

# Traffic Impact Study for <br> Fifth Third Arena Expansion Chicago, Illinois 

Submitted to:


Traffic Impact Study
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## 01. Executive Summary

Fifth Third Arena, the Chicago Blackhawks Community Ice Rink, opened in 2017 to serve as the practice home for the City's professional hockey team and to offer local community programming, beginner hockey classes, adult hockey leagues, and public skate events. The facility's two ice rinks, multipurpose rooms, food and beverage options, and fitness center are currently used by youth and high school hockey clubs and elite-level tournaments and can also be reserved for private events. Since its opening, the Arena has experienced increasing demand for community programming, both during and outside of the Blackhawks practice schedule (which occupies both sheets of ice). As a result, the proposed project would expand the building to offer two additional ice rinks, allowing for increased local programming on a day-to-day basis and enabling the Arena to host larger tournaments for youth and adult hockey leagues with a greater geographic draw.

Under the proposed development plan, the Arena building would be expanded directly west to accommodate the two new ice sheets, and a new main entrance would be provided on Jackson Boulevard near the northwest corner of the building, aligned opposite Malcolm X College. As the first phase of the overall project, the Arena expansion is planned for completion by 2026. Other future on-site development potential included in the proposed Planned Development Ordinance, such as residential, hotel, and retail uses, is expected to take place at a later date, with an assumed horizon of 2029 for the purposes of this study. Both the Arena expansion and the mixed-use development components were analyzed in this study to provide a comprehensive review of the development's transportation impact on the surrounding neighborhood at full build-out.

In evaluating Year 2029 traffic operations-and with consideration for existing deficiencies in the area transportation network-recommendations were identified to mitigate the impact of traffic generated by the proposed project, improve traffic flow, and enhance safety and comfort for pedestrians within the vicinity of the project. It can be noted that Illinois Department of Transportation (IDOT) roadway design plans for Ogden Avenue between Damen Avenue and Adams Street, which are programmed to be complete by FY 2028, were incorporated into all future analyses performed for this study. To that end, a brief summary of improvements recommended as part of the proposed development project include:

- Improved signal equipment at Damen Avenue and Jackson Boulevard, including a southbound left-turn arrow and new pedestrian countdown timer signal heads on all legs of the intersection.
- Traffic calming and pedestrian safety measures, including a raised midblock crosswalk on Jackson Boulevard; high-visibility pavement treatment for the raised crosswalk and in the crosswalks at Jackson Boulevard and Wood Street; and numerous curb extensions.
- Transit amenities, including a bus bulb on Jackson Boulevard and a real-time arrival board reporting upcoming CTA service times within the Arena.

With implementation of the recommendations detailed in this study, the parking demand of the Arena is expected to be sufficiently accommodated, and future area traffic operation is expected to be acceptable.

## 02. Introduction

Sam Schwartz Consulting, LLC, (Sam Schwartz) was retained by Blackhawk Community Ice Rink, LLC, to conduct a traffic and parking study for the proposed expansion of the existing Fifth Third Arena at 1801 W. Jackson Boulevard in Chicago, lllinois. The subject site is bound by Jackson Boulevard on the north, Van Buren Street on the south, Wood Street and Ogden Avenue on the east, and Damen Avenue on the west. As illustrated on Figure 1, the subject parcel is divided into three sub-areas, with the existing Arena occupying Sub-Area A. The Arena expansion would be in Sub-Area B, adding two additional sheets of ice to the facility for a total of four. Proposed plans for the expansion feature a new main entrance on Jackson Boulevard aligned opposite Malcolm X College. The existing Fifth Third Arena parking lot would be extended along the south and west sides of the expanded building, with new full-access driveways proposed on Jackson Boulevard and Van Buren Street A conceptual site plan illustrating the Arena expansion can be found in the Appendix.

While the near-term plans for the project would focus on the Arena expansion, there is potential for additional future development on the land area that would remain within Sub-areas B and C, including residential, hotel, and retail/restaurant uses. In order to perform a comprehensive review of the development's ultimate traffic impact, Sam Schwartz worked with the Fifth Third Arena team to identify reasonably conservative land use, density, and access assumptions for the mixed-use development component of this project. Those assumptions, detailed herein, are in line with the vision for this property and the parameters of the proposed Planned Development Ordinance.

The following report documents Sam Schwartz's methodology regarding data collection, traffic forecasting, parking demand projections, and capacity analyses performed for this study. Recommended improvements are documented to mitigate anticipated traffic-related impacts resulting from the proposed expansion and to improve the functionality of the local transportation system.


## 03. Existing Conditions

Sam Schwartz conducted a field visit to collect relevant information pertainıng to the site, the surrounding street network, traffic volumes, traffic controls, lane geometry, and infrastructure at the study intersections. Based on these characteristics, existing intersection capacity was evaluated to establish existing operational conditions for the study area, as described in the following sections.

### 3.1. Area Land Uses \& Connectivity

Located in the Near West Side neighborhood within the boundaries of Chicago's $27^{\text {th }}$ Ward, the subject site is comprised of the existing Fifth Third Arena and several undeveloped parcels immediately west of the Arena. The existing Fifth Third Arena is currently designated as Planned Development (PD) 1309, and the parcels to the west of the existing Arena comprise PD 1310.

A significant portion of the surrounding area is occupied by parking facilities, most of which are surface lots serving private uses. Other prominent nearby land uses include Malcolm X College on the north side of Jackson Boulevard east of Damen Avenue, which opened in 2016 after relocating from the current Fifth Third Arena site. The United Center, an indoor arena that hosts Chicago Bulls and Chicago Blackhawks games as well as concerts and other large-scale events, is located approximately a quarter of a mile north of the site. The llinois Medical District (IMD), which contains four major hospitals, two medical universities, and several other medical research and healthcare-related facilities, is located immediately south of I-290 less than a quarter of a mile from the subject site. Another IMD-related medical office building is located immediately east of the site along Ogden Avenue. Land uses to the west are largely residential in nature.

Full-access to $\mathrm{I}-290$ is provided via two full-access interchanges within a half mile of the site: one at Damen Avenue near the western boundary of the site, and one a few blocks east of the site at Ashland Avenue and Paulina Street. Interstates 90 and 94 (I-90//-94) are located approximately one and a half miles away, with access to and from the north via Ogden Avenue to the northeast and full access via the Jane Byrne system interchange that connects I-290 and I-90/I-94.

### 3.2. Existing Transit, Bicycle, \& Pedestrian Facilities

Non-auto modes of transportation within the site vicinity include Chicago Transit Authority (CTA) bus and rail, Divvy bikeshare stations, bicycle facilities, and pedestrian infrastructure such as crosswalks and pedestrian signal heads at intersections.

## Transit Facilities

The proposed development would be served by two CTA bus routes with stops along the subject site, as well as the CTA Blue Line IMD Station located about 200 feet south of the site. These facilities are described below and presented on Figure 2.

- Route $\mathbf{5 0}$ (Damen) is a north-south route that provides daily service between the CTA Orange Line $35^{\text {th }} /$ Archer station and Ashland Avenue/Clark Street. Near the subject site, this bus route runs along Damen Avenue. A bus stop bench is provided for the southbound stop at Jackson Boulevard.

- Route 126 (Jackson) is generally an east-west route that provides daily service between Austin Boulevard/Jackson Boulevard and Downtown Chicago. Within the vicinity of the site, Route 126 runs alternate routes depending on the time and day of the week. On weekdays, the bus route runs eastbound along Jackson Boulevard until approximately 9:15PM and westbound along Van Buren Street until approximately 10:00PM. During late weekday evenings, weekends, and holidays, the bus runs an alternate route, traveling via Harrison Street in both eastbound and westbound directions between Damen Avenue and Ashland Avenue. Bus stop benches are provided for the eastbound stops at Jackson Boulevard/Damen Avenue and Jackson Boulevard/Ogden Avenue, and for the westbound stops at Van Buren Street/Ogden Avenue, Van Buren Street at Fifth Third Arena, and Jackson Boulevard/Damen Avenue.
- The CTA Blue Line provides 24-hour rapid-transit train service between Chicago-O'Hare International Airport and the Forest Park terminal via downtown Chicago. The IMD Station is located about 200 feet south of Van Buren Street, the southern border of the subject site. Access points to the station are provided at Damen Avenue, Ogden Avenue, and Paulina Street Accessible entry/exit is available at Damen Avenue.

Being located within a half-mile of a CTA rail station, the subject property qualifies as a Transit-Served Location (TSL).

## Bicycle Facilities

Area bicycle infrastructure includes protected bike lanes, buffered bike lanes, standard bike lanes, and shared bike routes, as illustrated on Figure 3. Additionally, two Divvy bikeshare stations are located within a quarter of a mile of the subject site: one at Malcolm X College on Jackson Boulevard and the other at the intersection of Congress Parkway and Ogden Avenue.

At Fifth Third Arena, 26 bike parking spaces are provided near the northwest corner of the building on the south side of Jackson Boulevard.

## Pedestrian Facilities

Sam Schwartz performed an inventory of existing pedestrian infrastructure at study intersections, including marked crosswalks and pedestrian signal equipment. The inventory identified that all area crosswalks are equipped with high-visibility markings, which include continental- and ladder-style crosswalks as well as crosswalks with red stamped pavement. Additionally, four of the five signalized study intersections have pedestrian countdown timers present for all marked crosswalks. There are currently no pedestrian countdown timers present at the intersection of Damen Avenue and Jackson Boulevard.

Sidewalks are generally present along the study roadways, with exceptions along the south side of Van Buren Street and the north side of Congress Parkway (both being directly adjacent to I-290). Additionally, the sidewalk along the west side of Ogden Avenue just south of its intersection with Van Buren Street is in poor condition and requires maintenance due to buckling; it is assumed that the sidewalk will be repaired as part of the bridge replacement project that the Illinois Department of Transportation (IDOT) has programmed to occur by FY 2028.


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### 3.3. Existing Street Characteristics

Field data collection was performed along the primary study roadways of Jackson Boulevard, Van Buren Street, Ogden Avenue, Damen Avenue, Wood Street, Adams Street, Congress Parkway, and driveways serving Fifth Third Arena, the Malcolm X College Parking Garage, and the Overflow Parking Lot. Brief descriptions of these roadways are provided below, and existing lane configurations and traffic control at each study intersection are presented graphically on Figure 4. Unless otherwise noted, all roadways have a posted or assumed (per Section 9-12-070 of the Chicago Municipal Code) speed limit of 30 MPH and are under the jurisdiction of the Chicago Department of Transportation (CDOT).

Jackson Boulevard is an east-west Major Collector that runs along the northern boundary of the subject site. East of Damen Avenue, it is generally a two-lane, one-way eastbound roadway. West of Damen Avenue, Jackson Boulevard supports two-way traffic flow with a single lane in each direction. On-street parking is generally permitted along both sides of the street within the study area, with the exception of No Parking zones on both sides of the street between Ogden Avenue and Wood Street and on the north side of Jackson Boulevard along much of the Malcolm X College frontage. Jackson Boulevard has a posted speed limit of 20 MPH west of its intersection with Damen Avenue and is assumed to be 30 MPH elsewhere within the study network per Chicago Municipal Code. East of Ogden Avenue, Jackson Boulevard is under IDOT jurisdiction

Van Buren Street is an east-west local roadway that runs along the southern boundary of the subject site, parallel to and directly north of I-290. Throughout the study area, Van Buren is generally a two-lane, one-way westbound roadway. On-street parking is generally permitted on the north side of the street, with a No Parking Zone present between Damen Avenue and the I-290 Westbound Exit Ramp. Direct access to and from westbound $\mathrm{I}-290$ is provided via ramps along Van Buren Street, with the ramp junctions located approximately 200 feet east and 60 feet west of Damen Avenue.

Ogden Avenue is a northeast-southwest Major Collector that borders the southeast portion of the subject site. Ogden Avenue is a four-lane roadway under IDOT jurisdiction within the study area. On-street parking is permitted along both sides of Ogden Avenue north of its intersection with Van Buren Street.

Damen Avenue is a north-south Major Collector that runs along the western boundary of the site. Within the study area, Damen Avenue is generally a four-lane roadway and does not permit on-street parking.

Wood Street is a north-south local roadway that runs along the eastern boundary of the subject site. Wood Street provides a single travel lane in each direction, and on-street parking is generally permitted along both sides of the street within the study area.

Adams Street is an east-west Major Collector located approximately 600 feet north of the site Within the study area, Adams Street is a two-lane, one-way westbound roadway. Parking lanes are provided on both sides of the street, though parking is prohibited on both sides of the street during events at the United Center and, on all other days, on the north side of the street from 4:00-6:00PM.

Congress Parkway is an east-west local roadway that runs parallel to and directly south of I-290. Within the study area, Congress Parkway is generally a two-lane, one-way eastbound roadway. Within the study area, on-street parking is generally permitted on the south side of the street. Direct access to and from eastbound $\mathrm{I}-290$ is provided via ramps along Congress Parkway, with the ramp junctions located approximately 80 feet east and 160 feet west of Damen Avenue.
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The subject site is currently served by two full-access driveways: one to Jackson Boulevard (Driveway 1), and one to Van Buren Street (Driveway 2), the latter of which was observed to have a closed gate during portions of the data collection period for this study. A third full-access driveway is also present on Wood Street but is gated and functionally closed at all times. Within the Fifth Third Arena parking lot, there is a 30 -foot drop-off lane near the building entrance at the northeast corner that was seen being used primarily by parents who would drop off youth players and their equipment before driving into the parking lot to park. Dwell times for these drop-off behaviors were short, with no more than one vehicle observed in the drop-off area at a time.

Data collection was also performed at the Maicolm X College parking garage and the Overflow Parking Lot on the northeast corner of Jackson Boulevard and Wood Street, which is utilized for overflow parking by Fifth Third Arena under an agreement with the owner of the lot, Rush University Medical Center. The Overflow Parking Lot is served by a single gated driveway to Wood Street (Driveway 3). The Malcolm X parking garage (which is not currently available for use by Arena patrons at any time) is served by two gated driveways to Jackson Boulevard: Garage Exit, located approximately 450 feet west of Wood Street, and Garage Entrance, located approximately 200 feet west of Wood Street.

### 3.4. Existing Traffic Volumes

Sam Schwartz conducted intersection turning movement counts (TMCs) in February 2023 at the following locations in order to identify existing traffic volumes:

- Jackson Boulevard and Damen Avenue
- Jackson Boulevard and Wood Street
- Jackson Boulevard and Ogden Avenue
- Jackson Boulevard and Malcolm X Garage Exit
- Jackson Boulevard and Malcolm X Garage Entrance
- Ogden Avenue and Wood Street
- Van Buren Street and Damen Avenue
- Van Buren Street and I-290 Westbound Exit Ramp
- Van Buren Street and Ogden Avenue
- Congress Parkway and Damen Avenue
- Adams Street and Wood Street

Counts were performed during the weekday evening and Saturday midday peak periods (4:00-7:30PM and 11:00AM-2:00PM, respectively) in order to coincide with peak activity on the area roadway network. Based on the resulting data, peak hours occurred from 4:00-5:00PM and from 1:00-2:00PM during the weekday evening and Saturday midday, respectively.'The resulting traffic volumes were summarized and balanced where applicable throughout the study area for the evening and midday peak hours, establishing an Existing Year 2023 volume network. The resulting vehicular traffic volumes for Existing Year 2023 during the weekday evening and Saturday midday peak hours are illustrated on Figure 5. Bicycle and pedestrian volumes are illustrated on Figure 6.



Simultaneous with the TMCs, bidirectional counts were performed at the following access driveways to identify the existing traffic volumes entering and exiting the Fifth Third Arena on-site parking lot and the Overflow Parking Lot:

- Driveway 1 (full-access driveway for the Fifth Third Arena parking lot to Jackson Boulevard)
- Driveway 2 (full-access driveway for the Fifth Third Arena parking lot to Van Buren Street)
- Driveway 3 (full-access driveway for the Overflow Parking Lot to Wood Street)

The weekday evening driveway counts were performed during the same time period as the TMCs (4:007:30PM); however, the Saturday midday driveway counts were performed for an extended period of time (10:00AM-3:00PM) to coincide with the simultaneous parking data collection. Note that the full-access driveway that connects the Fifth Third Arena on-site parking lot to Wood Street is gated and functionally closed at all times and was therefore excluded from data collection. Further discussion of the Arenaspecific data collected for this study is provided in Section 3.7. Existing Arena Transportation Characteristics. Summaries of the raw TMC and bidirectional counts are contained in the Appendix.

### 3.6. Existing Parking Operations

On the same dates that intersection TMCs were performed, Sam Schwartz conducted a utilization survey of on- and off-street parking facilities within the study area. The parking facilities surveyed for this survey are listed below:

- Fifth Third Arena parking lot
- Overflow Parking Lot (reserved for use by Rush University Medical Center on weekdays until 4PM)
- Jackson Boulevard from Damen Avenue to Wood Street
- Van Buren Street from Damen Avenue to Ogden Avenue
- Wood Street from Jackson Boulevard to Ogden Avenue
- Ogden Avenue from Wood Street to Van Buren Street
- Malcolm X College parking garage (not currently available for use by Fifth Third Arena patrons at any time)

It should be noted that all on-street parking facilities listed are unmetered and, except where identified in Section 3.3, generally available for public use during the data collection periods. Additionally, the Fifth Third Arena parking lot does not charge patrons to park, and the Overflow Parking Lot is free outside of the hours reserved for Rush University Medical Center, as noted above. Parking utilization was not recorded on Damen Avenue, since on-street parking is prohibited on this roadway within the study area. Additionally, on-street parking is prohibited on the south side of Van Buren Street along the site frontage and was therefore excluded from this survey. The results of the utilization survey are presented in Table 1 for the weekday evening study period and in Table 2 for the Saturday midday study period.

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Table 1. Existing Parking Utilization - Weekday Evening

| Location | \# of Spaces Provided ${ }^{1}$ |  | Hour Beginning |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 4PM | 5PM | 6PM | 7PM | 8PM |
| Fifth Third Arena | 122 | \# of vehicles | 54 | 83 | 78 | 83 | 72 |
| Parkıng Lot |  | \% occupancy | 44\%' | 68\% | 64\% | 68\% | 59\% |
| Overflow Parking | 357 | \# of vehicles | 227 | 125 | 47 | 17 | 8 |
| Lot |  | \% occupancy | 64\% | 35\% | 13\% | 5\% | 2\% |
| Jackson Boulevard | 14 | \# of vehicles | 12 | 16 | 11 | 11 | 13 |
| (North Side) |  | \% occupancy | 86\% | 114\% | 79\% | 79\% | 93\% |
| Jackson Boulevard | 47 | \# of vehicles | 37 | 38 | 41 | 34 | 31 |
| (South Side) |  | \% occupancy | 79\% | 81\% | 87\% | 72\% | 66\% |
| Wood Street | 5 | \# of vehicles | 3 | 1 | 2 | 0 | 0 |
| (East Side) |  | \% occupancy | 60\% | 20\% | 40\% | 0\% | 0\% |
| Wood Street | 8 | \# of vehicles | 7 | 1 | 0 | 1 | 0 |
| (West Side) |  | \% occupancy | 88\% | 13\% | 0\% | 13\% | 0\% |
| Ogden Avenue | 9 | \# of vehicles | 2 | 2 | 1 | 1 | 1 |
| (North Side) |  | \% occupancy | 22\% | 22\% | 11\% | 11\% | 11\% |
| Ogden Avenue (South Side) | 7 | \# of vehicles | 2 | 2 | 2 | 2 | 2 |
|  |  | \% occupancy | 29\% | 29\% | 29\% | 29\% | 29\% |
| Van Buren Street (North Side) | 34 | \# of vehicles | 18 | 17 | 10 | 8 | 6 |
|  |  | \% occupancy | 53\% | 50\% | 29\% | 24\% | 18\% |
| Malcolm X College Parking Garage | 1,213 | \# of vehicles | 304 | 282 | 232 | 158 | 109 |
|  |  | \% occupancy | 25\% | 23\% | 19\% | 13\% | 9\% |

Occupancy falls within range of functional capacity ( 85 to 95 percent)
percent)
${ }^{1}$ The number of on-street parking spaces is approximate based on the length of the curbine in areas designated for on-street parking During the survey period. No Parking signs were posted on a small portion of the south side of Jackson Boulevard due to construction activity

Table 2. Existing Parking Utilization - Saturday Midday

| Location | \# of <br> Spaces <br> Provided ${ }^{1}$ | Parking <br> Demand Metric | Hour Beginning |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 10AM | 11AM | 12PM | 1PM | 2PM |
| Fifth Third Arena | 122 | \# of vehicles | 81 | 58 | 89 | 117 | 92 |
| Parking Lot |  | \% occupancy | 66\% | 48\% | 73\% | 96\% | 75\% |
| Overflow Parking | 357 | \# of vehicles | 10 | 10 | 10 | 15 | 16 |
| Lot |  | \% occupancy | 3\% | 3\% | 3\% | 4\% | 4\% |
| Jackson Boulevard | 14 | \# of vehicles | 10 | 10 | 14 | 18 | 14 |
| (North Side) |  | \% occupancy | 71\% | 71\% | 100\% | 129\% | 100\% |
| Jackson Boulevard | 47 | \# of vehicles | 42 | 42 | 50 | 55 | 43 |
| (South Side) |  | \% occupancy | 89\% | 89\% | 106\% | 117\% | 91\% |
| Wood Street | 5 | \# of vehicles | 1 | 0 | 0 | 0 | 1 |
| (East Side) |  | \% occupancy | 20\% | 0\% | 0\% | 0\% | 20\% |
| Wood Street | 8 | \# of vehicles | 3 | 2 | 0 | 5 | 5 |
| (West Side) |  | \% occupancy | 38\% | 25\% | 0\% | 63\% | 63\% |
| Ogden Avenue | 9 | \# of vehicles | 0 | 0 | 0 | 0 | 0 |
| (North Side) |  | \% occupancy | 0\% | 0\% | 0\% | 0\% | 0\% |
| Ogden Avenue | 7 | \# of vehicles | 2 | 1 | 0 | 0 | 0 |
| (South Side) |  | \% occupancy | 29\% | 14\% | 0\% | 0\% | 0\% |
| Van Buren Street (North Side) | 34 | \# of vehicles | 5 | 6 | 6 | 5 | 5 |
|  |  | \% occupancy | 15\% | 18\% | 18\% | 15\% | 15\% |
| Malcolm X College | 1,213 | \# of vehicles | 115 | 124 | 123 | 107 | 104 |
| Parking Garage |  | \% occupancy | 9\% | 10\% | 10\% | 9\% | 9\% |

L Occupancy falls within range of functional capacity ( 85 to 95 percent)
percent)
${ }^{1}$ The number of on-street parking spaces is approximate based on the length of the curbine in areas designated for on-street parking During the survey period, No Parking signs were posted on a small portion of the south side of Jackson Boulevard due to construction activity

The results of the utilization survey show that the Fifth Third Arena parking lot provided sufficient capacity for patrons for the majority of the study period. During the 1:00PM hour on Saturday, occupancy in this lot reached functional capacity (the point at which the lot feels full to users). Industry best practices hold that parking facilities should provide a parking supply that is 5 to 15 percent higher than peak demand, this additional supply helps minimıze excessive vehicle circulation in search of a space during busy periods and also provides a cushion in the event of snow storage or parking lot maintenance. It should be noted that the parking supply in the Fifth Third Arena parking lot is listed as 122 spaces, but the space occupied by the driveway to Wood Street (which is gated and functionally closed at all times) was observed to be used as two additional parking spaces. As stated previously, the Overflow Parking Lot is available for use by Fifth Third Arena patrons at no charge after 4PM on weekdays and all day on weekends, though weekend utilization of this parking lot was very low.

On-street parking was generally below functional capacity for the majority of the survey periods, with the exception of Jackson Boulevard. On the north side of this roadway, on-street parking spaces are provided at the east end of the study segment along the Fifth Third Arena frontage and adjacent to the Malcolm X College parking garage At the west end of this segment, the north side of the street features a wide striped buffer to accompany the protected bike lane. It was observed during data collection that motorists regularly park in that striped buffer, contributing to occupancy rates that exceed 100 percent during several study hours. It is anticipated that these illegal parking behaviors, some of which encroached on
the bike lane itself, would be physically prohibited in the near future as CDOT implements its protected bike lane initiative by installing concrete barriers in all striped buffer zones by the end of 2023, and that the displaced parking demand would utilize other area streets that are shown to have available capacity. On the south side of Jackson Boulevard, motorists were seen parking in an area that was temporarily signed for No Parking at a construction driveway and within the limits of the CTA bus stop, similarly resulting in occupancy rates over 100 percent.

Further discussion of Arena-related parking behaviors and the assumptions utilized to aggregate both onand off-site parking demand for the existing facility is provided in Section 3.7. Existing Arena Transportation Characteristics.

### 3.7. Existing Arena Transportation Characteristics

Building upon the field data summarized in the preceding sections, existing transportation characteristics for Fifth Third Arena were documented to provide a baseline for evaluating the facility's future transportation demands. As detailed in this section, the traffic and parking data quantified in the field was supplemented with simultaneous door counts and with information about facility scheduling and attendance to develop trip generation, parking generation, and vehicle occupancy rates for the Arena.

## Arena Attendance

For many land use types, trip generation and parking generation rates are commonly grounded in a physical characteristic of the development, such as building square footage or the number of residential dwelling units. Due to unique nature of the subject facility, however, traffic and parking activity is better predicted by the nature of programming and associated attendance than by the size of the building or number of ice sheets provided. As such, Sam Schwartz coordinated with Fifth Third Arena leadership to obtain the daily schedule and attendance estimates for the same February dates on which traffic and parking data collection was performed.

It should be noted that the Arena offers dynamic programming for use by the surrounding community, hockey teams at local schools, and private hockey leagues for youth and adults, as well as serving as a practice facility for the Chicago Blackhawks; as such, there is no "standard schedule" for either weekdays or weekends. To inform this study, Sam Schwartz worked together with Arena leadership to select data collection dates that would feature a busy on-site schedule that is representative of weekday evening and Saturday midday conditions, including data collection during weekend tournament games (which produce more activity than weekend practices, since two teams are on the ice instead of one). Arena attendance estimates for the two data collection dates are shown in Exhibit 1 on the following page.

As shown, transportation data collection occurred during peak Arena-related activity on both Thursday and Saturday. Chicago Blackhawks practice on Thursday morning also produces a peak in attendance, but this programming occurs outside of peak area traffic volume (noted previously as 4:00-5:00PM for the weekday evening and $1: 00-2: 00 \mathrm{PM}$ on Saturday) and is therefore not expected to be a critical period of transportation activity for this study.

Approximate Arena Attendance - Thursday, February 23, 2023



Blackhawks Practice
Traffic \& Parking Count Perıod
$\square$
Parking Count Period Only
Exhibit 1. Existing Attendance at Fifth Third Arena during Transportation Data Collection

## Arena Parking Demand

Field observations revealed that Arena patrons largely utilize off-street parking spaces, but some patrons were also seen using on-street parking spaces, particularly on Jackson Boulevard. Informed by these observations, assumptions were developed and applied to the existing data detailed in Section 3.6 to estimate the total parking demand of the Arena. The resulting demand estimates are presented in Table 3 and Table 4 for weekday and Saturday periods, respectively. Lot occupancy for the Fifth Third Arena parking lot is included to provide context to patrons' ability to park on site, which informed assumed patron utilization of the Overflow Lot and nearby on-street parkıng.

Table 3. Estimated Arena Parking Demand - Weekday Evening

| Location | Estimated \% Use by Arena Patrons ${ }^{1}$ | Parking Demand Measure | Hour |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 4PM | 5PM | 6PM | 7PM | 8PM |
| Fifth Thırd Arena |  | \# of vehicles | 54 | 83 | 78 | 83 | 72 |
| Parkıng Lot | 100\% | \% occupancy | 44\% | 68\% | 64\% | 68\% | 59\% |
| Overflow Parking Lot | 0\% | \# of vehicles | - | - | - | - | - |
| Jackson Boulevard (North Side) | 20\% | \# of vehicles | 2 | 3 | 2 | 2 | 3 |
| Jackson Boulevard (South Side) | 20\% | \# of vehicles | 7 | 8 | 8 | 7 | 6 |
| Wood Street (East Side) | 0\% | \# of vehicles | - | - | - | - | - |
| Wood Street (West Side) | 0\% | \# of vehicles | - | - | - | - | - |
| Total Arena Parking Demand (vehicles) |  |  | 63 | 94 | 88 | 92 | 81 |

Estımated percent use by Arena patrons is applied to the baseline parking demand on each facility as presented in Table 1 to arrive at Arenarelated parking demand

Table 4. Estimated Arena Parking Demand - Saturday Midday

| Location | Estimated \% Use by Arena Patrons ${ }^{1}$ | Parking Demand Measure | Hour |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 10AM | 11AM | 12PM | 1PM | 2PM |
| Fifth Third Arena Parking Lot | 100\% | \# of vehicles | 81 | 58 | 89 | 117 | 92 |
|  |  | \% occupancy | 66\% | 48\% | 73\% | 96\% | 75\% |
| Overflow Parking Lot | 100\% | \# of vehicles | 10 | 10 | 10 | 15 | 16 |
| Jackson Boulevard (North Side) | 50\% | \# of vehicles | 5 | 5 | 7 | 9 | 7 |
| Jackson Boulevard (South Side) | 50\% | \# of vehicles | 21 | 21 | 25 | 28 | 22 |
| Wood Street (East Side) | 100\% | \# of vehicles | 1 | 0 | 0 | 0 | 1 |
| Wood Street (West Side) | 100\% | \# of vehicles | 3 | 2 | 0 | 5 | 5 |
| Total Arena Parking Demand (vehicles) |  |  | 121 | 96 | 131 | 174 | 143 |

[^0] related parking demand

On the weekday evening, it was observed that the Fifth Third Arena parking lot is well below capacity; as a result, a low percentage of parking demand on area streets was attributed to the Arena. On Saturday, however, the Fifth Third Arena parking lot reached $96 \%$ occupied in the 1:00PM hour, reaching what is considered to be functional capacity. Also in the 1:00PM hour, parking demand increased on several nearby off-site facilities, including the Overflow Parking Lot, Jackson Boulevard, and Wood Street. The parking demand recorded for those other nearby facilities was therefore attributed in whole or in part to the Arena, as detailed in Table 4.

In reviewing the total parking demand estimates for existing operations at Fifth Third Arena, several conclusions can be drawn:

- During the weekday evening peak hour of adjacent street traffic (recorded from 4:00-5:00PM), estimated off-site parking demand accounts for approximately 14 percent of the total estimated Arena parking demand. During the Saturday peak (1:00-2:00PM), estimated off-site parking demand is roughly 33 percent of the total. These factors will be applied later in this section to account for Arena-related trip generation that was not captured in driveway counts for the on-site parking lot.
- When compared to Arena attendance shown in Exhibit 1, a parking demand rate per attendee can be estımated as follows:
- On weekday evenings, the peak parking demand rate was recorded in the 5:00PM hour with 0.78 vehicles per attendee (measured against approximately 120 attendees).
- On Saturday, the peak parking demand rate was recorded in the 10:00AM hour with 0.45 vehicles per attendee (measured against approximately 267 attendees).
- While the parking demand rate estimates the number of vehicles per attendee, the inverse can be used to represent vehicle occupancy (number of attendees per vehicle). In comparing the hourly parking demand to associated attendance, estimated vehicle occupancy on weekday evenings ranges from 1.28 to 1.76 persons per vehicle. On Saturday, the range of vehicle occupancy rates is estimated at 2.21 to 2.71 persons per vehicle. The relative value of these vehicle occupancy rates aligns with the higher number of attendees per game on Saturday as compared to weekday evenings (as previously illustrated in Exhibit 1).


## Arena Vehicle Occupancy

Simultaneous with the traffic and parking data collection, Sam Schwartz conducted a door survey from 11:00AM to 1:00PM on Saturday to quantify entering patrons. This door survey was focused exclusively on patrons entering the Arena from the direction of the on-site parking lot; this allowed the results of the door survey to be compared to inbound vehicle counts for the Arena driveways for the purposes of calculating vehicle occupancy. The results of this comparison are summarized in Table 5.

Table 5. Arena Vehicle Occupancy Characteristics - Saturday

| Hour | Inbound Door <br> Count (persons) | Inbound Vehicle Count <br> Vehicle <br> Occupancy |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
|  |  | Driveway 2 <br> (Van Buren St) | Total | 53 | 2.66 |
| 11:00 AM | 141 | 53 | 0 | 60 | 2.27 |
| 12.00 PM | 136 | 60 | 0 | $\mathbf{1 1 3}$ | $\mathbf{2 . 4 5}$ |
| Total | 277 | 113 | 0 |  |  |

The range of vehicle occupancies presented in Table 5 are a close match to the vehicle occupancy rates estimated from Saturday parking demand data for the Arena, lending credibility to the parking demand assumptions detailed in the previous section. These vehicle occupancy rates were recorded during a period of time when local hockey teams were participating in tournament games and will provide a baseline for vehicle occupancy assumptıons used to estimate traffic and parking activity under future conditions.

## Arena Trip Generation

Based on count data obtained at the site-related driveways, peak site-related traffic was recorded from 4:00-5:00PM on the weekday evening and from 12:45-1:45PM on Saturday. The timing of these site peaks are very closely correlated to the peak hours of adjacent street traffic recorded from 4:00-5:00PM and 1:00-2:00PM, respectively. Table 6 presents the volume of peak site-related traffic during the weekday evening and on Saturday, including an adjustment factor that accounts for Arena-related patrons who parked on the street and therefore were not captured in the driveway counts. Note that Driveway 3 serving the Overflow Parking Lot was only included in Saturday trip generation calculations, since the Overflow Parking Lot is reserved for Rush University Medical Center for the majority of the weekday evening count period and because on-site parking data reveals that there was sufficient capacity for patrons to park in the Fifth Third Arena parking lot on the weekday evening.

Table 6. Existing Arena Trip Generation Data

| Day / Time | Driveway Counts ${ }^{1}$ |  |  | Adjusted Site Traffic ${ }^{2}$ | Approximate Arena Attendance ${ }^{3}$ | Arena Trip Generation (per attendee) |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | In | Out | Total |  |  | Rate | \% In | \% Out |
| Weekday Evening (4.00-5.00PM) | 47 | 25 | 72 | 84 | 97 | 0.87 | 65\% | 35\% |
| Saturday Midday (12:45-1-45PM) | 44 | 62 | 106 | 158 | 438 | 0.36 | 42\% | 58\% |

Driveway counts for weekday trip generation include Driveways 1 and 2 For Saturday trip generation, Driveway 3 is added
${ }^{2}$ As noted in Arena Parking Generation, off-site patron parking is assumed to account for approximately 14 percent of total demand. necessitatıng an adjustment factor of approximately 166 percent On Saturday, off-site parking accounts for roughly 33 percent of demand, necessitating an adjustment factor of approximately 487 percent
${ }^{3}$ For Saturday, average attendance for the $100-200 \mathrm{PM}$ hour was used
As will be described further in Section 4.4, Site Trip Generation \& Parking Demand, the above trip generation information will be used to evaluate weekday evening traffic characteristics for the expanded Arena under future conditions. Saturday midday traffic characteristics, however, will be derived from attendance projections for a large-scale tournament that draws teams from multiple states.

## 04. Future Conditions

In order to evaluate future intersection operations, the 2023 Existing Conditions traffic volumes were forecasted for a horizon year of Year 2029, the assumed year of overall project completion. Future traffic forecasting was based on two main factors: background traffic growth and trips generated by the proposed expansion.

### 4.1. Planned Area Infrastructure Improvements

Sam Schwartz obtained IDOT roadway design plans for Ogden Avenue from Damen Avenue to Adams Street and Intersection Design Studies (IDSs) for the intersections of Ogden Avenue/Van Buren Street and Ogden Avenue/Jackson Boulevard. These plans, which are associated with the programmed Ogden Avenue bridge replacement over l-290, show geometric changes along Ogden Avenue that enable the addition of a dedicated bike lane between Van Buren Street and Harrison Street, as well as modifications to traffic signals to provide protected-permitted phasing for new left-turn lanes. As noted previously, these modifications are programmed to be complete by FY 2028. The plans and IDS documents are included in the Appendix and show the following changes to the roadway operations along Ogden Avenue:

- Northbound Ogden Avenue would be converted to a single through lane from just south of Congress Parkway to just north of Jackson Boulevard.
- Southbound Ogden Avenue would be converted to a single through lane from Wood Street to just south of Harrison Street
- Dedicated northbound left-turn lanes would be added on Ogden Avenue at Van Buren Street and at Wood Street. At the signalized Ogden AvenueNan Buren Street intersection, a protectedpermitted left-turn phase would be added.
- A dedicated southbound left-turn lane would be added on Ogden Avenue at Jackson Boulevard, along with a protected-permitted left-turn phase.
- A dedicated southbound right-turn lane would be added on Ogden Avenue at Van Buren Street
- Signal timings would be modified to accommodate the new left-turn phases

In addition to these changes, Sam Schwartz received a signal timing plan for the intersection of Damen Avenue and Van Buren Street from CDOT dated December 1, 2022, that had not yet been implemented when field data collection was performed in February 2023. It was assumed that these timings, along with the planned modifications along Ogden Avenue detailed above, would be implemented before the Year 2029 design horizon. CDOT is also expected to implement a barrier-protected bike lane on Jackson Boulevard between Damen Avenue and Wood Street by the end of 2023.

