 167 | 137 | 0 | 0 | 417 | 69 | 779 | 133 | 0 | 0 | 981 | 203 | 633 | 172 | 0 | 0 | 1008 | 274 | 1061 | 79 | 0 | 0 | 1414 | 3820 |
| Approach % | 27.1 | 40.0 | 32.9 | 0.0 | - | - | 7.0 | 79.4 | 13.6 | 0.0 | - | - | 20.1 | 62.8 | 17.1 | 0.0 | - | - | 19.4 | 75.0 | 5.6 | 0.0 | - | - | - |
| Total % | 3.0 | 4.4 | 3.6 | 0.0 | - | 10.9 | 1.8 | 20.4 | 3.5 | 0.0 | - | 25.7 | 5.3 | 16.6 | 4.5 | 0.0 | - | 26.4 | 7.2 | 27.8 | 2.1 | 0.0 | - | 37.0 | - |
| PHF | 0.807 | 0.908 | 0.634 | 0.000 | - | 0.827 | 0.784 | 0.877 | 0.875 | 0.000 | - | 0.870 | 0.832 | 0.870 | 0.796 | 0.000 | - | 0.923 | 0.856 | 0.908 | 0.940 | 0.000 | - | 0.916 | 0.920 |
| Lights | 109 | 155 | 135 | 0 | - | 399 | 67 | 743 | 129 | 0 | - | 939 | 199 | 619 | 165 | 0 | - | 983 | 271 | 1034 | 64 | 0 | - | 1369 | 3690 |
| % Lights | 96.5 | 92.8 | 98.5 | - | - | 95.7 | 97.1 | 95.4 | 97.0 | - | - | 95.7 | 98.0 | 97.8 | 95.9 | - | - | 97.5 | 98.9 | 97.5 | 81.0 | - | - | 96.8 | 96.6 |
| Mediums | 4 | 11 | 1 | 0 | - | 16 | 0 | 29 | 4 | 0 | - | 33 | 3 | 12 | 6 | 0 | - | 21 | 2 | 21 | 14 | 0 | - | 37 | 107 |
| % Mediums | 3.5 | 6.6 | 0.7 | - | - | 3.8 | 0.0 | 3.7 | 3.0 | - | - | 3.4 | 1.5 | 1.9 | 3.5 | - | - | 2.1 | 0.7 | 2.0 | 17.7 | - | - | 2.6 | 2.8 |
| Articulated Trucks | 0 | 1 | 1 | 0 | - | 2 | 2 | 7 | 0 | 0 | - | 9 | 1 | 2 | 1 | 0 | - | 4 | 1 | 5 | 1 | 0 | - | 7 | 22 |
| % Articulated Trucks | 0.0 | 0.6 | 0.7 | - | - | 0.5 | 2.9 | 0.9 | 0.0 | - | - | 0.9 | 0.5 | 0.3 | 0.6 | - | - | 0.4 | 0.4 | 0.5 | 1.3 | - | - | 0.5 | 0.6 |
| Bicycles on Road | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 1 | 0 | 0 | - | 1 | 1 |
| % Bicycles on Road | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 | 0.1 | 0.0 | - | - | 0.1 | 0.0 |
| Bicycles on Crosswalk | - | - | - | - | 0 | - | - | - | - | - | 0 | - | - | - | - | - | 0 | - | - | - | - | - | 0 | - | - |
| % Bicycles on Crosswalk | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Pedestrians | - | - | - | - | 0 | - | - | - | - | - | 0 | - | - | - | - | - | 0 | - | - | - | - | - | 0 | - | - |
| % Pedestrians | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

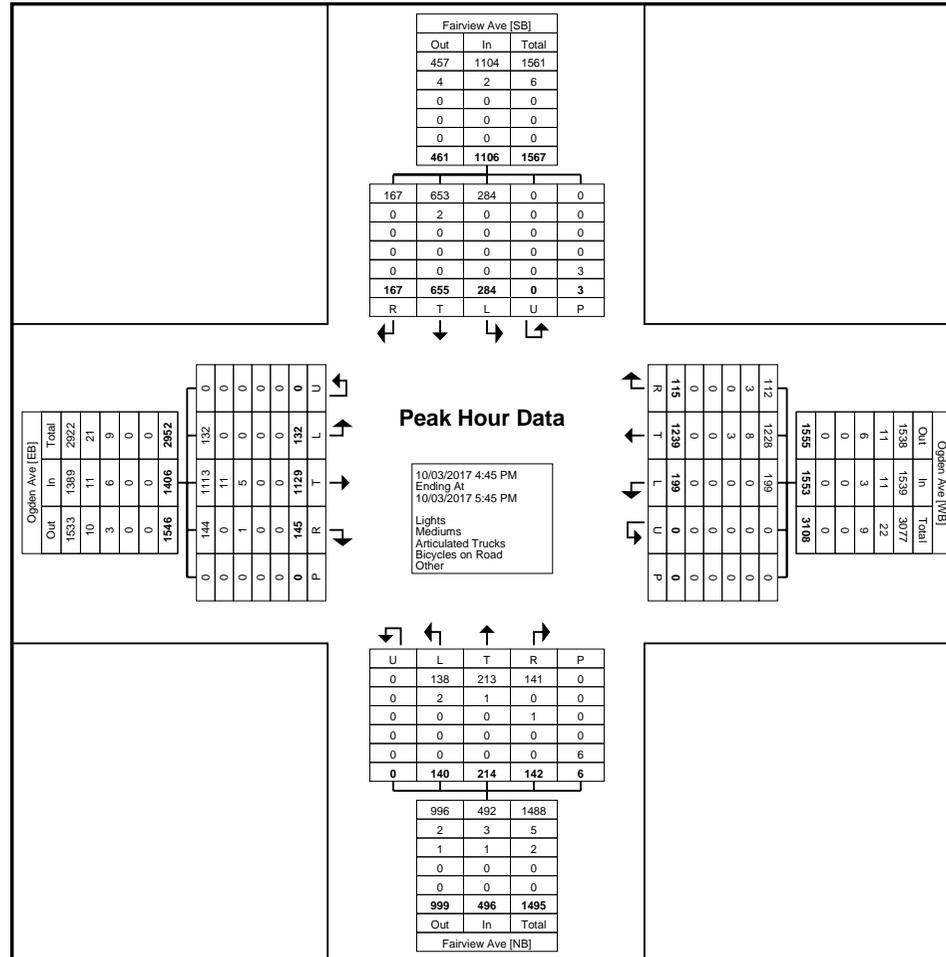


309-999-0123 ccoad@terraengineering.com

Count Name: Fairview Ave at Ogden Ave
 Site Code:
 Start Date: 10/03/2017
 Page No: 6

Turning Movement Peak Hour Data (4:45 PM)

| Start Time | Fairview Ave Southbound | | | | | | Ogden Ave Westbound | | | | | | Fairview Ave Northbound | | | | | | Ogden Ave Eastbound | | | | | | Int. Total |
|-------------------------|-------------------------|------------|------------|----------|----------|-------------|---------------------|-------------|------------|----------|----------|-------------|-------------------------|------------|------------|----------|----------|------------|---------------------|-------------|------------|----------|----------|-------------|-------------|
| | Left | Thru | Right | U-Turn | Peds | App. Total | Left | Thru | Right | U-Turn | Peds | App. Total | Left | Thru | Right | U-Turn | Peds | App. Total | Left | Thru | Right | U-Turn | Peds | App. Total | |
| 4:45 PM | 72 | 178 | 40 | 0 | 3 | 290 | 42 | 291 | 25 | 0 | 0 | 358 | 36 | 58 | 46 | 0 | 0 | 140 | 25 | 264 | 31 | 0 | 0 | 320 | 1108 |
| 5:00 PM | 65 | 143 | 39 | 0 | 0 | 247 | 43 | 333 | 21 | 0 | 0 | 397 | 28 | 62 | 22 | 0 | 0 | 112 | 37 | 306 | 31 | 0 | 0 | 374 | 1130 |
| 5:15 PM | 78 | 177 | 48 | 0 | 0 | 303 | 49 | 312 | 29 | 0 | 0 | 390 | 41 | 53 | 41 | 0 | 4 | 135 | 30 | 268 | 38 | 0 | 0 | 336 | 1164 |
| 5:30 PM | 69 | 157 | 40 | 0 | 0 | 266 | 65 | 303 | 40 | 0 | 0 | 408 | 35 | 41 | 33 | 0 | 2 | 109 | 40 | 291 | 45 | 0 | 0 | 376 | 1159 |
| Total | 284 | 655 | 167 | 0 | 3 | 1106 | 199 | 1239 | 115 | 0 | 0 | 1553 | 140 | 214 | 142 | 0 | 6 | 496 | 132 | 1129 | 145 | 0 | 0 | 1406 | 4561 |
| Approach % | 25.7 | 59.2 | 15.1 | 0.0 | - | - | 12.8 | 79.8 | 7.4 | 0.0 | - | - | 28.2 | 43.1 | 28.6 | 0.0 | - | - | 9.4 | 80.3 | 10.3 | 0.0 | - | - | - |
| Total % | 6.2 | 14.4 | 3.7 | 0.0 | - | 24.2 | 4.4 | 27.2 | 2.5 | 0.0 | - | 34.0 | 3.1 | 4.7 | 3.1 | 0.0 | - | 10.9 | 2.9 | 24.8 | 3.2 | 0.0 | - | 30.8 | - |
| PHF | 0.910 | 0.920 | 0.870 | 0.000 | - | 0.913 | 0.765 | 0.930 | 0.719 | 0.000 | - | 0.952 | 0.854 | 0.863 | 0.772 | 0.000 | - | 0.886 | 0.825 | 0.922 | 0.806 | 0.000 | - | 0.935 | 0.980 |
| Lights | 284 | 653 | 167 | 0 | - | 1104 | 199 | 1228 | 112 | 0 | - | 1539 | 138 | 213 | 141 | 0 | - | 492 | 132 | 1113 | 144 | 0 | - | 1389 | 4524 |
| % Lights | 100.0 | 99.7 | 100.0 | - | - | 99.8 | 100.0 | 99.1 | 97.4 | - | - | 99.1 | 98.6 | 99.5 | 99.3 | - | - | 99.2 | 100.0 | 98.6 | 99.3 | - | - | 98.8 | 99.2 |
| Mediums | 0 | 2 | 0 | 0 | - | 2 | 0 | 8 | 3 | 0 | - | 11 | 2 | 1 | 0 | 0 | - | 3 | 0 | 11 | 0 | 0 | - | 11 | 27 |
| % Mediums | 0.0 | 0.3 | 0.0 | - | - | 0.2 | 0.0 | 0.6 | 2.6 | - | - | 0.7 | 1.4 | 0.5 | 0.0 | - | - | 0.6 | 0.0 | 1.0 | 0.0 | - | - | 0.8 | 0.6 |
| Articulated Trucks | 0 | 0 | 0 | 0 | - | 0 | 0 | 3 | 0 | 0 | - | 3 | 0 | 0 | 1 | 0 | - | 1 | 0 | 5 | 1 | 0 | - | 6 | 10 |
| % Articulated Trucks | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 | 0.2 | 0.0 | - | - | 0.2 | 0.0 | 0.0 | 0.7 | - | - | 0.2 | 0.0 | 0.4 | 0.7 | - | - | 0.4 | 0.2 |
| Bicycles on Road | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 |
| % Bicycles on Road | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 |
| Bicycles on Crosswalk | - | - | - | - | 1 | - | - | - | - | - | 0 | - | - | - | - | - | 1 | - | - | - | - | - | 0 | - | - |
| % Bicycles on Crosswalk | - | - | - | - | 33.3 | - | - | - | - | - | - | - | - | - | - | - | 16.7 | - | - | - | - | - | - | - | - |
| Pedestrians | - | - | - | - | 2 | - | - | - | - | - | 0 | - | - | - | - | - | 5 | - | - | - | - | - | 0 | - | - |
| % Pedestrians | - | - | - | - | 66.7 | - | - | - | - | - | - | - | - | - | - | - | 83.3 | - | - | - | - | - | - | - | - |



Turning Movement Peak Hour Data Plot (4:45 PM)