A review of the City of Chicago's 2022-2026 Five-Year Capital Improvement Program and IDOT's FY 2023-2028 Proposed Highway Improvement Program indicated that there are no other planned improvements in the study area.

### 4.2. Future No-Build Traffic Projections

In order to estimate future background traffic for the Year 2029 design horizon, a 0.5 percent compounded annual growth rate was applied to the study network's roadways in accordance with CDOT's Policies and Guidelines for Traffic Impact Studies. This growth rate was applied to all roadways in the study area excepting the site access driveways and other private driveways within the study area. A

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two percent compounded annual growth rate was also applied to all pedestrian and bicycle volumes counted in the study area, per CDOT standard. The resulting volumes were balanced across the study area and added to existing volumes to yield Year 2023 No-Build traffic projections, illustrated on Figure 7.

### 4.3. Site Development Plan

The proposed project would expand Fifth Third Arena from two sheets of ice to four, enabling the Arena to support growing demand for its community programming (such as skills workshops, public skate events, and ice time for youth and adult hockey leagues) while retaining its function as the Chicago Blackhawks practice facility. Other planned features include a new main entrance on the south side of Jackson Boulevard and a supplementary building entrance on the south side facing the parking lot. It is anticipated that the expanded Arena would be completed in 2026.

As shown on the site plan in the Appendix, the building would be expanded to the west and would be accompanied by an expansion of the on-site parking lot, increasing the adjacent parking supply for the facility from 122 spaces to 332 spaces The existing Fifth Third Arena parking lot would be reconfigured to connect to the new on-site parking supply, providing more efficient internal vehicle circulation and enabling the new spaces to access to the facility's existing driveways. Additionally, the interior fencing currently used to provide dedicated and gated parking to the Chicago Blackhawks players during practices (per rules of the National Hockey League) would be relocated such that other drivers could circulate within the on-site parking lot at all times. The expanded parking lot would be served by a new full-access driveway on Jackson Boulevard immediately west of the building expansion (referred to herein as Driveway 4, located approximately 360 feet east of Damen Avenue) and a new full-access driveway to Van Buren Street (Driveway 5, located approximately 70 feet east of the gore for the l-290 Westbound Exit Ramp where it meets Van Buren). Given the lack of visibility to the Arena imposed by the elevation difference between Van Buren Street and the ramp itself, the merge angle between Van Buren Street and the ramp, and mitıgation strategies recommended later in this report, it is Sam Schwartz's opinion that the spacing between Driveway 5 and the ramp is sufficient to deter wrong-way maneuvers.

Delivery activities at the Arena are expected to remain the same as they are today, with box trucks and delivery vans completing deliveries on site in the drop-off area near the northeast building entrance.or near the loading doors on the south side of the existing building. Larger deliveries are made by semitrucks, which utilize the existing marked Loading Zone on Jackson Boulevard immediately west of Driveway 1.

Subsequent phases of development envisioned for this project include residential, hotel, and commercial components on Sub-Area B and Sub-Area C. While a detailed development plan has not yet been created for this mixed-use component, this study contemplates the maximum allowed density as detailed in the project's proposed PD Ordinance in order to provide a conservative analysis of potential future traffic impacts. The assumed development characteristics for Sub-Area B include up to 300 residential units, 350 hotel keys, and 24,700 square feet of commercial space, while Sub-Area $C$ is assumed to include up to 900 residential units, 313 hotel keys, and 27,300 square feet of commercial space. For both Sub-Areas, the commercial space was assumed to be 50 percent retail space, 25 percent fast casual restaurant, and 25 percent fine dining restaurant per discussions with the Fifth Third Arena leadership team. For the purposes of this study, the assumed year of completion for the mixed-use component of the project is 2029.


### 4.4. Future Development Transportation Characteristics

In order to develop projected site traffic volumes for the proposed development, the Arena was evaluated according to projected programming and attendance for a representative weekday (without tournament scheduling) and for a Saturday featuring a large-scale tournament that draws attendance from multiple states. The mixed-use component was analyzed using industry-standard data from the Institute of Transportation Engineers (ITE). The results of these calculations are detailed in the subsequent sections.

It should be noted that future parking demand was forecasted for the expanded Arena only, due to the unique operational characteristics of this facility and the associated influence on parking behaviors. For the mixed-use component of the development, it is anticipated that structured in-building parking would be incorporated into the future detailed architectural plans in order to meet City zoning requirements; as such, parking demand for those uses was not included in this study.

## Arena Trip Generation \& Parking Demand - Weekday (Non-Tournament)

As detailed in Section 3.7, the transportation characteristics of the Arena are closely related to the facility's programming and attendance. To inform this study, Fifth Third Arena leadership developed sample programs for the expanded facility and provided anticipated attendance per activity. For a representative future weekday (non-tournament day), anticipated programming includes Chicago Blackhawks practice from mid-morning to early afternoon (which would continue to occupy only two ice sheets, leaving the two other ice sheets for community programming), youth league and high school team practices in the late afternoon and early evening, and adult league games in the late evening (after 9:00PM), among other activities. The representative schedule developed for the purposes of this study includes concurrent programming of all four sheets throughout the day Building upon this information, Sam Schwartz developed assumptions about the timing of pre-activity arrivals and post-event departures to generate an attendance flow for weekday and weekend conditions. Exhibit 2 illustrates forecasted daily attendance for a representative weekday (non-tournament day), showing attendee arrivals within 30 minutes of the start of an activity and departures within 30 minutes of its completion.


## Exhibit 2. Projected Future Attendance at Fifth Third Arena on a Non-Tournament Weekday

As shown, the Arena expansion is expected to enable additional community programming, resulting in higher weekday attendance than is currently captured at the facility. While the existing weekday attendance chart in Exhibit 1 showed that Chicago Blackhawks practice produced some of the highest attendance numbers of the day, peak weekday attendance in the future is expected to occur in the late afternoon and evening with community programming on all four sheets.

It can also be noted that the rate of attendance growth during the weekday evening peak hour (4:005:00PM) is very similar under both existing and future conditions. Given this similarity, the weekday trip generation rate presented previously in Table 6 and the peak weekday parking demand rate provided in Section 3.7 are expected to provide reasonable estimates of vehicle trip generation and parking demand by attendee. Utilizıng this information, baseline Arena trip generation projections for a non-tournament weekday are presented in Table 7, and baseline weekday parking demand for the expanded Arena is presented in Table 8.

Table 7. Future Arena Trip Generation Projections - Weekday (Non-Tournament)

| Day / Time | Arena Trip Generation Rate (per attendee) |  |  | Projected Arena Attendance ${ }^{1}$ | Baseline Arena Trip Generation |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Rate | \% In | \% Out |  | In | Out | Total |
| Weekday Evening (4.00-5.00PM) | 0.87 | 65\% | 35\% | 233 | 135 | 70 | 205 |

[^1]Table 8. Future Arena Parking Demand Projections - Weekday (Non-Tournament)

| Day / Time | Arena Parking <br> Demand Rate <br> (per attendee) | Projected Arena <br> Attendance ${ }^{1}$ | Projected Peak <br> Parking Demand | Number of Parking <br> Spaces Needed ${ }^{2}$ |
| :---: | :---: | :---: | :---: | :---: |
| Weekday Evening | 078 | 260 | 203 | 226 |

${ }^{1}$ Average attendance projected for the 500-6 00PM hour, when peak parking demand was observed at the Arena under existing conditions
${ }^{2}$ Based on a recommended 90 percent occupancy rate to reflect functional capacity

## Arena Trip Generation \& Parking Demand - Saturday (Tournament)

For the Saturday study period, Fifth Third Arena leadership developed a sample program representative of a large-scale youth hockey tournament with a mult-state draw From this program, attendance forecasts were developed assuming a 28 -team tournament with games scheduled from 8:00AM through 9:30PM, preceded by general skills workshops and followed by adult league games. Youth hockey tournament games are conservatively estimated to have 150 attendees per game, or 75 attendees per team (roughly comprised of 17 players, 3 coaches, and slightly more than 3 spectators per player). Based on discussions with Arena leadership and Sam Schwartz's research into the travel behaviors of tournament attendees, it is assumed that attendees arrive no later than 60 minutes before scheduled game time and depart within 30 minutes of a game's completion. Roughly 10 percent of tournament attendees are assumed to linger at the Arena to watch other tournament games or patronize the on-site concessions; further discussion of internal capture between the Arena and the mixed-use development components will be provided in a subsequent section. Based on these assumptions, forecasted attendance for a Saturday tournament day is presented in Exhibit 3.


Exhibit 3. Projected Future Attendance at Fifth Third Arena on a Saturday (Tournament)

With an observed vehicle occupancy rate of 2.45 persons per vehicle at Fifth Third Arena during existing Saturday data collection, and given the estimate of just over 3 spectators per player for a large-scale tournament, a vehicle occupancy rate of 3.5 persons per vehicle was assumed for the purposes of this

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scenario. Applying this vehicle occupancy rate, and considering the inbound and outbound flow of attendees throughout the day, hourly trip generation projections for the Arena are illustrated in Exhibit 4.


Exhibit 4. Future Hourly Trip Generation Projections at Fifth Third Arena on a Saturday (Tournament)
Note: Because hourly trip generation projections are provided above on half-hourly intervals, the site traffic volumes shown above are not cumulative for a given day.

It should be noted that for the purposes of this analysis, it was assumed that all attendees would travel by personal auto, either as a driver or passenger, due to the bulky equipment required for hockey players. Transportation Demand Management (TDM) strategies for the Arena given its unique characteristics are discussed in Section 5.4.

As shown, peak hourly trip generation for the Arena during a large tournament is approximately 250 trips-a value that occurs throughout the day and also coincides with the peak hour of adjacent street traffic at 1:00PM. Based on the accumulation of inbound and outbound Arena trips throughout the day, it is projected that the peak on-site parking demand during a tournament of this size would be approximately 446 vehicles (coinciding with peak attendance estimates of 1,560 people).

During tournaments, it is anticipated that a portion of attendees are likely to stay at the hotels planned on Sub-Areas B and C. Some youth hockey tournaments arrange hotel blocks for tournament attendees under a "Stay to Play" policy, requiring that participating teams book a minimum number of room-nights at the designated hotels. For the purposes of this study, it was assumed based on coordination with Fifth Third Arena leadership that 20 percent of tournament attendees would stay in the on-site hotels, thereby reducing Arena parking demand by 20 percent (assuming that patrons' vehicles would be parked at the hotel and remain there). The influence of this 20 percent reduction on site trip generation will be applied
against hotel trips in the next section, reflecting how patrons do not have to move their vehicles to get to the Arena. While tournament attendees are also expected to patronize the restaurant uses on Sub-Areas $B$ and $C$, it was assumed for the purposes of parking demand analysis that those attendees' vehicles would remain parked in the Fifth Third Arena surface lot at that time; as such, no reduction was applied for internal capture between the Arena and adjacent restaurants.

A summary of peak transportation characteristics during a Tournament Saturday is provided in Table 9.
Table 9. Future Arena Transportation Projections - Saturday (Tournament)

| Day / Time | Baseline Arena <br> Trip Generation |  |  | Baseline Arena <br> Peak Parking <br> Demand | Arena Peak Parking <br> Demand Less <br> Hotel Overlap ${ }^{1}$ | Number of <br> Parking Spaces <br> Needed $^{2}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | In | Out | Total |  | 397 |  |
| Saturday Midday <br> (1:00-2.00PM) | 85 | 165 | 250 | 446 | 357 | 39 |

${ }^{1}$ Per discussions with Arena leadership, an estimated 20 percent of tournament attendees are assumed to stay in on-site hotels and park their vehicles in a future parking structure within the hotel building
${ }^{2}$ Based on a recommended 90 percent occupancy rate to reflect functional capacity

It should be noted that the majority of hockey tournaments that may take place at an expanded Fifth Third Arena would occur over the course of three days, with games scheduled on Friday, Saturday, and Sunday. A small number of tournaments schedule games on Thursdays; as such, Thursday tournament programming is expected to be infrequent. On the occasions that Friday tournament programming occurs, at Fifth Third Arena, it can be noted that tournament-related trip generation from 4:00-5:00PM (250 total trips) is similar to non-tournament trip generation during the same time period ( 205 total trips). Based on this comparison, and since the prevalence and stabilizatıon of remote work has significantly reduced Friday office attendance within the Chicago region, it is anticipated that the weekday (Thursday) peak hour evaluated in this report provides a more conservative evaluation than a Friday evening peak hour during a tournament.

## Mixed-Use Trip Generation

Site-generated trips for the mixed-use component of the development were projected using the Institute of Transportation Engineers (ITE) manual Trıp Generation, $11^{\text {th }}$ Edition, according to data provided for the relevant Land Use Codes (LUC). For the residential land uses, ITE provides a robust dataset of Person Trips in a Dense Multi-Use Urban setting; as such, this data was utilized for the purposes of this study. For all other land uses, data for vehicle trips in a General Urban/Suburban setting was applied. The corresponding trip generation rates and equations used in this analysis are shown in Table 10, and supplementary ITE data is excerpted in the Appendix.

Table 10. ITE Trip Generation Data for Mixed-Use Development

| Land Use | Unit (X) | - Trips Generated ( $T$ ) |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Weekday |  | Saturday |
|  |  | Daily | PM Peak | Midday Peak |
| Multifamily Housıng (Mid-Rise) (LUC 221) | Dwelling Units | $\begin{gathered} \mathrm{T}=908(\mathrm{X}) \\ 50 \% \text { in } / 50 \% \text { out } \\ \hline \end{gathered}$ | $\begin{gathered} T=054(X)+0.20 \\ 60 \% \text { in } / 40 \% \text { out } \end{gathered}$ | $\begin{gathered} T=0.85(X) \\ 48 \% \text { in } / 52 \% \text { out } \\ \hline \end{gathered}$ |
| Multifamily Housıng (High-Rıse) (LUC 222) | $\begin{aligned} & \text { Dwelling } \\ & \text { Units } \\ & \hline \end{aligned}$ | $\begin{gathered} T=7.32(X) \\ 50 \% \text { in } / 50 \% \text { out } \end{gathered}$ | $\begin{gathered} \mathrm{T}=062(\mathrm{X})-641 \\ 59 \% \text { in } / 41 \% \text { out } \end{gathered}$ | $\mathrm{T}=070(\mathrm{X})^{\prime}$ <br> $50 \%$ in / $50 \%$ out |
| Hotel (LUC 310) | Rooms | $\begin{gathered} T=10.84(X)-423.51 \\ 50 \% \text { in } / 50 \% \text { out } \end{gathered}$ | $T=0.59(X)$ <br> $51 \%$ in / $49 \%$ out | $\begin{gathered} \mathrm{T}=0.69(\mathrm{X})+5.95 \\ 56 \% \text { in } / 44 \% \text { out } \end{gathered}$ |
| Fine Dining Restaurant (LUC 931) | 1,000 SF | $\begin{gathered} T=83.84(X) \\ 50 \% \text { in } / 50 \% \text { out } \\ \hline \end{gathered}$ | $\begin{gathered} T=780(X) \\ 67 \% \text { in } / 33 \% \text { out } \end{gathered}$ | $\begin{gathered} T=10.68(X) \\ 59 \% \text { in } / 41 \% \text { out } \end{gathered}$ |
| Fast Casual Restaurant (LUC 930) | 1,000 SF | $\begin{gathered} \mathrm{T}=9714(\mathrm{X}) \\ 50 \% \text { in } / 50 \% \text { out } \\ \hline \end{gathered}$ | $\begin{gathered} \mathrm{T}=1255(\mathrm{X}) \\ 55 \% \text { in } / 45 \% \text { out } \\ \hline \end{gathered}$ | $\begin{gathered} \mathrm{T}=32.64(\mathrm{X}) \\ 55 \% \text { in } / 45 \% \text { out } \end{gathered}$ |
| Strip Retall Plaza <br> (<40ksf) (LUC 822) | 1,000 SF | $\begin{gathered} T=42.2(X)+22968 \\ 50 \% \text { in } / 50 \% \text { out } \end{gathered}$ | $T=6.59(X)$ <br> $50 \%$ in / $50 \%$ out | $\begin{gathered} T=657(X) \\ 51 \% \text { in } / 49 \% \text { out } \end{gathered}$ |

To identify a modal split for the residential land uses, reference was made to the U.S. Census Bureau's American Community Survey (ACS) data on Means of Transportation to Work. The hotel and commercial uses were assessed using data from Replica, a big-data resource that uses third party cell phone data to quantify transportation behaviors. It should be noted that the Census Tract containing the subject site contains very low residential density today, with the majority of the Census Tract being occupied by Fifth Third Arena, United Center, and Malcolm X College. Based on the nature of the proposed development, including its land use types and envisioned potential density, it is anticipated that the mixed-use portion of the subject site will be more likely to exhibit travel behaviors like those observed in the southern portion of the West Loop, which has similar transit access via the ĆTA Blue Line and Route 126 (Jackson) bus. ACS data and Replica data were therefore referenced from Census Tracts 8329 and 8331. The modal split for each land use type is summarized in Table 11.

Table 11. Mode Split Data by Land Use ${ }^{1}$

| Mode | Residential | Shop (Retail) |  | Restaurant |  | Hotel/Lodging |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Thursday | Saturday | Thursday | Saturday | Thursday | Saturday |
| Drove Alone/ <br> Carpooled/ <br> Private Auto | 34.1\% | 54.4\% | 53 2\% | 63 \%\% | 60 \% | 36 \%\% | 24 8\% |
| Public <br> Transportation | 17.0\% | 7.4\% | 6.2\% | 8.6\% | 6.9\% | 16.7\% | 16.4\% |
| Taxi/TNC | 1.6\% | 24\% | $52 \%$ | 3.2\% | 7.6\% | 4.7\% | 9.2\% |
| Bicycle | 4.6\% | 1.5\% | 2 2\% | 1.8\% | 2.9\% | 1.3\% | 2.5\% |
| Walked | 22.9\% | 32.5\% | 30.4\% | 21.6\% | 21.0\% | 39.1\% | 44 \% |
| Worked from Home | 19 2\% | - | - | - | - | - | - |
| Other | 06\% | 18\% | 28\% | 0.9\% | 1.0\% | 1.7\% | 25\% |
| Total non-auto mode share ${ }^{2}$ | 63.6\% | 41.4\% | 38.8\% | 32.0\% | 30.8\% | 57.1\% | 63.4\% |

${ }^{1}$ Residential mode split data was obtained from ACS 5-year estımates (2017-2021) for Means of Transportation to Work Other land uses are based on data from Replica Some rounding error may exist in the above data summary
${ }^{2}$ Non-auto modes include Public Transportation, Bicycle, Walked, and Worked from Home
In addition to the referenced mode split data, the following assumptions were identified for use in calculating mixed-use trip generation projections:

- As noted previously, it is assumed that 20 percent of Arena attendees on a Saturday tournament day would stay at on-site hotels. This 20 percent of Arena-related trip generation was subtracted from the hotel trips before any other reductions were applied (for non-auto mode share and internal capture with other on-site uses).
- Similarly, ten percent of Arena attendees on a Saturday tournament day were assumed to patronize restaurant uses. Ten percent of Arena-related trip generation was subtracted from the restaurant trips (five percent for Fine Dining and five percent for Fast Casual) before any other reductions were applied.
- Internal capture between the different elements of the mixed-use development was estimated using NCHRP 684 Internal Trip Capture Estimation Tool (provided in the Appendix).
- For the portion of trips attributed to taxi/rideshare, trip redundancy was added to reflect the arrival and departure of these vehicles for each passenger served.

Using the data and assumptions detailed in this section, projected trip generation for the mixed-use portion of the development is summarized in Table 12.

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Table 12. Future Mixed-Use Trip Generation Projections

| Land Use and Size |  | Weekday |  |  |  | Saturday |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Daily TOTAL | PM Peak |  |  | Midday Peak |  |  |
|  |  |  | IN | OUT | TOTAL | IN | OUT | TOTAL |
| Multifamily <br> Housing (Mid- <br> Rise) <br> (LUC 221) <br> 300 dwelling units <br> (Sub-Area B) | Base Trips - Sub-Area B (LUC 221) | 2,720 | 95 | 65 | 160 | 120 | 135 | 255 |
|  | Base Trips - Sub-Area C <br> (LUC 222) | 6,590 | 325 | 225 | 550 | 315 | 315 | 630 |
|  | Less Non-Auto Trips (63 6\%) | -5,920 | -265 | -185 | -450 | -275 | -285 | -560 |
| Multifamily <br> Housing (High- <br> Rise) <br> (LUC 222) <br> 900 dwelling units <br> (Sub-Area C) | Less Internal Capture (varies 17\%-24\%) | -640 | -30 | -25 | -55 | -40 | -40 | -80 |
|  | Taxi/TNC Mode Split $(16 \%)$ | 140 | 5 | 5 | 10 | 5 | 10 | 75 |
|  | Plus Taxi/TNC <br> Redundancy | 140 | 5 | 5 | 10 | 10 | 5 | 15 |
|  | Subtotal | 2,890 | 130 | 85 | 215 | 130 | 130 | 260 |
| Hotel (LUC 310) | Base Trips - Sub-Area B | 3,370 | 105 | 100 | 205 | 140 | 110 | 250 |
|  | Base Trips - Sub-Area C | 2,970 | 95 | 90 | 185 | 125 | 100 | 225 |
| 350 rooms (Sub-Area B) <br> 313 rooms <br> (Sub-Area C) | Less Arena Internal Capture (20\% of Arena trips on Saturday only) | - | - | - | - | -15 | -35 | -50 |
|  | Less Non-Auto Trips <br> (Thu. 57 1\%, Sat 63.4\%) | -3,620 | -115 | -110 | -225 | -160 | -110 | -270 |
|  | Less Mixed-Use Internal Capture (varies 8\%-21\%) | -290 | -10 | -5 | -15 | -20 | -15 | -35 |
|  | Taxi/TNC Mode Split <br> (Thu $47 \%$. Sai $92 \%$ ) | 290 | 10 | 10 | 20 | 20 | 15 | 35 |
|  | Plus Taxi/TNC Redundancy | 290 | 10 | 10 | 20 | 15 | 20 | 35 |
|  | Subtotal | 2,720 | 85 | 85 | 170 | 85 | 70 | 155 |
| Fine Dining Restaurant (LUC 931) | Base Trips - Sub-Area B | 520 | 30 | 20 | 50 | 40 | 25 | 65 |
|  | Base Trips - Sub-Area C | 570 | 35 | 20 | 55 | 45 | 30 | 75 |
| $\begin{aligned} & 6,175 \text { SF } \\ & \text { (Sub-Area B) } \end{aligned}$ | Less Arena Internal Capture (5\% of Arena trips on Saturday only) | - | - | - | - | -5 | -10 | -15 |
|  | Less Non-Auto Trips (Thu. 32.0\%, Sat 30.8\%) | -350 | -20 | -15 | -35 | -25 | -15 | -40 |
| 6,825 SF <br> (Sub-Area C) | Less Mixed-Use Internal Capture (varies 26\%-59\%) | -320 | -15 | -15 | -30 | -15 | -10 | -25 |
|  | Taxi/TNC Mode Split <br> (Thu 3 2\% Sat 76\%) | 20 | - | - | - | 5 | 5 | 10 |
|  | Plus Taxi/TNC Redundancy | 20 | - | - | -' | 5 | 5 | 10 |
|  | Subtotal | 440 | 30 | 10 | 40 | 45 | 25 | 70 |

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Table 12. Future Mixed-Use Trip Generation Projections (continued)

| Land Use and Size |  | Weekday |  |  |  | Saturday |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\begin{gathered} \text { Daily } \\ \hline \text { TOTAL } \end{gathered}$ | PM Peak |  |  | Midday Peak |  |  |
|  |  |  | IN | OUT | TOTAL | IN | OUT | TOTAL |
| Fast Casual Restaurant (LUC 930) | Base Trips - Sub-Area B | 600 | 45 | 35 | 80 | 110 | 90 | 200 |
|  | Base Trips - Sub-Area C | 660 | 45 | 40 | 85 | 125 | 100 | 225 |
|  | Less Arena Internal Capture (5\% of Arena trips on Saturday only) | - | - | - | - | -5 | -10 | -15 |
| $\begin{aligned} & 6,175 \text { SF } \\ & \text { (Sub-Area B) } \end{aligned}$ | Less Non-Auto Trips (Thu 32.0\%, Sat. $308 \%$ ) | -400 | -30 | -25 | -55 | -70 | -55 | -125 |
| $\begin{aligned} & 6,825 \text { SF } \\ & \text { (Sub-Area C) } \end{aligned}$ | Less Mixed-Use Internal Capture (varies 26\%-59\%) | -380 | -20 | -30 | -50 | -40 | -50 | -90 |
|  | Taxi/TNC Mode Split (Thu 32\%. Sat $76 \%$ ) | 30 | - | 5 | 5 | 15 | 10 | 25 |
|  | Plus Taxi/TNC Redundancy | 30 | 5 | - | 5 | 10 | 15 | 25 |
|  | Subtotal | 510 | 45 | 20 | 65 | 130 | 90 | 220 |
| Strip Retall Plaza (<40ksf) (LUC 822) | Base Trips - Sub-Area B | 750 | 40 | 40 | 80 | 40 | 40 | 80 |
|  | Base Trıps - Sub-Area C | 810 | 45 | 45 | 90 | 45 | 45 | 90 |
|  | Less Non-Auto Trips <br> (Thu 41.4\%, Sat $388 \%$ ) | -650 | -35 | -35 | -70 | -35 | -35 | -70 |
| 12,350 SF <br> (Sub-Area B) | Less Mixed-Use Internal Capture (62\%) | -560 | -30 | -30 | -60 | -30 | -30 | -60 |
| $\begin{aligned} & 13,650 \text { SF } \\ & \text { (Sub-Area C) } \end{aligned}$ | Taxi/TNC Mode Split (Thu $24 \%$ Sat $52 \%$ ) | 20 | 5 | - | 5 | 5 | 5 | 10 |
|  | Plus Taxi/TNC <br> Redundancy | 20 | - | 5 | 5 | 5 | 5 | 10 |
|  | Subtotal | 370 | 20 | 25 | 45 | 25 | 25 | 50 |
| Total New Mixed-Use Development Trips |  | 6,930 | 310 | 225 | 535 | 415 | 340 | 755 |

### 4.5. Future Parking Operations

With the proposed facility expansion, the Fifth Third Arena parking lot will provide a total 332 surface parking spaces for Arena patrons. As detailed in Section 4.4, peak parking demand for a non-tournament weekday evening is projected at 203 vehicles, which would result in a parking lot occupancy of approximately 61 percent. It can therefore be concluded that the Fifth Third Arena parking lot provides sufficient parking supply to accommodate demand on these representative weekdays, with additional supply available to potentially accommodate demand related to the future retail and restaurant uses (subject to future analysis). This is based on the conservative assumption that all Arena-related patrons would park in the off-street lot, though field observations reveal that some patrons choose to park on Jackson Boulevard even when the Fifth Third Arena parking lot is well below functional capacity.

Under the tournament conditions considered in this report, peak parking demand for attendees on Saturday is projected at 357 vehicles, requiring 397 spaces to provide a 10 percent buffer for functional capacity (the middle of the range detailed previously in Section 3.6). Since this demand exceeds the 332 spaces planned for the Fifth Third Arena parking lot, it is anticipated that Arena patrons may require the use of approximately 65 spaces in the Overflow Parking Lot. Existing parking demand in the Overflow

Parking Lot is well below capacity, with occupancy rates below five percent for the duration of the Saturday parking demand survey. As such, it is anticipated that Arena parking demand during weekend tournament conditions would be sufficiently accommodated in the on-site parking lot and Overflow Parking Lot. If tournament-related parking demand of this magnitude is expected to occur on a weekday when the Overflow Parking Lot is in use by Rush University Medical Center, it is recommended that Fifth Third Arena coordinate with Malcolm X College to gain access to available supply in their parking garage. During tournaments, it is recommended that Fifth Third Arena arrange for employees to park in whichever off-site parking facility is being utilized.

The outcome of this parking analysis was used to inform routing assumptions for Arena-related trips, with all weekday trips utilizing the Fifth Third Arena parkıng lot and weekend trips being split between the onsite parking lot and the Overflow Parking Lot.

### 4.6. Site Trip Assignments

The directional distribution of site-generated traffic is a function of several variables, including existıng travel patterns, characteristics of the area street network and traffic control, characteristics of the surrounding neighborhoods, and peak hour congestion within the study area. The resulting distribution percentages are based on engineering judgment, familiarity with the area and planned improvements, and logical travel paths to likely origins and destinations for site users. For a weekday (non-tournament), Arena users are expected to be located throughout the Chicagoland region; during Saturday (tournament) conditions, routing is oriented to area expressways (including l-90/94 via Ogden Avenue) and to the critical mass of hotels in the Loop. Routing for residential trips considers that a large portion of residents who work in the Loop would take transit rather than drive, and so most vehicle trips would reflect commute trips outside of this Central Business District. Hotel trips are primarily oriented toward the expressways, while commercial trips consider a more local draw for its customers.

As noted previously, two new driveways are proposed as part of the project: Driveway 4 (full access on Jackson Boulevard) and Driveway 5 (full access on Van Buren Street). It was assumed for the purposes of site trip assignments that Sub-Area B would utilize Driveways 4 and 5 and that Sub-Area C would provide a three-quarters access on Damen Avenue (Driveway 6, with no inbound left-turns permitted) and a full-access driveway on Jackson Boulevard (Driveway 7).

All taxi and TNC trips to the residential, hotel and commercial were assumed to drop off passengers along Van Buren Street or Jackson Boulevard. All personal vehicle trips to these land uses were assumed to enter the site at one of the new site driveways (Driveways 4 through 7), and internal crossaccess between Sub-Areas $B$ and $C$ was assumed to be in place. Arena trips were primarily assigned to the existing site driveways (Driveways 1 and 2 ) and the two easternmost new site driveways (Driveways 4 and 5). However, because the parking analysis revealed that use of the Overflow Parking Lot will be necessary during peak periods on weekends, some Arena trips were assigned to Driveway 3 during the Saturday midday peak hour. These vehicles were assumed to first travel to the primary parking lot and, upon finding this lot to be full, subsequently reroute to the Overflow Parking Lot. Given these considerations, projected trip distribution percentages by land use are shown in Table 13.

Table 13. Directional Distribution of Site-Generated Trips

| Trips tolfrom | Arena |  |  |  | Residential |  | Hotel |  | Commercial |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\qquad$ |  | Saturday (Tournament) |  |  |  |  |  |  |  |
|  | IN | OUT | IN | OUT | IN | OUT | IN | OUT | IN | OUT |
| North via Damen Avenue | 15\% | 5\% | - | - | 10\% | 5\% | - | - | 15\% | 15\% |
| North via Wood Street | - | 10\% | - | - | - | 5\% | - | - | 5\% | 5\% |
| Northeast via Ogden Avenue | 20\% | 20\% | 30\% | 30\% | 25\% | 25\% | 30\% | 30\% | 30\% | 30\% |
| South via Damen Avenue | 10\% | - | - | - | 10\% | 5\% | - | - | 5\% | 5\% |
| Southwest via Ogden Avenue | - | 10\% | - | - | - | 5\% | - | - | 5\% | 5\% |
| East via 1-290 | 10\% | 10\% | 20\% | 20\% | 15\% | 15\% | 30\% | 30\% | 5\% | 5\% |
| East via Jackson Boulevard | - | 5\% | - | 10\% | - | 5\% | - | - | - | 10\% |
| East via Adams Street | 5\% | - | 10\% | - | 5\% | - | - | - | 10\% | - |
| West via 1-290 | 30\% | 30\% | 40\% | 40\% | 35\% | 35\% | 40\% | 40\% | 5\% | 5\% |
| West via Jackson Boulevard | 10\% | - | - | - | - | - | - | - | 20\% | 5\% |
| West via Van Buren Street | - | 10\% | - | - | - | - | - | - | - | 10\% |
| West via Adams Street | - | - | - | - | - | - | - | - | - | 5\% |
| Total | 100\% | 100\% | 100\% | 100\% | 100\% | 100\% | 100\% | 100\% | 100\% | 100\% |

Using the above distribution and routing patterns, site-generated trips were assigned to the study intersections for each land use. The resulting peak hour trip assignments for the mixed-use development and Arena are shown on Figure 8 and Figure 9, respectively. The site-generated trips shown in Figures 8 and 9 were then added to the study network, resulting in the Year 2029 Future Build traffic projections shown on Figure 10. Note that the Future Build traffic volumes do not include existing Arena-related trips at Driveway 1 and Driveway 2; these volumes were removed from the network guided by the weekday (non-tournament) trip distribution. Conservatively, Saturday trips at Driveway 3 were not subtracted




## 05. Analysis \& Recommendations

Using the 2023 Existing Conditions and 2029 Future Build Conditions traffic projections outlined in the previous sections of this report, capacity analyses were prepared to evaluate existing and future operational conditions with the completion of the proposed expansion.

### 5.1. Capacity Analysis Methodology

The operational effectiveness of transportation facilities is measured in terms of Level of Service (LOS). LOS ranges from LOS A to LOS $F$, with LOS A reflecting the lowest level of vehicular delay and LOS F being the highest. LOS A represents free-flow conditions where motorists experience a high level of comfort and convenience. LOS E represents saturated or at-capacity conditions, and LOS F represents oversaturated conditions. During peak periods, it is not uncommon for heavily traveled urban arterial roadways to operate at LOS E or LOS F due to a combination of heavy demand and physical constraints.

LOS at a signalized intersection is defined in terms of average control delay (measured in seconds per vehicle), which is portion of total delay experienced by a motorist that is attributable to the traffic signal. LOS A describes operations with minimal delays (up to 10 seconds per vehicle), while LOS F describes operations with delays in excess of 80 seconds per vehicle. At intersections with long cycle lengths, the quantity of red time that is allocated to an approach or movement may near or exceed that 80 -second threshold, increasing the likelihood of poor LOS. The LOS criteria for signalized intersections, as defined in the Highway Capacity Manual, Sixth Edition (HCM), are provided in Table 14.

Table 14. LOS Criteria for Signalized Intersections

| Level of Service (LOS) | Average Delay |
| :---: | :---: |
| A | $\leq 10.0$ seconds |
| B | $>10.0$ and $\leq 20.0$ seconds |
| C | $>20.0$ and $\leq 35.0$ seconds |
| D | $>35.0$ and $\leq 55.0$ seconds |
| E | $>55.0$ and $\leq 80.0$ seconds |
| F | $>80.0$ seconds |
| Transportation Research Board Highway Capactiy Manual, Sxxth Edtion |  |

For unsignalized intersections, total delay is defined as the total elapsed time from the moment a vehicle stops at the back of the queue until the vehicle departs from the stop bar on the stop-sign controlled approach. This includes the time required for the vehicle to travel from the last-in-queue to the first-inqueue position. The LOS thresholds for unsignalized intersections, which differ from those for signalized intersections, are summarized in Table 15.

Table 15. LOS Criteria for Unsignalized Intersections

| Level of Service (LOS) | Average Delay |
| :---: | :---: |
| A | $\leq 10.0$ seconds |
| B | $>10.0$ and $\leq 15.0$ seconds |
| C | $>15.0$ and $\leq 25.0$ seconds |
| D | $>25.0$ and $\leq 35.0$ seconds |
| E | $>35.0$ and $\leq 50.0$ seconds |
| F | $>50.0$ seconds |

Transportation Research Board Highway Capacity Manual, Sixth Edition
${ }^{1}$ LOS grades assume volume-to-capacity (v/c) ratıo $<1$, LOS F is triggered when v/c $\geq 1$
Capacity analysis was performed to analyze the study intersections for the weekday peak hours using Synchro 11 capacity analysis software. Synchro's Lanes, Volumes, and Timings report was used to evaluate intersection capacity at the signalized intersections. For unsignalized study intersections, the $H C M 6^{\text {th }}$ Edition report was referenced Detailed Synchro reports are included in the Appendix.

### 5.2. Existing Intersection Operations

The results of capacity analysis for the Existing Condition are summarized in Table 16 and Table 17. As shown, all intersection lane groups in the study area currently operate at acceptable LOS D or better during both analyzed peak hours. It can be noted that the $95^{\text {th }}$ percentile queue on westbound Van Buren at Damen Avenue extends past the I-290 Exit Ramp, located roughly 200 feet east of Damen Avenue. This queuing was also seen in two field observations (with and without an upcoming evening event at the United Center), causing some vehicles to queue on the I-290 Exit Ramp extending back to the interstate. Queued vehicles on Van Buren and on the ramp were observed to generally clear the intersection in a single cycle during both field observations in the evening peak period. During the short period of time that two cycles were required to fully clear queued vehicles, the queues on Van Buren Street did not extend to Ogden Avenue. Congestion on this approach is exacerbated by weaving behaviors between vehicles on Van Buren Street (to turn left onto Damen Avenue) and those on the l-290 Westbound Exit Ramp (to go through or make a right turn at Damen Avenue). These behaviors may also be impacted by lack of clarity on lane configuration due to missing striping for the outer two through lanes on Van Buren Street. In addition to the Synchro analyses summarized in the capacity tables, a SimTraffic simulation was run for the study area, revealing queues on Van Buren Street that were similar to those observed in the field; this simulation is therefore assumed to provide a sufficient baseline for the future condition.

Table 16. Existing (Year 2023) Levels of Service (Signalized Intersections)

| Intersection \& Approach | Weekday PM Peak Hour |  |  |  |  | Saturday Midday Peak Hour |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Lane Group | vc <br> Ratio | Delay (sec) | LOS | Queue <br> Length (ft) | Lane Group | v/c Ratio | Delay (sec) | LOS | Queue Length (ft) |
| Damen Avenue \& Jackson Boulevard |  |  |  |  |  |  |  |  |  |  |
| Eastbound | L | 0.03 | 10.9 | B | 16 | L | 0.02 | 10.8 | B | 10 |
|  | TR | 0.31 | 10.7 | B | 84 | TR | 0.18 | 7.2 | A | 45 |
| Northbound | L | 0.51 | 24.4 | C | \#80 | L | 0.10 | 11.6 | B | 20 |
|  | TR | 0.69 | 16.8 | B | 214 | TR | 0.51 | 13.6 | B | 143 |
| Southbound | L | 0.37 | 21.2 | C | 43 | L | 0.12 | 12.2 | B | 20 |
|  | TR | 0.56 | 14.9 | B | 166 | TR | 0.36 | 12.6 | B | 101 |
|  | Interse | ction | 15.9 | $B$ |  | Interse | ction | 12.6 | $\bar{B}$ |  |
| Ogden Avenue \& Jackson Boulevard |  |  |  |  |  |  |  |  |  |  |
| Eastbound | L | 0.12 | 20.9 | C | 63 | L | 0.10 | 20.6 | C | 54 |
|  | TR | 0.19 | 21.0 | C | 71 | TR | 0.08 | 17.8 | B | 33 |
| Northeastbound | TR | 0.39 | 9.3 | A | 94 | TR | 0.24 | 9.1 | A | 65 |
| Southwestbound | LT | 0.60 | 15.5 | B | 266 | LT | 0.31 | 11.8 | B | 122 |
|  | Interse | ction | 14.1 | $B$ |  | Interse | ction | 11.8 | $B$ |  |
| Damen Avenue \& Van Buren Street |  |  |  |  |  |  |  |  |  |  |
| Westbound | L | 0.30 | 31.8 | C | 129 | L | 0.34 | 32.8 | C | 146 |
|  | LTR | 0.97 | 54.3 | D | \#410 | LTR | 0.43 | 21.1 | C | 117 |
| Northbound | L | 0.86 | 38.9 | D | \#157 | L | 0.41 | 9.3 | A | 72 |
|  | T | 0.32 | 6.2 | A | 102 | T | 0.19 | 5.3 | A | 62 |
| Southbound | T | 0.35 | 15.7 | B | 171 | T | 0.20 | 14.1 | B | 96 |
|  | R | 0.21 | 10.0 | B | 74 | R | 0.21 | 2.7 | A | 33 |
|  | Interse | ction | 30.3 | C |  | Interse | ction | 13.6 | B |  |
| Ogden Avenue \& Van Buren Street |  |  |  |  |  |  |  |  |  |  |
| Westbound | LTR | 0.70 | 30.1 | C | 295 | LTR | 0.08 | 17.8 | B | 33 |
| Northeastbound | LT | 0.47 | 12.7 | B | 178 | LT | 0.26 | 10.4 | B | 93 |
| Southwestbound | TR | 0.68 | 3.4 | A | 20 | TR | 0.34 | 0.6 | A | 0 |
|  | Interse | ction | 14.0 | B |  | Interse | ction | 5.8 | A |  |
| Damen Avenue \& Congress Parkway |  |  |  |  |  |  |  |  |  |  |
| Eastbound | L | 0.49 | 35.8 | D | 213 | L | 0.30 | 31.7 | C | 135 |
|  | LTR | 0.50 | 29.9 | C | 174 | LTR | 0.31 | 22.9 | C | 97 |
|  | R | 0.38 | 6.6 | A | 58 | R | 0.26 | 6.8 | A | 47 |
| Northbound | T | 0.49 | 18.2 | B | 256 | T | 0.30 | 15.7 | B | 148 |
|  | R | 0.45 | 3.7 | A | 62 | R | 0.23 | 2.6 | A | 36 |
| Southbound | L | 0.60 | 19.1 | B | 86 | L | 0.41 | 12.1 | B | 74 |
|  | T | 0.26 | 3.1 | A | 42 | T | 0.16 | 5.7 | A | 48 |
|  | Interse | ction | 15.3 | $B$ |  | Interse | ction | 13.5 | $B$ |  |

[^2]Table 17. Existing (Year 2023) Levels of Service (Unsignalized Intersections)

| Intersection \& Approach | Weekday PM Peak Hour |  |  |  |  | Saturday Peak Hour |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Lane Group | v/c <br> Ratio | $\begin{aligned} & \text { Delay } \\ & (\mathrm{sec}) \end{aligned}$ | LOS | Queue Length (ft) | Lane Group | v/c Ratio | $\begin{aligned} & \text { Delay } \\ & \text { (sec) } \end{aligned}$ | LOS | Queue Length (ft) |
| Wood Street \& Adams Street (AWSC) |  |  |  |  |  |  |  |  |  |  |
| Westbound | LTR | 0.19 | 9.1 | A | 19 | LTR | 0.04 | 7.7 | A | 3 |
| Northbound | LT | 0.24 | 9.3 | A | 23 | LT | 011 | 7.8 | A | 10 |
| Southbound | TR | 0.16 | 8.5 | A | 15 | TR | 0.09 | 7.3 | A | 7 |
|  | Intersection |  | 90 | A |  | Intersection |  | 7.6 | A |  |
| Garage Exit \& Jackson Boulevard (TWSC) |  |  |  |  |  |  |  |  |  |  |
| Southbound | L | 0.04 | 10.0 | B | 3 | L | 0.01 | 9.1 | A | 0 |
| Driveway 1 \& Jackson Boulevard (TWSC) |  |  |  |  |  |  |  |  |  |  |
| Northbound | R | 0.03 | 9.8 | A | 3 | R | 0.07 | 9.5 | A | 5 |
| Wood Street \& Jackson Boulevard (AWSC) |  |  |  |  |  |  |  |  |  |  |
| Eastbound | LTR | 0.23 | 9.6 | A | 23 | LTR | 0.16 | 8.3 | A | 14 |
| Northbound | TR | 0.13 | 8.8 | A | 10 | TR | 0.05 | 7.8 | A | 5 |
| Southbound | LT | 0.27 | 9.8 | A | 28 | LT | 0.09 | 8.0 | A | 7 |
|  | Intersection |  | 9.5 | A |  | Intersection |  | 8.2 | A |  |
| Wood Street \& Ogden Avenue (TWSC) |  |  |  |  |  |  |  |  |  |  |
| Southbound | LR | 0.37 | 17.5 | C | 40 | LR | 0.14 | 10.9 | B | 13 |
| Northeastbound (Left) | LT | 0.14 | 11.9 | B | 13 | LT | 0.03 | 8.7 | A | 3 |
| Driveway 2 \& Van Buren Street (TWSC) |  |  |  |  |  |  |  |  |  |  |
| Southbound | R | 0.01 | 12.6 | B | 0 | R | 0.00 | 9.3 | A | 0 |
| L = Left Turn, $T=$ Through, $R=$ Right Turn <br> AWSC = All-Way Stop-Controlled Intersection <br> TWSC = Two-Way Stop-Controlled Intersection <br> LOS = Level of Service <br> \# = 95th percentle volume exceeds capacity, queue may be longer |  |  |  |  |  |  |  |  |  |  |

### 5.3. Future Intersection Operations

To assess the impact of the proposed Arena expansion on traffic operations within the study area, capacity analyses were performed for the Year 2029 Build conditions. The results of these analyses are detailed in the following sections.

## Future Build Conditions - Unmitigated Scenario

The planned geometric and traffic control changes described in Section 4.1 and the site development plans described in Section 42 were incorporated into the Future Build Conditions - Unmitigated Scenario analysis model. Based on these assumptions, area traffic operations for this scenario for signalized and unsignalized intersections are projected as shown in Table 18 and Table 19.

As shown, the majority of intersection lane groups are expected to continue to operate at acceptable LOS D or better during both study peak periods. During the weekday evening peak hour, there are a few exceptions with instances of high delay or long queues, as detailed below:

- The southbound left-turn lane at Damen Avenue and Jackson Boulevard is projected at LOS F.
- Damen Avenue and Van Buren Street is projected to operate at an overall LOS E. Two individual lane groups at this intersection also demonstrated at- or over-capacity conditions in the analysis model: the westbound shared left-turn/through/right-turn lane group is projected to operate at LOS $F$, and the northbound left-turn lane is expected to operate at LOS E with a projected $95^{\text {th }}$ percentile queue of 386 feet during the weekday evening peak hour (which would extend into the upstream intersection of Damen Avenue/Congress Parkway).
- The westbound approach at Van Buren Street and Ogden Avenue is projected to operate at LOS E. It should be noted that the signal timings on the IDOT-provided IDS for this intersection, which were utilized in the Synchro analysis of future traffic operations, show a longer cycle length (from 90 seconds to 105 seconds) after completion of the Ogden Avenue bridge replacement project and a reduced westbound split (from 34 seconds to 31 seconds), thereby increasing the red time for westbound Van Buren Street as a result of the proposed project. The associated $95^{\text {th }}$ percentile queue would not be expected to obstruct access to the nearby I-290 Westbound Entrance Ramp located just east of Paulina Street.
- Also at Ogden Avenue and Van Buren Street, it is noted that the geometric modifications planned by IDOT at this location (converting the southwestbound approach of Ogden Avenue at Van Buren Street from two through lanes with a shared right-turn movement to one through lane and a dedicated right-turn lane) result in a projected $95^{\text {th }}$ percentile queue of approximately 850 feet for the southwestbound through lane under Build conditions. However, it can be noted that a queue of this length was not observed in a simulation of this scenario in SimTraffic, which showed a southwestbound queue that remained south of Jackson Boulevard.

As under existing conditions, the queue on the westbound approach of Van Buren Street and Damen Avenue is projected to extend past the I-290 off-ramp. With the addition of background growth and site traffic, this queue is projected to be approximately 545 feet in length. It can be noted that the block length of this segment of Van Buren Street is over 1,000 feet.

The described changes in operation were taken into account when identifying improvement opportunities within the study area, as detailed in the next section about the Mitigated Scenario.

Table 18. Future (Year 2029) Build - Unmitigated Levels of Service (Signalized
Intersections)

| Intersection \& Approach | Weekday PM Peak Hour |  |  |  |  | Saturday Midday Peak Hour |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Lane Group | v/c <br> Ratio | Delay (sec) | LOS | Queue Length (ft) | Lane Group | v/c Ratio | Delay (sec) | LOS | Queue Length (ft) |
| Damen Avenue \& Jackson Boulevard |  |  |  |  |  |  |  |  |  |  |
| Eastbound | L | 0.03 | 10.9 | B | 16 | L | 0.02 | 10.8 | B | 10 |
|  | TR | 0.35 | 12.0 | B | 101 | TR | 0.23 | 8.6 | A | 60 |
| Northbound | L | 054 | 26.7 | C | \#90 | L | 0.12 | 12.0 | B | 22 |
|  | TR | 0.80 | 19.8 | B | 263 | TR | 0.63 | 144 | B | 180 |
| Southbound | L | 1.01 | 117.3 | F | \#135 | L | 0.61 | 34.2 | C | \#101 |
|  | TR | 0.58 | 15.1 | B | 173 | TR | 0.37 | 12.7 | B | 104 |
|  | Interse | ction | 21.9 | C |  | Interse | ction | 14.4 | B |  |
| Ogden Avenue \& Jackson Boulevard |  |  |  |  |  |  |  |  |  |  |
| Eastbound | L | 0.36 | 34.5 | C | 152 | L | 0.44 | 36.0 | D | 198 |
|  | TR | 0.28 | 32.0 | C | 102 | TR | 0.16 | 29.0 | C | 62 |
| Northeastbound | TR | 0.70 | 10.6 | B | 148 | TR | 0.43 | 9.6 | A | 112 |
| Southwestbound | L | 0.04 | 6.2 | A | 8 | L | 0.01 | 6.0 | A | 6 |
|  | T | 0.51 | 10.7 | B | 255 | T | 0.32 | 8.7 | A | 138 |
|  | Interse | ction | 14.4 | $B$ |  | Interse | ction | 14.6 | B |  |
| Damen Avenue \& Van Buren Street |  |  |  |  |  |  |  |  |  |  |
| Westbound | L | 0.45 | 49.3 | D | 161 | L | 0.62 | 42.7 | D | 240 |
|  | LTR | 1.28 | 173.2 | F | \#546 | LTR | 0.71 | 31.0 | C | 210 |
| Northbound | L | 0.98 | 63.4 | E | \#386 | L | 0.47 | 13.9 | B | 105 |
|  | T | 0.41 | 7.6 | A | 147 | T | 0.26 | 7.9 | A | 112 |
| Southbound | T | 0.39 | 18.6 | B | 197 | T | 0.22 | 16.5 | B | 110 |
|  | R | 0.24 | 7.0 | A | 61 | R | 0.24 | 3.1 | A | 37 |
|  | Interse | ction | 78.0 | E |  | Interse | ction | 19.9 | B |  |
| Ogden Avenue \& Van Buren Street |  |  |  |  |  |  |  |  |  |  |
| Westbound | LTR | 0.95 | 58.0 | E | \#444 | LTR | 0.10 | 25.9 | C | 44 |
| Northeastbound | L | 0.27 | 10.0 | A | 20 | L | 0.07 | 6.0 | A | 19 |
|  | T | 0.64 | 13.7 | B | 414 | T | 0.39 | 9.4 | A | 188 |
| Southwestbound | T | 0.89 | 22.1 | C | \#847 | T | 0.39 | 6.6 | A | 46 |
|  | R | 0.46 | 3.8 | A | 20 | R | 0.41 | 2.2 | A | 0 |
|  | Interse | ction | 27.6 | C |  | Interse | ction | 7.5 | A |  |
| Damen Avenue \& Congress Parkway |  |  |  |  |  |  |  |  |  |  |
| Eastbound | L | 0.58 | 38.4 | D | 252 | L | 0.42 | 34.1 | C | 183 |
|  | LTR | 0.60 | 34.1 | C | 220 | LTR | 0.40 | 29.9 | C | 144 |
|  | R | 0.43 | 6.6 | A | 62 | R | 0.31 | 6.6 | A | 51 |
| Northbound | T | 0.51 | 18.6 | B | 275 | T | 0.32 | 15.9 | B | 158 |
|  | R | 0.48 | 5.6 | A | 103 | R | 0.23 | 2.6 | A | 36 |
| Southbound | L | 0.77 | 34.3 | C | \#167 | L | 0.60 | 23.4 | C | 108 |
|  | T | 0.27 | 3.5 | A | 54 | T | 0.17 | 6.9 | A | 71 |
|  | Interse | ction | 18.2 | B |  | Interse | ction | 171 | B |  |

$\mathrm{L}=$ Left Turn, $\mathrm{T}=$ Through, $\mathrm{R}=$ Right Turn
LOS $=$ Level of Service
\# = 95th percentile volume exceeds capacity, queue may be longer

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Table 19. Future (Year 2029) Build - Unmitigated Levels of Service (Unsignalized Intersections)

| Intersection \& Approach | Weekday PM Peak Hour |  |  |  |  | Saturday Peak Hour |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Lane Group | v/c Ratio | Delay (sec) | LOS | Queue Length (ft) | Lane Group | v/c Ratio | Delay (sec) | LOS | Queue Length (ft) |
| Wood Street \& Adams Street (AWSC) |  |  |  |  |  |  |  |  |  |  |
| Westbound | LTR | 0.22 | 9.5 | A | 21 | LTR | 0.07 | 8.0 | A | 5 |
| Northbound | LT | 0.26 | 9.6 | A | 25 | LT | 0.12 | 8.0 | A | 10 |
| Southbound | TR | 0.18 | 8.8 | A | 15 | TR | 0.12 | 7.6 | A | 10 |
|  | Intersection |  | 9.4 | A |  | Intersection |  | 7.9 | A |  |
| Garage Exit \& Jackson Boulevard (TWSC) |  |  |  |  |  |  |  |  |  |  |
| Southbound | L | 0.05 | 10.7 | B | 5 | L | 0.01 | 9.9 | A | 0 |
| Driveway 1 \& Jackson Boulevard (TWSC) |  |  |  |  |  |  |  |  |  |  |
| Northbound | R | 0.02 | 10.4 | B | 3 | R | 0.02 | 10.3 | B | 3 |
| Wood Street \& Jackson Boulevard (AWSC) |  |  |  |  |  |  |  |  |  |  |
| Eastbound | LTR | 0.33 | 10.7 | B | 36 | LTR | 0.31 | 9.9 | A | 34 |
| Northbound | TR | 0.14 | 9.2 | A | 13 | TR | 0.06 | 8.4 | A | 5 |
| Southbound | LT | 0.30 | 10.5 | B | 30 | LT | 0.16 | 9.0 | A | 15 |
|  | Intersection |  | 10.5 | B |  | Intersection |  | 9.6 | A |  |
| Wood Street \& Ogden Avenue (TWSC) |  |  |  |  |  |  |  |  |  |  |
| Southbound | LR | 0.47 | 22.0 | C | 60 | LR | 0.22 | 12.4 | B | 20 |
| Northeastbound (Left) | L | 0.17 | 13.0 | B | 15 | L | 0.04 | 9.2 | A | 3 |
| Driveway 2 \& Van Buren Street (TWSC) |  |  |  |  |  |  |  |  |  |  |
| Southbound | R | 0.04 | 14.0 | B | 3 | R | 0.06 | 10.4 | B | 5 |
| Driveway 4 \& Jackson Boulevard (TWSC) |  |  |  |  |  |  |  |  |  |  |
| Northbound | R | 0.10 | 11.2 | B | 8 | R | 0.12 | 10.5 | B | 10 |
| Driveway 5 \& Van Buren Street (TWSC) |  |  |  |  |  |  |  |  |  |  |
| Southbound | R | 0.23 | 15.5 | C | 23 | $R$ | 0.25 | 12.1 | B | 25 |
| Driveway 6 \& Damen Avenue (TWSC) |  |  |  |  |  |  |  |  |  |  |
| Westbound | LR | 0.46 | 72.9 | F | 48 | LR | 0.22 | 24.1 | C | 20 |
| Driveway 7 \& Jackson Boulevard (TWSC) |  |  |  |  |  |  |  |  |  |  |
| Northbound | R | 0.08 | 11.1 | B | 5 | R | 0.10 | 10.4 | B | 8 |
| ```L = Left Turn. T = Through, R = Rıght Turn lAWSC = All-Way Stop-Controlled Intersection TWWSC = Two-Way Stop-Controlled Intersection LLOS = Level of Servce # = 95th percentile volume exceeds capacity, queue may be longer``` |  |  |  |  |  |  |  |  |  |  |

## Future Build Conditions - Mitigated Scenario

Based on the operational results detailed for the Future Build Conditions - Unmitigated Scenario, recommended improvements were identified to mitigate the impact of the subject development and to address some existing deficiencies that are further exacerbated by the addition of background growth and development traffic. Several additional recommendations are also included to enhance pedestrian safety and comfort, including curb extensions and additional landscaping between the sidewalk and the street. Modifications that influence vehicular operations were incorporated into capacity analysis for the Future Build Conditions - Mitigated Scenario.

A list of the recommended physical improvements for the area transportation network are as follows:

- At Damen Avenue and Jackson Boulevard:
- The southbound left-turn movement, which is projected at LOS F with a volume-tocapacity ratio greater than 1.0 during the unmitigated weekday evening peak hour, meets CDOT criteria for protected-permitted signal phasing, per the worksheet included in the Appendix. As such, a southbound left-turn arrow is recommended at this intersection.
- Pedestrian countdown timer signal heads should be added on all legs.
- At Damen Avenue and Van Buren Street:
- The existing northbound left-turn phase should be extended ( 15 seconds to 20 seconds) to reduce the $95^{\text {th }}$ percentile queue length, which was noted under unmitigated conditions to extend into the Damen Avenue/Congress Parkway intersection during the weekday evening peak hour.
- The westbound approach of Van Buren Street should be striped to provide improved clarity to drivers, since the middle and outer through lanes are not currently marked.
- It should be noted that there is sufficient capacity on Damen Avenue to reallocate green time from the north-south through phases to westbound Van Buren Street, if desired to somewhat alleviate westbound delays at this intersection However, since the queue is not expected to extend into Ogden Avenue under future conditions, it was assumed for the purposes of this study that westbound green time would not be increased to avoid increasing the attractiveness of Van Buren Street to drivers as a bypass route for l-290.
- At Jackson Boulevard and Wood Street:
- A concrete island or pedestrian refuge island should be added on the north side of Jackson Boulevard immediately west of Wood Street between the bike lane and vehicle lanes, as spacing allows after the upcoming installation of barrier protection for the bike lane by CDOT.
- Curb extensions should be added on the southeast and southwest corners of the intersection and on the east side of Wood Street north of Jackson Boulevard.
- It is also the intent of Fifth Third Arena leadership to coordinate with CDOT to explore high-visibility pavement treatment within the crosswalks at this intersection.
- Along the site's Jackson Boulevard frontage:
- The construction of the proposed Arena expansion will extend through the location of the existing midblock crosswalk on Jackson Boulevard. As such, this crosswalk will be relocated to cross the east leg of Jackson Boulevard at the proposed Driveway 4. This crosswalk is proposed as a raised crosswalk to provide traffic calming benefits and enhance pedestrian visibility and safety, along with a curb extension on the south side of the street. As noted for the intersection of Jackson Boulevard and Wood Street, it is the
intent of Fifth Third Arena leadership to coordinate with CDOT to explore the addition of high-visibility pavement treatment for this raised crosswalk.
- With the relocation of the crossing, pedestrian crosswalk signage should be installed in the new location. Per guidance in the National Association of City Transportation Officials (NACTO) Urban Street Design Guide, where a speed hump is designated as a crosswalk, a pedestrian warning sign (W11-2) may be considered.
- Together with the curb extension that connects to the midblock crosswalk, a bus bulb should be explored with CDOT and CTA to accommodate a far-side eastbound bus stop. at the intersection of Jackson Boulevard and Driveway 4. This bus stop would be in the same approximate location as it is today, but its placement on the far side of the intersection and adjacent to a bus bulb would enhance transit service by reducing delays for buses to reenter the flow of traffic after completing a stop. A minimum dimension of 60 feet is recommended for this bus bulb (measured from the end of the far-side slope for the raised crosswalk), matching the length of the buses run on Route 126. A bus shelter with a bench and pedestrian-scale lighting should also be considered
- East of the bus bulb, an on-street Standing Zone should be provided to support parent drop-off at the new main building entrance. Parent drop-off currently occurs in a 30 -foot drop-off lane in the Fifth Third Arena parking lot immediately outside the northeast building entrance. Given the expanded capacity of the facility, a 60 -foot Standing Zone is recommended in this location.
- Along the site's Van Buren Street frontage:
- Landscaping is proposed along the southern frontage of the property between the sidewalk and the street, enhancing pedestrian comfort.
- On either side of Driveways 2 and 5, curb extensions should be provided to facilitate clear sight lines for outbound drivers of oncoming westbound traffic.

Based on these recommendations, capacity analysis results for the Mitigated Scenario are presented for signalized and unsignalized intersections in Table 20 and Table 21. As shown, the addition of a separate southbound left-turn phase at Damen Avenue and Jackson Boulevard is expected to improve operation for this movement from a LOS F to a LOS B, while the rest of the intersection lane groups continue to operate at a LOS C or better during the weekday evening peak hour. Similarly, increased green time for the northbound left-turn phase at Damen Avenue and Van Buren Street during the weekday evening peak hour is expected to improve the operation of that left-turn lane from a LOS E to a LOS D and shorten the $95^{\text {th }}$ percentile queue with minimal impacts to the opposing southbound lanes.

Table 20. Future (Year 2029) Build - Mitigated Levels of Service (Signalized Intersections)

| Intersection \& Approach | Weekday PM Peak Hour |  |  |  |  | Saturday Midday Peak Hour |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Lane Group | v/c Ratio | Delay <br> (sec) | LOS | Queue Length (ft) | Lane Group | v/c Ratio | Delay (sec) | LOS | Queue Length (ft) |
| Damen Avenue \& Jackson Boulevard |  |  |  |  |  |  |  |  |  |  |
| Eastbound | L | 0.04 | 14.8 | B | 18 | L | 0.02 | 14.6 | B | 12 |
|  | TR | 0.44 | 17.3 | B | 123 | TR | 0.29 | 12.6 | B | 75 |
| Northbound | L | 0.42 | 20.5 | C | 68 | L | 0.11 | 131 | B | 23 |
|  | TR | 0.86 | 24.7 | C | \#322 | TR | 0.68 | 16.6 | B | 193 |
| Southbound | L | 0.45 | 13.1 | B | 39 | L | 0.37 | 10.8 | B | 37 |
|  | TR | 0.48 | 10.2 | B | 138 | TR | 0.31 | 8.7 | A | 83 |
|  | Interse | ction | 18.3 | $B$ |  | Interse | ction | 13.4 | B |  |
| Ogden Avenue \& Jackson Boulevard |  |  |  |  |  |  |  |  |  |  |
| Eastbound | L | 0.36 | 34.5 | C | 152 | L | 0.44 | 36.0 | D | 198 |
|  | TR | 0.28 | 32.0 | C | 102 | TR | 0.16 | 29.0 | C | 62 |
| Northeastbound | TR | 0.70 | 10.6 | B | 148 | TR | 0.43 | 9.6 | A | 112 |
| Southwestbound | L | 0.04 | 6.2 | A | 8 | L | 0.01 | 6.0 | A | 6 |
|  | T | 0.51 | 10.7 | B | 255 | T | 0.32 | 8.7 | A | 138 |
|  | Interse | ction | 14.4 | B |  | Inters | ction | 14.6 | B |  |
| Damen Avenue \& Van Buren Street |  |  |  |  |  |  |  |  |  |  |
| Westbound | L | 0.45 | 49.3 | D | 161 | L | 0.62 | 42.7 | D | 240 |
|  | LTR | 1.28 | 173.2 | F | \#546 | LTR | 0.71 | 31.0 | C | 210 |
| Northbound | L | 0.90 | 47.5 | D | \#290 | L | 0.47 | 13.9 | B | 105 |
|  | T | 0.41 | 7.6 | A | 147 | T | 0.26 | 7.9 | A | 112 |
| Southbound | T | 0.44 | 22.2 | C | 217 | T | 0.22 | 16.5 | B | 110 |
|  | R | 0.26 | 8.3 | A | 68 | R | 0.24 | 3.1 | A | 37 |
|  | Interse | ction | 77.0 | E |  | Interse | ction | 19.9 | B |  |
| Ogden Avenue \& Van Buren Street |  |  |  |  |  |  |  |  |  |  |
| Westbound | LTR | 0.95 | 58.0 | E | \#444 | LTR | 0.10 | 25.9 | C | 44 |
| Northeastbound | L | 0.27 | 10.0 | A | 20 | L | 0.07 | 6.0 | A | 19 |
|  | T | 0.64 | 13.7 | B | 414 | T | 0.39 | 9.4 | A | 188 |
| Southwestbound | T | 0.89 | 22.1 | C | \#847 | T | 0.39 | 6.6 | A | 46 |
|  | - | 0.46 | 3.8 | A | 20 | R | 0.41 | 2.2 | A | 0 |
|  | Interse | ction | 27.6 | C |  | Interse | ction | 7.5 | A |  |
| Damen Avenue \& Congress Parkway |  |  |  |  |  |  |  |  |  |  |
| Eastbound | L | 0.58 | 38.4 | D | 252 | L | 0.42 | 34.1 | C | 183 |
|  | LTR | 0.60 | 34.1 | C | 220 | LTR | 0.40 | 29.9 | C | 144 |
|  | R | 0.43 | 6.6 | A | 62 | R | 0.31 | 6.6 | A | 51 |
| Northbound | T | 0.51 | 18.6 | B | 275 | T | 0.32 | 15.9 | B | 158 |
|  | R | 0.48 | 5.6 | A | 103 | R | 0.23 | 2.6 | A | 36 |
| Southbound | L | 0.77 | 35.1 | D | \#179 | L | 0.60 | 23.4 | C | 108 |
|  | T | 0.27 | 3.5 | A | 54 | T | 0.17 | 6.9 | A | 71 |
|  | Interse | ction | 18.3 | B |  | Interse | ction | 17.1 | B |  |

[^3]Table 21. Future (Year 2029) Build - Mitigated Levels of Service (Unsignalized Intersections)

| Intersection \& Approach | Weekday PM Peak Hour |  |  |  |  | Saturday Peak Hour |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Lane Group | v/c Ratio | Delay (sec) | LOS | Queue Length (ft) | Lane Group | v/c Ratio | Delay (sec) | LOS | Queue Length (ft) |
| Wood Street \& Adams Street (AWSC) |  |  |  |  |  |  |  |  |  |  |
| Westbound | LTR | 0.22 | 9.5 | A | 21 | LTR | 0.07 | 8.0 | A | 5 |
| Northbound | LT | 0.26 | 9.6 | A | 25 | LT | 0.12 | 8.0 | A | 10 |
| Southbound | TR | 0.18 | 8.8 | A | 15 | TR | 0.12 | 7.6 | A | 10 |
|  | Inters | ction | 9.4 | A |  | Interse | ction | 7.9 | A |  |
| Garage Exit \& Jackson Boulevard (TWSC) |  |  |  |  |  |  |  |  |  |  |
| Southbound | L | 0.05 | 10.7 | B | 5 | L | 0.01 | 9.9 | A | 0 |
| Driveway 1 \& Jackson Boulevard (TWSC) |  |  |  |  |  |  |  |  |  |  |
| Northbound | R | 0.02 | 10.4 | B | 3 | R | 0.02 | 10.3 | B | 3 |
| Wood Street \& Jackson Boulevard (AWSC) |  |  |  |  |  |  |  |  |  |  |
| Eastbound | LTR | 0.33 | 10.7 | B | 36 | LTR | 0.31 | 9.9 | A | 34 |
| Northbound | TR | 0.14 | 9.2 | A | 13 | TR | 0.06 | 8.4 | A | 5 |
| Southbound | LT | 0.30 | 10.5 | B | 30 | LT | 0.16 | 9.0 | A | 15 |
|  | Interse | ction | 10.5 | $B$ |  | Interse | ction | 9.6 | A |  |
| Wood Street \& Ogden Avenue (TWSC) |  |  |  |  |  |  |  |  |  |  |
| Southbound | LR | 0.47 | 22.0 | C | 60 | LR | 0.22 | 12.4 | B | 20 |
| Northeastbound (Left) | L | 017 | 13.0 | B | 15 | L | 0.04 | 9.2 | A | 3 |
| Driveway 2 \& Van Buren Street (TWSC) |  |  |  |  |  |  |  |  |  |  |
| Southbound | R | 0.04 | 14.0 | B | 3 | R | 0.06 | 10.4 | B | 5 |
| Driveway 4 \& Jackson Boulevard (TWSC) |  |  |  |  |  |  |  |  |  |  |
| Northbound | R | 0.10 | 11.2 | B | 8 | R | 0.12 | 10.5 | B | 10 |
| Driveway 5 \& Van Buren Street (TWSC) |  |  |  |  |  |  |  |  |  |  |
| Southbound | R | 0.23 | 15.5 | C | 23 | R | 0.25 | 12.1 | B | 25 |
| Driveway 6 \& Damen Avenue (TWSC) |  |  |  |  |  |  |  |  |  |  |
| Westbound | LR | 0.46 | 72.9 | F | 48 | LR | 0.22 | 24.1 | C | 20 |
| Driveway 7 \& Jackson Boulevard (TWSC) |  |  |  |  |  |  |  |  |  |  |
| Northbound | $R$ | 0.08 | 11.1 | B | 5 | R | 0.10 | 10.4 | B | 8 |
| ```\(L=\) Left Turn, \(T=\) Through, \(R=\) Right Turn AWSC = All-Way Stop-Controlled Intersection TWSC = Two-Way Stop-Controlled Intersection LOS = Level of Servce \# = 95th percentlle volume exceeds capacily. queue may be longer``` |  |  |  |  |  |  |  |  |  |  |

## Area Traffic Operations during United Center Event Activity

The baseline data collection performed for this study was scheduled at a time that an event was not taking place at the United Center in order to reflect the prevailing conditions within the study area. Yet given the regularity of events at the United Center area traffic observations were conducted during preevent conditions on the evening of March 2, 2023, from 5:30-7:30PM before a Chicago Blackhawks game. Within the study area, congestion on this date was observed to primarily occur along Damen Avenue and on the exit ramps from I-290 to Van Buren Street (I-290 WB) and to Congress Parkway (I290 EB). No significant congestion was observed along the other study roadways during this time.

Prior to 6:30PM (an hour before game time), a single Traffic Control Aide (TCA) was observed manually controlling signal timings at each of the three study intersections along Damen Avenue-specifically, at Damen/Jackson, Damen/Nan Buren, and Damen/Congress. At the intersection of Damen Avenue and Congress Parkway in particular, the TCA was observed primarily leaving the eastbound phase on green to manage the queue on the I-290 Eastbound Exit Ramp, in an effort to reduce the likelihood of queue spillback onto the interstate itself. As a result, queues built up on northbound Damen Avenue south of Congress Parkway, but these queues cleared quickly once the signal was switched to provide green phases for the northbound and southbound approaches.

As shown previously in Exhibit 3, a large tournament at Fifth Third Arena could potentially experience high attendance until approximately 7:00PM, which aligns closely with the start time of some large sporting events and concerts at the United Center. As such, if large-scale tournaments are scheduled at Fifth Third Arena simultaneous with events at the United Center, traffic operations along Damen Avenue at Jackson Boulevard, Van Buren Street, and Congress Parkway should be monitored to determine if additional traffic control personnel need to be present at these intersections to manage the additional demand.

### 5.4. Strategies for Transportation Demand Management

In addition to the recommendations identified in the previous section to manage the traffic impact of the proposed development and enhance pedestrian safety within the vicinity of the Arena, Sam Schwartz compiled a list of opportunities to maximize non-auto travel to the Arena in an effort to further minimize the vehicular impact on area streets. It should be noted that hockey involves the use of bulky equipment that can be difficult to transport as a pedestrian or via transit or bike, particularly for youth players. That said, Fifth Third Arena is committed to enabling multimodal travel for all of its users, including players, spectators, and employees.

The following Transportation Demand Management (TDM) strategies have been integrated into the proposed development plan:

- A real-time arrival board reporting upcoming CTA service times within the Arena.
- Enhanced on-site bike parking, expanding the supply from 26 spaces to 36 . These bike parking spaces will be positioned at the northwest corner of the facility, offering closer proximity to the new main building entrance than is provided today. It is recommended that these spaces include pedestrian-scale lighting to maximize bicyclist comfort and personal safety.
- A dedicated pedestrian path connecting the facility to all surrounding sidewalks, including the north sidewalk along Van Buren Street, to provide more direct pathways between the Arena and the IMD Blue Line Station entrances on Ogden and Damen.
- Additional landscaping with trees along Jackson Boulevard and Van Buren Street for improved pedestrian comfort, thereby increasing the attractiveness of traveling on foot.

As operations for the expanded Arena are finalized and additional on-site development is undertaken, the following additional measures are recommended for consideration:

- Providing information about transit options to connect to and from Fifth Third Arena in a prominent location on the Arena website and in promotional materials for events and tournaments
- Adding a Divvy station on the south side of the property, preferably near either Damen Avenue or Ogden Avenue for proximity to entrances serving the IMD Blue Line Station.
- Coordinating with Transportation Network Companies (TNCs) to identify designated locations for drop-off serving both the Arena and future mixed-use development.
- Offering subsidized transit fare and/or Divvy rides to employees or, as part of potential registration costs or ticket prices, to event attendees
- Arranging shuttle service for teams to connect between off-site hotels and the Arena during tournaments, reducing both parking demand and trip generation for the facility.
- Coordinating with users (potentially via sports apps like BenchApp, which plans to add a carpooling feature for its users in the future) to reduce single-occupancy vehicle travel to and from the Arena.
- As part of future site planning efforts for Sub-Area C, considering building setbacks along Damen Avenue to accommodate wider sidewalks within the property lines and enabling streetscaping for enhanced pedestrian comfort.