309-999-0123 ccoad@terraengineering.com

Count Name: Main St at Ogden Ave
 Site Code:
 Start Date: 10/03/2017
 Page No: 1

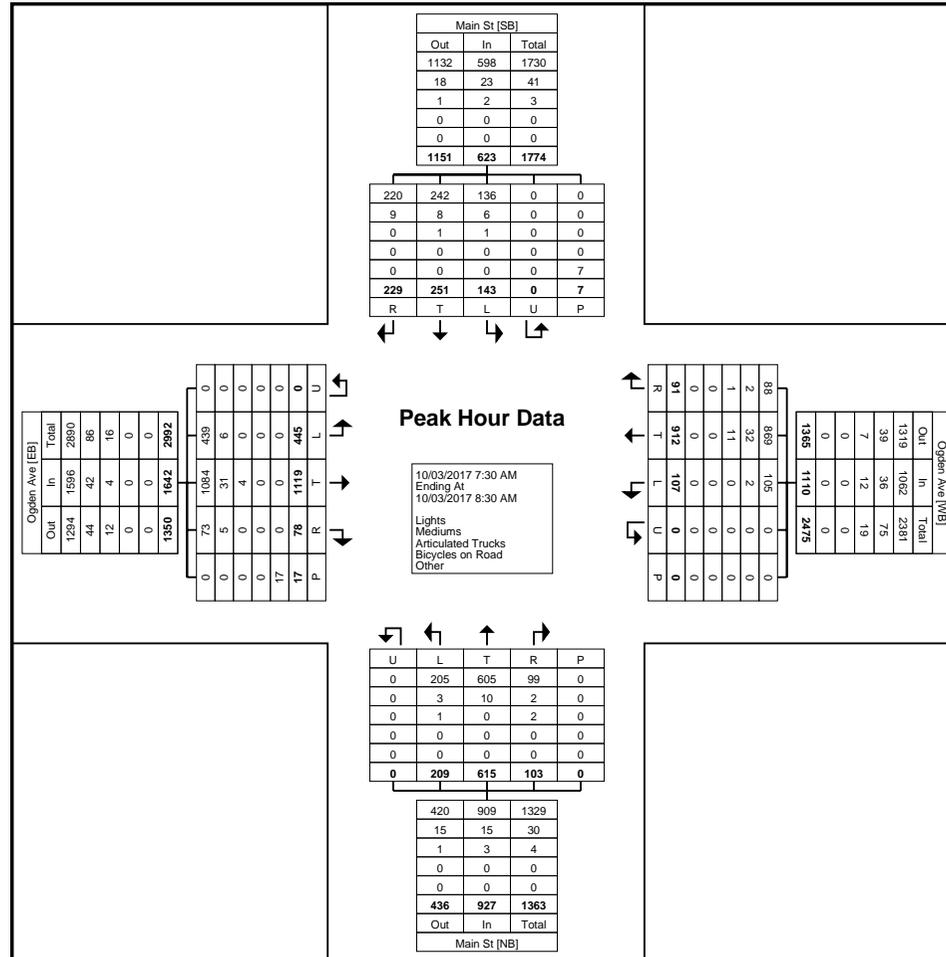
Turning Movement Data

| Start Time | Main St Southbound | | | | | | Ogden Ave Westbound | | | | | | Main St Northbound | | | | | | Ogden Ave Eastbound | | | | | | Int. Total | |
|---------------|--------------------|------|-------|--------|------|------------|---------------------|------|-------|--------|------|------------|--------------------|------|-------|--------|------|------------|---------------------|------|-------|--------|------|------------|------------|---|
| | Left | Thru | Right | U-Turn | Peds | App. Total | Left | Thru | Right | U-Turn | Peds | App. Total | Left | Thru | Right | U-Turn | Peds | App. Total | Left | Thru | Right | U-Turn | Peds | App. Total | | |
| 6:00 AM | 11 | 17 | 17 | 0 | 0 | 45 | 6 | 114 | 5 | 0 | 0 | 125 | 12 | 27 | 6 | 0 | 0 | 45 | 57 | 89 | 12 | 0 | 1 | 158 | 373 | |
| 6:15 AM | 14 | 32 | 30 | 0 | 0 | 76 | 10 | 103 | 20 | 0 | 0 | 133 | 9 | 49 | 12 | 0 | 0 | 70 | 81 | 128 | 11 | 0 | 1 | 220 | 499 | |
| 6:30 AM | 15 | 34 | 22 | 0 | 0 | 71 | 9 | 179 | 18 | 0 | 0 | 206 | 22 | 76 | 15 | 0 | 0 | 113 | 73 | 150 | 8 | 0 | 0 | 231 | 621 | |
| 6:45 AM | 29 | 53 | 50 | 0 | 0 | 132 | 14 | 174 | 10 | 0 | 0 | 198 | 25 | 88 | 16 | 0 | 0 | 129 | 103 | 226 | 14 | 0 | 1 | 343 | 802 | |
| Hourly Total | 69 | 136 | 119 | 0 | 0 | 324 | 39 | 570 | 53 | 0 | 0 | 662 | 68 | 240 | 49 | 0 | 0 | 357 | 314 | 593 | 45 | 0 | 3 | 952 | 2295 | |
| 7:00 AM | 41 | 49 | 37 | 0 | 1 | 127 | 18 | 209 | 20 | 0 | 1 | 247 | 40 | 90 | 16 | 0 | 0 | 146 | 88 | 230 | 12 | 0 | 1 | 330 | 850 | |
| 7:15 AM | 37 | 65 | 44 | 0 | 2 | 146 | 26 | 239 | 28 | 0 | 0 | 293 | 44 | 120 | 22 | 0 | 0 | 186 | 114 | 271 | 15 | 0 | 2 | 400 | 1025 | |
| 7:30 AM | 39 | 72 | 52 | 0 | 4 | 163 | 24 | 236 | 23 | 0 | 0 | 283 | 55 | 115 | 31 | 0 | 0 | 201 | 107 | 316 | 23 | 0 | 4 | 446 | 1093 | |
| 7:45 AM | 42 | 77 | 56 | 0 | 3 | 175 | 37 | 240 | 25 | 0 | 0 | 302 | 50 | 162 | 19 | 0 | 0 | 231 | 120 | 295 | 23 | 0 | 11 | 438 | 1146 | |
| Hourly Total | 159 | 263 | 189 | 0 | 10 | 611 | 105 | 924 | 96 | 0 | 1 | 1125 | 189 | 487 | 88 | 0 | 0 | 764 | 429 | 1112 | 73 | 0 | 18 | 1614 | 4114 | |
| 8:00 AM | 33 | 52 | 60 | 0 | 0 | 145 | 26 | 227 | 23 | 0 | 0 | 276 | 49 | 162 | 29 | 0 | 0 | 240 | 109 | 241 | 20 | 0 | 2 | 370 | 1031 | |
| 8:15 AM | 29 | 50 | 61 | 0 | 0 | 140 | 20 | 209 | 20 | 0 | 0 | 249 | 55 | 176 | 24 | 0 | 0 | 255 | 109 | 267 | 12 | 0 | 0 | 388 | 1032 | |
| 8:30 AM | 31 | 46 | 57 | 0 | 0 | 134 | 27 | 285 | 25 | 0 | 0 | 337 | 39 | 135 | 27 | 0 | 0 | 201 | 96 | 261 | 16 | 0 | 1 | 373 | 1045 | |
| 8:45 AM | 50 | 59 | 47 | 0 | 1 | 156 | 26 | 214 | 20 | 0 | 1 | 260 | 29 | 142 | 32 | 0 | 0 | 203 | 113 | 277 | 8 | 0 | 0 | 398 | 1017 | |
| Hourly Total | 143 | 207 | 225 | 0 | 1 | 575 | 99 | 935 | 88 | 0 | 1 | 1122 | 172 | 615 | 112 | 0 | 0 | 899 | 427 | 1046 | 56 | 0 | 3 | 1529 | 4125 | |
| *** BREAK *** | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 3:00 PM | 53 | 95 | 105 | 0 | 0 | 253 | 38 | 236 | 23 | 0 | 2 | 297 | 33 | 78 | 23 | 0 | 0 | 134 | 46 | 230 | 13 | 0 | 0 | 289 | 973 | |
| 3:15 PM | 42 | 105 | 116 | 0 | 2 | 263 | 41 | 226 | 24 | 0 | 2 | 291 | 39 | 70 | 26 | 0 | 0 | 135 | 57 | 244 | 28 | 0 | 3 | 329 | 1018 | |
| 3:30 PM | 63 | 133 | 143 | 0 | 2 | 339 | 28 | 267 | 33 | 0 | 2 | 328 | 50 | 111 | 20 | 0 | 0 | 181 | 61 | 281 | 27 | 0 | 10 | 369 | 1217 | |
| 3:45 PM | 66 | 172 | 142 | 0 | 0 | 380 | 35 | 234 | 22 | 0 | 0 | 291 | 50 | 76 | 32 | 0 | 0 | 158 | 57 | 238 | 19 | 0 | 1 | 314 | 1143 | |
| Hourly Total | 224 | 505 | 506 | 0 | 4 | 1235 | 142 | 963 | 102 | 0 | 6 | 1207 | 172 | 335 | 101 | 0 | 0 | 608 | 221 | 993 | 87 | 0 | 14 | 1301 | 4351 | |
| 4:00 PM | 42 | 126 | 150 | 0 | 4 | 318 | 40 | 280 | 24 | 0 | 0 | 344 | 34 | 63 | 17 | 0 | 0 | 114 | 49 | 288 | 22 | 0 | 1 | 359 | 1135 | |
| 4:15 PM | 76 | 155 | 149 | 0 | 0 | 380 | 48 | 292 | 24 | 0 | 0 | 364 | 37 | 73 | 29 | 0 | 0 | 139 | 44 | 260 | 14 | 0 | 0 | 318 | 1201 | |
| 4:30 PM | 61 | 178 | 162 | 0 | 1 | 401 | 42 | 256 | 18 | 0 | 0 | 316 | 40 | 70 | 24 | 0 | 0 | 134 | 50 | 277 | 15 | 0 | 1 | 342 | 1193 | |
| 4:45 PM | 75 | 177 | 181 | 0 | 2 | 433 | 40 | 302 | 26 | 0 | 1 | 368 | 26 | 62 | 23 | 0 | 0 | 111 | 46 | 279 | 16 | 0 | 0 | 341 | 1253 | |
| Hourly Total | 254 | 636 | 642 | 0 | 7 | 1532 | 170 | 1130 | 92 | 0 | 1 | 1392 | 137 | 268 | 93 | 0 | 0 | 498 | 189 | 1104 | 67 | 0 | 2 | 1360 | 4782 | |
| 5:00 PM | 68 | 209 | 173 | 0 | 3 | 450 | 42 | 282 | 22 | 0 | 1 | 346 | 31 | 88 | 23 | 0 | 0 | 142 | 59 | 273 | 15 | 0 | 0 | 347 | 1285 | |
| 5:15 PM | 61 | 196 | 159 | 0 | 0 | 416 | 34 | 309 | 30 | 0 | 0 | 373 | 36 | 95 | 24 | 0 | 3 | 155 | 40 | 305 | 34 | 0 | 0 | 379 | 1323 | |
| 5:30 PM | 78 | 189 | 169 | 0 | 1 | 436 | 43 | 281 | 25 | 0 | 3 | 349 | 43 | 76 | 23 | 0 | 2 | 142 | 55 | 254 | 22 | 0 | 0 | 331 | 1258 | |
| 5:45 PM | 58 | 161 | 138 | 0 | 2 | 357 | 35 | 317 | 26 | 0 | 0 | 378 | 25 | 49 | 16 | 0 | 0 | 90 | 54 | 322 | 23 | 0 | 1 | 399 | 1224 | |
| Hourly Total | 265 | 755 | 639 | 0 | 6 | 1659 | 154 | 1189 | 103 | 0 | 4 | 1446 | 135 | 308 | 86 | 0 | 5 | 529 | 208 | 1154 | 94 | 0 | 1 | 1456 | 5090 | |
| Grand Total | 1114 | 2502 | 2320 | 0 | 28 | 5936 | 709 | 5711 | 534 | 0 | 13 | 6954 | 873 | 2253 | 529 | 0 | 5 | 3655 | 1788 | 6002 | 422 | 0 | 41 | 8212 | 24757 | |
| Approach % | 18.8 | 42.1 | 39.1 | 0.0 | - | - | 10.2 | 82.1 | 7.7 | 0.0 | - | - | 23.9 | 61.6 | 14.5 | 0.0 | - | - | 21.8 | 73.1 | 5.1 | 0.0 | - | - | - | |
| Total % | 4.5 | 10.1 | 9.4 | 0.0 | - | 24.0 | 2.9 | 23.1 | 2.2 | 0.0 | - | 28.1 | 3.5 | 9.1 | 2.1 | 0.0 | - | 14.8 | 7.2 | 24.2 | 1.7 | 0.0 | - | 33.2 | - | |
| Lights | 1079 | 2442 | 2274 | 0 | - | 5795 | 703 | 5540 | 520 | 0 | - | 6763 | 852 | 2212 | 516 | 0 | - | 3580 | 1754 | 5857 | 404 | 0 | - | 8015 | 24153 | |
| % Lights | 96.9 | 97.6 | 98.0 | - | - | 97.6 | 99.2 | 97.0 | 97.4 | - | - | 97.3 | 97.6 | 98.2 | 97.5 | - | - | 97.9 | 98.1 | 97.6 | 95.7 | - | - | 97.6 | 97.6 | |
| Mediums | 29 | 51 | 41 | 0 | - | 121 | 5 | 129 | 13 | 0 | - | 147 | 17 | 38 | 8 | 0 | - | 63 | 32 | 111 | 15 | 0 | - | 158 | 489 | |

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------|-----|-----|-----|---|------|-----|-----|-----|-----|------|---|-----|-----|-----|-----|------|---|-----|-----|-----|-----|---|------|-----|-----|
| % Mediums | 2.6 | 2.0 | 1.8 | - | - | 2.0 | 0.7 | 2.3 | 2.4 | - | - | 2.1 | 1.9 | 1.7 | 1.5 | - | - | 1.7 | 1.8 | 1.8 | 3.6 | - | - | 1.9 | 2.0 |
| Articulated Trucks | 6 | 9 | 5 | 0 | - | 20 | 1 | 41 | 1 | 0 | - | 43 | 4 | 2 | 5 | 0 | - | 11 | 2 | 34 | 3 | 0 | - | 39 | 113 |
| % Articulated Trucks | 0.5 | 0.4 | 0.2 | - | - | 0.3 | 0.1 | 0.7 | 0.2 | - | - | 0.6 | 0.5 | 0.1 | 0.9 | - | - | 0.3 | 0.1 | 0.6 | 0.7 | - | - | 0.5 | 0.5 |
| Bicycles on Road | 0 | 0 | 0 | 0 | - | 0 | 0 | 1 | 0 | 0 | - | 1 | 0 | 1 | 0 | 0 | - | 1 | 0 | 0 | 0 | 0 | - | 0 | 2 |
| % Bicycles on Road | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 |
| Bicycles on Crosswalk | - | - | - | - | 1 | - | - | - | - | - | 1 | - | - | - | - | - | 1 | - | - | - | - | - | 3 | - | - |
| % Bicycles on Crosswalk | - | - | - | - | 3.6 | - | - | - | - | 7.7 | - | - | - | - | - | 20.0 | - | - | - | - | - | - | 7.3 | - | - |
| Pedestrians | - | - | - | - | 27 | - | - | - | - | 12 | - | - | - | - | - | 4 | - | - | - | - | - | - | 38 | - | - |
| % Pedestrians | - | - | - | - | 96.4 | - | - | - | - | 92.3 | - | - | - | - | - | 80.0 | - | - | - | - | - | - | 92.7 | - | - |

Turning Movement Peak Hour Data (7:30 AM)

| Start Time | Main St Southbound | | | | | | Ogden Ave Westbound | | | | | | Main St Northbound | | | | | | Ogden Ave Eastbound | | | | | | Int. Total |
|-------------------------|--------------------|-------|-------|--------|-------|------------|---------------------|-------|-------|--------|------|------------|--------------------|-------|-------|--------|------|------------|---------------------|-------|-------|--------|------|------------|------------|
| | Left | Thru | Right | U-Turn | Peds | App. Total | Left | Thru | Right | U-Turn | Peds | App. Total | Left | Thru | Right | U-Turn | Peds | App. Total | Left | Thru | Right | U-Turn | Peds | App. Total | |
| 7:30 AM | 39 | 72 | 52 | 0 | 4 | 163 | 24 | 236 | 23 | 0 | 0 | 283 | 55 | 115 | 31 | 0 | 0 | 201 | 107 | 316 | 23 | 0 | 4 | 446 | 1093 |
| 7:45 AM | 42 | 77 | 56 | 0 | 3 | 175 | 37 | 240 | 25 | 0 | 0 | 302 | 50 | 162 | 19 | 0 | 0 | 231 | 120 | 295 | 23 | 0 | 11 | 438 | 1146 |
| 8:00 AM | 33 | 52 | 60 | 0 | 0 | 145 | 26 | 227 | 23 | 0 | 0 | 276 | 49 | 162 | 29 | 0 | 0 | 240 | 109 | 241 | 20 | 0 | 2 | 370 | 1031 |
| 8:15 AM | 29 | 50 | 61 | 0 | 0 | 140 | 20 | 209 | 20 | 0 | 0 | 249 | 55 | 176 | 24 | 0 | 0 | 255 | 109 | 267 | 12 | 0 | 0 | 388 | 1032 |
| Total | 143 | 251 | 229 | 0 | 7 | 623 | 107 | 912 | 91 | 0 | 0 | 1110 | 209 | 615 | 103 | 0 | 0 | 927 | 445 | 1119 | 78 | 0 | 17 | 1642 | 4302 |
| Approach % | 23.0 | 40.3 | 36.8 | 0.0 | - | - | 9.6 | 82.2 | 8.2 | 0.0 | - | - | 22.5 | 66.3 | 11.1 | 0.0 | - | - | 27.1 | 68.1 | 4.8 | 0.0 | - | - | - |
| Total % | 3.3 | 5.8 | 5.3 | 0.0 | - | 14.5 | 2.5 | 21.2 | 2.1 | 0.0 | - | 25.8 | 4.9 | 14.3 | 2.4 | 0.0 | - | 21.5 | 10.3 | 26.0 | 1.8 | 0.0 | - | 38.2 | - |
| PHF | 0.851 | 0.815 | 0.939 | 0.000 | - | 0.890 | 0.723 | 0.950 | 0.910 | 0.000 | - | 0.919 | 0.950 | 0.874 | 0.831 | 0.000 | - | 0.909 | 0.927 | 0.885 | 0.848 | 0.000 | - | 0.920 | 0.938 |
| Lights | 136 | 242 | 220 | 0 | - | 598 | 105 | 869 | 88 | 0 | - | 1062 | 205 | 605 | 99 | 0 | - | 909 | 439 | 1084 | 73 | 0 | - | 1596 | 4165 |
| % Lights | 95.1 | 96.4 | 96.1 | - | - | 96.0 | 98.1 | 95.3 | 96.7 | - | - | 95.7 | 98.1 | 98.4 | 96.1 | - | - | 98.1 | 98.7 | 96.9 | 93.6 | - | - | 97.2 | 96.8 |
| Mediums | 6 | 8 | 9 | 0 | - | 23 | 2 | 32 | 2 | 0 | - | 36 | 3 | 10 | 2 | 0 | - | 15 | 6 | 31 | 5 | 0 | - | 42 | 116 |
| % Mediums | 4.2 | 3.2 | 3.9 | - | - | 3.7 | 1.9 | 3.5 | 2.2 | - | - | 3.2 | 1.4 | 1.6 | 1.9 | - | - | 1.6 | 1.3 | 2.8 | 6.4 | - | - | 2.6 | 2.7 |
| Articulated Trucks | 1 | 1 | 0 | 0 | - | 2 | 0 | 11 | 1 | 0 | - | 12 | 1 | 0 | 2 | 0 | - | 3 | 0 | 4 | 0 | 0 | - | 4 | 21 |
| % Articulated Trucks | 0.7 | 0.4 | 0.0 | - | - | 0.3 | 0.0 | 1.2 | 1.1 | - | - | 1.1 | 0.5 | 0.0 | 1.9 | - | - | 0.3 | 0.0 | 0.4 | 0.0 | - | - | 0.2 | 0.5 |
| Bicycles on Road | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 |
| % Bicycles on Road | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 |
| Bicycles on Crosswalk | - | - | - | - | 0 | - | - | - | - | - | 0 | - | - | - | - | - | 0 | - | - | - | - | - | 2 | - | - |
| % Bicycles on Crosswalk | - | - | - | - | 0.0 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 11.8 | - | - |
| Pedestrians | - | - | - | - | 7 | - | - | - | - | - | 0 | - | - | - | - | - | 0 | - | - | - | - | - | 15 | - | - |
| % Pedestrians | - | - | - | - | 100.0 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 88.2 | - | - |



Turning Movement Peak Hour Data Plot (7:30 AM)

Turning Movement Peak Hour Data (4:45 PM)

| Start Time | Main St Southbound | | | | | | Ogden Ave Westbound | | | | | | Main St Northbound | | | | | | Ogden Ave Eastbound | | | | | | Int. Total |
|-------------------------|--------------------|------------|------------|----------|----------|-------------|---------------------|-------------|------------|----------|----------|-------------|--------------------|------------|-----------|----------|----------|------------|---------------------|-------------|-----------|----------|----------|-------------|-------------|
| | Left | Thru | Right | U-Turn | Peds | App. Total | Left | Thru | Right | U-Turn | Peds | App. Total | Left | Thru | Right | U-Turn | Peds | App. Total | Left | Thru | Right | U-Turn | Peds | App. Total | |
| 4:45 PM | 75 | 177 | 181 | 0 | 2 | 433 | 40 | 302 | 26 | 0 | 1 | 368 | 26 | 62 | 23 | 0 | 0 | 111 | 46 | 279 | 16 | 0 | 0 | 341 | 1253 |
| 5:00 PM | 68 | 209 | 173 | 0 | 3 | 450 | 42 | 282 | 22 | 0 | 1 | 346 | 31 | 88 | 23 | 0 | 0 | 142 | 59 | 273 | 15 | 0 | 0 | 347 | 1285 |
| 5:15 PM | 61 | 196 | 159 | 0 | 0 | 416 | 34 | 309 | 30 | 0 | 0 | 373 | 36 | 95 | 24 | 0 | 3 | 155 | 40 | 305 | 34 | 0 | 0 | 379 | 1323 |
| 5:30 PM | 78 | 189 | 169 | 0 | 1 | 436 | 43 | 281 | 25 | 0 | 3 | 349 | 43 | 76 | 23 | 0 | 2 | 142 | 55 | 254 | 22 | 0 | 0 | 331 | 1258 |
| Total | 282 | 771 | 682 | 0 | 6 | 1735 | 159 | 1174 | 103 | 0 | 5 | 1436 | 136 | 321 | 93 | 0 | 5 | 550 | 200 | 1111 | 87 | 0 | 0 | 1398 | 5119 |
| Approach % | 16.3 | 44.4 | 39.3 | 0.0 | - | - | 11.1 | 81.8 | 7.2 | 0.0 | - | - | 24.7 | 58.4 | 16.9 | 0.0 | - | - | 14.3 | 79.5 | 6.2 | 0.0 | - | - | - |
| Total % | 5.5 | 15.1 | 13.3 | 0.0 | - | 33.9 | 3.1 | 22.9 | 2.0 | 0.0 | - | 28.1 | 2.7 | 6.3 | 1.8 | 0.0 | - | 10.7 | 3.9 | 21.7 | 1.7 | 0.0 | - | 27.3 | - |
| PHF | 0.904 | 0.922 | 0.942 | 0.000 | - | 0.964 | 0.924 | 0.950 | 0.858 | 0.000 | - | 0.962 | 0.791 | 0.845 | 0.969 | 0.000 | - | 0.887 | 0.847 | 0.911 | 0.640 | 0.000 | - | 0.922 | 0.967 |
| Lights | 276 | 761 | 677 | 0 | - | 1714 | 159 | 1164 | 103 | 0 | - | 1426 | 133 | 318 | 92 | 0 | - | 543 | 197 | 1098 | 87 | 0 | - | 1382 | 5065 |
| % Lights | 97.9 | 98.7 | 99.3 | - | - | 98.8 | 100.0 | 99.1 | 100.0 | - | - | 99.3 | 97.8 | 99.1 | 98.9 | - | - | 98.7 | 98.5 | 98.8 | 100.0 | - | - | 98.9 | 98.9 |
| Mediums | 6 | 9 | 4 | 0 | - | 19 | 0 | 6 | 0 | 0 | - | 6 | 3 | 3 | 0 | 0 | - | 6 | 3 | 6 | 0 | 0 | - | 9 | 40 |
| % Mediums | 2.1 | 1.2 | 0.6 | - | - | 1.1 | 0.0 | 0.5 | 0.0 | - | - | 0.4 | 2.2 | 0.9 | 0.0 | - | - | 1.1 | 1.5 | 0.5 | 0.0 | - | - | 0.6 | 0.8 |
| Articulated Trucks | 0 | 1 | 1 | 0 | - | 2 | 0 | 3 | 0 | 0 | - | 3 | 0 | 0 | 1 | 0 | - | 1 | 0 | 7 | 0 | 0 | - | 7 | 13 |
| % Articulated Trucks | 0.0 | 0.1 | 0.1 | - | - | 0.1 | 0.0 | 0.3 | 0.0 | - | - | 0.2 | 0.0 | 0.0 | 1.1 | - | - | 0.2 | 0.0 | 0.6 | 0.0 | - | - | 0.5 | 0.3 |
| Bicycles on Road | 0 | 0 | 0 | 0 | - | 0 | 0 | 1 | 0 | 0 | - | 1 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 1 |
| % Bicycles on Road | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 | 0.1 | 0.0 | - | - | 0.1 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 |
| Bicycles on Crosswalk | - | - | - | - | 1 | - | - | - | - | - | 0 | - | - | - | - | - | 1 | - | - | - | - | - | 0 | - | - |
| % Bicycles on Crosswalk | - | - | - | - | 16.7 | - | - | - | - | - | 0.0 | - | - | - | - | - | 20.0 | - | - | - | - | - | - | - | - |
| Pedestrians | - | - | - | - | 5 | - | - | - | - | - | 5 | - | - | - | - | - | 4 | - | - | - | - | - | 0 | - | - |
| % Pedestrians | - | - | - | - | 83.3 | - | - | - | - | - | 100.0 | - | - | - | - | - | 80.0 | - | - | - | - | - | - | - | - |