## 06. Conclusion

Based on the analyses detailed in this report, it is anticipated that area traffic and parking operations would be generally satisfactory after completion of the proposed development, including the Arena expansion that is planned to be completed by 2026. Informed by the parking demand analyses detailed in this report, it is anticipated that the on-site Fifth Third Arena parking lot will be sufficient to accommodate day-to-day demand for non-tournament activities. During large tournaments, it is anticipated that additional, off-site parking facilities may be needed to accommodate Arena-related parking demand. On weekends, it is anticipated that the Overflow Parking Lot can accommodate attendees who are unable to park on site, on weekdays when the Overflow Parking Lot is reserved for use by Rush University Medical Center, it is recommended that Fifth Third Arena coordinate with Malcolm X College to utilize available capacity in its parking garage.

As noted herein, concept plans for the mixed-use components of this development have not yet been developed, but a conservative estimate of land use and densities was prepared to inform this study and enable an analysis of the site's total traffic impact at full build-out. The mixed-use components will be subject to City review under the Site Plan Approval process upon completion of detailed development plans.

In order to accommodate the traffic impact anticipated for the subject development at full build-out, as well as addressing existing deficiencies in the area transportation network, the following recommendations were identified for implementation as part of the proposed project:

- At Damen Avenue and Jackson Boulevard:
- Add a southbound left-turn arrow.
- Add pedestrian countdown timer signal heads on all legs.
- At Damen Avenue and Van Buren Street:
- Modify weekday evening peak hour signal timings to increase green time for the northbound left-turn movement.
- Stripe the westbound approach of Van Buren Street to provide improved clarity to drivers.
- At Jackson Boulevard and Wood Street:
- Add a concrete island or pedestrian refuge island on the north side of Jackson Boulevard immediately west of Wood Street between the bike lane and vehicle lanes, as spacing allows after the upcoming installation of barrier protection for the bike lane by CDOT.
- Add curb extensions on the southeast and southwest corners of the intersection and on the east side of Wood Street north of Jackson Boulevard.
- Coordinate with CDOT to explore high-visibility pavement treatment within the crosswalks.
- Along the site's Jackson Boulevard frontage:
- For the relocated midblock crosswalk, provide a raised crosswalk with a curb extension on the south side of the street Coordinate with CDOT to explore the addition of highvisibility pavement treatment for this raised crosswalk.
- Post pedestrian warning signage (W11-2) at relocated midblock crosswalk.
- Explore the inclusion of a bus bulb with CDOT and CTA to accommodate a far-side eastbound bus stop at the intersection of Jackson Boulevard and Driveway 4. A minimum dimension of 60 feet is recommended for this bus bulb (measured from the end of the far-
side slope for the raised crosswalk). A bus shelter with a bench and pedestrian-scale lighting should also be considered.
- East of the bus bulb, provide a 60 -foot on-street Standing Zone to support parent drop-off at the new main building entrance.
- Along the site's Van Buren Street frontage:
- Provide landscaping along the southern frontage of the property between the sidewalk and the street.
- On either side of Driveways 2 and 5, provide curb extensions to facilitate clear sight lines for outbound drivers.

In addition to the preceding mitigation measures, several TDM strategies have been incorporated into the development plan to maximize non-auto travel to the Arena, with many others recommended within this report for consideration. With the above list of recommendations in place, it is anticipated that site-related traffic would be adequately accommodated within the study area under Year 2029 conditions.

## Sam

## APPENDIX

## Concept Site Plan

## Proposed Ogden Avenue Roadway Plans

Ogden Avenue Intersection Design Studies
ITE Trip Generation, $11^{\text {th }}$ Edition Excerpts
Replica Data
Census Data
Internal Trip Capture Estimates (NCHRP 684)
CDOT Left-Turn Arrow Warrant Spreadsheets
Capacity Analysis Results
Raw Count Data

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Schwartz

## Concept Site Plan

FIFTH THIRD ARENA EXPANSION


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## Proposed Ogden Avenue Roadway Plans



## Ogden Avenue Intersection Design Studies








## ITE Trip Generation, $11^{\text {th }}$ Edition Excerpts

# Land Use: 221 Multifamily Housing (Mid-Rise) 

## Description

Mid-rise multifamily housing includes apartments and condominiums located in a building that has between four and 10 floors of living space. Access to individual dwelling units is through an outside building entrance, a lobby, elevator, and a set of hallways.

Multifamily housing (low-rise) (Land Use 220), multifamily housing (high-rise) (Land Use 222), offcampus student apartment (mid-rise) (Land Use 226), and mid-rise residential with ground-floor commercial (Land Use 231) are related land uses.

## Land Use Subcategory

Data are presented for two subcategories for this land use: (1) not close to rail transit and (2) close to rail transit. A site is considered close to rail transit if the walking distance between the residential site entrance and the closest rail transit station entrance is $1 / 2$ mile or less.

## Additional Data

For the six sites for which both the number of residents and the number of occupied dwelling units were available, there were an average of 2.5 residents per occupied dwelling unit.

For the five sites for which the numbers of both total dwelling units and occupied dwelling units were available, an average of 96 percent of the total dwelling units were occupied.

The technical appendices provide supporting information on time-of-day distributions for this land use. The appendices can be accessed through either the ITETripGen web app or the trip generation resource page on the ITE website (https://www.ite.org/technical-resources/topics/trip-and-parkinggeneration/().

It is expected that the number of bedrooms and number of residents are likely correlated to the trips generated by a residential site. To assist in future analysis, trip generation studies of all multifamily housing should attempt to obtain information on occupancy rate and on the mix of residential unit sizes (i.e., number of units by number of bedrooms at the site complex).

The sites were surveyed in the 1990s, the 2000s, the 2010 s, and the 2020 s in Alberta (CAN), California, District of Columbia, Florida, Georgia, Illinois, Maryland, Massachusetts, Minnesota, Montana, New Jersey, New York, Ontario (CAN), Oregon, Utah, and Virginia.

## Source Numbers

$168,188,204,305,306,321,818,857,862,866,901,904,910,949,951,959,963,964,966,967,969$, $970,1004,1014,1022,1023,1025,1031,1032,1035,1047,1056,1057,1058,1071,1076$

# Multifamily Housing (Mid-Rise) Close to Rail Transit (221) 

Person Trip Ends vs: Dwelling Units<br>On a: Weekday

Setting/Location: Dense Multi-Use Urban
Number of Studies: 2
Avg. Num. of Dwelling Units: 177
Directional Distribution. 50\% entering, 50\% exiting
Person Trip Generation per Dwelling Unit

| Average Rate | Range of Rates | Standard Deviation |
| :---: | :---: | :---: |
| 9.08 | $831-10.69$ | $* * *$ |

Data Plot and Equation Caution - Small Sample Size


# Multifamily Housing (Mid-Rise) Close to Rail Transit (221) 

## Person Trip Ends vs: Dwelling Units

On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: Dense Multi-Use Urban
Number of Studies: 16
Avg. Num. of Dwelling Units: 259
Directional Distribution: 60\% entering, 40\% exitıng
Person Trip Generation per Dwelling Unit

| Average Rate | Range of Rates | Standard Deviation |
| :---: | :---: | :---: |
| 0.54 | $0.28-085$ | 0.12 |

## Data Plot and Equation



# Multifamily Housing (Mid-Rise) <br> Close to Rail Transit (221) 

Person Trip Ends vs: Dwelling Units

On a: Saturday, Peak Hour of Generator

Setting/Location: Dense Multi-Use Urban
Number of Studies: 2
Avg. Num. of Dwelling Units: 177
Directional Distribution. $48 \%$ entering, $52 \%$ exiting
Person Trip Generation per Dwelling Unit

| Average Rate | Range of Rates | Standard Deviation |
| :---: | :---: | :---: |
| 0.85 | $0.60-1.38$ | $* * *$ |

## Data Plot and Equation

Caution - Small Sample Size


# Land Use: 222 <br> Multifamily Housing (High-Rise) 

## Description

High-rise multifamily housing includes apartments, townhouses, and condominiums. Each building has more than 10 floors of living space. Access to individual dwelling units is through an outside building entrance, a lobby, elevators, and a set of hallways.

Multifamily housing (low-rise) (Land Use 220), multifamily housing (mid-rise) (Land Use 221), offcampus student apartment (high-rise) (Land Use 227), and high-rise residential with ground-floor commercial (Land Use 232) are related land uses.

## Land Use Subcategory

Data are presented for two subcategories for this land use: (1) not close to rail transit and (2) close to rail transit. A site is considered close to rail transit if the walking distance between the residential site entrance and the closest rail transit station entrance is $1 / 2$ mile or less.

## Additional Data

For the 12 sites for which both the number of residents and the number of occupied dwelling units were available, there were an average of 1.6 residents per occupied dwelling unit.

For the 26 sites for which the numbers of both total dwelling units and occupied dwelling units were available, an average of 98 percent of the total dwelling units were occupied.

The technical appendices provide supporting information on time-of-day distributions for this land use. The appendices can be accessed through either the ITETripGen web app or the trip generation resource page on the ITE website (https://wwwite org/technical-resources/topics/trip-and-parking-generation/).

For the 12 sites for which data were provided for both occupied dwelling units and residents, there was an average of 1.6 residents per occupied dwelling unit.

For the 26 sites for which data were provided for both occupied dwelling units and total dwelling units, an average of 98 percent of the units were occupied.

It is expected that the number of bedrooms and number of residents are likely correlated to the trips generated by a residential site. To assist in future analysis, trip generation studies of all multifamily housing should attempt to obtain information on occupancy rate and on the mix of residential unit sizes (i.e., number of units by number of bedrooms at the site complex).

The sites were surveyed in the 1980s, the 2000s, and the 2010s in California, District of Columbia, Maryland, New Jersey, New York, Ontario (CAN), Oregon, Pennsylvania, and Virginia.

## Source Numbers

## Multifamily Housing (High-Rise) Close to Rail Transit (222)

Person Trip Ends vs: Dwelling Units<br>On a: Weekday

Setting/Location: Dense Multi-Use Urban
Number of Studies. 2
Avg. Num. of Dwelling Units. 168
Directional Distribution $50 \%$ entering, $50 \%$ exiting
Person Trip Generation per Dwelling Unit

| Average Rate | Range of Rates | Standard Deviation |
| :---: | :---: | :---: |
| 732 | $700-7.96$ | $* * *$ |

## Data Plot and Equation <br> Caution - Small Sample Size



## Multifamily Housing (High-Rise) Close to Rail Transit (222)

## Person Trip Ends vs: Dwelling Units

On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: Dense Multi-Use Urban
Number of Studies. 4
Avg. Num. of Dwelling Units 144
Directional Distributıon: 59\% entering, $41 \%$ exiting
Person Trip Generation per Dwelling Unit

| Average Rate | Range of Rates | Standard Deviation |
| :---: | :---: | :---: |
| 057 | $0.50-060$ | 004 |

## Data Plot and Equation



# Multifamily Housing (High-Rise) Close to Rail Transit (222) 

Person Trip Ends vs: Dwelling Units<br>On a: Saturday, Peak Hour of Generator

Setting/Location: Dense Multi-Use Urban
Number of Studies: 2
Avg. Num. of Dwelling Units: 168
Directional Distribution: 50\% entering, 50\% exiting
Person Trip Generation per Dwelling Unit

| Average Rate | Range of Rates | Standard Deviation |
| :---: | :---: | :---: |
| 0.70 | $067-074$ | ${ }^{* * *}$ |

Data Plot and Equation Caution - Small Sample Size


# Land Use: 310 Hotel 

## Description

A hotel is a place of lodging that provides sleeping accommodations and supporting facilities such as a full-service restaurant, cocktail lounge, meeting rooms, banquet room, and convention facilities. A hotel typically provides a swimming pool or another recreational facility such as a fitness room. All suites hotel (Land Use 311), business hotel (Land Use 312), motel (Land Use 320), and resort hotel (Land Use 330) are related uses.

## Additional Data

Twenty-five studies provided information on occupancy rates at the time the studies were conducted. The average occupancy rate for these studies was approximately 82 percent.

Some properties in this land use provide guest transportation services (e.g., airport shuttle, limousine service, golf course shuttle service) which may have an impact on the overall trip generation rates.

The technical appendices provide supporting information on time-of-day distributions for this land use. The appendices can be accessed through either the ITETripGen web app or the trip generation resource page on the ITE website (https://wwwite org/technical-resources/topics/trip-and-parking-generation/).

The sites were surveyed in the 1980s, the 1990s, the 2000s, and the 2010s in California, District of Columbia, Florida, Georgia, Indiana, Minnesota, New York, Ontario (CAN), Pennsylvania, South Dakota, Texas, Vermont, Virginia, and Washington.

For all lodging uses, it is important to collect data on occupied rooms as well as total rooms in order to accurately predict trip generation characteristics for the site.

Trip generation at a hotel may be related to the presence of supporting facilities such as convention facilities, restaurants, meeting/banquet space, and retail facilities. Future data submissions should specify the presence of these amenities. Reporting the level of activity at the supporting facilities such as full, empty, partially active, number of people attending a meeting/banquet during observation may also be useful in further analysis of this land use.

## Source Numbers

$170,260,262,277,280,301,306,357,422,507,577,728,867,872,925,951,1009,1021,1026$, 1046

# Vehicle Trip Ends vs: Rooms <br> On a: Weekday 

Setting/Location: General Urban/Suburban
Number of Studies: 7
Avg. Num. of Rooms: 148
Directional Distribution: $50 \%$ entering, $50 \%$ exiting
Vehicle Trip Generation per Room

| Average Rate | Range of Rates | Standard Deviation |
| :---: | :---: | :---: |
| 799 | $5.31-953$ | 1.92 |

## Data Plot and Equation



Vehicle Trip Ends vs: Rooms
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: General Urban/Suburban
Number of Studies: 31
Avg. Num. of Rooms: 186
Directional Distribution: 51\% entering, 49\% exiting
Vehicle Trip Generation per Room

| $:$ Average Rate | Range of Rates | Standard Deviation |
| :---: | :---: | :---: |
| 0.59 | $0.26-1.06$ | 022 |

## Data Plot and Equation



Fitted Curve Equation: $T=0.74(X)-27.89$
$R^{2}=0.78$

Vehicle Trip Ends vs: Rooms
On a: Saturday, Peak Hour of Generator

> Setting/Location: General Urban/Suburban
> Number of Studies: 10
> Avg. Num. of Rooms: 192
> Directional Distribution: $56 \%$ entering, $44 \%$ exiting

Vehicle Trip Generation per Room

| Average Rate | Range of Rates | Standard Deviation |
| :---: | :---: | :---: |
| 072 | $0.49-123$ | 020 |

## Data Plot and Equation



# Land Use: 822 Strip Retail Plaza (<40k) 

## Description

A strip retail plaza is an integrated group of commercial establishments that is planned, developed, owned, and managed as a unit. Each study site in this land use has less than 40,000 square feet of gross leasable area (GLA). Because a strip retail plaza is open-air, the GLA is the same as the gross floor area of the building.

The 40,000 square feet GFA threshold between strip retail plaza and shopping plaza (Land Use 821) was selected based on an examination of the overall shopping center/plaza database. No shopping plaza with a supermarket as its anchor is smaller than 40,000 square feet GLA.

Shopping center (>150k) (Land use 820), shopping plaza (40-150k) (Land Use 821), and factory outlet center (Land Use 823) are related uses.

## Additional Data

The technical appendices provide supporting information on time-of-day distributions for this land use. The appendices can be accessed through either the ITETripGen web app or the trip generation resource page on the ITE website (https://www.ite.org/technical-resources/topics/trip-and-parking-generation/).

The sites were surveyed in the 1980s, the 1990s, the 2000s, and the 2010s in Alberta (CAN), California, Delaware, Florida, New Jersey, Ontario (CAN), South Dakota, Vermont, Washington, and Wisconsin.

## Source Numbers

304, 358, 423, 428, 437, 507, 715, 728, 936, 960, 961, 974, 1009

## Strip Retail Plaza (<40k) (822)

Vehicle Trip Ends vs: 1000 Sq. Ft. GLA
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 4
Avg. 1000 Sq. Ft. GLA: 19
Directional Distribution: 50\% entering, 50\% exiting
Vehicle Trip Generation per 1000 Sq. Ft. GLA

| Average Rate | Range of Rates | Standard Deviation |
| :---: | :---: | :---: |
| 5445 | $4786-6507$ | 7.81 |

## Data Plot and Equation



## Strip Retail Plaza (<40k) (822)

Vehicle Trip Ends vs: 1000 Sq. Ft. GLA
On a: Weekday,
Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.
Setting/Location: General Urban/Suburban
Number of Studies: 25
Avg. 1000 Sq. Ft. GLA: 21
Directional Distribution: 50\% entering, 50\% exiting
Vehicle Trip Generation per 1000 Sq. Ft. GLA

| Average Rate | Range of Rates | Standard Deviation |
| :---: | :---: | :---: |
| 659 | $281-1520$ | 2.94 |

## Data Plot and Equation



# Strip Retail Plaza (<40k) (822) 

Vehicle Trip Ends vs: 1000 Sq. Ft. GLA
On a: Saturday, Peak Hour of Generator

Setting/Location: General Urban/Suburban<br>Number of Studies: 12<br>Avg. 1000 Sq. Ft. GLA 27<br>Directional Distribution: 51\% entering, 49\% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GLA

| Average Rate | Range of Rates | Standard Deviation |
| :---: | :---: | :---: |
| 657 | $188-14.23$ | 345 |

## Data Plot and Equation



# Land Use: 930 Fast Casual Restaurant 

## Description

A fast casual restaurant is a sit-down restaurant with no (or very limited) wait staff or table service. A customer typically orders off a menu board, pays for food before the food is prepared, and seats themselves. The menu generally contains higher-quality, made-to-order food items with fewer frozen or processed ingredients than at a fast-food restaurant. Most patrons eat their meal within the restaurant, but a significant proportion of the restaurant sales can be carry-out orders. A fast casual restaurant typically serves lunch and dinner; some serve breakfast. A typical duration of stay for an eat-in customer is 40 minutes or less. Fine dining restaurant (Land Use 931), high-turnover (sit-down) restaurant (Land Use 932), and fast-food restaurant without drivethrough window (Land Use 933) are related uses.

## Additional Data

The fast casual restaurant study sites included in this land use did not have a drive-through window.
The technical appendices provide supporting information on time-of-day distributions for this land use. The appendices can be accessed through either the ITETripGen web app or the trip generation resource page on the ITE website (https://www.ite.org/technical-resources/topics/trip-and-parking-generation/).

The sites were surveyed in the 2010s in Minnesota, South Carolina, Washington, and Wisconsin.

## Source Numbers

861, 869, 939, 959, 962, 1048

# Fast Casual Restaurant (930) 

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies. 1
Avg. 1000 Sq. Ft. GFA. 1
Directional Distribution: 50\% entering, 50\% exiting
Vehicle Trip Generation per 1000 Sq. Ft. GFA

| Average Rate | Range of Rates | Standard Deviation |
| :---: | :---: | :---: |
| 9714 | $9714-97.14$ | $* * *$ |

## Data Plot and Equation



# Fast Casual Restaurant (930) 

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: General Urban/Suburban
Number of Studies: 15
Avg. 1000 Sq. Ft. GFA: 3
Directional Distribution: 55\% entering, $45 \%$ exiting
Vehicle Trip Generation per 1000 Sq. Ft. GFA

| Average Rate | Range of Rates | Standard Deviation |
| :---: | :---: | :---: |
| 1255 | $594-2740$ | 552 |

## Data Plot and Equation



# Fast Casual Restaurant (930) 

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Saturday, Peak Hour of Generator

Setting/Location: General Urban/Suburban
Number of Studies. 2
Avg. 1000 Sq. Ft. GFA: 5
Directional Distribution: 55\% entering, 45\% exiting
Vehicle Trip Generation per 1000 Sq. Ft. GFA

| Average Rate | Range of Rates | Standard Deviation |
| :---: | :---: | :---: |
| 3264 | $32.26-3300$ | $* * *$ |

Data Plot and Equation


# Land Use: 931 <br> Fine Dining Restaurant 

## Description

A fine dining restaurant is a full-service eating establishment with a typical duration of stay of at least 1 hour. A fine dining restaurant generally does not serve breakfast; some do not serve lunch; all serve dinner. This type of restaurant often requests and sometimes requires a reservation and is generally not part of a chain. A patron commonly waits to be seated, is served by wait staff, orders from a menu and pays after the meal. Some of the study sites have lounge or bar facilities (serving alcoholic beverages), but meal service is the primary draw to the restaurant. Fast casual restaurant (Land Use 930) and high-turnover (sit-down) restaurant (Land Use 932) are related uses.

## Additional Data

If the fine dining restaurant has outdoor seating, its area is not included in the overall gross floor area. For a restaurant that has significant outdoor seating, the number of seats may be more reliable than GFA as an independent variable on which to establish a trip generation rate.

The sites were surveyed in the 1980 s, the 1990 s, and the 2010 s in Alberta (CAN), California, Colorado, Florida, Indiana, Kentucky, New Jersey, and Utah.

## Source Numbers

$126,260,291,301,338,339,368,437,440,976,1053$

# Fine Dining Restaurant (931) 

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 10
Avg. 1000 Sq Ft. GFA: 9
Directional Distribution: 50\% entering, 50\% exiting
Vehicle Trip Generation per 1000 Sq. Ft. GFA

| Average Rate | Range of Rates | Standard Deviation |
| :---: | :---: | :---: |
| 8384 | $3345-139.93$ | 40.01 |

## Data Plot and Equation



# Fine Dining Restaurant (931) 

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: General Urban/Suburban
Number of Studies: 19
Avg. 1000 Sq. Ft. GFA: 9
Directional Distribution: 67\% entering, 33\% exiting
Vehicle Trip Generation per 1000 Sq. Ft. GFA

| Average Rate | Range of Rates | Standard Deviation |
| :---: | :---: | :---: |
| 7.80 | $262-18.68$ | 4.49 |

## Data Plot and Equation



# Fine Dining Restaurant (931) 

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Saturday, Peak Hour of Generator

## Setting/Location: General Urban/Suburban

Number of Studies. 7
Avg. 1000 Sq. Ft. GFA: 10
Directional Distribution: 59\% entering, 41\% exiting
Vehicle Trip Generation per 1000 Sq. Ft. GFA

| Average Rate | Range of Rates | Standard Deviation |
| :---: | :---: | :---: |
| 1068 | $575-15.29$ | 362 |

## Data Plot and Equation



Sam Schwartz

## Replica Data

|  |
| :---: |
|  |  |


 Hotel/Lodging $\quad$ count
label
Commercial vehicle (freight)
Private auto
Other
Taxi/TNC
Public transit $\quad$.
Auto passenger
Walking
Biking
8и! $9 \mathrm{poา} / 1$ /ำн䓂
label $\quad$ Hotel/Lodging
Count
Commercial vehicle (freight)
Private auto
Other
Taxi/TNC
Public transit
Auto passenger
Walking
Biking
 Trip Origins - Thursday
Restaurant

 \begin{tabular}{lrr}
\multicolumn{3}{c}{$\begin{array}{c}\text { Thursday Averages } \\
\text { Restaurant }\end{array}$} <br>
\multicolumn{2}{c}{ count }

 

\& \multicolumn{2}{c}{ Shop (Retail) } <br>
\multicolumn{2}{c}{ count } \& \multicolumn{2}{c}{ percent } <br>
label \& 0 \& $0 \%$ <br>
Commercial vehicle (freight) \& 4955 \& $46 \%$ <br>
Private auto \& 147 \& $1 \%$ <br>
Other \& 237 \& $2 \%$ <br>
Taxi/TNC \& 684 \& $6 \%$ <br>
Public transit \& 1579 \& $15 \%$ <br>
Auto passenger \& 3076 \& $28 \%$ <br>
Walking \& 149 \& $1 \%$ <br>
Biking \& \& $100 \%$
\end{tabular}




[^4]

| Trip Destinations - Saturday Restaurant |  |  |
| :---: | :---: | :---: |
| label | count | percent |
| Commercial vehicle (freight) | 0 | 0\% |
| Private auto | 2296 | 43\% |
| Other | 32 | 1\% |
| Taxi/TNC | 274 | 5\% |
| Public transit | 261 | 5\% |
| Auto passenger | 1497 | 28\% |
| Walking | 842 | 16\% |
| Biking | 124 | 2\% |
|  |  | 100\% |



 |  | $\begin{array}{c}\text { Shop (Retail) } \\ \text { count }\end{array}$ |  |
| :--- | ---: | ---: |
| $\begin{array}{l}\text { percent }\end{array}$ |  |  |
| label | 0 | $0 \%$ |
| Commercial vehicle (freight) | 4903 | $40 \%$ |
| Private auto | 208 | $2 \%$ |
| Other | 471 | $4 \%$ |
| Taxi/TNC | 598 | $5 \%$ |
| Public transit | 3029 | $25 \%$ |
| Auto passenger | 2738 | $23 \%$ |
| Walking | 218 | $2 \%$ |
| Biking |  | $100 \%$ |




 label count
Commercial vehicle (freight)
Private auto
Other
Taxi/TNC
Public transit
Auto passenger
Walking
Biking
Note: Replica data references an "Auto Passenger" mode, which represents non-driver passengers traveling to and from that specific land use in a private vehicle. Since these
passenger trips would not be represented in ITE vehicle trip generation data, they were excluded when calculating the total non-auto mode share for the commercial land uses.

Sam

## Census Data



|  | The 2017-2021 American Community Survey (ACS) data generally reflect the March 2020 Office of Management and Budget (OMB) delineations of metropolitan and micropolitan statistical areas In certain instances, the names, codes, and boundaries of the principal cities shown in ACS tables may differ from the OMB delineation lists due to differences in the effective dates of the geographic entities |
| :---: | :---: |
|  | Estımates of urban and rural populations, housing units, and characteristics reflect boundaries of urban areas defined based on Census 2010 data. As a result, data for urban and rural areas from the ACS do not necessarily reflect the results of ongoing urbanization. |
|  | Explanation of Symbols - The estimate could not be computed because there were an insufficient number of sample observations. For a ratio of medians estimate, one or both of the median estımates falls in the lowest interval or highest interval of an open-ended distribution. For a 5 -year median estımate, the margin of error associated with a median was larger than the median itself. N The estımate or margin of error cannot be displayed because there were an insufficient number of sample cases in the selected geographic area. ( $X$ ) The estımate or margin of error is not applicable or not available median- The median falls in the lowest interval of an open-ended distribution (for example " $2,500-$ ")median+ The median falls in the highest interval of an open-ended distribution (for example " $250,000+$ ").** The margin of error could not be computed because there were an insufficient number of sample observations.*** The margin of error could not be computed because the median falls in the lowest interval or highest interval of an open-ended distribution.***** A margin of error is not appropriate because the corresponding estimate is controlled to an independent population or housing estimate Effectively, the corresponding estimate has no sampling error and the margin of error may be treated as zero. |
| COLUMN NOTES | None |


|  | Census Tract 8329, Cook County, Illinois |  | Census Tract 8331, Cook County, Illinois |  |
| :---: | :---: | :---: | :---: | :---: |
| Label | Estimate | Margin of Error | Estimate | Margin of Error |
| Total: | 1,127 | $\pm 351$ | 6,021 | $\pm 719$ |
| Car, truck, or van: | 300 | $\pm 192$ | 2,140 | $\pm 478$ |
| Drove alone | 250 | $\pm 175$ | 2,003 | $\pm 456$ |
| Carpooled: | 50 | $\pm 64$ | 137 | $\pm 154$ |
| In 2-person carpool | 50 | $\pm 64$ | 137 | $\pm 154$ |
| In 3-person carpool | 0 | $\pm 12$ | 0 | $\pm 17$ |
| In 4-person carpool | 0 | $\pm 12$ | 0 | $\pm 17$ |
| In 5-or 6-person carpool | 0 | $\pm 12$ | 0 | $\pm 17$ |
| In 7-or-more-person carpool | 0 | $\pm 12$ | 0 | $\pm 17$ |
| Public transportation (excluding taxicab): | 116 | $\pm 70$ | 1,099 | $\pm 360$ |
| Bus | 51 | $\pm 37$ | 689 | $\pm 325$ |
| Subway or elevated rail | 47 | $\pm 45$ | 318 | $\pm 214$ |
| Long-distance train or commu rail | 18 | $\pm 20$ | 92 | $\pm 68$ |
| Light rail, streetcar or trolley (carro público in Puerto Rico) | 0 | $\pm 12$ | 0 | $\pm 17$ |
| Ferryboat | 0 | $\pm 12$ | 0 | $\pm 17$ |
| Taxicab | 31 | $\pm 44$ | 85 | $\pm 74$ |
| Motorcycle | 0 | $\pm 12$ | 0 | $\pm 17$ |
| Bicycle | 86 | $\pm 61$ | 242 | $\pm 145$ |
| Walked | 409 | $\pm 170$ | 1,225 | $\pm 361$ |
| Other means | 45 | $\pm 69$ | 0 | $\pm 17$ |
| Worked from home | 140 | $\pm 66$ | 1,230 | $\pm 362$ |

## Internal Trip Capture Estimates (NCHRP 684)

| NCHRP 684 Internal Trip Capture Estimation Tool |  |  |  |
| ---: | :---: | ---: | ---: |
| Project Name: | Fifth Third Arena Expansion | Organization: | SSE |
| Project Location: | Chicago, IL | SR |  |
| Scenario Description: |  | Performed By: | Date: |
| Analysıs Year: | 2023 | Checked By: |  |
| Analysis Period: | PM Street Peak Hour | Date: |  |


| Land Use | Development Data (For Information Only) |  |  | Estumated Vehicle-Trips ${ }^{3}$ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | ITE LUCs ${ }^{\text {² }}$ | Quantity | Units | Total | Entering | Exiting |
| Office |  |  |  | 0 |  |  |
| Retal | 822 | 26 | gsf | . 100 | 50 | 50 |
| Restaurant | 930/931 | 26 | gsf | 180 | 105 | 75 |
| Cinema/Entertainment |  |  |  | 0 |  |  |
| Residential | 221/222 | 1,200 | du | 260 | 155 | 105 |
| Hotel | 310 | 663 | rooms | 165 | 85 | 80 |
| All Other Land Uses ${ }^{2}$ |  |  |  | 0 |  |  |
|  |  |  |  | 705 | 395 | 310 |


| Table 2-P. Mode Split and Vehicle Occupancy Estimates |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Land Use | Entering Trips |  |  | Exiting Tnps |  |  |
|  | Veh Occ ${ }^{4}$ | \% Transıt | \% Non-Matorized | Veh Occ ${ }^{4}$ | \% Transit | \% Non-Motorized |
| Office |  |  |  |  |  |  |
| Retal |  |  |  |  |  |  |
| Restaurant |  |  |  |  |  |  |
| Cinema/Entertainment |  |  |  |  |  |  |
| Residential |  |  |  |  |  |  |
| Hotel |  |  |  |  |  |  |
| All Other Land Uses ${ }^{2}$ |  |  |  |  |  |  |


| Ongin (From) | Destination (TO) |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |
|  | Office | Retail | Restaurant | Cinema/Entertanment | Residental | Hotel |
| Office |  | 0 | 0 |  | 0 |  |
| Retall |  |  |  |  | 0 |  |
| Restaurant |  |  |  |  | 0 |  |
| Cinema/Entertainment |  |  |  |  | 0 |  |
| Residential |  | 0 | 0 |  |  |  |
| Hotel |  |  |  |  | 0 |  |


| Table 4-P: Internal Person-Trip Origin-Destınation Matrix* |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Ongin (From) | Destination (To) |  |  |  |  |  |
|  | Office | Retal | Restaurant | Cinema/Entertainment | Residental | Hotel |
| Office |  | 0 | 0 | 0 | 0 | 0 |
| Retal | 0 |  | 15 | 0 | 13 | 3 |
| Restaurant | 0 | 25 |  | 0 | 14 | 5 |
| Cinema/Entertainment | 0 | 0 | 0 |  | 0 | 0 |
| Residential | 0 | 5 | 15 | 0 |  | 3 |
| Hotel | 0 | 1 | 5 | 0 | 0 |  |


| Table 5-P: Computations Summary |  |  |  | Table 6-P: Internal Trip Capture Percentages by Land Use |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total | Entering | Exitung | Land Use | Entering Trips | Exiting Trips |
| All Person-Tnps | 705 | 395 | 310 | Office | N/A | N/A |
| Internal Capture Percentage | 30\% | 26\% | 34\% | Retall | 62\% | 62\% |
|  |  |  |  | Restaurant | 33\% | 59\% |
| External Vehicle-Trips ${ }^{5}$ | 497 | 291 | 206 | Cinema/Entertanment | N/A | N/A |
| Extemal Transit-Trips ${ }^{6}$ | 0 | 0 | 0 | Residential | 17\% | 22\% |
| Extemal Non-Motorized Trips ${ }^{6}$ | 0 | 0 | 0 | Hotel | 13\% | 8\% |

'Land Use Codes (LUCs) from Tnp Generation Manual, published by the Institute of Transportation Engineers
${ }^{2}$ Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator
${ }^{3}$ Enter tnips assuming no transit or non-motorized tnps (as assumed in ITE Tnp Generation Manual)
${ }^{4}$ Enter vehicle occupancy assumed in Table 1-P vehicle trips If vehicle occupancy changes for proposed mixed-use project. manual adjustments must be ${ }^{5}$ Vehicle-tnps computed using the mode spitt and vehicle occupancy values provided in Table 2-P
${ }^{6}$ Person-Tmps
*indicates computation that has been rounded to the nearest whole number
Estımation Tool Developed by the Texas A\&M Transportation Institute - Version 20131

| Project Name: | Fifth Third Arena Expansion |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Analysis Period: | PM Street Peak Hour |  |  |  |  |  |
| Table 7-P: Conversion of Vehicle-Trip Ends to Person-Trip Ends |  |  |  |  |  |  |
| Land Use | Table 7-P (D) Entenng Tnps |  |  | Table 7-P (O) Exiting Tnps |  |  |
|  | Veh Occ | Vehıcle-Trips | Person-Tnps* | Veh Occ | Vehicle-Tmps | Person-Trips* |
| Office | 100 | 0 | 0 | 100 | 0 | 0 |
| Retall | 100 | 50 | 50 | 100 | 50 | 50 |
| Restaurant | 100 | 105 | 105 | 100 | 75 | 75 |
| Cinema/Entertainment | 100 | 0 | 0 | 100 | 0 | 0 |
| Residential | 100 | 155 | 155 | 100 | 105 | 105 |
| Holel | 100 | 85 | 85 | 100 | 80 | 80 |


| Table 8-P (O): Internal Person-Trip Origin-Destınation Matrix (Computed at Origin) |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Ongin (From) | - Destınation (To) |  |  |  |  |  |
|  | Office | Retall | Restaurant | Cinema/Entertainment | Residential | Hotel |
| Office |  | 0 | 0 | 0 | 0 | 0 |
| Retal | 1 |  | 15 | 2 | 13 | 3 |
| Restaurant | 2 | 31 |  | 6 | 14 | 5 |
| Cinema/Entertanment | 0 | 0 | 0 |  | 0 | 0 |
| Residential | 4 | 44 | 22 | 0 |  | 3 |
| Hotel | 0 | 13 | 54 | 0 | 2 |  |


| Table 8-P (D): Internal Person-Trip Origin-Destination Matrix (Computed at Destination) |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Ongın (From) | Destınation (To) |  |  |  |  |  |
|  | Office | Retall | Restaurant | Cinema/Entertainment | Residential | Hotel |
| Office |  | 4 | 2 | 0 | 6 | 0 |
| Retal | 0 |  | 30 | 0 | 71 | 14 |
| Restaurant | 0 | 25 |  | 0 | 25 | 60 |
| Cinema/Entertainment | 0 | 2 | 3 |  | 6 | 1 |
| Residental | 0 | 5 | 15 | 0 |  | 10 |
| Hotel | 0 | 1 | 5 | 0 | 0 |  |


| Destination Land Use | Table 9-P (D): Intemal and External Trips Summary (Entering Trips) |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Person-Tnp Estımates |  |  | External Trips by Mode* |  |  |
|  | Internal | External | Total | Vehicles ${ }^{1}$ | Transit ${ }^{2}$ | Non-Motorized ${ }^{2}$ |
| Office | 0 | 0 | 0 | 0 | 0 | 0 |
| Retall | 31 | 19 | 50 | 19 | 0 | 0 |
| Restaurant | 35 | 70 | 105 | 70 | 0 | 0 |
| Cinema/Entertainment | 0 | 0 | 0 | 0 | 0 | 0 |
| Residential | 27 | 128 | 155 | 128 | 0 | 0 |
| Hotel | 11 | 74 | 85 | 74 | 0 | 0 |
| All Other Land Uses ${ }^{3}$ | 0 | 0 | 0 | 0 | 0 | 0 |


| Table 9-P (O): Internal and External Trips Summary (Exiting Trips) |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Ongin Land Use | Person-Trip Estumates |  |  | External Trips by Mode* |  |  |
| Ongin Land Use | Internal | External | Total | Vehicles ${ }^{1}$ | Transit ${ }^{2}$ | Non-Motorized ${ }^{2}$ |
| Office | 0 | 0 | 0 | 0 | 0 | 0 |
| Retall | 31 | 19 | 50 | 19 | 0 | 0 |
| Restaurant | 44 | 31 | 75 | 31 | 0 | 0 |
| Cinema/Entertainment | 0 | 0 | 0 | 0 | 0 | 0 |
| Residential | 23 | 82 | 105 | 82 | 0 | 0 |
| Hotel | 6 | 74 | 80 | 74 | 0 | 0 |
| All Other Land Uses ${ }^{3}$ | 0 | 0 | 0 | 0 | 0 | 0 |