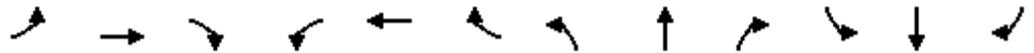
Appendix D

Signalized Intersections Synchro Capacity Analysis – Existing Conditions

| Intersection Capacity Analysis Summary | | | | |
|---|----------------------|-----|----------------------|-----|
| Signalized Intersection | Existing Conditions | | | |
| | Weekday AM Peak Hour | | Weekday PM Peak Hour | |
| | Delay (s/veh) | LOS | Delay (s/veh) | LOS |
| Ogden Avenue/Main Street | | | | |
| Northbound Approach | 73.3 | E | 48.4 | D |
| Southbound Approach | 34.9 | C | 101.3 | F |
| Eastbound Approach | 39.4 | D | 12.7 | B |
| Westbound Approach | 45.7 | D | 37.9 | D |
| Overall Intersection | 47.7 | D | 53.6 | D |
| Ogden Avenue/Fairview Avenue | | | | |
| Northbound Approach | 60.0 | E | 56.3 | E |
| Southbound Approach | 33.3 | C | 67.8 | E |
| Eastbound Approach | 26.6 | C | 47.6 | D |
| Westbound Approach | 37.9 | D | 30.1 | C |
| Overall Intersection | 39.0 | D | 48.0 | D |
| 39th Street/Fairview Avenue | | | | |
| Northbound Approach | 5.4 | A | 7.4 | A |
| Southbound Approach | 8.4 | A | 15.0 | B |
| Eastbound Approach | 12.8 | B | 19.4 | B |
| Westbound Approach | 14.4 | B | 23.3 | C |
| Overall Intersection | 7.6 | A | 14.8 | B |
| 39th Street/Main Street/Highland Avenue | | | | |
| Northbound Approach | 6.4 | A | 7.4 | A |
| Southbound Approach | 6.5 | A | 15.0 | B |
| Eastbound Approach | 14.5 | B | 19.4 | B |
| Westbound Approach | 18.6 | B | 23.3 | C |
| Overall Intersection | 8.2 | A | 14.8 | B |

Lanes, Volumes, Timings
3: Fairview Ave & 39th Street

Neighborhood 6 AM Existing File.syn
01/23/2018



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|----------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 80 | 28 | 73 | 33 | 45 | 46 | 115 | 862 | 22 | 13 | 262 | 67 |
| Future Volume (vph) | 80 | 28 | 73 | 33 | 45 | 46 | 115 | 862 | 22 | 13 | 262 | 67 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 100 | | 0 | 75 | | 0 | 200 | | 0 | 150 | | 0 |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 0 | 1 | | 0 |
| Taper Length (ft) | 200 | | | 200 | | | 138 | | | 150 | | |
| 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 |
| Frt | | 0.891 | | | 0.924 | | | 0.996 | | | 0.969 | |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1805 | 1615 | 0 | 1805 | 1697 | 0 | 1736 | 3515 | 0 | 1467 | 3319 | 0 |
| Flt Permitted | 0.689 | | | 0.682 | | | 0.441 | | | 0.282 | | |
| Satd. Flow (perm) | 1309 | 1615 | 0 | 1296 | 1697 | 0 | 806 | 3515 | 0 | 436 | 3319 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 84 | | | 53 | | | 6 | | | 61 | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | 30 | |
| Link Distance (ft) | | 3980 | | | 2639 | | | 2643 | | | 411 | |
| Travel Time (s) | | 90.5 | | | 60.0 | | | 60.1 | | | 9.3 | |
| Peak Hour Factor | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 |
| Heavy Vehicles (%) | 0% | 7% | 4% | 0% | 7% | 0% | 4% | 2% | 14% | 23% | 6% | 3% |
| Adj. Flow (vph) | 92 | 32 | 84 | 38 | 52 | 53 | 132 | 991 | 25 | 15 | 301 | 77 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 92 | 116 | 0 | 38 | 105 | 0 | 132 | 1016 | 0 | 15 | 378 | 0 |
| Enter Blocked Intersection | No |
| Lane Alignment | 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 | |
| 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 | |
| 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 | | Perm | NA | |
| Protected Phases | | 4 | | | 8 | | 5 | 2 | | | 6 | |

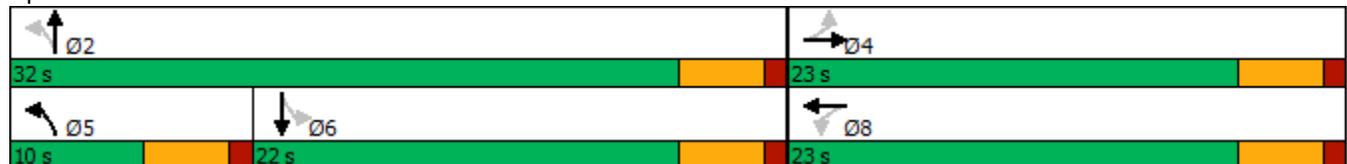


| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|-------|-------|-------|-----|-------|-----|-------|-------|-------|-----|-------|-----|
| Permitted Phases | 4 | | 8 | | | | 2 | | 6 | | | |
| Detector Phase | 4 | 4 | 8 | | 8 | | 5 | 2 | 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) | 22.5 | 22.5 | 22.5 | | 22.5 | | 9.5 | 22.5 | 22.5 | | 22.5 | |
| Total Split (s) | 23.0 | 23.0 | 23.0 | | 23.0 | | 10.0 | 32.0 | 22.0 | | 22.0 | |
| Total Split (%) | 41.8% | 41.8% | 41.8% | | 41.8% | | 18.2% | 58.2% | 40.0% | | 40.0% | |
| Maximum Green (s) | 18.5 | 18.5 | 18.5 | | 18.5 | | 5.5 | 27.5 | 17.5 | | 17.5 | |
| Yellow Time (s) | 3.5 | 3.5 | 3.5 | | 3.5 | | 3.5 | 3.5 | 3.5 | | 3.5 | |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | | 1.0 | | 1.0 | 1.0 | 1.0 | | 1.0 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | | 0.0 | | 0.0 | 0.0 | 0.0 | | 0.0 | |
| Total Lost Time (s) | 4.5 | 4.5 | 4.5 | | 4.5 | | 4.5 | 4.5 | 4.5 | | 4.5 | |
| Lead/Lag | | | | | | | Lead | Lag | | | | |
| Lead-Lag Optimize? | | | | | | | 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 | Max | | Max | |
| Walk Time (s) | 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 | |
| Pedestrian Calls (#/hr) | 0 | 0 | 0 | | 0 | | 0 | | 0 | | 0 | |
| Act Effct Green (s) | 8.6 | 8.6 | 8.6 | | 8.6 | | 30.9 | 31.8 | 23.8 | | 23.8 | |
| Actuated g/C Ratio | 0.18 | 0.18 | 0.18 | | 0.18 | | 0.66 | 0.68 | 0.51 | | 0.51 | |
| v/c Ratio | 0.38 | 0.32 | 0.16 | | 0.29 | | 0.20 | 0.42 | 0.07 | | 0.22 | |
| Control Delay | 20.8 | 9.3 | 16.7 | | 11.4 | | 5.1 | 5.4 | 11.0 | | 8.3 | |
| Queue Delay | 0.0 | 0.0 | 0.0 | | 0.0 | | 0.0 | 0.0 | 0.0 | | 0.0 | |
| Total Delay | 20.8 | 9.3 | 16.7 | | 11.4 | | 5.1 | 5.4 | 11.0 | | 8.3 | |
| LOS | C | A | B | | B | | A | A | B | | A | |
| Approach Delay | 14.4 | | | | | | 12.8 | | 5.4 | | 8.4 | |
| Approach LOS | B | | | | | | B | | A | | A | |

Intersection Summary

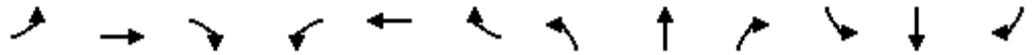
Area Type: Other
 Cycle Length: 55
 Actuated Cycle Length: 46.5
 Natural Cycle: 55
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.42
 Intersection Signal Delay: 7.6
 Intersection LOS: A
 Intersection Capacity Utilization 51.0%
 ICU Level of Service A
 Analysis Period (min) 15

Splits and Phases: 3: Fairview Ave & 39th Street



Lanes, Volumes, Timings
4: Main St/Highland Ave & 39th Street

| |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | |  |  |  |  |  |  |
| Traffic Volume (vph) | 44 | 42 | 41 | 103 | 5 | 105 | 7 | 1049 | 128 | 96 | 505 | 1 |
| Future Volume (vph) | 44 | 42 | 41 | 103 | 5 | 105 | 7 | 1049 | 128 | 96 | 505 | 1 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 75 | | 0 | 100 | | 0 | 115 | | 0 | 100 | | 0 |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 0 | 1 | | 0 |
| Taper Length (ft) | 50 | | | 150 | | | 175 | | | 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 |
| Frt | | 0.926 | | | 0.856 | | | 0.984 | | | | |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1805 | 1660 | 0 | 1703 | 1514 | 0 | 1805 | 3479 | 0 | 1736 | 3471 | 0 |
| Flt Permitted | 0.681 | | | 0.698 | | | 0.446 | | | 0.180 | | |
| Satd. Flow (perm) | 1294 | 1660 | 0 | 1251 | 1514 | 0 | 847 | 3479 | 0 | 329 | 3471 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 45 | | | 66 | | | 34 | | | | |
| Link Speed (mph) | | 30 | | | 30 | | | 30 | | | | 30 |
| Link Distance (ft) | | 470 | | | 3980 | | | 624 | | | | 1248 |
| Travel Time (s) | | 10.7 | | | 90.5 | | | 14.2 | | | | 28.4 |
| 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 (%) | 0% | 5% | 7% | 6% | 40% | 6% | 0% | 2% | 3% | 4% | 4% | 0% |
| Adj. Flow (vph) | 48 | 46 | 45 | 112 | 5 | 114 | 8 | 1140 | 139 | 104 | 549 | 1 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 48 | 91 | 0 | 112 | 119 | 0 | 8 | 1279 | 0 | 104 | 550 | 0 |
| Enter Blocked Intersection | 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 | |
| Protected Phases | | 4 | | | 8 | | | 2 | | | 6 | |



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|-------|-------|-------|-----|-------|-----|-------|-------|-------|-----|-------|-----|
| 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) | 22.5 | 22.5 | 22.5 | | 22.5 | | 22.5 | 22.5 | 22.5 | | 22.5 | |
| Total Split (s) | 23.0 | 23.0 | 23.0 | | 23.0 | | 37.0 | 37.0 | 37.0 | | 37.0 | |
| Total Split (%) | 38.3% | 38.3% | 38.3% | | 38.3% | | 61.7% | 61.7% | 61.7% | | 61.7% | |
| Maximum Green (s) | 18.5 | 18.5 | 18.5 | | 18.5 | | 32.5 | 32.5 | 32.5 | | 32.5 | |
| Yellow Time (s) | 3.5 | 3.5 | 3.5 | | 3.5 | | 3.5 | 3.5 | 3.5 | | 3.5 | |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | | 1.0 | | 1.0 | 1.0 | 1.0 | | 1.0 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | | 0.0 | | 0.0 | 0.0 | 0.0 | | 0.0 | |
| Total Lost Time (s) | 4.5 | 4.5 | 4.5 | | 4.5 | | 4.5 | 4.5 | 4.5 | | 4.5 | |
| 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) | 9.9 | 9.9 | 9.9 | | 9.9 | | 36.5 | 36.5 | 36.5 | | 36.5 | |
| Actuated g/C Ratio | 0.19 | 0.19 | 0.19 | | 0.19 | | 0.70 | 0.70 | 0.70 | | 0.70 | |
| v/c Ratio | 0.20 | 0.26 | 0.47 | | 0.35 | | 0.01 | 0.53 | 0.45 | | 0.23 | |
| Control Delay | 18.9 | 12.1 | 25.2 | | 12.3 | | 4.7 | 6.5 | 16.4 | | 4.6 | |
| Queue Delay | 0.0 | 0.0 | 0.0 | | 0.0 | | 0.0 | 0.0 | 0.0 | | 0.0 | |
| Total Delay | 18.9 | 12.1 | 25.2 | | 12.3 | | 4.7 | 6.5 | 16.4 | | 4.6 | |
| LOS | B | B | C | | B | | A | A | B | | A | |
| Approach Delay | 14.5 | | 18.6 | | | | 6.4 | | 6.5 | | | |
| Approach LOS | B | | B | | | | A | | A | | | |

Intersection Summary

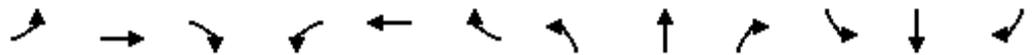
Area Type: Other
 Cycle Length: 60
 Actuated Cycle Length: 52.4
 Natural Cycle: 60
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.53
 Intersection Signal Delay: 8.2 Intersection LOS: A
 Intersection Capacity Utilization 62.0% ICU Level of Service B
 Analysis Period (min) 15

Splits and Phases: 4: Main St/Highland Ave & 39th Street



Lanes, Volumes, Timings
7: Main St & Ogden Ave

Neighborhood 6 AM Existing File.syn
01/23/2018



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|----------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Lane Configurations | ↖ | ↖↗ | | ↖ | ↖↗ | | ↖ | ↖↗ | | ↖ | ↖↗ | ↖ |
| Traffic Volume (vph) | 445 | 1119 | 78 | 107 | 912 | 91 | 209 | 615 | 103 | 143 | 251 | 229 |
| Future Volume (vph) | 445 | 1119 | 78 | 107 | 912 | 91 | 209 | 615 | 103 | 143 | 251 | 229 |
| Ideal Flow (vphpl) | 1800 | 2000 | 1800 | 1800 | 2000 | 1800 | 1800 | 2000 | 1800 | 1800 | 2000 | 1800 |
| Storage Length (ft) | 230 | | 0 | 230 | | 0 | 310 | | 0 | 230 | | 230 |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 0 | 1 | | 1 |
| Taper Length (ft) | 100 | | | 100 | | | 125 | | | 125 | | |
| Lane Util. Factor | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 1.00 |
| Frt | | 0.990 | | | 0.986 | | | 0.978 | | | | 0.850 |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1693 | 3645 | 0 | 1676 | 3575 | 0 | 1676 | 3633 | 0 | 1629 | 3654 | 1471 |
| Flt Permitted | 0.093 | | | 0.149 | | | 0.515 | | | 0.147 | | |
| Satd. Flow (perm) | 166 | 3645 | 0 | 263 | 3575 | 0 | 909 | 3633 | 0 | 252 | 3654 | 1471 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 8 | | | 8 | | | 13 | | | | 82 |
| Link Speed (mph) | | 35 | | | 35 | | | 30 | | | | 30 |
| Link Distance (ft) | | 1003 | | | 4308 | | | 1042 | | | 2218 | |
| Travel Time (s) | | 19.5 | | | 83.9 | | | 23.7 | | | 50.4 | |
| 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 (%) | 1% | 3% | 6% | 2% | 5% | 3% | 2% | 2% | 4% | 5% | 4% | 4% |
| Adj. Flow (vph) | 484 | 1216 | 85 | 116 | 991 | 99 | 227 | 668 | 112 | 155 | 273 | 249 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 484 | 1301 | 0 | 116 | 1090 | 0 | 227 | 780 | 0 | 155 | 273 | 249 |
| Enter Blocked Intersection | No |
| Lane Alignment | 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 | | Yes | | | Yes | | | | | | | |
| Headway Factor | 1.07 | 0.94 | 1.07 | 1.07 | 0.94 | 1.07 | 1.07 | 0.94 | 1.07 | 1.07 | 0.94 | 1.07 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Number of Detectors | 1 | 1 | | 1 | 1 | | 1 | 1 | | 1 | 1 | 1 |
| Detector Template | Left | Thru | | Left | Thru | | Left | Thru | | Left | Thru | Right |
| Leading Detector (ft) | 50 | 50 | | 50 | 50 | | 50 | 50 | | 50 | 50 | 50 |
| 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) | 50 | 50 | | 50 | 50 | | 50 | 50 | | 50 | 50 | 50 |
| 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 |
| Turn Type | pm+pt | NA | | pm+pt | NA | | pm+pt | NA | | pm+pt | NA | pm+ov |
| Protected Phases | 5 | 2 | | 1 | 6 | | 3 | 8 | | 7 | 4 | 5 |
| Permitted Phases | 2 | | | 6 | | | 8 | | | 4 | | 4 |
| Detector Phase | 5 | 2 | | 1 | 6 | | 3 | 8 | | 7 | 4 | 5 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 3.0 | 15.0 | | 3.0 | 15.0 | | 3.0 | 10.0 | | 3.0 | 10.0 | 3.0 |
| Minimum Split (s) | 6.0 | 24.0 | | 6.0 | 24.0 | | 6.0 | 24.0 | | 6.0 | 24.0 | 6.0 |



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|----------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Lane Configurations | ↖ | ↗ | | ↖ | ↗ | | ↖ | ↗ | | ↖ | ↗ | |
| Traffic Volume (vph) | 274 | 1061 | 79 | 69 | 779 | 133 | 203 | 633 | 172 | 113 | 167 | 137 |
| Future Volume (vph) | 274 | 1061 | 79 | 69 | 779 | 133 | 203 | 633 | 172 | 113 | 167 | 137 |
| Ideal Flow (vphpl) | 1800 | 2000 | 1800 | 1800 | 2000 | 1800 | 1800 | 2000 | 1800 | 1800 | 2000 | 1800 |
| Storage Length (ft) | 260 | | 0 | 220 | | 0 | 175 | | 0 | 230 | | 0 |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 0 | 1 | | 0 |
| Taper Length (ft) | 125 | | | 150 | | | 100 | | | 160 | | |
| Lane Util. Factor | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 |
| Frt | | 0.990 | | | 0.978 | | | 0.968 | | | 0.932 | |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1693 | 3613 | 0 | 1660 | 3549 | 0 | 1676 | 3591 | 0 | 1644 | 3396 | 0 |
| Flt Permitted | 0.145 | | | 0.128 | | | 0.396 | | | 0.154 | | |
| Satd. Flow (perm) | 258 | 3613 | 0 | 224 | 3549 | 0 | 699 | 3591 | 0 | 267 | 3396 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 8 | | | 18 | | | 25 | | | 141 | |
| Link Speed (mph) | | 35 | | | 35 | | | 30 | | | 30 | |
| Link Distance (ft) | | 4308 | | | 1977 | | | 440 | | | 2643 | |
| Travel Time (s) | | 83.9 | | | 38.5 | | | 10.0 | | | 60.1 | |
| 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 (%) | 1% | 3% | 19% | 3% | 5% | 3% | 2% | 2% | 4% | 4% | 7% | 1% |
| Adj. Flow (vph) | 298 | 1153 | 86 | 75 | 847 | 145 | 221 | 688 | 187 | 123 | 182 | 149 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 298 | 1239 | 0 | 75 | 992 | 0 | 221 | 875 | 0 | 123 | 331 | 0 |
| Enter Blocked Intersection | No |
| Lane Alignment | 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 | | Yes | | | Yes | | | | | | | |
| Headway Factor | 1.07 | 0.94 | 1.07 | 1.07 | 0.94 | 1.07 | 1.07 | 0.94 | 1.07 | 1.07 | 0.94 | 1.07 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Number of Detectors | 1 | 1 | | 1 | 1 | | 1 | 1 | | 1 | 1 | |
| Detector Template | Left | Thru | |
| Leading Detector (ft) | 50 | 50 | | 50 | 50 | | 50 | 50 | | 50 | 50 | |
| 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) | 50 | 50 | | 50 | 50 | | 50 | 50 | | 50 | 50 | |
| Detector 1 Type | 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 | |
| Turn Type | pm+pt | NA | |
| Protected Phases | 5 | 2 | | 1 | 6 | | 3 | 8 | | 7 | 4 | |
| Permitted Phases | 2 | | | 6 | | | 8 | | | 4 | | |
| Detector Phase | 5 | 2 | | 1 | 6 | | 3 | 8 | | 7 | 4 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 3.0 | 15.0 | | 3.0 | 15.0 | | 3.0 | 10.0 | | 3.0 | 10.0 | |
| Minimum Split (s) | 6.0 | 24.0 | | 6.0 | 24.0 | | 6.0 | 24.0 | | 6.0 | 24.0 | |

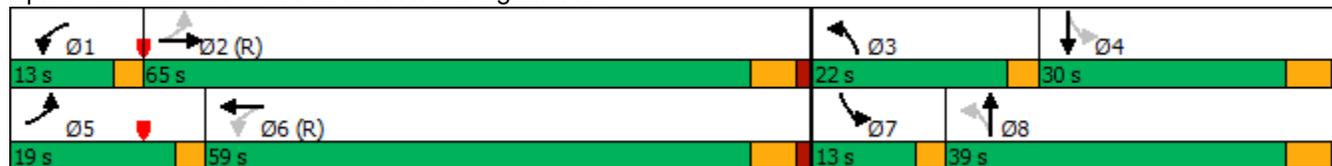


| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|-------|-------|-----|-------|-------|-----|-------|-------|-----|-------|-------|-----|
| Total Split (s) | 19.0 | 65.0 | | 13.0 | 59.0 | | 22.0 | 39.0 | | 13.0 | 30.0 | |
| Total Split (%) | 14.6% | 50.0% | | 10.0% | 45.4% | | 16.9% | 30.0% | | 10.0% | 23.1% | |
| Maximum Green (s) | 16.0 | 59.0 | | 10.0 | 53.0 | | 19.0 | 33.0 | | 10.0 | 24.0 | |
| Yellow Time (s) | 3.0 | 4.5 | | 3.0 | 4.5 | | 3.0 | 4.5 | | 3.0 | 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) | 3.0 | 6.0 | | 3.0 | 6.0 | | 3.0 | 6.0 | | 3.0 | 6.0 | |
| Lead/Lag | Lead | Lag | |
| Lead-Lag Optimize? | 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) | 75.5 | 63.3 | | 64.6 | 53.6 | | 48.5 | 32.7 | | 38.6 | 25.9 | |
| Actuated g/C Ratio | 0.58 | 0.49 | | 0.50 | 0.41 | | 0.37 | 0.25 | | 0.30 | 0.20 | |
| v/c Ratio | 0.92 | 0.70 | | 0.38 | 0.67 | | 0.57 | 0.95 | | 0.68 | 0.42 | |
| Control Delay | 68.8 | 16.4 | | 18.8 | 39.4 | | 35.9 | 66.1 | | 48.0 | 27.8 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Delay | 68.8 | 16.4 | | 18.8 | 39.4 | | 35.9 | 66.1 | | 48.0 | 27.8 | |
| LOS | E | B | | B | D | | D | E | | D | C | |
| Approach Delay | | 26.6 | | | 37.9 | | | 60.0 | | | 33.3 | |
| Approach LOS | | C | | | D | | | E | | | C | |

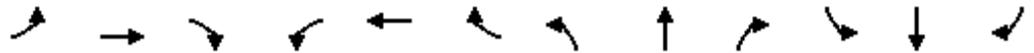
Intersection Summary

| | |
|------------------------------------|---|
| Area Type: | Other |
| Cycle Length: | 130 |
| Actuated Cycle Length: | 130 |
| Offset: | 69 (53%), Referenced to phase 2:EBTL and 6:WBTL, Start of 1st Green |
| Natural Cycle: | 75 |
| Control Type: | Actuated-Coordinated |
| Maximum v/c Ratio: | 0.95 |
| Intersection Signal Delay: | 39.0 |
| Intersection LOS: | D |
| Intersection Capacity Utilization: | 85.6% |
| ICU Level of Service: | E |
| Analysis Period (min): | 15 |

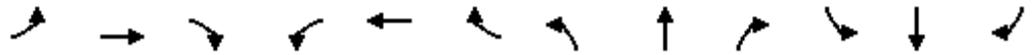
Splits and Phases: 8: Fairview Ave & Ogden Ave



Lanes, Volumes, Timings
14: Saratoga Ave & Ogden Ave



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|----------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Lane Configurations | ↖ | ↗ | | ↖ | ↗ | | ↖ | ↗ | | ↖ | ↗ | |
| Traffic Volume (vph) | 152 | 1764 | 28 | 16 | 988 | 36 | 52 | 40 | 12 | 40 | 12 | 16 |
| Future Volume (vph) | 152 | 1764 | 28 | 16 | 988 | 36 | 52 | 40 | 12 | 40 | 12 | 16 |
| Ideal Flow (vphpl) | 1800 | 2000 | 1900 | 1800 | 2000 | 1900 | 1900 | 2000 | 1900 | 1900 | 2000 | 1900 |
| Storage Length (ft) | 200 | | 0 | 300 | | 0 | 75 | | 0 | 75 | | 0 |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 0 | 1 | | 0 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| 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 |
| Frnt | | 0.998 | | | 0.995 | | | 0.965 | | | 0.915 | |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1676 | 3718 | 0 | 1676 | 3707 | 0 | 1770 | 1892 | 0 | 1770 | 1794 | 0 |
| Flt Permitted | 0.224 | | | 0.082 | | | 0.738 | | | 0.720 | | |
| Satd. Flow (perm) | 395 | 3718 | 0 | 145 | 3707 | 0 | 1375 | 1892 | 0 | 1341 | 1794 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 2 | | | 5 | | | 10 | | | 17 | |
| Link Speed (mph) | | 35 | | | 35 | | | 30 | | | 30 | |
| Link Distance (ft) | | 939 | | | 1003 | | | 602 | | | 902 | |
| Travel Time (s) | | 18.3 | | | 19.5 | | | 13.7 | | | 20.5 | |
| 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) | 165 | 1917 | 30 | 17 | 1074 | 39 | 57 | 43 | 13 | 43 | 13 | 17 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 165 | 1947 | 0 | 17 | 1113 | 0 | 57 | 56 | 0 | 43 | 30 | 0 |
| Enter Blocked Intersection | No |
| Lane Alignment | 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 | | Yes | | | Yes | | | | | | | |
| Headway Factor | 1.07 | 0.94 | 1.00 | 1.07 | 0.94 | 1.00 | 1.00 | 0.94 | 1.00 | 1.00 | 0.94 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Number of Detectors | 1 | 1 | | 1 | 1 | | 1 | 1 | | 1 | 1 | |
| Detector Template | Left | Thru | |
| Leading Detector (ft) | 50 | 50 | | 50 | 50 | | 50 | 50 | | 50 | 50 | |
| 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) | 50 | 50 | | 50 | 50 | | 50 | 50 | | 50 | 50 | |
| Detector 1 Type | 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 | |
| Turn Type | pm+pt | NA | | pm+pt | NA | | Perm | NA | | Perm | NA | |
| Protected Phases | 5 | 2 | | 1 | 6 | | | 8 | | | 4 | |
| Permitted Phases | 2 | | | 6 | | | 8 | | | 4 | | |
| Detector Phase | 5 | 2 | | 1 | 6 | | 8 | 8 | | 4 | 4 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 3.0 | 15.0 | | 3.0 | 15.0 | | 8.0 | 8.0 | | 8.0 | 8.0 | |
| Minimum Split (s) | 13.0 | 29.5 | | 6.0 | 24.0 | | 24.0 | 24.0 | | 24.0 | 24.0 | |
| Total Split (s) | 19.0 | 87.0 | | 13.0 | 81.0 | | 30.0 | 30.0 | | 30.0 | 30.0 | |