[^5]| NCHRP 684 Internal Trip Capture Estimation Tool |  |  |  |
| :---: | :---: | :---: | :---: |
| Project Name: | Fifth Third Arena Expansion | Organization- | SSE |
| Project Location: | Chicago, IL | Performed By: | SR |
| Scenario Description: |  | Date: | 3/15/2023 |
| Analysis Year: | 2023 | Checked By: |  |
| Analysis Period: | SAT Midday Peak Hour | Date: |  |


| Table 1-P: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate) |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Land Use | Development Data (For Information Only) |  |  | Estımated Vehıcle-Trıps ${ }^{3}$ |  |  |
|  | ITE LUCs ${ }^{1}$ | Quantity | Units | Total | Entering | Exiting |
| Office |  |  |  | 0 |  |  |
| Retall | 822 | 26 | gsf | 100 | 50 | 50 |
| Restaurant | 930/931 | 26 | gsf | 370 | 215 | 155 |
| Cinema/Entertarnment |  |  |  | 0 |  |  |
| Residentıa! | 221/222 | 1.200 | du | 325 | 160 | 165 |
| Hotel | 310 | 663 | rooms | 155 | 90 | 65 |
| All Other Land Uses ${ }^{2}$ |  |  |  | 0 |  |  |
|  |  |  |  | 950 | 515 | 435 |


| Table 2-P: Mode Split and Vehicle Occupancy Estimates |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Land Use | Entering Trips |  |  | Exiting Tnps |  |  |
|  | Veh Occ ${ }^{4}$ | \% Transıt | \% Non-Motorized | Veh Occ ${ }^{4}$ | \% Transit | \% Non-Motorzed |
| Office |  |  |  |  |  |  |
| Retal |  |  |  |  |  |  |
| Restaurant |  |  |  |  |  |  |
| Cinema/Entertaınment |  |  |  |  |  |  |
| Residenital |  |  |  |  |  |  |
| Hotel |  |  |  |  |  |  |
| All Other Land Uses ${ }^{2}$ |  |  |  |  |  |  |


| Table 3-P• Average Land Use Interchange Distances (Feet Walking Distance) |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Ongin (From) | Destınation (To) |  |  |  |  |  |
|  | Office | Retaı | Restaurant | Cinema/Entertaınment | Residentıal | Hotel |
| Office |  | 0 | 0 |  | 0 |  |
| Retal |  |  |  |  | 0 |  |
| Restaurant |  |  |  |  | 0 |  |
| Cinema/Entertainment |  |  |  |  | 0 |  |
| Residential |  | 0 | 0 |  |  |  |
| Hotel |  |  |  |  | 0 |  |


| Table 4-P: Internal Person-Trip Origin-Destination Matrix* |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Ongin (From) | Destınatıon (To) |  |  |  |  |  |
|  | Office | Retall | Restaurant | Cinema/Entertamment | Residential | Hotel |
| Office |  | 0 | 0 | 0 | 0 | 0 |
| Retail | 0 |  | 15 | 0 | 13 | 3 |
| Restaurant | 0 | 25 |  | 0 | 26 | 11 |
| Cinema/Entertainment | 0 | 0 | 0 | . | 0 | 0 |
| Residential | 0 | 5 | 30 | 0 |  | 5 |
| Hotel | 0 | 1 | 11 | 0 | 0 |  |


| Table 5-P: Computations Summary |  |  |  | Table 6-P: Internal Trip Capture Percentages by Land Use |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total | Enterıng | Exiting | Land Use | Entering Trup | Exiting Trips |
| All Person-Tnps | 950 | 515 | 435 | Office | N/A | N/A |
| Internal Capture Percentage | 31\% | 28\% | 33\% | Retal | 62\% | 62\% |
|  |  |  |  | Restaurant | 26\% | 40\% |
| Extemal Vehıcle-Trıps ${ }^{5}$ | 660 | 370 | 290 | Cinema/Entertaınment | N/A | N/A |
| External Transit-Trips ${ }^{6}$ | 0 | 0 | 0 | Residential | 24\% | 24\% |
| External Non-Motorized Trıps ${ }^{6}$ | 0 | 0 | 0 | Hotel | 21\% | 18\% |



| Project Name. | Fifth Thırd Arena Expansion |
| ---: | :---: |
| Analysis Period. | SAT Midday Peak Hour |


| Table 7-P: Conversion of Vehicle-Trip Ends to Person-Trip Ends |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Land Use | Table 7-P (D) Entering Trips |  |  | Table 7-P (0) Exiting Tnps |  |  |
|  | Veh Occ | Vehicle-Trips | Person-Trips* | Veh Occ | Vehicle-Tnps | Person-Trips* |
| Office | 100 | 0 | 0 | 100 | 0 | 0 |
| Retaii | 100 | 50 | 50 | 100 | 50 | 50 |
| Restaurant | 100 | 215 | 215 | 100 | 155 | 155 |
| Cinema/Entertainment | 100 | 0 | 0 | 100 | 0 | 0 |
| Residential | 1.00 | 160 | 160 | 100 | 165 | 165 |
| Hotel | 100 | 90 | 90 | 100 | 65 | 65 |


| Table 8-P (O): Intemal Person-Trip Origin-Destination Matrix (Computed at Origin) |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Ongin (From) | Destmation (To) |  |  |  |  |  |
|  | Office | Retall | Restaurant | Cinema/Entertainment | Residential | Hote |
| Office |  | 0 | 0 | 0 | 0 | 0 |
| Retall | 1 |  | 15 | 2 | 13 | 3 |
| Restaurant | 5 | 64 |  | 12 | 28 | 11 |
| Cinema/Entertainment | 0 | 0 | 0 |  | 0 | 0 |
| Residential | 7 | 69 | 35 | 0 |  | 5 |
| Hotel | 0 | 10 | 44 | 0 | 1 |  |


| Table 8-P (D): Internal Person-Trip Origin-Destination Matrix (Computed at Destination) |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Ongin (From) | Destination (To) |  |  |  |  |  |
|  | Office | Retall | Restaurant | Cınema/Entertainmenı | Residential | Hotel |
| Office |  | 4 | 4 | 0 | 6 | 0 |
| Retall | 0 |  | 62 | 0 | 74 | 15 |
| Restaurant | 0 | 25 |  | 0 | 26 | 64 |
| Cınema/Entertanment | 0 | 2 | 6 |  | 6 | 1 |
| Residential | 0 | 5 | 30 | 0 |  | 11 |
| Hotel | 0 | 1 | 11 | 0 | 0 |  |


| Table 9-P (D): Intemal and External Trips Summary (Entering Trips) |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Destination Land Use | Person-Trip Estımates |  |  | External Trips by Mode* |  |  |
| Destination Land Use | Internal | External | Total | Vehicles ${ }^{1}$ | Transt ${ }^{2}$ | Non-Motorized ${ }^{2}$ |
| Office | 0 | 0 | 0 | 0 | 0 | 0 |
| Retal | 31 | 19 | 50 | 19 | 0 | 0 |
| Restaurant | 56 | 159 | 215 | 159 | 0 | 0 |
| Cinema/Entertanment | 0 | 0 | 0 | 0 | 0 | 0 |
| Residential | 39 | 121 | 160 | 121 | 0 | 0 |
| Hotel | 19 | 71 | 90 | 71 | 0 | 0 |
| All Other Land Uses ${ }^{3}$ | 0 | 0 | 0 | 0 | 0 | 0 |


| Table 9-P (O): Internal and External Trips Summary (Exiting Trips) |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Ongin Land Use | Person-Trip Estımates |  |  | External Trips by Mode* |  |  |
|  | Internal | External | Total | Vehicles ${ }^{1}$ | Transti ${ }^{2}$ | Non-Motorized ${ }^{2}$ |
| Office | 0 | 0 | 0 | 0 | 0 | 0 |
| Retall | 31 | 19 | 50 | 19 | 0 | 0 |
| Restaurant | 62 | 93 | 155 | 93 | 0 | 0 |
| Cinema/Entertainment | 0 | 0 | 0 | 0 | 0 | 0 |
| Residential | 40 | 125 | 165 | 125 | 0 | 0 |
| Hotel | 12 | 53 | 65 | 53 | 0 | 0 |
| All Other Land Uses ${ }^{3}$ | 0 | 0 | 0 | 0 | 0 | 0 |

[^6]
## CDOT Left-Turn Arrow Warrant Spreadsheets

ACTUATED LEFT-TURN PHASE ASSESSMENT (PM Peak Hour - Existing) Considerations for needing an actuated left-turn phase at a signalized intersection

Instructions Enter cycle length and \# of opposing thru lanes
Count Date: 2/23/2023
Enter Cycle Length (in sec.): $\quad 65$
Peak Hour Begins: 4:00 PM


## WESTBOUNDLEFT TURN



ACTUATED LEFT-TURN PHASE ASSESSMENT (Sat MD Peak Hour - Existing) Considerations for needing an actuated left-turn phase at a signalized intersection


## EASTBOUND LEFT TURN



ACTUATED LEFT-TURN PHASE ASSESSMENT (PM Peak Hour - Future)
Considerations for needing an actuated left-turn phase at a signalized intersection

Instructions. Enter cycle length and \# of opposing thru lanes


Count Date: 2/23/2029
Peak Hour Begins: 4:00 PM


Damen


| WESTBOUND LEFT TURN |  |  |
| :---: | :---: | :---: |
| Enter Number of Opposing Thru Lanes: |  |  |
| Left-Turn Volume *Through Volume $\gg 90.000]$ NO |  |  |
|  |  |  |
| Left-Turn Volume > 2 Vehicles/Cycle? |  | NO |
| Left-Tum Volume 0 Cycles / Hour 554 |  |  |
| Notes |  |  |



ACTUATED LEFT-TURN PHASE ASSESSMENT (Sat MD Peak Hour - Future) Considerations for needing an actuated left-turn phase at a signalized intersection





ACTUATED LEFT-TURN PHASE ASSESSMENT (PM Peak Hour - Existing) Considerations for needing an actuated left-turn phase at a signalized intersection

Instructions Enter cycle length and \# of opposing thru lanes
Count Date: 2/23/2023
Enter Cycle Length (in sec.): $\quad 90$
Peak Hour Begins: 4:00 PM


## WESTBOUND LEFT TURN

| Enter Number of Opposing Thru Lanes: |  |  |
| :---: | :---: | :---: |
|  | Lefi-Turn Volume * Through Volume > 90,000 | NO |
|  | $\mathrm{X}=0$ |  |
|  | Left-Tum Volume > 2 Vehicles/Cycle? | NO |
|  | Left-Turn Volume 0 Cycles / Hour 400 |  |
| Notes: |  |  |



ACTUATED LEFT-TURN PHASE ASSESSMENT (Sat MD Peak Hour - Existing) Considerations for needing an actuated left-turn phase at a signalized intersection




EASTBOUND LEFT TURN


## WESTBOUND LEFT TURN

| Enter Number of Opposing Thru Lanes: |  |  |
| :---: | :---: | :---: |
|  | Lef1-Turn Volume * Through Volume > 90,000 | NO |
|  | $x=0$ |  |
|  | Left-Turn Volume > 2 Vehicles/Cycle? | NO |
|  | Left-Turn Volume 0 Cycles / Hour 400 |  |
| Notes. |  |  |



Ogden

ACTUATED LEFT-TURN PHASE ASSESSMENT (PM Peak Hour - Future)
Considerations for needing an actuated left-turn phase at a signalized intersection

Instructions. Enter cycle length and \# of opposing thru lanes
Enter Cycle Length (in sec.): $\quad 90$
Peak Hour Begins: 4:00 PM


## EASTBOUND LEFT TURN



## WESTBOUNDLEFT TURN

| Enter Number of Opposing Thru Lanes: |  |  |
| :---: | :---: | :---: |
|  | Left-Tum Volume * Through Volume > 90,000 | NO |
|  | $\mathrm{X}=0$ |  |
|  | Left-Turn Volume $>2$ Vehicles/Cycle? | NO |
|  | Left-Tum Volume: 0 Cycles / Hour 400 |  |
| Notes |  |  |



ACTUATED LEFT-TURN PHASE ASSESSMENT (Sat MD Peak Hour - Future)

## Considerations for needing an actuated left-turn phase at a signalized intersection




EASTBOUND LEFT TURN


WESTBOUNDLEFT TURN


## Capacity Analysis Results

|  |  |  |  |  |  |  |  |  |  |  |  | $\checkmark$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  |  |  | 41 |  |  | $\uparrow$ |  |  | F |  |
| Traffic Volume (vph) | 0 | 0 | 0 | 15 | 205 | 30 | 45 | 120 | 0 | 0 | 75 | 40 |
| Future Volume (yph) | 0 | 0 | 0 | 15 | 205 | 30 | 45 | 120 | 0 | 0 | 75 | 40 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Utill Factor | 1.00 | 1.00 | 1.00 | 0.95 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor |  |  |  |  |  |  |  |  |  |  |  |  |
| Fit |  |  |  |  | 0.982 |  |  |  |  |  | 0.953 |  |
| Fil Protected |  |  |  |  | 0.997 |  |  | 0.987 |  |  |  |  |
| Satd. Flow (prot) | 0 | 0 | 0 | 0 | 3449 | 0 | 0 | 1848 | 0 | 0 | 1758 |  |
| Fit Permitted |  |  |  |  | 0.997 |  |  | 0.987 |  |  |  |  |
| Satd. Flow (perm) | 0 | 0 | 0 | 0 | 3449 | 0 | 0 | 1848 | 0 | 0 | 1758 |  |
| Link Speed (mph) |  | 30 |  |  | 30 |  |  | 30 |  |  | 30 |  |
| Link Distance (ft) |  | 715 |  |  | 438 |  |  | 207 |  |  | 467 |  |
| Travel Time (s) |  | 16.3 |  |  | 10.0 |  |  | 4.7 |  |  | 10.6 |  |
| Confi. Peds. (\#\#hr) |  |  |  | 1 |  | 2 | 8 |  |  |  |  | 8 |
| Confi. Bikes (\#/hr) |  |  |  |  |  | 4 |  |  |  |  |  |  |
| Peak Hour Factor | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 |
| Heavy Vehicles (\%) | 0\% | 0\% | 0\% | 0\% | 3\% | 0\% | 0\% | 2\% | 0\% | 0\% | 3\% | 3\% |
| Adj. Flow (vph) | 0 | 0 | 0 | 16 | 220 | 32 | 48 | 129 | 0 | 0 | 81 | 43 |
| Shared Lane Traffic (\%) |  |  |  |  |  |  |  |  |  |  |  |  |
| Lane Group Flow (vph) | 0 | 0 | 0 | 0 | 268 | 0 | 0 | 177 | 0 | 0 | 124 |  |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width (ti) |  | 0 |  |  | 0 |  |  | 0 |  |  | 0 |  |
| Link Offset(f) |  | 0 |  |  | 0 |  |  | 0 |  |  | 0 |  |
| Crosswaik Widh (t) <br> 16 <br> 16 16 <br> 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 |  |  |
| Sign Control |  | Stop |  |  | Stop |  |  | Stop |  |  | Stop |  |
| Intersection Summary |  |  |  |  |  |  |  |  |  |  |  |  |
| Area Type: ...- Other |  |  |  |  |  |  |  |  |  |  |  |  |
| Control Type Uñsignalized |  |  |  |  |  |  |  |  |  |  |  |  |
| Intersection Capacity Utilization 29.6\% -...........CULevel of Service A |  |  |  |  |  |  |  |  |  |  |  |  |
| Analysis Period (min) 15 |  |  |  |  |  |  |  |  |  |  |  |  |


| Intersection |
| :--- |
| Intersection Delay, slveh -9 |
| Intersection LOS |


| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Configurations | 41 |  |  |  |  |  |  | $\uparrow$ |  | 1 |  |  |
| Traffic Vol, veh/h | 0 | 0 | 0 | 15 | 205 | 30 | 45 | 120 | 0 | 0 | 75 | 40 |
| Future Vol, veh/h | 0 | 0 | 0 | 15 | 205 | 30 | 45 | 120 | 0 | 0 | 75 | 40 |
| Peak Hour Factor | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 |
| Heavy Vehicles, \% | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 2 | 0 | 0 | 3 | 3 |
| Mumt Flow | 0 | 0 | 0 | 16 | 220 | 32 | 48 | 129 | 0 | 0 | 81 | 43 |
| Number of Lanes | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 1 | 0 | 0 | 1 | 0 |


| Approach | WB | NB | SB |
| :---: | :---: | :---: | :---: |
| Opposing Approach |  | SB | NB |
| Opposing Lanes | 0 | 1 | 1 |
| Conflicting Approach Left | NB |  | WB |
| Conflicting Lanes Left | 1 | 0 | 2 |
| Conflicting Approach Right | SB | WB |  |
| Conflicting Lanes Right - | 1 | 2 | O |
| HCM Control Delay | 9.1 | 9.3 | 8.5 |
| HCM LOS | A | A | A |


| Lane | NBLn1 | WBLn1 | WBLn2 | SBLn1 |
| :---: | :---: | :---: | :---: | :---: |
| Vol Left, \% | 27\% | 13\% | 0\% | 0\% |
| Vol Thru, \% | $73 \%$ | 87\% | 77\% | $65 \%$ |
| Vol Right, \% | 0\% | 0\% | 23\% | 35\% |
| Sign Control | Stop | Stop | Stop | Stop |
| Traffic Vol by Lane | 165 | 118 | 133 | 115 |
| LT Vol | 45 | 15 | 0 | 0 |
| Through Vol | 120 | 103 | 103 | 75 |
| RT Vol | 0 | 0 | 30 | 40 |
| Lane Flow Rate | 177 | 126 | 142 | 124 |
| Geometry Gro | 2 | 7 | 7 | 2 |
| Degree of Util ( X ) | 0.235 | 0.185 | 0.202 | 0.159 |
| Departure Headway (Hd) | 4.759 | 5.27 | 5.097 | 4.617 |
| Convergence, Y/N | Yes | Yes | Yes | Yes |
| Cap | 754 | 680 | 702 | 775 : |
| Service Time | 2.793 | 3.012 | 2.84 | 2.655 |
| HCM Lane VIC Ratio | 0.235 | 0.185 | 0.202 | 0.16 |
| HCM Control Delay | 9.3 | 9.2 | 9.1 | 8.5 |
| HCM Lane LOS | A | A | A | A |
| HCM 95th-tile Q | 0.9 | 0.7 | 0.8 | 0.6 |


|  | 4 |  |  |  |  |  | 4 | 4 | $p$ |  |  | $\downarrow$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | 4 | $t$ |  |  |  |  | \% | 46 |  | 7 | 46 |  |
| Traffic Volume (vph) | 20 | 140 | 70 | 0 | 0 | 0 | 95 | 805 | 150 | 50 | 720 | 60 |
| Future Volume (vph) | 20 | 140 | 70 | 0 | 0 | 0 | 95 | 805 | 150 | 50 | 720 | 60 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width ( ft ) | 10 | 10 | 12 | 12 | 12 | 12 | 10 | 10 | 10 | 10 | 10 | 10 |
| 'Storage Length (ti) | 50 |  | 95 | 0 |  | 0 | 45 |  | 0 | 120 |  | 0 |
| Storage Lanes | 1 |  | 0 | 0 |  | 0 | 1 |  | 0 | 1 |  | 0 |
| Taper Length ( f ) | 75 |  |  | 25 |  |  | 70 |  |  | 160 |  |  |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 |
| Ped Bike Factor | 0.99 | 0.99 |  |  |  |  | 0.99 | 0.99 |  | 0.99 | 1.00 |  |
| Frt |  | 0.950 |  |  |  |  |  | 0.976 |  |  | 0.988 |  |
| Fit Protected | 0.950 |  |  |  |  |  | 0.950 |  |  | 0.950 |  |  |
| Satd. Flow (prot) | 1685 | 1586 | 0 | 0 | 0 | 0 | 1620 | 3183 | 0 | 1685 | 3224 | 0 |
| Fll Permitted | 0.950 |  |  |  |  |  | 0.259 |  |  | 0.181 |  |  |
| Satd. Flow (perm) | 1660 | 1586 | 0 | 0 | 0 | 0 | 436 | 3183 | 0 | 319 | 3224 | 0 |
| Right Tum on Red |  |  | Yes |  |  | Yes |  |  | Yes |  |  | Yes |
| Satd Flow (RTOR) |  | 49 |  |  |  |  |  | 42 |  |  | 17 |  |
| Link Speed (mph) |  | 20 |  |  | 30 |  |  | 30 |  |  | 30 |  |
| Link Distance (t) |  | 535 |  |  | 873 |  |  | 459 |  |  | 901 |  |
| Travel Time (s) |  | 18.2 |  |  | 19.8 |  |  | 10.4 |  |  | 20.5 |  |
| Confl. Peds. (\#/hr) | 21 |  | 19 |  |  |  | 38 |  | 54 | 54 |  | 38 |
| Confl. Bikes (\#/hr) |  |  | 1 |  |  |  |  |  | 5 |  |  |  |
| Peak Hour Factor | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 |
| Heavy Vehicles (\%) | 0\% | 4\% | 3\% | 0\% | 0\% | 0\% | 4\% | 2\% | 0\% | 0\% | 3\% | 0\% |
| Bus Blockages (\#/hr) | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 |
| Adj, Flow (vph) | 21 | 146 | 73 | 0 | 0 | 0 | 99 | 839 | 156 | 52 | 750 | 63 |
| Shared Lane Traffic (\%) |  |  |  |  |  |  |  |  |  |  |  |  |
| Lane Group Flow (vph) | 21 | 219 | 0 | 0 | 0 | 0 | 99 | 995 | 0 | 52 | 813 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(t) |  | 10 |  |  | 10 |  |  | 10 |  |  | 10 |  |
| Link Offset(ft) |  | 0 |  |  | 0 |  |  | 0 |  |  | 0 |  |
| Crosswalk Width(ft) |  | 16 |  |  | 16 |  |  | 16 |  |  | 16 |  |
| Two way Left Tum Lane |  |  |  |  |  |  |  |  |  |  |  |  |
| Headway Factor | 1.09 | 1.12 | 1.00 | 1.00 | 1.00 | 1.00 | 1.09 | 1.10 | 1.09 | 1.09 | 1.09 | 1.09 |
| Turning Speed (mph) | 15 |  | 9 | 15 |  | 9 | 15 |  | 9 | 15 |  | 9 |
| Turn Type | Perm | NA |  |  |  |  | Perm | NA |  | Perm | NA |  |
| Protected Phases |  | 4 |  |  |  |  |  | 2 |  |  | 6 |  |
| Permitted Phases | 4 |  |  |  |  |  | 2 |  |  | 6 |  |  |
| Minimum Split (s) | 32.0 | 32.0 |  |  |  |  | 33.0 | 33.0 |  | 33.0 | 33.0 |  |
| Total Split (s) | 32.0 | 32.0 |  |  |  |  | 33.0 | 33.0 |  | 33.0 | 33.0 |  |
| Total Split (\%) | 49.2\% | 49.2\% |  |  |  |  | 50.8\% | 50.8\% |  | 50.8\% | 50.8\% |  |
| Maximum Green ( s ) | 28.0 | 28.0 |  |  |  |  | 29.0 | 29.0 |  | 29.0 | 29.0 |  |
| Yellow Time (s) | 3.0 | 3.0 |  |  |  |  | 3.0 | 3.0 |  | 3.0 | 3.0 |  |
| All-Red Time (s) | 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 |  |
| Total Lost Time (s) | 4.0 | 4.0 |  |  |  |  | 4.0 | 4.0 |  | 4.0 | 4.0 |  |
| Lead/Lag |  |  |  |  |  |  |  |  |  |  |  |  |
| Lead-Lag Optimize? |  |  |  |  |  |  |  |  |  |  |  |  |



Splits and Phases: 3: Damen Ave \& Jackson Blvd


|  |  |  |  | 4 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations |  | 44 |  |  | 3 |  |
| Traffic Volume (vph) | 0 | 340 | 0 | 0 | 25 | 0 |
| Future Volume (vph) | 0 | 340 | 0 | 0 | 25 | 0 |
| Ideal Flow (vphpi) | 1900 | 2000 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (tt) | 12 | 11 | 12 | 12 | 11 | 12 |
| Lane Utili. Factor | 1.00 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt |  |  |  |  |  |  |
| Flit Protected |  |  |  |  | 0.950 |  |
| Satd. Flow (prot) | 0 | 3637 | 0 | 0 | 1745 | 0 |
| Fit Permitted |  |  |  |  | 0.950 |  |
| Satd. Flow (perm) | 0 | 3637 | 0 | 0 | 1745 | 0 |
| Link Speed (mph) |  | 30 | 30 |  | 20 |  |
| Link Distance (ti) |  | 873 | 244 |  | 183 |  |
| Travel Time (s) |  | 19.8 | 5.5 |  | 6.2 |  |
| Peak Hour Factor | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 |
| Heavy Vehicles (\%) | 0\% | 1\% | 0\% | 0\% | 0\% | 0\% |
| Adj. Flow (vph) | 0 | 436 | 0 | 0 | 32 | 0 |
| Shared Lane Traffic (\%) |  |  |  |  |  |  |
| Lane Group Flow (vph) | 0 | 436 | 0 | 0 | 32 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Left | Right | Left | Right |
| Median Width(t) |  | 0 | 0 |  | 11 |  |
| Link Offset(ft) |  | 0 | 0 |  | 0 |  |
| Crosswalk Widith(t) |  | 16 | 16 |  | 16 |  |
| Two way Left Tum Lane |  |  |  |  |  |  |
| Headway Factor | 1.00 | 0.98 | 1.00 | 1.00 | 1.04 | 1.00 |
| Turning Speed (mph) | 15 |  |  | 9 | 15 | 9 |
| Sign Control |  | Free | Free |  | Stop |  |
| Intersection Summary |  |  |  |  |  |  |
| Area Type: Other |  |  |  |  |  |  |
| Control Type: Unsignalized |  |  |  |  |  |  |
| Intersection Capacity Utilization 18.9\% |  | ICU Level of Service A |  |  |  |  |
|  |  |  |  |  |  |  |



| Major/Minor | Major1 | Minor2 |  |
| :---: | :---: | :---: | :---: |
| Conficting Flow All | - | 218 | $\cdot$ |
| Stage 1 | - | 0 | - |
| Stage 2 | - | 218 | - |
| Critical Hdwy | - | 6.8 | - |
| Critical Hdwy Stg 1 | - | - | - |
| Critical Hdwy Stg 2 | - | 5.8 | - |
| Follow-up Hdwy | - | 3.5 |  |
| Pot Cap-1 Maneuver | 0 | 756 | 0 |
| Stage 1 | 0 | - | 0 |
| Stage 2 | 0 | 803 | 0 |

## Platoon blocked, \%

Mov Cap-1 Maneuver -- $\quad 756$
Mov Cap-2 Maneuver - 756


| Approach. | $E B$ | SB |
| :--- | :---: | :---: |
| HCM Control Delay, $s$ | 0 | 10 |
| HCM LOS | $B$ |  |


| Minor Lane/Major Mumt | EBT SBLE. 1 |
| :---: | :---: |
| Capacity (veh/h) | 756 |
| HCM Lane V/C Ratio | - 0.042 |
| HCM Control Delay (s) | - 10 |
| HCM Lane LOS | - B |
| HCM 95th \%tile Q(veh) |  |





|  |  |  |  |  |  |  | 4 | 4 |  |  | $\downarrow$ | $+$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Group: | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  | 41 |  |  | . |  |  | $\hat{1}$ |  |  | $\uparrow$ |  |
| Traffic Volume (vph) | 50 | 205 | 40 | 0 | 0 | 0 | 0 | 80 | 5 | 70 | 115 | 0 |
| Future Volume (vph) | 50 | 205 | 40 | 0 | 0 | 0 | 0 | 80 | 5 | 70 | 115 | 0 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 11 | 11 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| Lane Util. Factor | 0.95 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor |  |  |  |  |  |  |  |  |  |  |  |  |
| Frt |  | 0.980 |  |  |  |  |  | 0.993 |  |  |  |  |
| Flt Protected |  | 0.992 |  |  |  |  |  |  |  |  | 0.982 |  |
| Satd. Flow (prot) | 0 | 3346 | 0 | 0 | 0 | 0 | 0 | 1785 | 0 | 0 | 1827 | 0 |
| Fit Permitted |  | 0.992 |  |  |  |  |  |  |  |  | 0.982 |  |
| Satd. Flow (perm) | 0 | 3346 | 0 | 0 | 0 | 0 | 0 | 1785 | 0 | 0 | 1827 | 0 |
| Link Speed (mph) |  | 30 |  |  | 30 |  |  | 30 |  |  | 30 |  |
| Link Distance (ti) |  | 134 |  |  | 263 |  |  | 292 |  |  | 245 |  |
| Travel Time (s) |  | 3.0 |  |  | 6.0 |  |  | 6.6 |  |  | 5.6 |  |
| Confl. Peds. (\#/hr) | 10 |  | 9 |  |  |  |  |  | 7 | 7 |  |  |
| Confl. Bikes (\#/hr) | 2 |  |  |  |  |  |  |  | 1 |  |  |  |
| Peak Hour Factor | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 |
| Heavy Vehicles (\%) | 0\% | 2\% | 0\% | 0\% | 0\% | 0\% | 0\% | 6\% | 0\% | 4\% | 1\% | 0\% |
| Adj. Flow (vph) | 54 | 220 | 43 | 0 | 0 | 0 | 0 | 86 | 5 | 75 | 124 | 0 |
| Shared Lane Traffic (\%) |  |  |  |  |  |  |  |  |  |  |  |  |
| Lane Group Flow (vph) | 0 | 317 | 0 | 0 | 0 | 0 | 0 | 91 | 0 | 0 | 199 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(f) |  | 15 |  |  | 15 |  |  | 0 |  |  | 0 |  |
| Link Offset(f) |  | 0 |  |  | 0 |  |  | 0 |  |  | 0 |  |
| Crosswalk Width(ft) |  | 16 |  |  | 16 |  |  | 16 |  |  | 16 |  |
| Two way Left Tum Lane |  |  |  |  |  |  |  |  |  |  |  |  |
| Headway Factor | 1.00 | 1.04 | 1.04 | 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 |
| Sign Control |  | Stop |  |  | Stop |  |  | Stop |  |  | Stop |  |
| Intersection Summary |  |  |  |  |  |  |  |  |  |  |  |  |
| Area Type: Other |  |  |  |  |  |  |  |  |  |  |  |  |
| Control Type: Unsignalized |  |  |  |  |  |  |  |  |  |  |  |  |
| Intersection Capacity Utilization 33.0\% ICU Level of Service A |  |  |  |  |  |  |  |  |  |  |  |  |
| Analysis Period (min) 15 |  |  |  |  |  |  |  |  |  |  |  |  |

[^7]Intersection:
Intersection Delay, s/veh $\quad 9.5$
Intersection LOS
A

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Configurations |  | At |  |  |  |  |  | F |  |  | $\uparrow$ |  |
| Traffic Vol, veih/h | 50 | 205 | 40 | 0 | 0 | 0 | 0 | 80 | 5 | 70 | 115 | 0 |
| Future Vol, veh/h | 50 | 205 | 40 | 0 | 0 | 0 | 0 | 80 | 5 | 70 | 115 | 0 |
| 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 |
| Heawy Vehicles, \% | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 4 | 1 | 0 |
| Mumt Fiow | 54 | 220 | 43 | 0 | 0 | 0 | 0 | 86 | 5 | 75 | 124 | 0 |
| Number of Lanes | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 |
| Approach | EB |  |  |  |  |  |  | NB |  | SB |  |  |
| Opposing Approach |  |  |  |  |  |  |  | SB |  | NB |  |  |
| Opposing Lanes | 0 |  |  |  |  |  |  | 1 |  | 1 |  |  |
| Conflicting Approach Left | SB |  |  |  |  |  |  | EB |  |  |  |  |
| Conflicting Lanes Left | 1 |  |  |  |  |  |  | 2 |  | 0 |  |  |
| Conflicting Approach Right | NB |  |  |  |  |  |  |  |  | EB |  |  |
| Confliciting Lanes Right | 1 |  |  |  |  |  |  | 0 |  | 2 |  |  |
| HCM Control Delay | 9.6 |  |  |  |  |  |  | 8.8 |  | 9.8 |  |  |
| HCMLOS | A |  |  |  |  |  |  | A |  | A |  |  |


| Lane | NBLn1 | EBL-n1 | EBLn2 | SBLn1 |
| :---: | :---: | :---: | :---: | :---: |
| Vol Left, \% | 0\% | 33\% | 0\% | 38\% |
| Vol Thru, \% | 94\% | 67\% | 72\% | 62\% |
| Vol Right, \% | 6\% | 0\% | 28\% | 0\% |
| Sign Control | Stop | Stop | Stop | Stop |
| Traffic Vol by Lane | 85 | 153 | 143 | 185 |
| [TVOI | - | 50 | 0 | 70 |
| Through Vol | 80 | 103 | 103 | 115 |
| RT Vol | 5 | 0 | 40 | 0 |
| Lane Flow Rate | 91 | 164 | 153 | 199 |
| Geometry Grp | 2 | 7 | 7 | 2 |
| Degree of Util ( X ) | 0.127 | 0.245 | 0.215 | 0.272 |
| Departure Headway (Hd) | 4.991 | 5.378 | 5.05 | 4.929 |
| Convergence, $\mathrm{Y} / \mathrm{N}$ | Yes | Yes | Yes | Yes |
| Cap | 716 | 666 | 709 | 728 |
| Sevice Time | 3.037 | 3.124 | 2.796 | 2.967 |
| HCM Lane VIC Ratio | 0.127 | 0.246 | 0.216 | 0.273. |
| HCM Control Delay | 8.8 | 9.9 | 9.2 | 9.8 |
| HCM Lane LOS | A | A | A | A |
| HCM 95th-tile Q | 0.4 | 1 | 0.8 | 1.1 |


|  | $\rightarrow$ |  | 2 |  |  | 1 | b | 7 | $p$ | 4 | $\cdots$ | 4 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NEL | NET. | NER | SWL | SWT | SWR |
| Lane Configurations | 1 | 中 ${ }^{\text {a }}$ |  |  |  |  |  | 1t |  |  | $\uparrow+$ |  |
| Traffic Volume (vph) | 75 | 200 | 5 | 0 | 0 | 0 | 0 | 635 | 65 | 10 | 1010 | 0 |
| Future Volume (vph) | 75 | 200 | 5 | 0 | 0 | 0 | 0 | 635 | 65 | 10 | 1010 | 0 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (tt) | 15 | 11 | 10 | 12 | 12 | 12 | 12 | 12 | 13 | 10 | 12 | 12 |
| Storage Length (ft) | 80 |  | 0 | 0 |  | 0 | 0 |  | 0 | 0 |  | 0 |
| Storage Lanes | 1 |  | 0 | 0 |  | 0 | 0 |  | 0 | 0 |  | 0 |
| Taper Length (t) | 75 |  |  | 25 |  |  | 25 |  |  | 25 |  |  |
| Lane Util. Factor | 1.00 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 0.95 | 0.95 | 0.95 | 1.00 |
| Ped Bike Factor | 0.96 | 1.00 |  |  |  |  |  | 1.00 |  |  | 1.00 |  |
| Frt |  | 0.997 |  |  |  |  |  | 0.986 |  |  |  |  |
| Fit Protected | 0.950 |  |  |  |  |  |  |  |  |  | 0.999 |  |
| Satd. Flow (prot) | 1986 | 3319 | 0 | 0 | 0 | 0 | 0 | 3515 | 0 | 0 | 3536 | 0 |
| Flt Permitted | 0.950 |  |  |  |  |  |  |  |  |  | 0.946 |  |
| Satd. Flow (perm) | 1906 | 3319 | 0 | 0 | 0 | 0 | 0 | 3515 | 0 | 0 | 3349 | 0 |
| Right Tum on Red |  |  | Yes |  |  | Yes |  |  | Yes |  |  | Yes |
| Satd. Flow (RTOR) |  | 3 |  |  |  |  |  | 19 |  |  |  |  |
| Link Speed (mph) |  | 30 |  |  | 30 |  |  | 30 |  |  | 30 |  |
| Link Distance (ft) |  | 263 |  |  | 1046 |  |  | 395 |  |  | 594 |  |
| Travel Time (s) |  | 6.0 |  |  | 23.8 |  |  | 9.0 |  |  | 13.5 |  |
| Confl. Peds. (\#/hr) | 46 |  | 18 |  |  |  |  |  | 9 | 9 |  |  |
| Confl. Bikes (\#/hr) |  |  | 1 |  |  |  |  |  | 7 |  |  |  |
| Peak Hour Factor | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 |
| Heavy Vehicles (\%) | 0\% | 4\% | 0\% | 0\% | 0\% | 0\% | 0\% | 1\% | 2\% | 0\% | 2\% | 0\% |
| Bus Blockages (\#/hr) | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Adj. Flow (vph) | 80 | 213 | 5 | 0 | 0 | 0 | 0 | 676 | 69 | 11 | 1074 | 0 |
| Shared Lane Traffic (\%) |  |  |  |  |  |  |  |  |  |  |  |  |
| Lane Group Flow (vph) | 80 | 218 | 0 | 0 | 0 | 0 | 0 | 745 | 0 | 0 | 1085 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) |  | 15 |  |  | 15 |  |  | 3 |  |  | 3 |  |
| Link Offset(ft) |  | 0 |  |  | 0 |  |  | 0 |  |  | 0 |  |
| Crosswalk Width(ft) |  | 16 |  |  | 16 |  |  | 16 |  |  | 16 |  |
| Two way Left Tum Lane |  |  |  |  |  |  |  |  |  |  |  |  |
| Headway Factor | 0.88 | 1.06 | 1.09 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.96 | 1.09 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 |  | 9 | 15 |  | 9 | 15 |  | 9 | 15 |  | 9 |
| Turn Type | Perm | NA |  |  |  |  |  | NA |  | Perm | NA |  |
| Protected Phases |  | 2 |  |  |  |  |  | 8 |  |  | 4 |  |
| Permitted Phases | 2 |  |  |  |  |  |  |  |  | 4 |  |  |
| Minimum Split (s) | 36.0 | 36.0 |  |  |  |  |  | 54.0 |  | 54.0 | 54.0 |  |
| Total Split (s) | 36.0 | 36.0 |  |  |  |  |  | 54.0 |  | 54.0 | 54.0 |  |
| Total Split (\%) | 40.0\% | 40.0\% |  |  |  |  |  | 60.0\% |  | 60.0\% | 60.0\% |  |
| Maximum Green (s) | 31.0 | 31.0 |  |  |  |  |  | 49.0 |  | 49.0 | 49.0 |  |
| Yellow Time (s) | 3.0 | 3.0 |  |  |  |  |  | 3.0 |  | 3.0 | 3.0 |  |
| All-Red Time (s) | 2.0 | 2.0 |  |  |  |  |  | 2.0 |  | 2.0 | 2.0 |  |
| Lost Time Adjust (s) | 0.0 | 0.0 |  |  |  |  |  | 0.0 |  |  | 0.0 |  |
| Total Lost Time (s) | 5.0 | 5.0 |  |  |  |  |  | 5.0 |  |  | 5.0 |  |
| Lead-Lag Optimize? |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |


|  | $-$ | $\rightarrow$ | 7 | $\cdots$ |  | 1 |  | $\lambda$ | $\rightarrow$ | $\square$ | 1 | 4 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Group | EBL | :EBT. | EBR | WBL. | WBT | WBR | NEL | NET. | NER | SWL | SWT | SWR |
| Walk Time (s) | 7.0 | 7.0 |  |  |  |  |  | 32.0 |  | 32.0 | 32.0 |  |
| Flash Dont Walk (s) | 24.0 | 24.0 |  |  |  |  |  | 17.0 |  | 17.0 | 17.0 |  |
| Pedestrian Calls (\#/hr) | 0 | 0 |  |  |  |  |  | 0 |  | 0 | 0 |  |
| Act Effct Green (s) | 31.0 | 31.0 |  |  |  |  |  | 49.0 |  |  | 49.0 |  |
| Actuated g/C Ratio | 0.34 | 0.34 |  |  |  |  |  | 0.54 |  |  | 0.54 |  |
| v/c Ratio | 0.12 | 0.19 |  |  |  |  |  | 0.39 |  |  | 0.60 |  |
| Control Delay | 20.9 | 21.0 |  |  |  |  |  | 9.3 |  |  | 15.5 |  |
| Queue Delay | 0.0 | 0.0 |  |  |  |  |  | 0.0 |  |  | 0.0 |  |
| Total Delay | 20.9 | 21.0 |  |  |  |  |  | 9.3 |  |  | 15.5 |  |
| LOS | C | C |  |  |  |  |  | A |  |  | B |  |
| Approach Delay |  | 21.0 |  |  |  |  |  | 9.3 |  |  | 15.5 |  |
| Approach LOS |  | C |  |  |  |  |  | A |  |  | B |  |
| Queue Length 50th (ft) | 31 | 44 |  |  |  |  |  | 72 |  |  | 205 |  |
| Queue Length 95th (ft) | 63 | 71 |  |  |  |  |  | 94 |  |  | 266 |  |
| Internal Link Dist (ft) |  | 183 |  |  | 966 |  |  | 315 |  |  | 514 |  |
| Turn Bay Length ( t ) | 80 |  |  |  |  |  |  |  |  |  |  |  |
| Base Capacity (vph) | 656 | 1145 |  |  |  |  |  | 1922 |  |  | 1823 |  |
| Starvation Cap Reductn | 0 | 0 |  |  |  |  |  | 0 |  |  | 0 |  |
| Spillback Cap Reductn | 0 | 0 |  |  |  |  |  | 0 |  |  | 0 |  |
| Storage Cap Reductn | 0 | 0 |  |  |  |  |  | 0 |  |  | 0 |  |
| Reduced v/c Ratio | 0.12 | 0.19 |  |  |  |  |  | 0.39 |  |  | 0.60 |  |

Intersection Summary : $\quad$ Other
Area Type:
Cycle Length: 90
Actuated Cycle Length: 90
Offset: $4(4 \%)$, Referenced to phase 2:EBTL, Start of Green
Natural Cycle: 90
Control Type: Pretimed
Maximum v/c Ratio: 0.60
Intersection Signal Delay: 14.1
Intersection Capacity Utilization $75.0 \%$
Analysis Period (min) 15

Analysis Period (min) 15
Splits and Phases: 8: Ogden Ave \& Jackson Blvd



HCM 6th TWSC
9: Ogden Ave \& Wood St


|  |  |  |  |  |  |  | $4$ | $\dagger$ |  |  |  | $\downarrow$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  |  | 7 | At 4 |  | \% | 4 |  |  | 4 | F |
| Traffic Volume (vph) | 0 | 0 | 0 | 125 | 945 | 230 | 400 | 820 | 0 | 0 | 635 | 155 |
| Future Volume (vph) | 0 | 0 | 0 | 125 | 945 | 230 | 400 | 820 | 0 | 0 | 635 | 155 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 2000 | 1900 | 1900 | 2000 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 9 | 10 | 11 | 10 | 15 | 10 | 10 | 12 | 10 |
| Storage Length (ft) | 0 |  | 0 | 0 |  | 0 | 50 |  | 0 | 0 |  | 150 |
| Storage Lanes | 0 |  | 0 | 1 |  | 0 | 1 |  | 0 | 0 |  | 1 |
| Taper Length (t) | 25 |  |  | 0 |  |  | 120 |  |  | 25 |  |  |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 0.86 | 0.86 | 0.91 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 |
| Ped Bike Factor |  |  |  |  | 0.99 |  | 0.99 |  |  |  |  | 0.97 |
| Frt |  |  |  |  | 0.971 |  |  |  |  |  |  | 0.850 |
| Fll Protected |  |  |  | 0.950 | 0.999 |  | 0.950 |  |  |  |  |  |
| Satd. Flow (prot) | 0 | 0 | 0 | 1370 | 4321 | 0 | 1668 | 4139 | 0 | 0 | 3689 | 1449 |
| Flt Permitted |  |  |  | 0.950 | 0.999 |  | 0.339 |  |  |  |  |  |
| Sald. Flow (perm) | 0 | 0 | 0 | 1370 | 4321 | 0 | 592 | 4139 | 0 | 0 | 3689 | 1410 |
| Right Tum on Red |  |  | Yes |  |  | Yes |  |  | Yes |  |  | Yes |
| Satd. Flow (RTOR) |  |  |  |  | 48 |  |  |  |  |  |  | 52 |
| Link Speed (mph) |  | 30 |  |  | 30 |  |  | 30 |  |  | 30 |  |
| Link Distance (ft) |  | 1260 |  |  | 255 |  |  | 427 |  |  | 459 |  |
| Travel Time (s) |  | 28.6 |  |  | 5.8 |  |  | 9.7 |  |  | 10.4 |  |
| Confl. Peds. (\#/hr) |  |  |  |  |  | 19 | 26 |  |  |  |  | 26 |
| Confl. Bikes (\#/hr) |  |  |  |  |  |  |  |  |  |  |  |  |
| 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 |
| Heavy Vehicles (\%) | 0\% | 0\% | 0\% | 2\% | 1\% | 3\% | 1\% | 1\% | 0\% | 0\% | 3\% | 4\% |
| Bus Blockages (\#/hr) | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Adj. Flow (vph) | 0 | 0 | 0 | 129 | 974 | 237 | 412 | 845 | 0 | 0 | 655 | 160 |
| Shared Lane Traffic (\%) |  |  |  | 10\% |  |  |  |  |  |  |  |  |
| Lane Group Flow (vph) | 0 | 0 | 0 | 116 | 1224 | 0 | 412 | 845 | 0 | 0 | 655 | 160 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(t) |  | 9 |  |  | 9 |  |  | 15 |  |  | 0 |  |
| Link Offset(ft) |  | 0 |  |  | 0 |  |  | 0 |  |  | 0 |  |
| Crosswalk Width(f) |  | 16 |  |  | 16 |  |  | 16 |  |  | 16 |  |
| Two way Left Tum Lane |  |  |  |  |  |  |  |  |  |  |  |  |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.14 | 1.10 | 1.04 | 1.09 | 0.82 | 1.09 | 1.09 | 0.94 | 1.09 |
| iurning Speed (mph) | 15 |  | 9 | 15 |  | 9 | 15 |  | 9 | 15 |  | 9 |
| Turn Type |  |  |  | Perm | NA |  | pm+pt | NA |  |  | NA | Perm |
| Protected Phases |  |  |  |  | 8 |  | 1 | 6 |  |  | 2 |  |
| Permitted Phases |  |  |  | 8 |  |  | 6 |  |  |  |  | 2 |
| Minimum Split (s) |  |  |  | 34.0 | 34.0 |  | 14.0 | 71.0 |  |  | 57.0 | 57.0 |
| Total Split (s) |  |  |  | 34.0 | 34.0 |  | 14.0 | 71.0 |  |  | 57.0 | 57.0 |
| [Total Split (\%) |  |  |  | 32.4\% | 32.4\% |  | 13.3\% | 67.6\% |  |  | 54.3\% | 54.3\% |
| Maximum Green ( s ) |  |  |  | 30.0 | 30.0 |  | 10.0 | 67.0 |  |  | 54.0 | 54.0 |
| Yellow Time (s) |  |  |  | 3.0 | 3.0 |  | 3.0 | 3.0 |  |  | 3.0 | 3.0 |
| All-Red Time (s) |  |  |  | 1.0 | 1.0 |  | 1.0 | 1.0 |  |  | 0.0 | 0.0 |
| Lost Time Adjust (s) |  |  |  | 0.0 | 0.0 |  | 0.0 | 0.0 |  |  | 0.0 | 0.0 |
| Total Lost Time (s) |  |  |  | 4.0 | -4.0 |  | 4.0 | 4.0 |  |  | 3.0 | 3.0 |
| Lead/Lag |  |  |  |  |  |  | Lag |  |  |  | Lead | Lead |
| Lead-Lag Optimize? |  |  |  |  |  |  | Yes |  |  |  | Yes | Yes |

[^8]| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL. | SBT | SBR |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Walk Time (s) |  |  |  | 15.0 | 15.0 |  |  | 44.0 |  |  | 44.0 | 44.0 |
| Flash Dont Walk (s) |  |  |  | 15.0 | 15.0 |  |  | 10.0 |  |  | 10.0 | 10.0 |
| Pedestrian Calls (\#/hr) |  |  |  | 0 | 0 |  |  | 0 |  |  | 0 | 0 |
| Act Effict Green (s) |  |  |  | 30.0 | 30.0 |  | 67.0 | 67.0 |  |  | 54.0 | 54.0 |
| Actuated g/C Ratio |  |  |  | 0.29 | 0.29 |  | 0.64 | 0.64 |  |  | 0.51 | 0.51 |
| $v / \mathrm{R}$ Ratio |  |  |  | 0.30 | 0.97 |  | 0.86 | 0.32 |  |  | 0.35 | 0.21 |
| Control Delay |  |  |  | 31.8 | 54.3 |  | 38.9 | 6.0 |  |  | 15.7 | 10.0 |
| Queue Delay |  |  |  | 0.0 | 0.0 |  | 0.0 | 0.2 |  |  | 0.0 | 0.0 |
| Total Delay |  |  |  | 31.8 | 54.3 |  | 38.9 | 6.2 |  |  | 15.7 | 10.0 |
| LOS |  |  |  | C | D |  | D | A |  |  | B | B |
| Approach Delay |  |  |  |  | 52.4 |  |  | 16.9 |  |  | 14.6 |  |
| Approach LOS |  |  |  |  | D |  |  | B |  |  | B |  |
| Queue Length 50th (t) |  |  |  | 70 | 303 |  | 135 | 84 |  |  | 131 | 37 |
| Queue Length 95th (ti) |  |  |  | 129 | \#410 |  | \#157 | 102 |  |  | 171 | 74 |
| Internal Link Dist (ft) |  | 1180 |  |  | 175 |  |  | 347 |  |  | 379 |  |
| Turn Bay Length ( t ) |  |  |  |  |  |  | 50 |  |  |  |  | 150 |
| Base Capacity (vph) |  |  |  | 391 | 1268 |  | 480 | 2641 |  |  | 1897 | 750 |
| Starvation Cap Reductn |  |  |  | 0 | 0 |  | 0 | 863 |  |  | 0 | 0 |
| Spillback Cap Reductn |  |  |  | 0 | 0 |  | 0 | 0 |  |  | 0 | 0 |
| Storage Cap Reductn |  |  |  | 0 | 0 |  | 0 | 0 |  |  | 0 | 0 |
| Reduced v/c Ratio |  |  |  | 0.30 | 0.97 |  | 0.86 | 0.48 |  |  | 0.35 | 0.21 |

## Intersection Summary

## Area Type: Other

Cycle Length: 105
Actuated Cycle Length: 105
Offset: $49(47 \%)$, Referenced to phase 2:SBT and 6:NBTL, Start of Green
Natural Cycle: 105
Control Type: Pretimed
Maximum v/c Ratio: 0.97
Intersection Signal Delay: 30.3
Intersection LOS: C
Intersection Capacity Utilization $102.2 \%$ ICU Level of Service $G$
Analysis Period (min) 15
\# 95 th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
Splits and Phases: 10: Damen Ave \& Van Buren St



|  | $\rangle$ |  |  | 4 | , |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Group | EBL: | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations |  |  | 49 |  |  | 7 |
| Traffic Volume (vph) | 0 | 0 | 925 | 1 | 0 | 5 |
| Future Volume (vph) | 0 | 0 | 925 | 1 | 0 | 5 |
| Ideal Flow (vphpi) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (tt) | 12 | 12 | 16 | 13 | 12 | 11 |
| Lane Utili. Factor | 1.00 | 1.00 | 0.95 | 0.95 | 1.00 | 1.00 |
| Ped Bike Factor |  |  |  |  |  |  |
| Fit |  |  |  |  |  | 865 |
| Fit Protected |  |  |  |  |  |  |
| Satd. Flow (prot) | 0 | 0 | 4011 | 0 | 0 | 1589 |
| Fit Permitted |  |  |  |  |  |  |
| Satd. Flow (perm) | 0 | 0 | 4011 | 0 | 0 | 1589 |
| Link Speed (mph) |  | 30 | 30 |  | 20 |  |
| Link Distance (t) |  | 727 | 209 |  | 211 |  |
| Travel Time (s) |  | 16.5 | 4.8 |  | 7.2 |  |
| Confl. Peds. (\#\#hr) |  |  |  | 13 |  |  |
| Peak Hour Factor | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 |
| Heavy Vehicles (\%) | 0\% | 0\% | 2\% | 0\% | 0\% | 0\% |
| Adj. Flow (vph) | 0 | 0 | 1063 | 1 | 0 | 6 |
| Shared Lane Traffic (\%) |  |  |  |  |  |  |
| Lane Group Flow (vph) | 0 | 0 | 1064 | 0 | 0 | 6 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Left | Right | Left | Right |
| Median Width(t) |  | 0 | 0 |  | 0 |  |
| Link Offset(t) |  | 0 |  |  | 0 |  |
| Crosswalk Width (ti) |  | 16 | 16 |  | 16 |  |
| Two way Left Turn Lane |  |  |  |  |  |  |
| Headway Factor | 1.00 | 1.00 | 0.85 | 0.96 | 1.00 | 1.04 |
| Turning Speed (mph) | 15 |  |  | 9 | 15 |  |
| Sign Control |  | Free | Free |  | Stop |  |
| Intersection Summary |  |  |  |  |  |  |
| Area Type: |  |  |  |  |  |  |
| Control Type: Unsignalized |  |  |  |  |  |  |
| Intersection Capacity Utilization 35.6\%Analysis Period (min) 15 |  | ICU Level of Sevice A |  |  |  |  |
|  |  |  |  |  |  |  |



|  | $\sim$ | $\rightarrow$ | 7 | 1 |  | を | $\cdots$ | 7 | $p$ |  | 4 | 4 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NEL | NET | NER | SWL | SWT | SWR |
| Lane Configurations |  |  |  |  | 41 |  |  | 44 |  |  | 4 F |  |
| Traffic Volume (vph) | 0 | 0 | 0 | 160 | 625 | 45 | 25 | 735 | 0 | 0 | 890 | 275 |
| Future Volume (vph) | 0 | 0 | 0 | 160 | 625 | 45 | 25 | 735 | 0 | 0 | 890 | 275 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 16 | 16 | 14 | 11 | 11 | 10 | 12 | 10 | 10 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 1.00 | 1.00 | 0.95 | 0.95 |
| Ped Bike Factor |  |  |  |  | 1.00 |  |  | 1.00 |  |  | 1.00 |  |
| Frt |  |  |  |  | 0.992 |  |  |  |  |  | 0.965 |  |
| Flt Protected |  |  |  |  | 0.990 |  |  | 0.998 |  |  |  |  |
| Satd. Flow (prot) | 0 | 0 | 0 | 0 | 3894. | 0 | 0 | 3449 | 0 | 0 | 3181 | 0 |
| Flt Permitted |  |  |  |  | 0.990 |  |  | 0.879 |  |  |  |  |
| Satd. Flow (perm) | 0 | 0 | 0 | 0 | 3892 | 0 | 0 | 3038 | 0 | 0 | 3181 | 0 |
| Right Tum on Red |  |  | Yes |  |  | Yes |  |  | Yes |  |  | Yes |
| Satd. Flow (RTOR) |  |  |  |  | 7 |  |  |  |  |  | 62 |  |
| Link Speed (mph) |  | 30 |  |  | 30 |  |  | 30 |  |  | 30 |  |
| Link Distance (ti) |  | 209 |  |  | 1434 |  |  | 465 |  |  | 233 |  |
| Travel Time (s) |  | 4.8 |  |  | 32.6 |  |  | 10.6 |  |  | 5.3 |  |
| Confl. Peds. (\#/hr) |  |  |  | 2 |  | 13 | 12 |  |  |  |  | 12 |
| Confl. Bikes (\#/hr) |  |  |  |  |  | 1 |  |  |  |  |  | 1 |
| Peak Hour Factor | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 |
| Heavy Vehicles (\%) | 0\% | 0\% | 0\% | 1\% | 2\% | 6\% | 0\% | 1\% | 0\% | 0\% | 2\% | 1\% |
| Bus Blockages (\#/hr) | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Adj. Flow (vph) | 0 | 0 | 0 | 170 | 665 | 48 | 27 | 782 | 0 | 0 | 947 | 293 |
| Shared Lane Traffic (\%) |  |  |  |  |  |  |  |  |  |  |  |  |
| Lane Group Flow (vph) | 0 | 0 | 0 | 0 | 883 | 0 | 0 | 809 | 0 | 0 | 1240 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(t) |  | 0 |  |  | 0 |  |  | 0 |  |  | 3 |  |
| Link Offset(f) |  | 0 |  |  | 0 |  |  | 0 |  |  | 0 |  |
| Crosswalk Width(ft) |  | 16 |  |  | 16 |  |  | 16 |  |  | 16 |  |
| Two way Left Turn Lane |  |  |  |  |  |  |  |  |  |  |  |  |
| Headway Factor | 1.00 | 1.00 | 1.00 | 0.85 | 0.86 | 0.92 | 1.04 | 1.04 | 1.09 | 1.00 | 1.09 | 1.09 |
| Turning Speed (mph) | 15 |  | 9 | 15 |  | 9 | 15 |  | 9 | 15 |  | 9 |
| Turn Type |  |  |  | Perm | NA: |  | Perm | NA |  |  | NA |  |
| Protected Phases |  |  |  |  | 4 |  |  | 6 |  |  | 2 |  |
| Permitted Phases |  |  |  | 4 |  |  | 6 |  |  |  |  |  |
| Minimum Split (s) |  |  |  | 34.0 | 34.0 |  | 56.0 | 56.0 |  |  | 56.0 |  |
| Total Split (s) |  |  |  | 34.0 | 34.0 |  | 56.0 | 56.0 |  |  | 56.0 |  |
| Total Split (\%) |  |  |  | 37.8\% | 37.8\% |  | 62.2\% | 62.2\% |  |  | 2.2\% |  |
| Maximum Green (s) |  |  |  | 29.0 | 29.0 |  | 51.0 | 51.0 |  |  | 51.0 |  |
| Yellow Tirme (s) |  |  |  | 3.0 | 3.0 |  | 3.0 | 3.0 |  |  | 3.0 |  |
| All-Red Time (s) |  |  |  | 2.0 | 2.0 |  | 2.0 | 2.0 |  |  | 2.0 |  |
| Lost Time Adjust (s) |  |  |  |  | 0.0 |  |  | 0.0 |  |  | 0.0 |  |
| Total Lost Time (s) |  |  |  |  | 5.0 |  |  | 5.0 |  |  | 5.0 |  |
| Lead/Lag |  |  |  |  |  |  |  |  |  |  |  |  |
| Lead-Lag Optimize? |  |  |  |  |  |  |  |  |  |  |  |  |
| Walk Time (s) |  |  |  | 8.0 | 8.0 |  | 35.0 | 35.0 |  |  | 35.0 |  |
| Flash Dont Walk (s) |  |  |  | 21.0 | 21.0 |  | 16.0 | 16.0 |  |  | 16.0 |  |
| Pedestrian Calls (\#/hr) |  |  |  | 0 | 0 |  | 0 | 0 |  |  | 0 |  |


Intersection Summary
Area Type:
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 52 ( $58 \%$ ), Referenced to phase 2:SWT and 6:NETL, Start of Green
Natural Cycle: 90
Control Type: Pretimed
Maximum v/c Ratio: 0.70
Intersection Signal Delay:14.0
Intersection Capacity Utilization $75.0 \%$
Analysis Period (min) 15

Splits and Phases: 13: Ogden Ave \& Van Buren St


| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | - SBL | SBT | SBR |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Configurations | 7 | AT | 7 |  |  |  |  | 4 | $\bar{\square}$ | 1 | $\uparrow \uparrow$ |  |
| Traffic Volume (vph) | 335 | 160 | 305 | 0 | 0 | 0 | 0 | 885 | 430 | 195 | 565 | 0 |
| Future Volume (vph) | 335 | 160 | 305 | 0 | 0 | 0 | 0 | 885 | 430 | 195 | 565 | 0 |
| [deal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 2000 | 1900 | 1900 | 2000 | 1900 |
| Lane Widith (ti) | 10 | 10 | 10 | 12 | 12 | 12 | 12 | 12 | 13 | 9 | 12 | 11 |
| Storage Length (ti) | 0 |  | 0 | 0 |  | 0 | 0 |  | 0 | 115 |  | 0 |
| Storage Lanes | 1 |  | 1 | 0 |  | 0 | 0 |  | 1 | 1 |  | 0 |
| Taper Length (tt) | 25 |  |  | 25 |  |  | 25 |  |  | 135 |  |  |
| Lane Utili. Factor | 0.91 | 0.86 | 0.91 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 |
| Ped Bike Factor | 1.00 | 0.99 | 0.97 |  |  |  |  |  | 0.94 | 0.99 |  |  |
| Frt |  | 0.956 | 0.850 |  |  |  |  |  | 0.850 |  |  |  |
| Flt Protected | 0.950 | 0.985 |  |  |  |  |  |  |  | 0.950 |  |  |
| Satd. Flow (prot) | 1533 | 2810 | 1332 | 0 | 0 | 0 | 0 | 3725 | 1636 | 1608 | 3645 | 0 |
| Flt Permitted | 0.950 | 0.985 |  |  |  |  |  |  |  | 0.224 |  |  |
| Satd. Flow (perm) | 1528 | 2807 | 1290 | 0 | 0 | 0 | 0 | 3725 | 1543 | 375 | 3645 | 0 |
| Right Tum on Red |  |  | $\overline{\mathrm{Yes}}$ |  |  | Yes |  |  | Yes |  |  | Yes |
| Satd. FIow (RTOR) |  | 48 | 192 |  |  |  |  |  | 408 |  |  |  |
| Link Speed (mph) |  | 30 |  |  | 30 |  |  | 30 |  |  | 30 |  |
| Link Distance ( t ) |  | 806 |  |  | 725 |  |  | 893 |  |  | 427 |  |
| Travel Time (s) |  | 18.3 |  |  | 16.5 |  |  | 20.3 |  |  | 9.7 |  |
| Confl. Peds. (\#hr) | 3 |  | 19 |  |  |  |  |  | 73 | 73 |  |  |
| Confl Bikes (\#hr) |  |  |  |  |  |  |  |  | 6 |  |  |  |
| 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 |
| Heary Vehicles (\%) | 0\% | 1\% | 3\% | 0\% | 0\% | 0\% | 0\% | 2\% | 2\% | 1\% | 3\% | 0\% |
| Bus Blockages (\#/r) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 0 |
| Adj. Fow (vph) | 345 | 165 | 314 | 0 | 0 | 0 | 0 | 912 | 443 | 201 | 582 | 0 |
| Shared Lane Traffic (\%) | 38\% |  | 39\% |  |  |  |  |  |  |  |  |  |
| Lane Group Flow (vph) | 214 | 418 | 192 | 0 | 0 | 0 | 0 | 912 | 443 | 201 | 582 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Wioth ( t ) |  | 10 |  |  | 10 |  |  | 14 |  |  | 15 |  |
| Link Offset(t) |  | 0 |  |  | 0 |  |  | 0 |  |  | 0 |  |
| Crosswalk Width(t) |  | 16 |  |  | 16 |  |  | 16 |  |  | 16 |  |
| Two way Left Turn Lane |  |  |  |  |  |  |  |  |  |  |  |  |
| Headway Factor | 1.09 | 1.09 | 1.09 | 1.00 | 1.00 | 1.00 | 1.00 | 0.94 | 0.96 | 1.14 | 0.95 | 1.04 |
| Turning Speed (mph) | 15 |  | 9 | 15 |  | 9 | 15 |  | 9 | 15 |  |  |
| Turn Type | Perm | NA | Perm |  |  |  |  | NA | Perm | pm+pt | NA |  |
| Protected Phases |  | 8 |  |  |  |  |  | 6 |  | 5 | 2 |  |
| Permitted Phases | 8 |  | 8 |  |  |  |  |  | 6 | 2 |  |  |
| Minimum Split (s) | 35.0 | 35.0 | 35.0 |  |  |  |  | 56.0 | 56.0 | 14.0 | 70.0 |  |
| Total Split (s) | 35.0 | 35.0 | 35.0 |  |  |  |  | 56.0 | 56.0 | 14.0 | 70.0 |  |
| Total Split (\%) | 33.3\% | 33.3\% | 33.3\% |  |  |  |  | 53.3\% | 53.3\% | 13.3\% | 66.7\% |  |
| Maximum Green (s) | 30.0 | 30.0 | 30.0 |  |  |  |  | 53.0 | 53.0 | 9.0 | 65.0 |  |
| Yellow Time (s) | 3.0 | 3.0 | 3.0 |  |  |  |  | 3.0 | 3.0 | 3.0 | 3.0 |  |
| All-Red Time (s) | 2.0 | 2.0 | 2.0 |  |  |  |  | 0.0 | 0.0 | 2.0 | 2.0 |  |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 |  |  |  |  | 0.0 | 0.0 | 0.0 | 0.0 |  |
| Total Lost Time (s) | 5.0 | 5.0 | 5.0 |  |  |  |  | 3.0 | 3.0 | 5.0 | 5.0 |  |
| Lead/Lag |  |  |  |  |  |  |  | Lead | Lead | Lag |  |  |
| Lead-Lag Optimize? |  |  |  |  |  |  |  | Yes | Yes | Yes |  |  |


|  |  |  |  |  |  |  | , | 4 |  |  |  | $\checkmark$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT. | NBR | SBL | SBT | SBR |
| Walk Time (s) | 5.0 | 5.0 | 5.0 |  |  |  |  | 39.0 | 39.0 |  | 39.0 |  |
| Flash Dont Walk (s) | 25.0 | 25.0 | 25.0 |  |  |  |  | 14.0 | 14.0 |  | 14.0 |  |
| Pedestrian Calls (\#hr) | 0 | 0 | 0 |  |  |  |  | 0 | 0 |  | O |  |
| Act Effict Green (s) | 30.0 | 30.0 | 30.0 |  |  |  |  | 53.0 | 53.0 | 65.0 | 65.0 |  |
| Actuated g/C Ratio | 0.29 | 0.29 | 0.29 |  |  |  |  | 0.50 | 0.50 | 0.62 | 0.62 |  |
| v/c Ratio | 0.49 | 0.50 | 0.38 |  |  |  |  | 0.49 | 0.45 | 0.60 | 0.26 |  |
| Control Delay | 35.8 | 29.9 | 6.6 |  |  |  |  | 18.2 | 3.7 | 19.1 | 3.1 |  |
| Queue Delay | 0.0 | 0.0 | 0.0 |  |  |  |  | 0.0 | 0.0 | 0.0 | 0.0 |  |
| Total Delay | 35.8 | 29.9 | 6.6 |  |  |  |  | 18.2 | 3.7 | 19.1 | 3.1 |  |
| LOS | D | C | A |  |  |  |  | B | A | B | A |  |
| Approach Delay |  | 26.0 |  |  |  |  |  | 13.4 |  |  | 7.2 |  |
| Approach LOS |  | C |  |  |  |  |  | B |  |  | A |  |
| Queue Length 50th (t) | 130 | 119 | 0 |  |  |  |  | 203 | 11 | 31 | 33 |  |
| Queue Length 95th (ti) | 213 | 174 | 58 |  |  |  |  | 256 | 62 | m86 | m42 |  |
| Internal Link Dist (ti) |  | 726 |  |  | 645 |  |  | 813 |  |  | 347 |  |
| Turn Bay Length ( t ) |  |  |  |  |  |  |  |  |  | 115 |  |  |
| Base Capacity (vph) | 436 | 836 | 505 |  |  |  |  | 1880 | 980 | 337 | 2256 |  |
| Starvation Cap Reductn |  | 0 | 0 |  |  |  |  | 0 | 0 | 0 | 0 |  |
| Spillback Cap Reductn | 0 | 0 | 0 |  |  |  |  | 0 | 0 | 0 | 0 |  |
| Storage Cap Reductn | 0 | 0 | 0 |  |  |  |  | 0 | 0 | 0 | 0 |  |
| Reduced v/c Ratio | 0.49 | 0.50 | 0.38 |  |  |  |  | 0.49 | 0.45 | 0.60 | 0.26 |  |
| Intersection Summary |  |  |  |  |  |  |  |  |  |  |  |  |
| Area Type: Other |  |  |  |  |  |  |  |  |  |  |  |  |
| Cycle Length: 105 |  |  |  |  |  |  |  |  |  |  |  |  |
| Acluated Cycle Length: 105 |  |  |  |  |  |  |  |  |  |  |  |  |
| Offset: 47 (45\%), Referenced to phase 2:SBTL and 6 NBT , Start of Green |  |  |  |  |  |  |  |  |  |  |  |  |
| Natural Cycle' 105 |  |  |  |  |  |  |  |  |  |  |  |  |
| Control Type: Pretimed |  |  |  |  |  |  |  |  |  |  |  |  |
| Maximum V/c Ratio: 0.60 |  |  |  |  |  |  |  |  |  |  |  |  |
| Intersection Signal Delay: 15.3 |  |  |  |  | Intersection LOS: B |  |  |  |  |  |  |  |
| Intersection Capacity Utilization 102.2\% |  |  |  |  | ICULevel of Service $G$ |  |  |  |  |  |  |  |
| Analysis Period (min) 15 |  |  |  |  |  |  |  |  |  |  |  |  |
| m- Volume for 95 th percentile queue is metered by upstream signal. |  |  |  |  |  |  |  |  |  |  |  |  |

Splits and Phases: 14: Damen Ave \& Congress Pwky



| Intersection |
| :--- |
| Intersection Delay, s/ven |
| Intersection LOS |


| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Configurations |  |  |  | $4 t$ |  |  | 4 |  |  | F |  |  |
| Traffic Vol, veh/h | 0 | 0 | 0 | 5 | 40 | 10 | 30 | 50 | 0 | 0 | 50 | 25 |
| Future Vol, veh/h | 0 | 0 | 0 | 5 | 40 | 10 | 30 | 50 | 0 | 0 | 50 | 25 |
| Peak Hour Factor | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 |
| Heavy Vehicles, \% | 0 | 0 | 0 | 0 | 3 | 9 | 3 | 0 | 0 | 0 | 0 | 0 |
| Mumt Flow | 0 | 0 | 0 | 6 | 45 | 11 | 34 | 57 | 0 | 0 | 57 | 28 |
| Number of Lanes | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 1 | 0 | 0 | 1 | 0 |
| Approach |  |  |  | WB |  |  | NB |  |  |  | SB |  |
| Opposing Approach |  |  |  |  |  |  | SB |  |  |  | NB |  |
| Opposing Lanes |  |  |  | 0 |  |  | 1 |  |  |  | 1 |  |
| Conflicting Approach Left |  |  |  | NB |  |  |  |  |  |  | WB |  |
| Conflicting Lanes Left |  |  |  | 1 |  |  | 0 |  |  |  | 2 |  |
| Conflicting Approach Right |  |  |  | SB |  |  | WB |  |  |  |  |  |
| Conflicting Lanes Right |  |  |  | 1 |  |  | 2 |  |  |  | 0 |  |
| HCM Control Delay |  |  |  | 7.7 |  |  | 7.8 |  |  |  | 7.3 |  |
| HCM LOS |  |  |  | A |  |  | A |  |  |  | A |  |


| Lane | NBLn1 | WBLn1 | WBLn2 | SBLn1 |
| :---: | :---: | :---: | :---: | :---: |
| Vol Left, \% | 38\% | 20\% | 0\% | 0\% |
| Vol Thru, \% | 62\% | 80\% | 67\% | 67\% |
| Vol Right, \% | 0\% | 0\% | 33\% | 33\% |
| Sign Control | Stop | Stop | Stop | Stop |
| Trafic Vol by Lane | 80 | 25 | 30 | 75 |
| LT Vol | 30 | 5 | 0 | 0 |
| Through Vol | 50 | 20 | 20 | 50 |
| RT Vol | 0 | 0 | 10 | 25 |
| Lane Flow Rate | 91 | 28 | 34 | 85 |
| Geometry Grp | 2 | 7 | 7 | 2 |
| Degree of Util ( $X$ ) | 0.106 | 0.039 | 0.044 | 0.092 |
| Departure Headway_(Hd) | 4.197 | 4.904 | 4.621 | 3.875 |
| Convergence, Y/N | Yes | Yes | Yes | Yes |
| Cap | 845 | 723 | 767 | 913 |
| Service Time | 2.265 | 2.682 | 2.399 | 1.95 |
| HCM Lane V/C Ratio | 0.108 | 0.039 | 0.044 | 0.093 |
| HCM Control Delay | 7.8 | 7.9 | 7.6 | 7.3 |
| HCM Lane LOS | A | A | A | A |
| HCM 95th-tile Q | 0.4 | 0.1 | 0.1 | 0.3 |