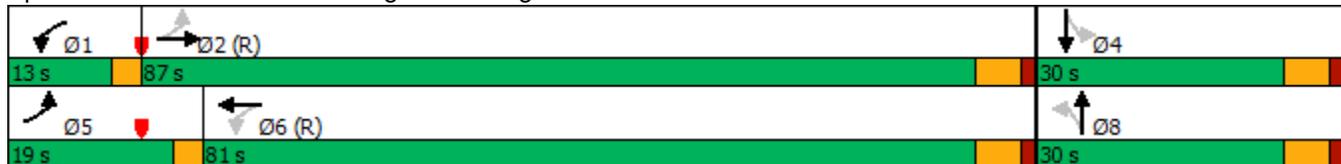


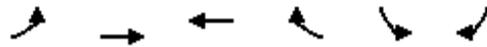
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|-------|-------|-----|-------|-------|-----|-------|-------|-----|-------|-------|-----|
| Total Split (%) | 14.6% | 66.9% | | 10.0% | 62.3% | | 23.1% | 23.1% | | 23.1% | 23.1% | |
| Maximum Green (s) | 16.0 | 81.0 | | 10.0 | 75.0 | | 24.0 | 24.0 | | 24.0 | 24.0 | |
| Yellow Time (s) | 3.0 | 4.5 | | 3.0 | 4.5 | | 4.5 | 4.5 | | 4.5 | 4.5 | |
| All-Red Time (s) | 0.0 | 1.5 | | 0.0 | 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) | 3.0 | 6.0 | | 3.0 | 6.0 | | 6.0 | 6.0 | | 6.0 | 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 | C-Max | | None | C-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) | 112.6 | 107.3 | | 107.7 | 99.0 | | 11.1 | 11.1 | | 11.1 | 11.1 | |
| Actuated g/C Ratio | 0.87 | 0.83 | | 0.83 | 0.76 | | 0.09 | 0.09 | | 0.09 | 0.09 | |
| v/c Ratio | 0.40 | 0.63 | | 0.09 | 0.39 | | 0.49 | 0.33 | | 0.38 | 0.18 | |
| Control Delay | 4.7 | 7.5 | | 2.1 | 4.3 | | 69.7 | 50.7 | | 64.5 | 33.0 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Delay | 4.7 | 7.5 | | 2.1 | 4.3 | | 69.7 | 50.7 | | 64.5 | 33.0 | |
| LOS | A | A | | A | A | | E | D | | E | C | |
| Approach Delay | | 7.3 | | | 4.3 | | | 60.3 | | | 51.5 | |
| Approach LOS | | A | | | A | | | E | | | D | |

Intersection Summary

Area Type: Other
 Cycle Length: 130
 Actuated Cycle Length: 130
 Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of 1st Green, Master Intersection
 Natural Cycle: 80
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.63
 Intersection Signal Delay: 9.0 Intersection LOS: A
 Intersection Capacity Utilization 73.4% ICU Level of Service D
 Analysis Period (min) 15

Splits and Phases: 14: Saratoga Ave & Ogden Ave





| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|----------------------------|-------|-------|-------|-------|-------|-------|
| Lane Configurations | ↖ | ↕ | ↕ | ↗ | ↘ | ↘ |
| Traffic Volume (vph) | 72 | 1796 | 1008 | 100 | 148 | 76 |
| Future Volume (vph) | 72 | 1796 | 1008 | 100 | 148 | 76 |
| Ideal Flow (vphpl) | 1800 | 2000 | 2000 | 1800 | 1900 | 1900 |
| Storage Length (ft) | 120 | | | 150 | 0 | 0 |
| Storage Lanes | 1 | | | 1 | 1 | 1 |
| Taper Length (ft) | 150 | | | | 25 | |
| Lane Util. Factor | 1.00 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 |
| Fr _t | | | | 0.850 | | 0.850 |
| Fl _t Protected | 0.950 | | | | 0.950 | |
| Satd. Flow (prot) | 1676 | 3725 | 3725 | 1500 | 1770 | 1583 |
| Fl _t Permitted | 0.218 | | | | 0.950 | |
| Satd. Flow (perm) | 385 | 3725 | 3725 | 1500 | 1770 | 1583 |
| Right Turn on Red | | | | Yes | | Yes |
| Satd. Flow (RTOR) | | | | 93 | | 83 |
| Link Speed (mph) | | 35 | 35 | | 30 | |
| Link Distance (ft) | | 1977 | 957 | | 416 | |
| Travel Time (s) | | 38.5 | 18.6 | | 9.5 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 78 | 1952 | 1096 | 109 | 161 | 83 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 78 | 1952 | 1096 | 109 | 161 | 83 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Left | Right | Left | Right |
| Median Width(ft) | | 12 | 12 | | 12 | |
| Link Offset(ft) | | 0 | 0 | | 0 | |
| Crosswalk Width(ft) | | 16 | 16 | | 16 | |
| Two way Left Turn Lane | | Yes | Yes | | | |
| Headway Factor | 1.07 | 0.94 | 0.94 | 1.07 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | | 9 | 15 | 9 |
| Number of Detectors | 1 | 2 | 2 | 1 | 1 | 1 |
| Detector Template | Left | Thru | Thru | Right | Left | Right |
| Leading Detector (ft) | 20 | 100 | 100 | 20 | 20 | 20 |
| Trailing Detector (ft) | 0 | 0 | 0 | 0 | 0 | 0 |
| Detector 1 Position(ft) | 0 | 0 | 0 | 0 | 0 | 0 |
| Detector 1 Size(ft) | 20 | 6 | 6 | 20 | 20 | 20 |
| Detector 1 Type | 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 |
| Detector 1 Queue (s) | 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 |
| Detector 2 Position(ft) | | 94 | 94 | | | |
| Detector 2 Size(ft) | | 6 | 6 | | | |
| Detector 2 Type | | Cl+Ex | Cl+Ex | | | |
| Detector 2 Channel | | | | | | |
| Detector 2 Extend (s) | | 0.0 | 0.0 | | | |
| Turn Type | pm+pt | NA | NA | Perm | Prot | pm+ov |
| Protected Phases | 5 | 2 | 6 | | 4 | 5 |
| Permitted Phases | 2 | | | 6 | | 4 |

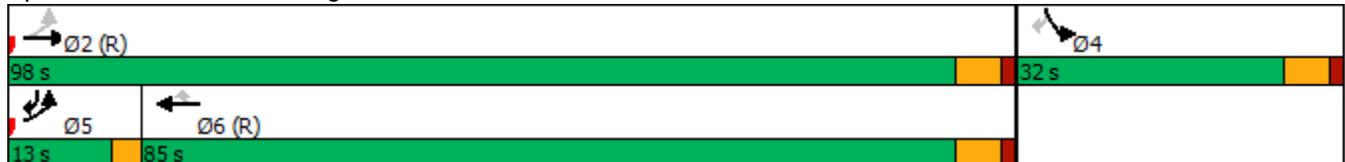


| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|-------------------------|-------|-------|-------|-------|-------|-------|
| Detector Phase | 5 | 2 | 6 | 6 | 4 | 5 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 3.0 | 15.0 | 15.0 | 15.0 | 8.0 | 3.0 |
| Minimum Split (s) | 6.0 | 24.0 | 24.0 | 24.0 | 24.0 | 6.0 |
| Total Split (s) | 13.0 | 98.0 | 85.0 | 85.0 | 32.0 | 13.0 |
| Total Split (%) | 10.0% | 75.4% | 65.4% | 65.4% | 24.6% | 10.0% |
| Maximum Green (s) | 10.0 | 92.0 | 79.0 | 79.0 | 26.0 | 10.0 |
| Yellow Time (s) | 3.0 | 4.5 | 4.5 | 4.5 | 4.5 | 3.0 |
| All-Red Time (s) | 0.0 | 1.5 | 1.5 | 1.5 | 1.5 | 0.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 3.0 | 6.0 | 6.0 | 6.0 | 6.0 | 3.0 |
| Lead/Lag | Lead | | Lag | Lag | | Lead |
| Lead-Lag Optimize? | Yes | | Yes | Yes | | Yes |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Recall Mode | None | C-Max | C-Max | C-Max | 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) | 103.9 | 100.9 | 91.1 | 91.1 | 17.1 | 29.9 |
| Actuated g/C Ratio | 0.80 | 0.78 | 0.70 | 0.70 | 0.13 | 0.23 |
| v/c Ratio | 0.21 | 0.68 | 0.42 | 0.10 | 0.69 | 0.19 |
| Control Delay | 3.0 | 6.4 | 9.4 | 2.3 | 68.9 | 8.3 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 3.0 | 6.4 | 9.4 | 2.3 | 68.9 | 8.3 |
| LOS | A | A | A | A | E | A |
| Approach Delay | | 6.3 | 8.8 | | 48.3 | |
| Approach LOS | | A | A | | D | |

Intersection Summary

Area Type: Other
 Cycle Length: 130
 Actuated Cycle Length: 130
 Offset: 110 (85%), Referenced to phase 2:EBTL and 6:WBT, Start of 1st Green
 Natural Cycle: 65
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.69
 Intersection Signal Delay: 10.1
 Intersection LOS: B
 Intersection Capacity Utilization 65.4%
 ICU Level of Service C
 Analysis Period (min) 15

Splits and Phases: 17: Ogden Ave & Downers Plaza



HCM 6th Signalized Intersection Summary
 3: Fairview Ave & 39th Street

Neighborhood 6 PM Existing File.syn
 01/26/2018



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations | ↖ | ↗ | | ↖ | ↗ | | ↖ | ↕ | ↗ | ↖ | ↕ | |
| Traffic Volume (veh/h) | 78 | 93 | 194 | 22 | 68 | 23 | 72 | 340 | 24 | 57 | 929 | 150 |
| Future Volume (veh/h) | 78 | 93 | 194 | 22 | 68 | 23 | 72 | 340 | 24 | 57 | 929 | 150 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1885 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1885 | 1885 | 1841 | 1885 | 1885 |
| Adj Flow Rate, veh/h | 84 | 100 | 209 | 24 | 73 | 25 | 77 | 366 | 26 | 61 | 999 | 161 |
| 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 |
| Percent Heavy Veh, % | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 4 | 1 | 1 |
| Cap, veh/h | 379 | 128 | 267 | 199 | 315 | 108 | 343 | 2044 | 145 | 578 | 1411 | 227 |
| Arrive On Green | 0.23 | 0.23 | 0.23 | 0.23 | 0.23 | 0.23 | 0.06 | 0.60 | 0.60 | 0.46 | 0.46 | 0.46 |
| Sat Flow, veh/h | 1308 | 548 | 1146 | 1087 | 1353 | 463 | 1810 | 3393 | 240 | 976 | 3089 | 497 |
| Grp Volume(v), veh/h | 84 | 0 | 309 | 24 | 0 | 98 | 77 | 192 | 200 | 61 | 579 | 581 |
| Grp Sat Flow(s),veh/h/ln | 1308 | 0 | 1694 | 1087 | 0 | 1817 | 1810 | 1791 | 1842 | 976 | 1791 | 1796 |
| Q Serve(g_s), s | 3.0 | 0.0 | 9.3 | 1.2 | 0.0 | 2.4 | 1.1 | 2.6 | 2.6 | 2.0 | 14.2 | 14.2 |
| Cycle Q Clear(g_c), s | 5.4 | 0.0 | 9.3 | 10.5 | 0.0 | 2.4 | 1.1 | 2.6 | 2.6 | 2.0 | 14.2 | 14.2 |
| Prop In Lane | 1.00 | | 0.68 | 1.00 | | 0.26 | 1.00 | | 0.13 | 1.00 | | 0.28 |
| Lane Grp Cap(c), veh/h | 379 | 0 | 395 | 199 | 0 | 423 | 343 | 1079 | 1109 | 578 | 818 | 820 |
| V/C Ratio(X) | 0.22 | 0.00 | 0.78 | 0.12 | 0.00 | 0.23 | 0.22 | 0.18 | 0.18 | 0.11 | 0.71 | 0.71 |
| Avail Cap(c_a), veh/h | 508 | 0 | 561 | 306 | 0 | 602 | 398 | 1079 | 1109 | 578 | 818 | 820 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l) | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 19.2 | 0.0 | 19.7 | 24.6 | 0.0 | 17.0 | 8.5 | 4.8 | 4.8 | 8.6 | 11.9 | 11.9 |
| Incr Delay (d2), s/veh | 0.3 | 0.0 | 4.6 | 0.3 | 0.0 | 0.3 | 0.3 | 0.4 | 0.4 | 0.4 | 5.1 | 5.1 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.9 | 0.0 | 3.8 | 0.3 | 0.0 | 0.9 | 0.3 | 0.8 | 0.8 | 0.4 | 5.7 | 5.8 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 19.5 | 0.0 | 24.3 | 24.9 | 0.0 | 17.3 | 8.8 | 5.2 | 5.2 | 9.0 | 17.0 | 17.0 |
| LnGrp LOS | B | A | C | C | A | B | A | A | A | A | B | B |
| Approach Vol, veh/h | | 393 | | | 122 | | | 469 | | | 1221 | |
| Approach Delay, s/veh | | 23.3 | | | 18.8 | | | 5.8 | | | 16.6 | |
| Approach LOS | | C | | | B | | | A | | | B | |
| Timer - Assigned Phs | | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | | 37.4 | | 17.2 | 7.9 | 29.5 | | 17.2 | | | | |
| Change Period (Y+Rc), s | | 4.5 | | 4.5 | 4.5 | 4.5 | | 4.5 | | | | |
| Max Green Setting (Gmax), s | | 32.9 | | 18.1 | 5.1 | 23.3 | | 18.1 | | | | |
| Max Q Clear Time (g_c+l1), s | | 4.6 | | 11.3 | 3.1 | 16.2 | | 12.5 | | | | |
| Green Ext Time (p_c), s | | 2.4 | | 1.2 | 0.0 | 4.3 | | 0.2 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 6th Ctrl Delay | | | 15.6 | | | | | | | | | |
| HCM 6th LOS | | | B | | | | | | | | | |