[^9]Synchro 11 Report

|  | - |  |  |  |  |  | 4 | 4 | 7 |  | $\dagger$ | 4 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | 4 | $\dagger$ |  |  |  |  | 1 | 个 $\uparrow$ |  | 7 | 4 |  |
| Traffic Volume (vph) | 10 | 65 | 60 | 0 | 0 | 0 | 25 | 590 | 105 | 25 | 475 | 20 |
| Future Volume (vph) | 10 | 65 | 60 | 0 | 0 | 0 | 25 | 590 | 105 | 25 | 475 | 20 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width ( t ) | 10 | 10 | 12 | 12 | 12 | 12 | 10 | 10 | 10 | 10 | 10 | 10 |
| Storage Length (ft) | 50 |  | 95 | 0 |  | 0 | 45 |  | 0 | 120 |  | 0 |
| Storage Lanes | 1 |  | 0 | 0 |  | 0 | 1 |  | 0 | 1 |  | 0 |
| Taper Length (f) | 75 |  |  | 25 |  |  | 70 |  |  | 160 |  |  |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 |
| Ped Bike Factor | 1.00 | 0.99 |  |  |  |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  |
| Frt |  | 0.928 |  |  |  |  |  | 0.977 |  |  | 0.994 |  |
| Fit Protected | 0.950 |  |  |  |  |  | 0.950 |  |  | 0.950 |  |  |
| Satd. Flow (prot) | 1685 | 1590 | 0 | 0 | 0 | 0 | 1440 | 3222 | 0 | 1685 | 3282 | 0 |
| Fit Permitted | 0.950 |  |  |  |  |  | 0.417 |  |  | 0.295 |  |  |
| Satd. Flow (perm) | 1678 | 1590 | 0 | 0 | 0 | 0 | 629 | 3222 | 0 | 522 | 3282 | 0 |
| Right Tum on Red |  |  | Yes |  |  | Yes |  |  | Yes |  |  | Yes |
| Satd. Flow (RTOR) |  | 64 |  |  |  |  |  | 40 |  |  | 8 |  |
| Link Speed (mph) |  | 20 |  |  | 30 |  |  | 30 |  |  | 30 |  |
| Link Distance ( ft ) |  | 535 |  |  | 873 |  |  | 459 |  |  | 901 |  |
| Travel Time (s) |  | 18.2 |  |  | 19.8 |  |  | 10.4 |  |  | 20.5 |  |
| Confl. Peds. (\#/hr) | 6 |  | 5 |  |  |  | 9 |  | 12 | 12 |  | 9 |
| Confl. Bikes (\#/hr) |  |  | 1 |  |  |  |  |  | 5 |  |  |  |
| Peak Hour Factor | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 |
| Heavy Vehicles (\%) | 0\% | 0\% | 3\% | 0\% | 0\% | 0\% | 17\% | 1\% | 1\% | 0\% | 2\% | 0\% |
| Bus Blockages (\#/hr) | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 |
| Adj. Flow (vph) | 11 | 69 | 64 | 0 | 0 | 0 | 27 | 628 | 112 | 27 | 505 | 21 |
| Shared Lane Traffic (\%) |  |  |  |  |  |  |  |  |  |  |  |  |
| Lane Group Flow (vph) | 11 | 133 | 0 | 0 | 0 | 0 | 27 | 740 | 0 | 27 | 526 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(t) |  | 10 |  |  | 10 |  |  | 10 |  |  | 10 |  |
| Link Offset(f) |  | 0 |  |  | 0 |  |  | 0 |  |  | 0 |  |
| Crosswalk Width(ft) |  | 16 |  |  | 16 |  |  | 16 |  |  | 16 |  |
| Two way Left Tum Lane |  |  |  |  |  |  |  |  |  |  |  |  |
| Headway Factor | 1.09 | 1.11 | 1.00 | 1.00 | 1.00 | 1.00 | 1.09 | 1.10 | 1.09 | 1.09 | 1.09 | 1.09 |
| Turning Speed (mph) | 15 |  | 9 | 15 |  | 9 | 15 |  | 9 | 15 |  | 9 |
| Turn Type | Perm | NA |  |  |  |  | Perm | NA |  | Perm | NA |  |
| Protected Phases |  | 4 |  |  |  |  |  | 2 |  |  | 6 |  |
| Permitted Phases | 4 |  |  |  |  |  | 2 |  |  | 6 |  |  |
| Minimum Split (s) | 32.0 | 32.0 |  |  |  |  | 33.0 | 33.0 |  | 33.0 | 33.0 |  |
| Total Split (s) | 32.0 | 32.0 |  |  |  |  | 33.0 | 33.0 |  | 33.0 | 33.0 |  |
| Total Split (\%) | 49.2\% | 49.2\% |  |  |  |  | 50.8\% | 50.8\% |  | 50.8\% | 50.8\% |  |
| Maximum Green (s) | 28.0 | 28.0 |  |  |  |  | 29.0 | 29.0 |  | 29.0 | 29.0 |  |
| Yellow Time (s) | 3.0 | 3.0 |  |  |  |  | 3.0 | 3.0 |  | 3.0 | 3.0 |  |
| All-Red Time (s) | 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 |  |
| Total Lost Time (s) | 4.0 | 4.0 |  |  |  |  | 4.0 | 4.0 |  | 4.0 | 4.0 |  |
| Lead/Lag |  |  |  |  |  |  |  |  |  |  |  |  |
| Lead-Lag Optimize? |  |  |  |  |  |  |  |  |  |  |  |  |

[^10]Synchro 11 Report


Lanes, Volumes, Timings
4: Jackson Blvd \& Garage Exit


| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Configurations |  | 中4 |  |  | 7 |  |
| Traffic Volume (vph) | 0 | 195 | 0 | 0 | 10 | 0 |
| Future Volume (vph) | 0 | 195 | 0 | 0 | 10 | 0 |
| Ideal Flow (vphpl) | 1900 | 2000 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (f) | 12 | 11 | 12 | 12 | 11 | 12 |
| Lane Util. Factor | 1.00 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 |
| Fit |  |  |  |  |  |  |
| Fil Protected |  |  |  |  | 0.950 |  |
| Satd. Flow (prot) | 0 | 3637 | 0 | 0 | 1745 | 0 |
| Fll Permitted |  |  |  |  | 0.950 |  |
| Satd. Flow (perm) | 0 | 3637 | 0 | 0 | 1745 | 0 |
| Link Speed (mph) |  | 30 | 30 |  | 20 |  |
| Link Distance (ft) |  | 873 | 244 |  | 183 |  |
| Travel Time (s) |  | 19.8 | 5.5 |  | 6.2 |  |
| Peak Hour Factor | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 |
| Heavy Vehicles (\%) | 0\% | 1\% | 0\% | 0\% | 0\% | 0\% |
| Adj. Flow (vph) | 0 | 210 | 0 | 0 | 11 | 0 |
| Shared Lane Traffic (\%) |  |  |  |  |  |  |
| Lane Group Flow (vph) | 0 | 210 | 0 | 0 | 11 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Left | Right | Left | Right |
| Median Width $(\mathrm{t})$ |  | 0 | 0 |  | 11 |  |
| Link Offset(ft) |  | 0 | 0 |  | 0 |  |
| Crosswalk Width( $(\mathrm{f})$ |  | 16 | 16 |  | 16 |  |
| Two way Left Turn Lane |  |  |  |  |  |  |
| Headway Factor | 1.00 | 0.98 | 1.00 | 1.00 | 1.04 | 1.00 |
| Turning Speed (mph) | 15 |  |  | 9 | 15 |  |
| Sign Control |  | Free | Free |  | Stop |  |

## Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization $15.1 \%$ ICU Level of Service A $\qquad$
Analysis Period (min) 15

HCM 6th TWSC
4: Jackson Blvd \& Garage Exit

|  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Intersection |  |  |  |  |  |
| Int Delay, s/veh | 0.4 |  |  |  |  |
| Movement | EBL | EBT | WBT | WBR | SBL |


| Major/Minor Major1 | Minor2 |  |
| :---: | :---: | :---: |
| Conflicting Flow All | 105 | - |
| Stage 1 | 0 | - |
| Stage 2 | 105 | - |
| Critical Hdw | 6.8 | - |
| Critical Hdwy Stg 1 | - | - |
| Critical Hdwy Stg 2 | 5.8 | - |
| Follow-up Hdwy | 3.5 | - |
| Pot Cap-1 Maneuver --0 | 887 | 0 |
| Stage 1 - 0 | - | 0 |
| Stage 2 - 0 | 914 | 0 |
| Platoon blocked, \% |  |  |
| Mov Cap-1 Maneuver - | 887 |  |
| Mov Cap-2 Maneuver | 887 |  |
| Stage 1 |  |  |
| Stage 2 | 914 |  |
|  |  |  |
| Approach EB | SB |  |
| HCM Control Delay, s 0 | 9.1 |  |
| HCMLOS | A |  |
|  |  |  |
| Minor Lane/Major Mvint. - |  |  |
| Capacity (veh/h) |  |  |
| HCM Lane VIC Ratio |  |  |
| HCM Control Delay (s) |  |  |
| HCM Lane LOS |  |  |
| HCM 95th \%tile Q(veh) |  |  |



|  | $\rightarrow$ |  |  |  |  | $p$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Group | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | 44 |  |  |  |  | 「 |
| Trafic Volume (vph) | 170 | 30 | 0 | 0 | 0 | 50 |
| Future Volume (vph) | 170 | 30 | 0 | 0 | 0 | 50 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (t) | 11 | 12 | 12 | 12 | 12 | 12 |
| Lane Utill Factor | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor |  |  |  |  |  |  |
| Frt | 0.977 |  |  |  |  | 0.865 |
| Fit Protecled |  |  |  |  |  |  |
| Satd. Flow (prot) | 3381 | 0 | 0 | 0 | 0 | 1644 |
| Fll Permitted |  |  |  |  |  |  |
| Satd. Flow (perm) | 3381 | 0 | 0 | 0 | 0 | 1644 |
| Link Speed (mph) | 30 |  |  | 30 | 20 |  |
| Link Distance (tt) | 93 |  |  | 134 | 253 |  |
| Travel Time (s) | 2.1 |  |  | 3.0 | 8.6 |  |
| Confl. Peds. (\#hr) - 34 |  |  |  |  |  |  |
| Peak Hour Factor | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 |
| Heavy Vehicles (\%) | 1\% | 0\% | 0\% | 0\% | 0\% | 0\% |
| Adj. Flow (vph) | 191 | 34 | 0 | 0 | 0 | 56 |
| 'Shared Lane Traffic (\%) |  |  |  |  |  |  |
| Lane Group Flow (vph) | 225 | 0 | 0 | 0 | 0 | 56 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Left | Left | Right |
| Median Width(t) | 0 |  |  | 0 | 0 |  |
| Link Offset(f) | 0 |  |  | 0 | 0 |  |
| Crosswalk Width(t) | 16 |  |  | 16 | 16 |  |
| Two way Left Tum Lane |  |  |  |  |  |  |
| Headway Factor | 1.04 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) |  | 9 | 15 |  | 15 | 9 |
| Sign Control | Free |  |  | Free | Stop |  |
| Intersection Summary |  |  |  |  |  |  |
| Area Type: Other |  |  |  |  |  |  |
| Control Type: Unsignalized |  |  |  |  |  |  |
| Intersection Capacity Utilization 21.0\% ___ ICU Level of Servic |  |  |  |  |  |  |
| Analysis Period (min) 15 |  |  |  |  |  |  |



|  |  |  |  |  |  |  |  | 4 | 1 | $\checkmark$ | $\downarrow$ | $\checkmark$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  | 41 |  |  |  |  |  | F |  |  | $\uparrow$ |  |
| Traffic Volume (vph) | 50 | 125 | 45 | 0 | 0 | 0 | 0 | 35 | 1 | 20 | 45 |  |
| Future Volume (vph) | 50 | 125 | 45 | 0 | 0 | 0 | 0 | 35 | 1 | 20 | 45 | 0 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 11 | 11 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| Lane Util. Factor | 0.95 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor |  |  |  |  |  |  |  |  |  |  |  |  |
| Frt |  | 0.969 |  |  |  |  |  | 0.997 |  |  |  |  |
| Fit Protected |  | 0.989 |  |  |  |  |  |  |  |  | 0.985 |  |
| Satd. Flow (prot) | 0 | 3329 | 0 | 0 | 0 | 0 | 0 | 1894 | 0 | 0 | 1872 | 0 |
| Flt Permitted |  | 0.989 |  |  |  |  |  |  |  |  | 0.985 |  |
| Satd. Flow (perm) | 0 | 3329 | 0 | 0 | 0 | 0 | 0 | 1894 | 0 | 0 | 1872 |  |
| Link Speed (mph) |  | 30 |  |  | 30 |  |  | 30 |  |  | 30 |  |
| Link Distance (ft) |  | 134 |  |  | 263 |  |  | 292 |  |  | 245 |  |
| Travel Time (s) |  | 3.0 |  |  | 6.0 |  |  | 6.6 |  |  | 5.6 |  |
| Confl. Peds. (\#hr) | 7 |  | 18 |  |  |  |  |  | 21 | 21 |  |  |
| Confl. Bikes (\#\#hr) | 2 |  |  |  |  |  |  |  | 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 |
| Heary Vehicles (\%) | 2\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% |
| Adj. Flow (vph) | 54 | 136 | 49 | 0 | 0 | 0 | 0 | 38 | 1 | 22 | 49 |  |
| Shared Lane Traffic (\%) |  |  |  |  |  |  |  |  |  |  |  |  |
| Lane Group Flow (vph) | 0 | 239 | 0 | 0 | 0 | 0 | , | 39 | 0 | 0 | 71 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(t) |  | 15 |  |  | 15 |  |  | 0 |  |  | 0 |  |
| Link Offset(t) |  | 0 |  |  | 0 |  |  | 0 |  |  | 0 |  |
| Crosswalk Width (ft) |  | 16 |  |  | 16 |  |  | 16 |  |  | 16 |  |
| Two way Left Turn Lane |  |  |  |  |  |  |  |  |  |  |  |  |
| Headway Factor | 1.00 | 1.04 | 1.04 | 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 |  |  |
| Sign Control |  | Stop |  |  | Stop |  |  | Stop |  |  | Stop |  |
| Intersection Summary |  |  |  |  |  |  |  |  |  |  |  |  |
| Area Type: Other |  |  |  |  |  |  |  |  |  |  |  |  |
| Control Type: Unsignalized |  |  |  |  |  |  |  |  |  |  |  |  |
| Intersection Capacity Utilization 26.5\% ICU Level of Service |  |  |  |  |  |  |  |  |  |  |  |  |
| Analysis Period (min) 15 |  |  |  |  |  |  |  |  |  |  |  |  |


| Intersection |
| :--- |
| Intersection Delay, s/veh |
| Intersection LOS |
| I.2 |


| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Configurations |  | 419 |  |  |  |  |  | F |  |  | $\uparrow$ |  |
| Traffic Vol, veh/h | 50 | 125 | 45 | 0 | 0 | 0 | 0 | 35 | 1 | 20 | 45 | 0 |
| Future Vol, veh/h | 50 | 125 | 45 | 0 | 0 | 0 | 0 | 35 | 1 | 20 | 45 | 0 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Heavy Vehicles, \% | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mumt Flow | 54 | 136 | 49 | 0 | 0 | 0 | 0 | 38 | 1 | 22 | 49 | 0 |
| Number of Lanes | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 |
| Approach | EB |  |  |  |  |  |  | NB |  | SB |  |  |
| Opposing Approach |  |  |  |  |  |  |  | SB |  | NB |  |  |
| Opposing Lanes | 0 |  |  |  |  |  |  | 1 |  | 1 |  |  |
| Conflicting Approach Left | SB |  |  |  |  |  |  | EB |  |  |  |  |
| Conflicting Lanes Left | 1 |  |  |  |  |  |  | 2 |  | 0 |  |  |
| Conflicting Approach Right | NB |  |  |  |  |  |  |  |  | EB |  |  |
| Conflicting Lanes Right | 1 |  |  |  |  |  |  | 0 |  | 2 |  |  |
| HCM Control Delay | 8.3 |  |  |  |  |  |  | 7.8 |  | 8 |  |  |
| HCM LOS | A |  |  |  |  |  |  | A |  | A |  |  |


| Lane | NBLn1 | EBLn1 | EBLn2 | SBLn1 |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Vol Left, \% | 0\% | 44\% | 0\% | 31\% |  |
| Vol Thru, \% | 97\% | 56\% | $58 \%$ | 69\% |  |
| Vol Right, \% | 3\% | 0\% | 42\% | 0\% |  |
| Sign Control | Stop | Stop | Stop | Stop |  |
| Traffic Vol by Lane | 36 | 113 | 108 | 65 |  |
| LT Vol | 0 | 50 | 0 | 20 |  |
| Through Vol | 35 | 63 | 63 | 45 |  |
| RTVol | 1 | 0 | 45 | 0 |  |
| Lane Flow Rate | 39 | 122 | 117 | 71 |  |
| Geometry Grp | 2 | 7 | 7 | 2 |  |
| Degree of Util (X) | 0.049 | 0.168 | 0.143 | 0.09 |  |
| Departure Headway (Hd) | 4.525 | 4.947 | 4.397 | 4.566 |  |
| Convergence, Y/N | Yes | Yes | Yes | Yes |  |
| Cap | 796 | 718 | 806 | 789 |  |
| Service Time | 2.529 | 2.727 | 2.176 | 2.568 |  |
| HCM Lane VIC Ratio | 0.049 | 0.17 | 0.145 | 0.09 |  |
| HCM Control Delay | 7.8 | 8.7 | 7.9 | 8 |  |
| HCM Lane LOS | A | A | A | A |  |
| HCM 95th-tile Q | 0.2 | 0.6 | 0.5 | 0.3 |  |


| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NEL | NET | NER | SWL | SWT | SWR |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Configurations | 1 | 49 |  |  |  |  |  | 4t |  |  | A4 |  |
| Traffic Volume (vph) | 60 | 75 | 10 | 0 | 0 | 0 | 0 | 380 | 30 | 5 | 515 | 0 |
| Future Volume (vph) | 60 | 75 | 10 | 0 | 0 | 0 | 0 | 380 | 30 | 5 | 515 | 0 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (t) | 15 | 11 | 10 | 12 | 12 | 12 | 12 | 12 | 13 | 10 | 12 | 12 |
| Storage Length (ti) | 80 |  | 0 | 0 |  | 0 | 0 |  | 0 | 0 |  | 0 |
| Storage Lanes | 1 |  | 0 | 0 |  | 0 | 0 |  | 0 | 0 |  | 0 |
| Taper Length (ti) | 75 |  |  | 25 |  |  | 25 |  |  | 25 |  |  |
| Lane Utili. Factor | 1.00 | 0:95 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 0.95 | 0.95 | 0.95 | 1.00 |
| Ped Bike Factor | 1.00 | 1.00 |  |  |  |  |  | 1.00 |  |  | 1.00 |  |
| Fit |  | 0.982 |  |  |  |  |  | 0.989 |  |  |  |  |
| Filt Protected | 0.950 |  |  |  |  |  |  |  |  |  | 0.999 |  |
| Satd. Flow (prot) | 1986 | 3422 | 0 | 0 | 0 | 0 | 0 | 3501 | 0 | 0 | 3571 | 0 |
| FIt Permitted | 0.950 |  |  |  |  |  |  |  |  |  | 0.951 |  |
| Satd. Flow (perm) | 1977 | 3422 | 0 | 0 | 0 | 0 | 0 | 3501 | 0 | 0 | 3399 | 0 |
| Right Tum on Red |  |  | Yes |  |  | Yes |  |  | Yes |  |  | Yes |
| Satd. Flow (RTOR) |  | 11 |  |  |  |  |  | 14 |  |  |  |  |
| Link Speed (mph) |  | 30 |  |  | 30 |  |  | 30 |  |  | 30 |  |
| Link Distance (tt) |  | 263 |  |  | 1046 |  |  | 395 |  |  | 594 |  |
| Travel Time (s) |  | 6.0 |  |  | 23.8 |  |  | 9.0 |  |  | 13.5 |  |



Two way Left Turn Lane

| Headway Factor | 0.88 | 1.04 | 1.09 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.96 | 1.09 | 1.00 | 1.00 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Turning Speed (mph) | 15 |  | 9 | 15 |  | 9 | 15 |  | 9 | 15 |  | 9 |
| Turn Type | Perm | NA |  |  |  |  |  | NA |  | Perm | NA |  |
| Protected Phases |  | 2 |  |  |  |  |  | 8 |  |  | 4 |  |
| Permitted Phases | 2 |  |  |  |  |  |  |  |  | 4 |  |  |
| Minimum Split (s) | 36.0 | 36.0 |  |  |  |  |  | 54.0 |  | 54.0 | 54.0 |  |
| Total Split (s). | 36.0 | 36.0 |  |  |  |  |  | 54.0 |  | 54.0 | 54.0 |  |
| Total Split (\%) | 40.0\% | 40.0\% |  |  |  |  |  | 60.0\% |  | 60.0\% | 60.0\% |  |
| Maximum Green (s) | 31.0 | 31.0 |  |  |  |  |  | 49.0 |  | 49.0 | 49.0 |  |
| Yellow Time (s) | 3.0 | 3.0 |  |  |  |  |  | 3.0 |  | 3.0 | 3.0 |  |
| All-Red Time (s) | 2.0 | 2.0 |  |  |  |  |  | 2.0 |  | 2.0 | 2.0 |  |
| Lost Time Adjust (s) | 0.0 | 0.0 |  |  |  |  |  | 0.0 |  |  | 0.0 |  |
| Total Lost Time (s) | 5.0 | 5.0 |  |  |  |  |  | 5.0 |  |  | 5.0 |  |

Lead/Lag
Lead-Lag Optimize?

| Walk Time (s) | 7.0 | 7.0 | 32.0 | 32.0 | 32.0 |
| :--- | :--- | :--- | :--- | :--- | :--- |

[^11]Synchro 11 Report

|  | $\rightarrow$ | $\rightarrow$ | 2 | $\cdots$ |  | 1 | b | 7 |  | 4 | 4 | 4 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NEL | NET | NER | SWL | SWT | SWR |
| Flash Dont Walk (s) | 24.0 | 24.0 |  |  |  |  |  | 17.0 |  | 17.0 | 17.0 |  |
| Pedestrian Calls (\#/hr) | 0 | 0 |  |  |  |  |  | 0 |  | 0 | 0 |  |
| Act Effct Green (s) | 31.0 | 31.0 |  |  |  |  |  | 49.0 |  |  | 49.0 |  |
| Actuated g/C Ratio | 0.34 | 0.34 |  |  |  |  |  | 0.54 |  |  | 0.54 |  |
| v/c Ratio | 0.10 | 0.08 |  |  |  |  |  | 0.24 |  |  | 0.31 |  |
| Control Delay | 20.6 | 17.8 |  |  |  |  |  | 9.1 |  |  | 11.8 |  |
| Queue Delay | 0.0 | 0.0 |  |  |  |  |  | 0.0 |  |  | 0.0 |  |
| Total Delay | 20.6 | 17.8 |  |  |  |  |  | 9.1 |  |  | 11.8 |  |
| LOS | C | B |  |  |  |  |  | A |  |  | B |  |
| Approach Delay |  | 19.0 |  |  |  |  |  | 9.1 |  |  | 11.8 |  |
| Approach LOS |  | B |  |  |  |  |  | A |  |  | B |  |
| Queue Length 50th (f) | 26 | 16 |  |  |  |  |  | 47 |  |  | 89 |  |
| Queue Length 95th (ft) | 54 | 33 |  |  |  |  |  | 65 |  |  | 122 |  |
| Internal Link Dist (t) |  | 183 |  |  | 966 |  |  | 315 |  |  | 514 |  |
| Turn Bay Length ( t$)$ | 80 |  |  |  |  |  |  |  |  |  |  |  |
| Base Capacity (vph) | 680 | 1185 |  |  |  |  |  | 1912 |  |  | 1850 |  |
| Starvation Cap Reductn | 0 | 0 |  |  |  |  |  | 0 |  |  | 0 |  |
| Spillback Cap Reductn | 0 | 0 |  |  |  |  |  | 0 |  |  | 0 |  |
| Storage Cap Reductn | 0 | 0 |  |  |  |  |  | 0 |  |  | 0 |  |
| Reduced v/c Ratio | 0.10 | 0.08 |  |  |  |  |  | 0.24 |  |  | 0.31 |  |

Intersection Summary
Area Type:
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 4 (4\%), Referenced to phase 2:EBTL, Start of Green
Natural Cycle: 90
Control Type: Pretimed
Maximum v/c Ratio: 0.31
Intersection Signal Delay: 11.8
Intersection Capacity Utilization $75.0 \%$
Analysis Period (min) 15

Splits and Phases: 8: Ogden Ave \& Jackson Blvd



HCM 6th TWSC
9: Ogden Ave \& Wood St




|  | 4 |  |  | 1 |  |  | 4 |  |  | * |  | $\checkmark$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  |  | \% | 14t |  | 1 | 44 |  |  | 4 | F |
| Traffic Volume (vph) | 0 | 0 | 0 | 145 | 300 | 245 | 255 | 475 | 0 | 0 | 365 | 170 |
| Future Volume (vph) | 0 | 0 | 0 | 145 | 300 | 245 | 255 | 475 | 0 | 0 | 365 | 170 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 2000 | 1900 | 1900 | 2000 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 9 | 10 | 11 | 10 | 15 | 10 | 10 | 12 | 10 |
| Storage Length (ft) | 0 |  | 0 | 0 |  | 0 | 50 |  | 0 | 0 |  | 150 |
| Storage Lanes | 0 |  | 0 | 1 |  | 0 | 1 |  | 0 | 0 |  | 1 |
| Taper Length ( t ) | 25 |  |  | 0 |  |  | 120 |  |  | 25 |  |  |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 0.86 | 0.86 | 0.91 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 |
| Ped Bike Factor |  |  |  | 1.00 | 0.99 |  | 1.00 |  |  |  |  | 0.99 |
| Frt |  |  |  |  | 0.934 |  |  |  |  |  |  | 0.850 |
| Flt Protected |  |  |  | 0.950 | 0.999 |  | 0.950 |  |  |  |  |  |
| Satd. Flow (prot) | 0 | 0 | 0 | 1370 | 4194 | 0 | 1685 | 4098 | 0 | 0 | 3725 | 1492 |
| Filt Permitted |  |  |  | 0.950 | 0.999 |  | 0.498 |  |  |  |  |  |
| Satd. Flow (perm) | 0 | 0 | 0 | 1368 | 4194 | 0 | 882 | 4098 | 0 | 0 | 3725 | 1470 |
| Right Tum on Red |  |  | Yes |  |  | Yes |  |  | Yes |  |  | Yes |
| Satd. Flow (RTOR) |  |  |  |  | 190 |  |  |  |  |  |  | 175 |
| Link Speed (mph) |  | 30 |  |  | 30 |  |  | 30 |  |  | 30 |  |
| Link Distance ( f ) |  | 1260 |  |  | 255 |  |  | 427 |  |  | 459 |  |
| Travel Time (s) |  | 28.6 |  |  | 5.8 |  |  | 9.7 |  |  | 10.4 |  |
| Confl. Peds. (\#/hr) |  |  |  | 1 |  | 5 | 4 |  |  |  |  | 4 |
| Connl. Bikes (\#/hr) |  |  |  |  |  |  |  |  |  |  |  |  |
| 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 |
| Heavy Vehicles (\%) | 0\% | 0\% | 0\% | 2\% | 1\% | 1\% | 0\% | 2\% | 0\% | 0\% | 2\% | 1\% |
| Adj. Flow (vph) | 0 | 0 | 0 | 149 | 309 | 253 | 263 | 490 | 0 | 0 | 376 | 175 |
| Shared Lane Traffic (\%) |  |  |  | 10\% |  |  |  |  |  |  |  |  |
| Lane Group Flow (vph) | 0 | 0 | 0 | 134 | 577 | 0 | 263 | 490 | 0 | 0 | 376 | 175 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width $(\mathrm{ft})$ |  | 9 |  |  | 9 |  |  | 15 |  |  | 0 |  |
| Link Offset(ft) |  | 0 |  |  | 0 |  |  | 0 |  |  | 0 |  |
| Crosswalk Width(t) |  | 16 |  |  | 16 |  |  | 16 |  |  | 16 |  |
| Two way Left Tum Lane |  |  |  |  |  |  |  |  |  |  |  |  |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.14 | 1.09 | 1.04 | 1.09 | 0.82 | 1.09 | 1.09 | 0.94 | 1.09 |
| Turning Speed (mph) | 15 |  | 9 | 15 |  | 9 | 15 |  | 9 | 15 |  | 9 |
| Turn Type |  |  |  | Perm | NA |  | pm+pt | NA |  |  | NA | Perm |
| Protected Phases |  |  |  |  | 8 |  | 1 | 6 |  |  | 2 |  |
| Permitted Phases |  |  |  | 8 |  |  | 6 |  |  |  |  | 2 |
| Minimum Split (s) |  |  |  | 34.0 | 34.0 |  | 14.0 | 71.0 |  |  | 57.0 | 57.0 |
| Total Split (s) |  |  |  | 34.0 | 34.0 |  | 14.0 | 71.0 |  |  | 57.0 | 57.0 |
| Total Split (\%) |  |  |  | 32.4\% | 32.4\% |  | 13.3\% | 67.6\% |  |  | 54.3\% | 54.3\% |
| Maximum Green (s) |  |  |  | 30.0 | 30.0 |  | 10.0 | 67.0 |  |  | 54.0 | 54.0 |
| Yellow Time (s) |  |  |  | 3.0 | 3.0 |  | 3.0 | 3.0 |  |  | 3.0 | 3.0 |
| All-Red Time (s) |  |  |  | 1.0 | 1.0 |  | 1.0 | 1.0 |  |  | 0.0 | 0.0 |
| Lost Time Adjust (s) |  |  |  | 0.0 | 0.0 |  | 0.0 | 0.0 |  |  | 0.0 | 0.0 |
| Total Lost Time (s) |  |  |  | 4.0 | 4.0 |  | 4.0 | 4.0 |  |  | 3.0 | 3.0 |
| Lead/Lag |  |  |  |  |  |  | Lag |  |  |  | Lead | Lead |
| Lead-Lag Optimize? |  |  |  |  |  |  | Yes |  |  |  | Yes | Yes |
| Walk Time (s) |  |  |  | 15.0 | 15.0 |  |  | 44.0 |  |  | 44.0 | 44.0 |

[^12]Lanes, Volumes, Timings
10: Damen Ave \& Van Buren St


Splits and Phases: 10: Damen Ave \& Van Buren St


|  | $\rightarrow$ | 34 | 5 | 4 |  | + |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Group | EBT | EBR | WBL | WBT | NWL | NWR |
| Lane Configurations |  |  |  | 4 | 1 |  |
| Traffic Volume (vph) | 0 | 0 | 0 | 285 | 405 | 0 |
| Future Volume (vph) | 0 | 0 | 0 | 285 | 405 | 0 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 2000 | 1900 | 1900 |
| Lane Width ( $t$ ) | 12 | 12 | 12 | 16 | 16 | 12 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 |
| Ft |  |  |  |  |  |  |
| Flt Protected - 0.950 |  |  |  |  |  |  |
| Satd. Flow (prot) | 0 | 0 | 0 | 4264 | 2025 | 0 |
|  |  |  |  |  |  |  |
| Satd. Flow (perm) | 0 | 0 | 0 | 4264 | 2025 | 0 |
| Link Speed (mph) | 30 |  |  | 30 | 30 |  |
| Link Distance (ft) | 255 |  |  | 727 | 86 |  |
| Travel Time (s) | 5.8 |  |  | 16.5 | 2.0 |  |
| Peak Hour Factor | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 |
| Heavy Vehicles (\%) | 0\% | 0\% | 0\% | 1\% | 1\% | 0\% |
| Adj. Flow (vph) | 0 | 0 | 0 | 303 | 431 | 0 |
| Shared Lane Traffic (\%) |  |  |  |  |  |  |
| Lane Group Flow (vph) | 0 | 0 | 0 | 303 | 431 | 0 |
| Enter Blocked Intersection | No | No | No | Yes | Yes | No |
| Lane Alignment | Left | Right | Left | Right | Left | Right |
| Median Width(f) | 0 |  |  | 0 | 16 |  |
| Link Offset(fi) | 0 |  |  | 0 | 0 |  |
| Crosswalk Width(ft) | 16 |  |  | 16 | 16 |  |
| Two way Left Turn Lane |  |  |  |  |  |  |
| Headway Factor | 1.00 | 1.00 | 1.00 | 0.79 | 0.85 | 1.00 |
| Turning Speed (mph) |  | 9 | 15 |  | 15 | 9 |
| Sign Control Free ---. Free Free |  |  |  |  |  |  |
| Intersection Summary |  |  |  |  |  |  |
| Area Type: Other |  |  |  |  |  |  |
| Control Type: Unsignalized |  |  |  |  |  |  |
| Intersection Capacity Utilization $36.6 \%$ ICU Level of Service |  |  |  |  |  |  |
| Analysis Period (min) 15 |  |  |  |  |  |  |





|  | $\rightarrow$ | $\rightarrow$ | 7 | 12 | 4 | $\mathcal{L}$ | - | $\pi$ | $\rightarrow$ | 4 | 4 | 4 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NEL | NET | NER | SWL | SWT | SWR |
| Lane Configurations |  |  |  |  | * 1 |  |  | ${ }_{*} 4$ |  |  | 4 4 |  |
| Traffic Volume (vph) | 0 | 0 | 0 | 45 | 30 | 15 | 20 | 425 | 0 | 0 | 375 | 235 |
| Future Volume (vph) | 0 | 0 | 0 | 45 | 30 | 15 | 20 | 425 | 0 | 0 | 375 | 235 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 16 | 16 | 14 | 11 | 11 | 10 | 12 | 10 | 10 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 1.00 | 1.00 | 0.95 | 0.95 |
| Ped Bike Factor |  |  |  |  | 1.00 |  |  | 1.00 |  |  | 0.99 |  |
| Frt |  |  |  |  | 0.975 |  |  |  |  |  | 0.942 |  |
| Fil Protected |  |  |  |  | 0.976 |  |  | 0.998 |  |  |  |  |
| Satd. Flow (prot) | 0 | 0 | 0 | 0 | 3879 | 0 | 0 | 3450 | 0 | 0 | 3124 | 0 |
| Fit Permitted |  |  |  |  | 0.976 |  |  | 0.915 |  |  |  |  |
| 'Satd Flow (perm) | 0 | 0 | 0 | 0 | 3879 | 0 | 0 | 3163 | 0 | 0 | 3124 | 0 |
| Right Turn on Red |  |  | Yes |  |  | Yes |  |  | Yes |  |  | Yes |
| Satd. Flow (RTOR) |  |  |  |  | 16 |  |  |  |  |  | 247 |  |
| Link Speed (mph) |  | 30 |  |  | 30 |  |  | 30 |  |  | 30 |  |
| Link Distance (ft) |  | 209 |  |  | 1434 |  |  | 465 |  |  | 233 |  |
| Travel Time (s) |  | 4.8 |  |  | 32.6 |  |  | 10.6 |  |  | 5.3 |  |
| Confl Peds. (\#/hr) |  |  |  |  |  | 10 | 5 |  |  |  |  | 5 |
| Confl. Bikes (\#/hr) |  |  |  |  |  | 1 |  |  |  |  |  | 1 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Heavy Vehicles (\%) | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 1\% | 0\% | 0\% | 1\% | 1\% |
| Adj. Flow (vph) | 0 | 0 | 0 | 47 | 32 | 16 | 21 | 447 | 0 | 0 | 395 | 247 |
| Shared Lane Traffic (\%) |  |  |  |  |  |  |  |  |  |  |  |  |
| Lane Group Flow (vph) | 0 | 0 | 0 | 0 | 95 | 0 | 0 | 468 | 0 | 0 | 642 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) |  | 0 |  |  | 0 |  |  | 0 |  |  | 3 |  |
| Link Offset(ft) |  | 0 |  |  | 0 |  |  | 0 |  |  | 0 |  |
| Crosswalk Width(fi) |  | 16 |  |  | 16 |  |  | 16 |  |  | 16 |  |
| Two way Left Tum Lane |  |  |  |  |  |  |  |  |  |  |  |  |
| Headway Factor | 1.00 | 1.00 | 1.00 | 0.85 | 0.85 | 0.92 | 1.04 | 1.04 | 1.09 | 1.00 | 1.09 | 1.09 |
| Turning Speed (mph) | 15 |  | 9 | 15 |  | 9 | 15 |  | 9 | 15 |  | 9 |
| Turn Type |  |  |  | Perm | NA |  | Perm | NA |  |  | NA |  |
| Protected Phases |  |  |  |  | 4 |  |  | 6 |  |  | 2 |  |
| Permitted Phases |  |  |  | 4 |  |  | 6 |  |  |  |  |  |
| Minimum Split (s) |  |  |  | 34.0 | 34.0 |  | 56.0 | 56.0 |  |  | 56.0 |  |
| Total Split (s) |  |  |  | 34.0 | 34.0 |  | 56.0 | 56.0 |  |  | 56.0 |  |
| Total Split (\%) |  |  |  | 37.8\% | 37.8\% |  | 62.2\% | 62.2\% |  |  | 62.2\% |  |
| Maximum Green (s) |  |  |  | 29.0 | 29.0 |  | 51.0 | 51.0 |  |  | 51.0 |  |
| Yellow Time (s) |  |  |  | 3.0 | 3.0 |  | 3.0 | 3.0 |  |  | 3.0 |  |
| All-Red Time (s) |  |  |  | 2.0 | 2.0 |  | 2.0 | 2.0 |  |  | 2.0 |  |
| Lost Time Adjust (s) |  |  |  |  | 0.0 |  |  | 0.0 |  |  | 0.0 |  |
| Total Lost Time (s) |  |  |  |  | 5.0 |  |  | 5.0 |  |  | 5.0 |  |
| Lead/Lag |  |  |  |  |  |  |  |  |  |  |  |  |
| Lead-Lag Optimize? |  |  |  |  |  |  |  |  |  |  |  |  |
| Walk Time (s) |  |  |  | 8.0 | 8.0 |  | 35.0 | 35.0 |  |  | 35.0 |  |
| Flash Dont Walk (s) |  |  |  | 21.0 | 21.0 |  | 16.0 | 16.0 |  |  | 16.0 |  |
| Pedestrian Calls (\#/hr) |  |  |  | 0 | 0 |  | 0 | 0 |  |  | 0 |  |
| Act Effct Green (s) |  |  |  |  | 29.0 |  |  | 51.0 |  |  | 51.0 |  |