HCM 6th Signalized Intersection Summary
4: Main St/Highland Ave & 39th Street

Neighborhood 6 PM Existing File.syn
01/26/2018



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 33 | 29 | 34 | 261 | 29 | 131 | 26 | 504 | 63 | 185 | 1663 | 4 |
| Future Volume (veh/h) | 33 | 29 | 34 | 261 | 29 | 131 | 26 | 504 | 63 | 185 | 1663 | 4 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1811 | 1900 | 1900 | 1900 | 1856 | 1856 | 1900 | 1885 | 1885 | 1885 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 34 | 30 | 35 | 269 | 30 | 135 | 27 | 520 | 65 | 191 | 1714 | 4 |
| 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 |
| Percent Heavy Veh, % | 6 | 0 | 0 | 0 | 3 | 3 | 0 | 1 | 1 | 1 | 2 | 2 |
| Cap, veh/h | 322 | 207 | 242 | 428 | 76 | 343 | 183 | 1914 | 238 | 549 | 2172 | 5 |
| Arrive On Green | 0.26 | 0.26 | 0.26 | 0.26 | 0.26 | 0.26 | 0.60 | 0.60 | 0.60 | 0.60 | 0.60 | 0.60 |
| Sat Flow, veh/h | 1182 | 799 | 933 | 1358 | 294 | 1323 | 288 | 3205 | 399 | 837 | 3637 | 8 |
| Grp Volume(v), veh/h | 34 | 0 | 65 | 269 | 0 | 165 | 27 | 290 | 295 | 191 | 837 | 881 |
| Grp Sat Flow(s),veh/h/ln | 1182 | 0 | 1732 | 1358 | 0 | 1617 | 288 | 1791 | 1813 | 837 | 1777 | 1869 |
| Q Serve(g_s), s | 1.5 | 0.0 | 1.8 | 11.9 | 0.0 | 5.3 | 4.9 | 4.9 | 4.9 | 8.9 | 22.5 | 22.5 |
| Cycle Q Clear(g_c), s | 6.8 | 0.0 | 1.8 | 13.7 | 0.0 | 5.3 | 27.5 | 4.9 | 4.9 | 13.9 | 22.5 | 22.5 |
| Prop In Lane | 1.00 | | 0.54 | 1.00 | | 0.82 | 1.00 | | 0.22 | 1.00 | | 0.00 |
| Lane Grp Cap(c), veh/h | 322 | 0 | 449 | 428 | 0 | 420 | 183 | 1070 | 1083 | 549 | 1061 | 1116 |
| V/C Ratio(X) | 0.11 | 0.00 | 0.14 | 0.63 | 0.00 | 0.39 | 0.15 | 0.27 | 0.27 | 0.35 | 0.79 | 0.79 |
| Avail Cap(c_a), veh/h | 363 | 0 | 510 | 476 | 0 | 477 | 183 | 1070 | 1083 | 549 | 1061 | 1116 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l) | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 22.0 | 0.0 | 17.9 | 23.2 | 0.0 | 19.2 | 20.1 | 6.1 | 6.1 | 9.4 | 9.6 | 9.6 |
| Incr Delay (d2), s/veh | 0.1 | 0.0 | 0.1 | 2.2 | 0.0 | 0.6 | 1.7 | 0.6 | 0.6 | 1.7 | 6.0 | 5.7 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.4 | 0.0 | 0.7 | 3.8 | 0.0 | 1.9 | 0.4 | 1.6 | 1.6 | 1.6 | 8.3 | 8.6 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 22.1 | 0.0 | 18.0 | 25.4 | 0.0 | 19.8 | 21.8 | 6.7 | 6.7 | 11.2 | 15.6 | 15.3 |
| LnGrp LOS | C | A | B | C | A | B | C | A | A | B | B | B |
| Approach Vol, veh/h | | 99 | | | 434 | | | 612 | | | 1909 | |
| Approach Delay, s/veh | | 19.4 | | | 23.3 | | | 7.4 | | | 15.0 | |
| Approach LOS | | B | | | C | | | A | | | B | |
| Timer - Assigned Phs | | 2 | | 4 | | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | | 42.0 | | 20.8 | | 42.0 | | 20.8 | | | | |
| Change Period (Y+Rc), s | | 4.5 | | 4.5 | | 4.5 | | 4.5 | | | | |
| Max Green Setting (Gmax), s | | 37.5 | | 18.5 | | 37.5 | | 18.5 | | | | |
| Max Q Clear Time (g_c+l1), s | | 29.5 | | 8.8 | | 24.5 | | 15.7 | | | | |
| Green Ext Time (p_c), s | | 2.6 | | 0.2 | | 10.0 | | 0.5 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 6th Ctrl Delay | | | | 14.8 | | | | | | | | |
| HCM 6th LOS | | | | B | | | | | | | | |

HCM 6th Signalized Intersection Summary
7: Main St & Ogden Ave

Neighborhood 6 PM Existing File.syn
01/26/2018



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------------|------|------|------|------|------|------|------|------|------|------|-------|-------|
| Lane Configurations | ↗ | ↗↘ | | ↗ | ↗↘ | | ↗ | ↗↘ | | ↗ | ↗↘ | ↗ |
| Traffic Volume (veh/h) | 200 | 1111 | 87 | 159 | 1174 | 103 | 136 | 321 | 93 | 282 | 771 | 682 |
| Future Volume (veh/h) | 200 | 1111 | 87 | 159 | 1174 | 103 | 136 | 321 | 93 | 282 | 771 | 682 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1772 | 1984 | 1786 | 1800 | 1984 | 1786 | 1772 | 1984 | 1786 | 1772 | 1984 | 1772 |
| Adj Flow Rate, veh/h | 206 | 1145 | 90 | 164 | 1210 | 106 | 140 | 331 | 96 | 291 | 795 | 703 |
| 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 |
| Percent Heavy Veh, % | 2 | 1 | 1 | 0 | 1 | 1 | 2 | 1 | 1 | 2 | 1 | 2 |
| Cap, veh/h | 248 | 1576 | 124 | 321 | 1502 | 131 | 211 | 639 | 182 | 388 | 1050 | 549 |
| Arrive On Green | 0.17 | 0.89 | 0.89 | 0.07 | 0.43 | 0.43 | 0.08 | 0.22 | 0.22 | 0.14 | 0.28 | 0.28 |
| Sat Flow, veh/h | 1688 | 3541 | 278 | 1714 | 3508 | 307 | 1688 | 2894 | 827 | 1688 | 3770 | 1502 |
| Grp Volume(v), veh/h | 206 | 609 | 626 | 164 | 649 | 667 | 140 | 214 | 213 | 291 | 795 | 703 |
| Grp Sat Flow(s),veh/h/ln | 1688 | 1885 | 1934 | 1714 | 1885 | 1929 | 1688 | 1885 | 1836 | 1688 | 1885 | 1502 |
| Q Serve(g_s), s | 9.7 | 14.0 | 14.1 | 7.4 | 42.1 | 42.3 | 8.9 | 14.0 | 14.3 | 18.4 | 27.0 | 39.0 |
| Cycle Q Clear(g_c), s | 9.7 | 14.0 | 14.1 | 7.4 | 42.1 | 42.3 | 8.9 | 14.0 | 14.3 | 18.4 | 27.0 | 39.0 |
| Prop In Lane | 1.00 | | 0.14 | 1.00 | | 0.16 | 1.00 | | 0.45 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 248 | 839 | 861 | 321 | 807 | 826 | 211 | 416 | 405 | 388 | 1050 | 549 |
| V/C Ratio(X) | 0.83 | 0.73 | 0.73 | 0.51 | 0.80 | 0.81 | 0.66 | 0.51 | 0.53 | 0.75 | 0.76 | 1.28 |
| Avail Cap(c_a), veh/h | 342 | 839 | 861 | 446 | 807 | 826 | 225 | 431 | 420 | 388 | 1050 | 549 |
| HCM Platoon Ratio | 2.00 | 2.00 | 2.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l) | 0.72 | 0.72 | 0.72 | 0.58 | 0.58 | 0.58 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 26.4 | 5.0 | 5.0 | 20.3 | 34.9 | 35.0 | 39.8 | 48.0 | 48.1 | 34.9 | 46.2 | 44.4 |
| Incr Delay (d2), s/veh | 8.6 | 4.0 | 3.9 | 0.7 | 5.0 | 5.0 | 6.6 | 1.0 | 1.1 | 7.9 | 3.2 | 139.9 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 3.8 | 3.3 | 3.4 | 3.0 | 20.1 | 20.6 | 4.1 | 6.7 | 6.7 | 8.4 | 13.1 | 40.2 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 35.0 | 9.0 | 8.9 | 21.0 | 39.9 | 40.0 | 46.3 | 48.9 | 49.2 | 42.8 | 49.4 | 184.4 |
| LnGrp LOS | D | A | A | C | D | D | D | D | D | D | D | F |
| Approach Vol, veh/h | | 1441 | | | 1480 | | | 567 | | | 1789 | |
| Approach Delay, s/veh | | 12.7 | | | 37.9 | | | 48.4 | | | 101.3 | |
| Approach LOS | | B | | | D | | | D | | | F | |
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 12.8 | 68.3 | 13.9 | 45.0 | 15.2 | 65.9 | 22.0 | 36.9 | | | | |
| Change Period (Y+Rc), s | 3.0 | 6.0 | 3.0 | 6.0 | 3.0 | 6.0 | 3.0 | 6.0 | | | | |
| Max Green Setting (Gmax),s | 20.0 | 51.0 | 12.0 | 39.0 | 20.0 | 51.0 | 19.0 | 32.0 | | | | |
| Max Q Clear Time (g_c+l1),s | 9.4 | 16.1 | 10.9 | 41.0 | 11.7 | 44.3 | 20.4 | 16.3 | | | | |
| Green Ext Time (p_c), s | 0.4 | 6.4 | 0.0 | 0.0 | 0.5 | 3.4 | 0.0 | 1.5 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 6th Ctrl Delay | | | | 53.6 | | | | | | | | |
| HCM 6th LOS | | | | D | | | | | | | | |

HCM 6th Signalized Intersection Summary
8: Fairview Ave & Ogden Ave

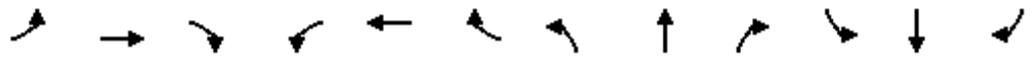
Neighborhood 6 PM Existing File.syn
01/26/2018



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations | ↖ | ↗ | | ↖ | ↗ | | ↖ | ↗ | | ↖ | ↗ | |
| Traffic Volume (veh/h) | 132 | 1129 | 145 | 199 | 1239 | 115 | 140 | 214 | 142 | 284 | 655 | 167 |
| Future Volume (veh/h) | 132 | 1129 | 145 | 199 | 1239 | 115 | 140 | 214 | 142 | 284 | 655 | 167 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1800 | 1984 | 1786 | 1800 | 1984 | 1786 | 1786 | 1984 | 1786 | 1800 | 2000 | 1800 |
| Adj Flow Rate, veh/h | 135 | 1152 | 148 | 203 | 1264 | 117 | 143 | 218 | 145 | 290 | 668 | 170 |
| 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 |
| Percent Heavy Veh, % | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 |
| Cap, veh/h | 207 | 1649 | 211 | 269 | 1782 | 164 | 190 | 395 | 251 | 354 | 686 | 174 |
| Arrive On Green | 0.05 | 0.49 | 0.49 | 0.02 | 0.17 | 0.17 | 0.08 | 0.18 | 0.18 | 0.13 | 0.23 | 0.23 |
| Sat Flow, veh/h | 1714 | 3361 | 431 | 1714 | 3489 | 322 | 1701 | 2210 | 1407 | 1714 | 3000 | 763 |
| Grp Volume(v), veh/h | 135 | 645 | 655 | 203 | 681 | 700 | 143 | 185 | 178 | 290 | 423 | 415 |
| Grp Sat Flow(s),veh/h/ln | 1714 | 1885 | 1907 | 1714 | 1885 | 1926 | 1701 | 1885 | 1731 | 1714 | 1900 | 1863 |
| Q Serve(g_s), s | 5.5 | 37.1 | 37.3 | 7.7 | 47.8 | 48.0 | 9.5 | 12.5 | 13.2 | 18.0 | 30.9 | 31.0 |
| Cycle Q Clear(g_c), s | 5.5 | 37.1 | 37.3 | 7.7 | 47.8 | 48.0 | 9.5 | 12.5 | 13.2 | 18.0 | 30.9 | 31.0 |
| Prop In Lane | 1.00 | | 0.23 | 1.00 | | 0.17 | 1.00 | | 0.81 | 1.00 | | 0.41 |
| Lane Grp Cap(c), veh/h | 207 | 925 | 936 | 269 | 963 | 984 | 190 | 337 | 309 | 354 | 434 | 426 |
| V/C Ratio(X) | 0.65 | 0.70 | 0.70 | 0.75 | 0.71 | 0.71 | 0.75 | 0.55 | 0.58 | 0.82 | 0.97 | 0.98 |
| Avail Cap(c_a), veh/h | 237 | 925 | 936 | 449 | 963 | 984 | 190 | 337 | 309 | 354 | 434 | 426 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 0.33 | 0.33 | 0.33 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l) | 0.55 | 0.55 | 0.55 | 0.45 | 0.45 | 0.45 | 1.00 | 1.00 | 1.00 | 0.76 | 0.76 | 0.76 |
| Uniform Delay (d), s/veh | 27.1 | 27.6 | 27.7 | 26.5 | 48.3 | 48.5 | 44.4 | 52.4 | 52.7 | 41.0 | 53.6 | 53.6 |
| Incr Delay (d2), s/veh | 2.9 | 2.4 | 2.4 | 2.0 | 2.0 | 2.0 | 15.6 | 1.9 | 2.6 | 11.0 | 30.9 | 31.6 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 2.3 | 17.0 | 17.3 | 3.6 | 24.8 | 25.5 | 4.9 | 6.1 | 6.0 | 9.3 | 18.5 | 18.2 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 30.0 | 30.0 | 30.1 | 28.5 | 50.3 | 50.5 | 60.0 | 54.2 | 55.3 | 52.0 | 84.5 | 85.2 |
| LnGrp LOS | C | C | C | C | D | D | E | D | E | D | F | F |
| Approach Vol, veh/h | | 1435 | | | 1584 | | | 506 | | | 1128 | |
| Approach Delay, s/veh | | 30.1 | | | 47.6 | | | 56.3 | | | 76.4 | |
| Approach LOS | | C | | | D | | | E | | | E | |
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 13.3 | 74.7 | 14.0 | 38.0 | 10.5 | 77.5 | 21.0 | 31.0 | | | | |
| Change Period (Y+Rc), s | 3.0 | 6.0 | 3.0 | 6.0 | 3.0 | 6.0 | 3.0 | 6.0 | | | | |
| Max Green Setting (Gmax),s | 25.0 | 54.0 | 11.0 | 32.0 | 10.0 | 69.0 | 18.0 | 25.0 | | | | |
| Max Q Clear Time (g_c+I1),s | 9.7 | 39.3 | 11.5 | 33.0 | 7.5 | 50.0 | 20.0 | 15.2 | | | | |
| Green Ext Time (p_c), s | 0.6 | 5.4 | 0.0 | 0.0 | 0.1 | 6.5 | 0.0 | 1.0 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 6th Ctrl Delay | | | | 50.1 | | | | | | | | |
| HCM 6th LOS | | | | D | | | | | | | | |

HCM 6th Signalized Intersection Summary
 14: Saratoga Ave & Ogden Ave

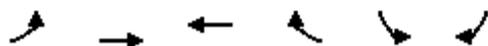
Neighborhood 6 PM Existing File.syn
 01/26/2018



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations | ↵ | ↕ | | ↵ | ↕ | | ↵ | ↕ | | ↵ | ↕ | |
| Traffic Volume (veh/h) | 84 | 1452 | 40 | 20 | 1684 | 72 | 10 | 84 | 24 | 120 | 132 | 196 |
| Future Volume (veh/h) | 84 | 1452 | 40 | 20 | 1684 | 72 | 10 | 84 | 24 | 120 | 132 | 196 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1772 | 1969 | 1870 | 1772 | 1969 | 1870 | 1870 | 1969 | 1870 | 1870 | 1969 | 1870 |
| Adj Flow Rate, veh/h | 91 | 1578 | 43 | 22 | 1830 | 78 | 11 | 91 | 26 | 130 | 143 | 213 |
| 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 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 248 | 2453 | 67 | 192 | 2339 | 99 | 78 | 326 | 93 | 268 | 158 | 235 |
| Arrive On Green | 0.03 | 0.66 | 0.66 | 0.02 | 1.00 | 1.00 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 |
| Sat Flow, veh/h | 1688 | 3720 | 101 | 1688 | 3656 | 155 | 1025 | 1472 | 421 | 1275 | 714 | 1063 |
| Grp Volume(v), veh/h | 91 | 792 | 829 | 22 | 930 | 978 | 11 | 0 | 117 | 130 | 0 | 356 |
| Grp Sat Flow(s),veh/h/ln | 1688 | 1870 | 1951 | 1688 | 1870 | 1941 | 1025 | 0 | 1893 | 1275 | 0 | 1777 |
| Q Serve(g_s), s | 2.5 | 35.0 | 35.3 | 0.6 | 0.0 | 0.0 | 1.5 | 0.0 | 7.2 | 13.2 | 0.0 | 27.3 |
| Cycle Q Clear(g_c), s | 2.5 | 35.0 | 35.3 | 0.6 | 0.0 | 0.0 | 28.8 | 0.0 | 7.2 | 20.4 | 0.0 | 27.3 |
| Prop In Lane | 1.00 | | 0.05 | 1.00 | | 0.08 | 1.00 | | 0.22 | 1.00 | | 0.60 |
| Lane Grp Cap(c), veh/h | 248 | 1233 | 1286 | 192 | 1196 | 1242 | 78 | 0 | 419 | 268 | 0 | 393 |
| V/C Ratio(X) | 0.37 | 0.64 | 0.64 | 0.11 | 0.78 | 0.79 | 0.14 | 0.00 | 0.28 | 0.49 | 0.00 | 0.91 |
| Avail Cap(c_a), veh/h | 315 | 1233 | 1286 | 292 | 1196 | 1242 | 115 | 0 | 487 | 314 | 0 | 457 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 | 2.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l) | 1.00 | 1.00 | 1.00 | 0.23 | 0.23 | 0.23 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 7.4 | 14.1 | 14.1 | 12.5 | 0.0 | 0.0 | 67.1 | 0.0 | 45.3 | 53.7 | 0.0 | 53.1 |
| Incr Delay (d2), s/veh | 0.9 | 2.6 | 2.5 | 0.1 | 1.2 | 1.2 | 0.8 | 0.0 | 0.4 | 1.4 | 0.0 | 19.6 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.9 | 14.8 | 15.5 | 0.2 | 0.4 | 0.4 | 0.4 | 0.0 | 3.5 | 4.4 | 0.0 | 14.3 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 8.3 | 16.7 | 16.6 | 12.6 | 1.2 | 1.2 | 67.9 | 0.0 | 45.6 | 55.1 | 0.0 | 72.7 |
| LnGrp LOS | A | B | B | B | A | A | E | A | D | E | A | E |
| Approach Vol, veh/h | | 1712 | | | 1930 | | | 128 | | | 486 | |
| Approach Delay, s/veh | | 16.2 | | | 1.3 | | | 47.5 | | | 68.0 | |
| Approach LOS | | B | | | A | | | D | | | E | |
| Timer - Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 4.7 | 98.3 | | 37.0 | 7.5 | 95.6 | | 37.0 | | | | |
| Change Period (Y+Rc), s | 3.0 | 6.0 | | 6.0 | 3.0 | 6.0 | | 6.0 | | | | |
| Max Green Setting (Gmax),s | 79.0 | | | 36.0 | 10.0 | 79.0 | | 36.0 | | | | |
| Max Q Clear Time (g_c+l1),s | 37.3 | | | 29.3 | 4.5 | 2.0 | | 30.8 | | | | |
| Green Ext Time (p_c), s | 0.0 | 10.4 | | 1.3 | 0.1 | 16.3 | | 0.2 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 6th Ctrl Delay | | | | 16.3 | | | | | | | | |
| HCM 6th LOS | | | | B | | | | | | | | |

HCM 6th Signalized Intersection Summary
 17: Ogden Ave & Downers Plaza

Neighborhood 6 PM Existing File.syn
 01/26/2018



| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|------------------------------|------|------|------|------|------|------|
| Lane Configurations | ↗ | ↑↑ | ↑↑ | ↗ | ↗ | ↗ |
| Traffic Volume (veh/h) | 144 | 1364 | 1592 | 112 | 424 | 304 |
| Future Volume (veh/h) | 144 | 1364 | 1592 | 112 | 424 | 304 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | | 1.00 | 1.00 | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | | No | No | | No | |
| Adj Sat Flow, veh/h/ln | 1772 | 1969 | 1969 | 1772 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 157 | 1483 | 1730 | 122 | 461 | 330 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 188 | 2382 | 2094 | 841 | 494 | 528 |
| Arrive On Green | 0.11 | 1.00 | 0.56 | 0.56 | 0.28 | 0.28 |
| Sat Flow, veh/h | 1688 | 3839 | 3839 | 1502 | 1781 | 1585 |
| Grp Volume(v), veh/h | 157 | 1483 | 1730 | 122 | 461 | 330 |
| Grp Sat Flow(s),veh/h/ln | 1688 | 1870 | 1870 | 1502 | 1781 | 1585 |
| Q Serve(g_s), s | 5.6 | 0.0 | 53.0 | 5.4 | 35.3 | 24.6 |
| Cycle Q Clear(g_c), s | 5.6 | 0.0 | 53.0 | 5.4 | 35.3 | 24.6 |
| Prop In Lane | 1.00 | | | 1.00 | 1.00 | 1.00 |
| Lane Grp Cap(c), veh/h | 188 | 2382 | 2094 | 841 | 494 | 528 |
| V/C Ratio(X) | 0.84 | 0.62 | 0.83 | 0.15 | 0.93 | 0.63 |
| Avail Cap(c_a), veh/h | 263 | 2382 | 2094 | 841 | 547 | 575 |
| HCM Platoon Ratio | 2.00 | 2.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l) | 0.51 | 0.51 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 28.3 | 0.0 | 25.2 | 14.8 | 49.3 | 39.3 |
| Incr Delay (d2), s/veh | 8.3 | 0.6 | 3.9 | 0.4 | 22.0 | 1.9 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 3.3 | 0.2 | 23.7 | 1.9 | 18.7 | 21.7 |
| Unsig. Movement Delay, s/veh | | | | | | |
| LnGrp Delay(d),s/veh | 36.6 | 0.6 | 29.1 | 15.1 | 71.3 | 41.2 |
| LnGrp LOS | D | A | C | B | E | D |
| Approach Vol, veh/h | | 1640 | 1852 | | 791 | |
| Approach Delay, s/veh | | 4.1 | 28.2 | | 58.7 | |
| Approach LOS | | A | C | | E | |
| Timer - Assigned Phs | | 2 | | 4 | 5 | 6 |
| Phs Duration (G+Y+Rc), s | | 95.1 | | 44.9 | 10.8 | 84.4 |
| Change Period (Y+Rc), s | | 6.0 | | 6.0 | 3.0 | 6.0 |
| Max Green Setting (Gmax), s | | 85.0 | | 43.0 | 14.0 | 68.0 |
| Max Q Clear Time (g_c+l1), s | | 2.0 | | 37.3 | 7.6 | 55.0 |
| Green Ext Time (p_c), s | | 18.3 | | 1.5 | 0.2 | 9.7 |
| Intersection Summary | | | | | | |
| HCM 6th Ctrl Delay | | | 24.6 | | | |
| HCM 6th LOS | | | C | | | |