[^13]

Analysis Period (min) 15

Splits and Phases: 13: Ogden Ave \& Van Buren St


| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Configurations | 7 | 41 | 1 |  |  |  |  | 个4 | 7 | 7 | 4 |  |
| Traffic Volume (vph) | 210 | 70 | 190 | 0 | 0 | 0 | 0 | 520 | 190 | 185 | 325 | 0 |
| Future Volume (vph) | 210 | 70 | 190 | 0 | 0 | 0 | 0 | 520 | 190 | 185 | 325 | 0 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 2000 | 1900 | 1900 | 2000 | 1900 |
| Lane Width (ft) | 10 | 10 | 10 | 12 | 12 | 12 | 12 | 12 | 13 | 9 | 12 | 11 |
| Storage Length (ti) | 0 |  | 0 | 0 |  | 0 | 0 |  | 0 | 115 |  | 0 |
| Storage Lanes | 1 |  | 1 | 0 |  | 0 | 0 |  | 1 | 1 |  | 0 |
| Taper Length (t) | 25 |  |  | 25 |  |  | 25 |  |  | 135 |  |  |
| Lane Util. Factor | 0.91 | 0.86 | 0.91 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 |
| Ped Bike Factor | 1.00 | 0.99 | 0.99 |  |  |  |  |  | 0.98 | 1.00 |  |  |
| Fit |  | 0.950 | 0.850 |  |  |  |  |  | 0.850 |  |  |  |
| Fil Protected | 0.950 | 0.982 |  |  |  |  |  |  |  | 0.950 |  |  |
| Satd. Flow (prot) | 1533 | 2789 | 1345 | 0 | 0 | 0 | 0 | 3725 | 1636 | 1624 | 3638 | 0 |
| Flt Permitted | 0.950 | 0.982 |  |  |  |  |  |  |  | 0.383 |  |  |
| Satd. Flow (perm) | 1531 | 2788 | 1326 | 0 | 0 | 0 | 0 | 3725 | 1599 | 653 | 3638 | 0 |
| Right Tum on Red |  |  | Yes |  |  | Yes |  |  | Yes |  |  | Yes |
| Satd. Flow (RTOR) |  | 65 | 120 |  |  |  |  |  | 207 |  |  |  |
| Link Speed (mph) |  | 30 |  |  | 30 |  |  | 30 |  |  | 30 |  |
| Link Distance (ft) |  | 806 |  |  | 725 |  |  | 893 |  |  | 427 |  |
| Travel Time (s) |  | 18.3 |  |  | 16.5 |  |  | 20.3 |  |  | 9.7 |  |



| Iwo way Left Turn Lane |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Headway Factor | 1.09 | 1.09 | 1.09 | 1.00 | 1.00 | 1.00 | 1.00 | 0.94 | 0.96 | 1.14 | 0.95 | 1.04 |
| Turning Speed (mph) | 15 |  | 9 | 15 |  | 9 | 15 |  | 9 | 15 |  | 9 |
| Turn Type | Perm | NA | Perm |  |  |  |  | NA | Perm | pm+pt | NA |  |
| Protected Phases |  | 8 |  |  |  |  |  | 6 |  | 5 | 2 |  |


| Permitted Phases | 8 |  | 8 |  | 6 | 2 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Minimum Split (s) | 35.0 | 35.0 | 35.0 | 56.0 | 56.0 | 14.0 | 70.0 |
| Total Split (s) | 35.0 | 35.0 | 35.0 | 56.0 | 56.0 | 14.0 | 70.0 |
| Total Split (\%) | 33.3\% | 33.3\% | 33.3\% | 53.3\% | 53.3\% | 13.3\% | 66.7\% |
| Maximum Green ( $s$ ) | 30.0 | 30.0 | 30.0 | 53.0 | 53.0 | 9.0 | 65.0 |
| Yellow Time (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| All-Red Time (s) | 2.0 | 2.0 | 2.0 | 0.0 | 0.0 | 2.0 | 2.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 5.0 | 5.0 | 5.0 | 3.0 | 3.0 | 5.0 | 5.0 |
| Lead/ Lag |  |  |  | Lead | Lead | Lag |  |
| Lead-Lag Optimize? |  |  |  | Yes | Yes | Yes |  |


|  |  |  |  |  |  |  | 4 | $\dagger$ | $p$ | $\downarrow$ | $\downarrow$ | $\checkmark$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Group. | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Walk Time (s) | 5.0 | 5.0 | 5.0 |  |  |  |  | 39.0 | 39.0 |  | 39.0 |  |
| Flash Dont Walk (s) | 25.0 | 25.0 | 25.0 |  |  |  |  | 14.0 | 14.0 |  | 14.0 |  |
| Pedestrian Calls (\#hr) | 0 | 0 | 0 |  |  |  |  | 0 | 0 |  | 0 |  |
| Act Effict Green (s) | 30.0 | 30.0 | 30.0 |  |  |  |  | 53.0 | 53.0 | 65.0 | 65.0 |  |
| Actuated g/C Ratio | 0.29 | 0.29 | 0.29 |  |  |  |  | 0.50 | 0.50 | 0.62 | 0.62 |  |
| $\mathrm{v} / \mathrm{C}$ Ratio | 0.30 | 0.31 | 0.26 |  |  |  |  | 0.30 | 0.23 | 0.41 | 0.16 |  |
| Control Delay | 31.7 | 22.9 | 6.8 |  |  |  |  | 15.7 | 2.6 | 12.1 | 5.7 |  |
| Queue Delay | 0.0 | 0.0 | 0.0 |  |  |  |  | 0.0 | 0.0 | 0.0 | 0.0 |  |
| Total Delay | 31.7 | 22.9 | 6.8 |  |  |  |  | 15.7 | 2.6 | 12.1 | 5.7 |  |
| Los | C | C | A |  |  |  |  | B | A | B | A |  |
| Approach Delay |  | 21.4 |  |  |  |  |  | 12.2 |  |  | 8.0 |  |
| Approach LOS |  | C |  |  |  |  |  | B |  |  | A |  |
| Queue Length 50ith (ti) | 75 | 58 | 0 |  |  |  |  | 111 | 0 | 39 | 35 |  |
| Queue Length 95th (ft) | 135 | 97 | 47 |  |  |  |  | 148 | 36 | 74 | 48 |  |
| Internal Link Dist (t) |  | 726 |  |  | 645 |  |  | 813 |  |  | 347 |  |
| Turn Bay Length (f) |  |  |  |  |  |  |  |  |  | 115 |  |  |
| Base Capacity (vph) | 437 | 843 | 464 |  |  |  |  | 1880 | 909 | 487 | 2252 |  |
| Starvation Cap Reductn | 0 | 0 | 0 |  |  |  |  | 0 | 0 | 0 | 0 |  |
| Spillback Cap Reductn | 0 | 0 | 0 |  |  |  |  | 0 | 0 | 0 | 0 |  |
| Storage Cap Reductn | 0 | 0 | 0 |  |  |  |  | 0 | 0 | 0 | 0 |  |
| Reduced v/c Ratio | 0.30 | 0.31 | 0.26 |  |  |  |  | 0.30 | 0.23 | 0.41 | 0.16 |  |

Intersection Summary
Area Type: Other
Cycle Length: 105
Actuated Cycle Length: 105
Offset: 39 ( $37 \%$ ), Referenced to phase 2:SBTL and 6 :NBT, Start of Green
Natural Cycle: 105
Control Type: Pretimed
Maximum v/c Ratio: 0.41
Intersection Signal Delay: 13.5

Analysis Period (min) 15
Splits and Phases: 14: Damen Ave \& Congress Pwky


| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Configurations |  |  |  |  | $\uparrow$ |  |  | $\uparrow$ |  |  | 1 |  |
| Trafic Volume (vph) | 0 | 0 | 0 | 15 | 235 | 30 | 45 | 135 | 0 | 0 | 80 | 45 |
| Future Volume (vph) | 0 | 0 | 0 | 15 | 235 | 30 | 45 | 135 | 0 | 0 | 80 | 45 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Utill. Factor | 1.00 | 1.00 | 1.00 | 0.95 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor |  |  |  |  |  |  |  |  |  |  |  |  |
| Frt |  |  |  |  | 0.984 |  |  |  |  |  | 0.952 |  |
| Fil Protected |  |  |  |  | 0.997 |  |  | 0.988 |  |  |  |  |
| Satd. Flow (prot) | 0 | 0 | 0 | 0 | 3454 | 0 | 0 | 1849 | 0 | 0 | 1756 | 0 |
| Fit Permitted |  |  |  |  | 0.997 |  |  | 0.988 |  |  |  |  |
| Satd. Flow (perm) | 0 | 0 | 0 | 0 | 3454 | 0 | 0 | 1849 | 0 | 0 | 1756 | 0 |
| Link Speed (mph) |  | 30 |  |  | 30 |  |  | 30 |  |  | 30 |  |
| Link Distance (tt) |  | 715 |  |  | 438 |  |  | 207 |  |  | 467 |  |
| Travel Time (s) |  | 16.3 |  |  | 10.0 |  |  | 4.7 |  |  | 10.6 |  |
| Confl. Peds. (\#/hr) |  |  |  | 1 |  | 2 | 9 |  |  |  |  | 9 |
| Conf. Bikes (\#/hr) |  |  |  |  |  | 4 |  |  |  |  |  |  |
| 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 |
| Heary Vehicles (\%) | 0\% | 0\% | 0\% | 0\% | 3\% | 0\% | 0\% | 2\% | 0\% | 0\% | 3\% | 3\% |
| Adj. Flow (vph) | 0 | 0 | 0 | 16 | 253 | 32 | 48 | 145 | 0 | 0 | 86 | 48 |
| Shared Lane Traffic (\%) |  |  |  |  |  |  |  |  |  |  |  |  |
| Lane Group Flow (vph) | 0 | 0 | 0 | 0 | 301 | 0 | 0 | 193 | 0 | 0 | 134 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Wioth(t) |  | 0 |  |  | 0 |  |  | 0 |  |  | 0 |  |
| Link Offset(t) |  | 0 |  |  | 0 |  |  | 0 |  |  | 0 |  |
| Crosswalk Width(t) |  | 16 |  |  | 16 |  |  | 16 |  |  | 16 |  |


| Two way Left Tum 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 |
| Sign Control |  | Stop |  |  | Stop |  |  | Stop |  |  | Stop |  |

Intersection Summary
Area Type:__Ot_ Other
Control Type: Unsignalized
Intersection Capacity Utilization 36.7\% ICU Level of Service A
Analysis Period (min) 15

| Intersection |
| :--- |
| Intersection Delay, s/veh |
| Intersection LOS |


| Movement | EBL | EBT | EBR | WBL. | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Configurations |  |  |  | $4{ }^{4}$ |  |  | 4 |  |  | $t$ |  |  |
| Traffic Vol, veh/h | 0 | 0 | 0 | 15 | 235 | 30 | 45 | 135 | 0 | 0 | 80 | 45 |
| Future Vol, veh/h | 0 | 0 | 0 | 15 | 235 | 30 | 45 | 135 | 0 | 0 | 80 | 45 |
| Peak Hour Factor | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 |
| Heavy Vehicles, \% | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 2 | 0 | 0 | 3 | 3 |
| Mumt Flow | 0 | 0 | 0 | 16 | 253 | 32 | 48 | 145 | 0 | 0 | 86 | 48 |
| Number of Lanes | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 1 | 0 | 0 | 1 |  |


| Approach | WB | NB | SB |
| :---: | :---: | :---: | :---: |
| Opposing Approach |  | SB | NB |
| Opposing Lanes | 0 | 1 | 1 |
| Conflicting Approach Left | NB |  | WB |
| Conflicting Lanes Left | 1 | 0 | 2 |
| Conflicting Approach Right | SB | WB |  |
| Conflicting Lanes Right | 1 | 2 | 0 |
| HCM Control Delay | 9.5 | 9.6 | 8.8 |
| HCMLOS | A | A | A |


| Lane | NBLn 1 | WBLn1 | WBLn2 | SBLn1 |
| :---: | :---: | :---: | :---: | :---: |
| Vol Left, \% | 25\% | 11\% | 0\% | 0\% |
| Vol Thru, \% | 75\% | 89\% | 80\% | 64\% |
| Vol Right, \% | 0\% | 0\% | 20\% | 36\% |
| Sign Control | Stop | Stop | Stop | Stop |
| Traffic Vol by Lane | 180 | 133 | 148 | 125 |
| LT Vol | 45 | 15 | 0 | 0 |
| Through Vol | 135 | 118 | 118 | 80 |
| RT Vol | 0 | 0 | 30 | 45 |
| Lane Flow Rate | 194 | 142 | 159 | 134 |
| Geometry Grp | 2 | 7 | 7 | 2 |
| Degree of Util (X) | 0.261 | 0.211 | 0.228 | 0.176 |
| Departure Headway (Hd) | 4.849 | 5.332 | 5.183 | 4.713 |
| Convergence, $\mathrm{Y} / \mathrm{N}$ | Yes | Yes | Yes | Yes |
| Cap | 739 | 671 | 690 | 758 |
| Service Time | 2.889 | 3.083 | 2.934 | 2.758 |
| HCM Lane VIC Ratio | 0.263 | 0.212 | 0.23 | 0.177 |
| HCM Control Delay | 9.6 | 9.5 | 9.5 | 8.8 |
| HCM Lane LOS | A | A | A | A |
| HCM 95th-tile Q | 1 | 0.8 | 0.9 | 0.6 |


|  |  |  |  |  |  |  |  |  |  | $\downarrow$ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | 7 | 1 |  |  |  |  | 7 | 4t |  | 1 | $\uparrow$ |  |
| Traffic Volume (voh) | 20 | 170 | 70 | 0 | 0 | 0 | 95 | 850 | 260 | 105 | 745 | 60 |
| Future Volume (vph) | 20 | 170 | 70 | 0 | 0 | 0 | 95 | 850 | 260 | 105 | 745 | 60 |
| \|deal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (fi) | 10 | 10 | 12 | 12 | 12 | 12 | 10 | 10 | 10 | 10 | 10 | 10 |
| Storage Length (ti) | 50 |  | 95 | 0 |  | 0 | 45 |  | 0 | 120 |  | 0 |
| Storage Lanes | 1 |  | 0 | 0 |  | 0 | 1 |  | 0 | 1 |  | 0 |
| Taper Length (ti) | 75 |  |  | 25 |  |  | 70 |  |  | 160 |  |  |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 |
| Ped Bike Factor | 0.98 | 0.99 |  |  |  |  | 0.99 | 0.99 |  | 0.99 | 0.99 |  |
| Frt |  | 0.956 |  |  |  |  |  | 0.965 |  |  | 0.989 |  |
| Fll Protected | 0.950 |  |  |  |  |  | 0.950 |  |  | 0.950 |  |  |
| Satd. Flow (prot) | 1685 | 1596 | 0 | 0 | 0 | 0 | 1620 | 3136 | 0 | 1685 | 3226 |  |
| Flt Permitted | 0.950 |  |  |  |  |  | 0.247 |  |  | 0.138 |  |  |
| Satd. Flow (perm) | 1657 | 1596 | 0 | 0 | 0 | 0 | 416 | 3136 | 0 | 243 | 3226 | 0 |
| Right Tum on Red |  |  | Yes |  |  | Yes |  |  | Yes |  |  | Yes |
| Satd. Flow (RTOR) |  | 40 |  |  |  |  |  | $80^{-}$ |  |  | 17 |  |
| Link Speed (mph) |  | 20 |  |  | 30 |  |  | 30 |  |  | 30 |  |
| Link Distance (f) |  | 535 |  |  | 155 |  |  | 229 |  |  | 901 |  |
| Travel Time (s) |  | 18.2 |  |  | 3.5 |  |  | 5.2 |  |  | 20.5 |  |
| Confl. Peds. (\#/hr) | 24 |  | 21 |  |  |  | 43 |  | 61 | 61 |  | 43 |
| Confl. Bikes (\#/hr) |  |  | 1 |  |  |  |  |  | 6 |  |  |  |
| Peak Hour Factor | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 |
| Heavy Vehicles (\%) | 0\% | 4\% | 3\% | 0\% | 0\% | 0\% | 4\% | 2\% | 0\% | 0\% | 3\% | 0\% |
| Bus Blockages (\#hr) | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 |  |
| Add. Fiow (vph) | 21 | 177 | 73 | 0 | 0 | 0 | 99 | 885 | 271 | 109 | 776 | 63 |
| Shared Lane Traffic (\%) |  |  |  |  |  |  |  |  |  |  |  |  |
| Lane Group Flow (vph) | 21 | 250 | 0 | 0 | 0 | 0 | 99 | 1156 | 0 | 109 | 839 |  |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(t) |  | 10 |  |  | 10 |  |  | 10 |  |  | 10 |  |
| Link Offset(fi) |  | 0 |  |  | 0 |  |  | 0 |  |  | 0 |  |
| Crosswalk Width $(t)$ |  | 16 |  |  | 16 |  |  | 16 |  |  | 16 |  |
| ITwo way Left Tum Lane |  |  |  |  |  |  |  |  |  |  |  |  |
| Headway Factor | 1.09 | 1.12 | 1.00 | 1.00 | 1.00 | 1.00 | 1.09 | 1.10 | 1.09 | 1.09 | 1.09 | 1.09 |
| Turming Speed (mph) | 15 |  | 9 | 15 |  | 9 | 15 |  | 9 | 15 |  |  |
| Turn Type | Perm | NA |  |  |  |  | Perm | NA |  | Perm | NA |  |
| Protected Phases |  | 4 |  |  |  |  |  | 2 |  |  | 6 |  |
| Permitted Phases | 4 |  |  |  |  |  | 2 |  |  | 6 |  |  |
| Minimum Split (s) | 32.0 | 32.0 |  |  |  |  | 33.0 | 33.0 |  | 33.0 | 33.0 |  |
| Total Split (s) | 32.0 | 32.0 |  |  |  |  | 33.0 | 33.0 |  | 33.0 | 33.0 |  |
| Total Split (\%) | 49.2\% | 49.2\% |  |  |  |  | 50.8\% | 50.8\% |  | 50.8\% | 50.8\% |  |
| Yellow Time (s) | 3.0 | 3.0 |  |  |  |  | 3.0 | 3.0 |  | 3.0 | 3.0 |  |
| All-Red Time (s) | 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 |  |
| Total Lost Time (s) | 4.0 | 4.0 |  |  |  |  | 4.0 | 4.0 |  | 4.0 | 4.0 |  |
| Lead/Lag |  |  |  |  |  |  |  |  |  |  |  |  |
| Lead-Lag Optimize? |  |  |  |  |  |  |  |  |  |  |  |  |
| Act Eftct Green (s) | 28.0 | 28.0 |  |  |  |  | 29.0 | 29.0 |  | 29.0 | 29.0 |  |


|  |  |  |  |  |  |  |  | $\uparrow$ |  |  | $\dagger$ | $\downarrow$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Actuated g/C Ratio | 0.43 | 0.43 |  |  |  |  | 0.45 | 0.45 |  | 0.45 | 0.45 |  |
| v/c Ratio | 0.03 | 0.35 |  |  |  |  | 0.54 | 0.80 |  | 1.01 | 0.58 |  |
| Control Delay | 10.9 | 12.0 |  |  |  |  | 26.7 | 19.8 |  | 117.3 | 15.1 |  |
| Queue Delay | 0.0 | 0.0 |  |  |  |  | 0.0 | 0.0 |  | 0.0 | 0.0 |  |
| Total Delay | 10.9 | 12.0 |  |  |  |  | 26.7 | 19.8 |  | 117.3 | 15.1 |  |
| LOS | B | B |  |  |  |  | C | B |  | F | B |  |
| Approach Delay |  | 11.9 |  |  |  |  |  | 20.3 |  |  | 26.9 |  |
| Approach LOS |  | B |  |  |  |  |  | C |  |  | C |  |
| Queue Length 50th (ft) | 5 | 52 |  |  |  |  | 27 | 184 |  | -42 | 121 |  |
| Queue Length 95th (ft) | 16 | 101 |  |  |  |  | \#90 | 263 |  | \#135 | 173 |  |
| Internal Link Dist ( ft ) |  | 455 |  |  | 75 |  |  | 149 |  |  | 821 |  |
| Turn Bay Length (ft) | 50 |  |  |  |  |  | 45 |  |  | 120 |  |  |
| Base Capacity (vph) | 713 | 710 |  |  |  |  | 185 | 1443 |  | 108 | 1448 |  |
| Starvation Cap Reductn | 0 | 0 |  |  |  |  | 0 | 0 |  | 0 | 0 |  |
| Spillback Cap Reductn | 0 | 0 |  |  |  |  | 0 | 0 |  | 0 | 0 |  |
| Storage Cap Reductn | 0 | 0 |  |  |  |  | 0 | 0 |  | 0 | 0 |  |
| Reduced v/c Ratio | 0.03 | 0.35 |  |  |  |  | 0.54 | 0.80 |  | 1.01 | 0.58 |  |
| Intersection Summary |  |  |  |  |  |  |  |  |  |  |  |  |
| Area Type: Other |  |  |  |  |  |  |  |  |  |  |  |  |
| Cycle Length: 65 |  |  |  |  |  |  |  |  |  |  |  |  |
| Actuated Cycle Length: 65 |  |  |  |  |  |  |  |  |  |  |  |  |
| Offset: $0(0 \%)$, Referenced to phase 2:NBTL and 6:SBTL, Start of Green |  |  |  |  |  |  |  |  |  |  |  |  |
| Natural Cycle: 75 |  |  |  |  |  |  |  |  |  |  |  |  |
| Control Type: Pretimed |  |  |  |  |  |  |  |  |  |  |  |  |
| Maximum v/c Ratio: 1.01 |  |  |  |  |  |  |  |  |  |  |  |  |
| Intersection Signal Delay 21.9 - Intersection LOS: C |  |  |  |  |  |  |  |  |  |  |  |  |
| Intersection Capacity Utilization 90.4\% -- ICU Level of Service E |  |  |  |  |  |  |  |  |  |  |  |  |
| Analysis Period (min) 15 |  |  |  |  |  |  |  |  |  |  |  |  |
| - Volume exceeds capacity, queue is theoretically infinite. |  |  |  |  |  |  |  |  |  |  |  |  |
| Queue shown is maximum after two cycles. |  |  |  |  |  |  |  |  |  |  |  |  |
| \# 95th percentile volume exceeds capacity, queue may be longer. |  |  |  |  |  |  |  |  |  |  |  |  |
| Queue shown is maximum after two cycles. |  |  |  |  |  |  |  |  |  |  |  |  |

Splits and Phases: 3: Damen Ave \& Jackson Blvd




| Major/Minor Major1 | Minor2 |  |
| :---: | :---: | :---: |
| Conflicting Flow All | 311 |  |
| Stage 1 | 0 | - |
| Stage 2 | 311 |  |
| Critical Hdwy | 6.8 | - |
| Critical Hdwy Stg 1 | . | - |
| CCritical Hdwy Stg 2 | 5.8 | - |
| Follow-up Hdwy | 3.5 |  |
| Pot Cap-1 Maneuver - 0 | 662 | 0 |
| Stage 10 |  | 0 |
| Stage $2-0$ | 722 | 0 |
| Platoon blocked, \% |  |  |
| Mov Cap-1 Maneuver | 662 | - |
| Mov Cap-2 Maneuver | 662 |  |
| Stage 1 |  | - |
| Stage 2 - | 722 |  |
|  |  |  |
| Approach EB | SB |  |
| HCM Control Delay, $5 \quad 0$ | 10.7 |  |
| HCMLOS | B |  |
|  |  |  |
| Minor Lane/Major Mvmt |  |  |
| Capacity (veh/h) |  |  |
| HCM Lane VIC Ratio |  |  |
| HCM Control Delay (s) |  |  |
| HCM Lane LOS |  |  |
| HCM 95th \%tile Q(veh) |  |  |






| Intersection |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Intersection Delay, s/veh 10.5 |  |  |  |  |  |  |  |  |  |  |  |  |
| Intersection LOS B |  |  |  |  |  |  |  |  |  |  |  |  |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  | + $\uparrow$ |  |  |  |  |  | $\dagger$ |  |  | $\uparrow$ |  |
| Traffic Vol, veh/h | 60 | 305 | 55 | 0 | 0 | 0 | 0 | 85 | 5 | 70 | 120 | 0 |
| Future Vol, veh/h | 60 | 305 | 55 | 0 | 0 | 0 | 0 | 85 | 5 | 70 | 120 | 0 |
| Peak Hour Factor | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 |
| Heavy Vehicles, \% | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 4 | 1 | 0 |
| Mumt Flow | 65 | 328 | 59 | 0 | 0 | 0 | 0 | 91 | 5 | 75 | 129 | 0 |
| Number of Lanes | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 |
| Approach | EB |  |  |  |  |  |  | NB |  | SB |  |  |
| Opposing Approach |  |  |  |  |  |  |  | SB |  | NB |  |  |
| Opposing Lanes |  |  |  |  |  |  |  | 1 |  | 1 |  |  |
| Conflicting Approach Left SB |  |  |  |  |  |  |  | EB |  |  |  |  |
| Conflicting Lanes Left |  |  |  |  |  |  |  | 2 |  | 0 |  |  |
| Conflicting Approach Right NB |  |  |  |  |  |  |  |  |  | EB |  |  |
| Conflicting Lanes Right | 1 |  |  |  |  |  |  | 0 |  | 2 |  |  |
| HCM Control Delay | 10.7 |  |  |  |  |  |  | 9.2 |  | 10.5 |  |  |
| HCMLOS | B |  |  |  |  |  |  | A |  | B |  |  |


| Lane | NBLn1 | EBLn1 | EBLn2 | SBLn1 |
| :---: | :---: | :---: | :---: | :---: |
| Vol Left, \% | 0\% | 28\% | 0\% | 37\% |
| Vol Thru, \% | 94\% | 72\% | 73\% | 63\% |
| Vol Right, \% | 6\% | 0\% | 27\% | 0\% |
| Sign Control | Stop | Stop | Stop | Stop |
| Trafic Vol by Lane | 90 | 213 | 208 | 190 |
| LT Vol | 0 | 60 | 0 | 70 |
| Through Vol | 85 | 153 | 153 | 120 |
| RT Vol | 5 | 0 | 55 | 0 |
| Lane Flow Rate | 97 | 228 | 223 | 204 |
| Geometry Grp | 2 | 7 | 7 | 2 |
| Degree of Util ( $X$ ) | 0.142 | 0.343 | 0.317 | 0.296 |
| Departure Headway(Hd) | 5.295 | 5.411 | 5.116 | 5.214 |
| Convergence, Y/N | Yes | Yes | Yes | Yes |
| Cap | 673 | 660 | 698 | 686 |
| Service Time | 3.364 | 3.173 | 2.878 | 3.27 |
| HCM Lane VIC Ratio | 0.144 | 0.345 | 0.319 | 0.297 |
| HCM Control Delay | 9.2 | 11 | 10.3 | 10.5 |
| HCM Lane LOS | A | B | B | B |
| HCM 95th-tile Q | 0.5 | 1.5 | 1.4 | 1.2 |


|  | $\rightarrow$ | $\rightarrow$ | 7 | " |  |  | 3 | $>$ |  | 4 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NEL | NET | NER | SWL | SWT | SWR |
| Lane Configurations | ${ }^{3}$ | 41 |  |  |  |  |  | F |  | 7 | 14 |  |
| Trafic Volume (vph) | 155 | 220 | 5 | 0 | 0 | 0 | 0 | 655 | 65 | 10 | 1150 | 0 |
| Future Volume (vph) | 155 | 220 | 5 | 0 | 0 | 0 | 0 | 655 | 65 | 10 | 1150 | 0 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 2000 | 1900 |
| Lane Width (t) | 15 | 11 | 10 | 12 | 12 | 12 | 12 | 13 | 13 | 10 | 12 | 12 |
| Storage Length (t) | 80 |  | 0 | 0 |  | 0 | 0 |  | 0 | 120 |  | 0 |
| Storage Lanes | 1 |  | 0 | 0 |  | 0 | 0 |  | 0 | 1 |  | 0 |
| TIaper Length (t) | 75 |  |  | 25 |  |  | 25 |  |  | 135 |  |  |
| Lane Utili. Factor. | 1.00 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 1.00 |
| Ped Bike Factor | 0.91 | 1.00 |  |  |  |  |  | 1.00 |  | 1.00 |  |  |
| Fr |  | 0.997 |  |  |  |  |  | 0.988 |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| Satd. Flow (prot) | 1986 | 3319 | 0 | 0 | 0 | 0 | 0 | 1915 | 0 | 1685 | 3725 | 0 |
| Flit Permitted | 0.950 |  |  |  |  |  |  |  |  | 0.189 |  |  |
| Satd. Flow (perm) | 1808 | 3319 | 0 | 0 | 0 | 0 | 0 | 1915 | 0 | 335 | 3725 | 0 |
| Right Tum on Red |  |  | Yes |  |  | Yes |  |  | Yes |  |  | Yes |
| Satd. Flow (RTOR) |  | 2 |  |  |  |  |  | 8 |  |  |  |  |
| Link Speed (mph) |  | 30 |  |  | 30 |  |  | 30 |  |  | 30 |  |
| Link Distance (tt) |  | 263 |  |  | 1046 |  |  | 395 |  |  | 594 |  |
| Travel Time (s) |  | 6.0 |  |  | 23.8 |  |  | 9.0 |  |  | 13.5 |  |



| Shared Lane Traffic (\%) |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Group Flow (vph) | 165 | 239 | 0 | 0 | 0 | 0 | 0 | 766 | 0 | 11 | 1223 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(t) |  | 15 |  |  | 15 |  |  | 10 |  |  | 12 |  |
| Link Offset(t) |  | 0 |  |  | 0 |  |  | 0 |  |  | 0 |  |
| Crosswalk Width(fi) |  | 16 |  |  | 16 |  |  | 16 |  |  | 16 |  |


| Two way Left Tum Lane |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Headway Factor | 0.88 | 1.06 | 1.09 | 1.00 | 1.00 | 1.00 | 1.00 | 0.96 | 0.96 | 1.09 | 0.94 | 1.00 |
| Turning Speed (mph) | 15 |  | - 9 | 15 |  | 9 | 15 |  | 9 | 15 |  |  |
| Turn Type | Perm | NA |  |  |  |  |  | NA |  | pm+pt | NA |  |
| Protected Phases |  | 4 |  |  |  |  |  | 2 |  | 1 | 6 |  |
| Permitted Phases | 4 |  |  |  |  |  |  |  |  | 6 |  |  |
| Minimum Split (s) | 32.0 | 32.0 |  |  |  |  |  | 65.0 |  | 8.0 | 73.0 |  |
| Total Split (s) | 32.0 | 32.0 |  |  |  |  |  | 65.0 |  | 8.0 | 73.0 |  |
| Total Split (\%) | 30.5\% | 30.5\% |  |  |  |  |  | 61.9\% |  | 7.6\% | 69.5\% |  |
| Yellow Time (s) | 3.0 | 3.0 |  |  |  |  |  | 3.0 |  | 3.0 | 3.0 |  |
| All-Red Time (s) | 2.0 | 2.0 |  |  |  |  |  | 2.0 |  | 0.0 | 2.0 |  |
| Lost Time Adjust (s) | 0.0 | 0.0 |  |  |  |  |  | 0.0 |  | 0.0 | 0.0 |  |
| Total Lost Time (s) | 5.0 | 5.0 |  |  |  |  |  | 5.0 |  | 3.0 | 5.0 |  |
| Lead/Lag |  |  |  |  |  |  |  | Lag |  | Lead |  |  |
| Lead-Lag Optimize? |  |  |  |  |  |  |  | Yes |  | Yes |  |  |
| Act Effict Green (s) | 27.0 | 27.0 |  |  |  |  |  | 60.0 |  | 70.0 | 68.0 |  |


|  | $\rightarrow$ |  | 7 | F |  | 4 |  | $\nsim$ | $\rightarrow$ | 1 | 4 | 4 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NEL- | NET | NER | SWL | SWT | SWR |
| Actuated g/C Ratio | 0.26 | 0.26 |  |  |  |  |  | 0.57 |  | 0.67 | 0.65 |  |
| v/c Ratio | 0.36 | 0.28 |  |  |  |  |  | 0.70 |  | 0.04 | 0.51 |  |
| Control Delay | 34.5 | 32.0 |  |  |  |  |  | 10.4 |  | 6.2 | 10.6 |  |
| Queue Delay | 0.0 | 0.0 |  |  |  |  |  | 0.2 |  | 0.0 | 0.1 |  |
| Total Delay | 34.5 | 32.0 |  |  |  |  |  | 10.6 |  | 6.2 | 10.7 |  |
| LOS | C | C |  |  |  |  |  | B |  | A | B |  |
| Approach Delay |  | 33.1 |  |  |  |  |  | 10.6 |  |  | 10.6 |  |
| Approach LOS |  | C |  |  |  |  |  | B |  |  | B |  |
| Queue Length 50th (t) | 91 | 67 |  |  |  |  |  | 122 |  | 2 | 206 |  |
| Queue Length 95th (ft) | 152 | 102 |  |  |  |  |  | m148 |  | 8 | 255 |  |
| Internal Link Dist (ft) |  | 183 |  |  | 966 |  |  | 315 |  |  | 514 |  |
| Turn Bay Length (ft) | 80 |  |  |  |  |  |  |  |  | 120 |  |  |
| Base Capacity (vph) | 464 | 854 |  |  |  |  |  | 1097 |  | 287 | 2412 |  |
| Starvation Cap Reductn | 0 | 0 |  |  |  |  |  | 41 |  | 0 | 0 |  |
| 'Spillback Cap Reductn | 0 | 0 |  |  |  |  |  | 0 |  | 0 | 175 |  |
| Storage Cap Reductn | 0 | 0 |  |  |  |  |  | 0 |  | 0 | 0 |  |
| Reduced v/c Ratio | 0.36 | 0.28 |  |  |  |  |  | 0.73 |  | 0.04 | 0.55 |  |
| Intersection Summary |  |  |  |  |  |  |  |  |  |  |  |  |
| Area Type: |  |  |  |  |  |  |  |  |  |  |  |  |
| Cycle Length: 105 |  |  |  |  |  |  |  |  |  |  |  |  |
| Actuated Cycle Length: 105 |  |  |  |  |  |  |  |  |  |  |  |  |
| Offset: $49(47 \%)$, Referenced to phase 2:NET and 6:SWTL, Start of Green |  |  |  |  |  |  |  |  |  |  |  |  |
| Natural Cycle: 105 |  |  |  |  |  |  |  |  |  |  |  |  |
| Control Type: Pretimed |  |  |  |  |  |  |  |  |  |  |  |  |
| Maximum v/c Ratio: 0.70 |  |  |  |  |  |  |  |  |  |  |  |  |
| Intersection Signal Delay: 14.4 |  |  |  |  |  |  |  |  |  |  |  |  |
| Intersection Capacity Utilization 87.5\% ICU Level of Service E |  |  |  |  |  |  |  |  |  |  |  |  |
| Analysis Period (min) 15 |  |  |  |  |  |  |  |  |  |  |  |  |
| m Volume for 95 th percentile queue is metered by upstream signal. |  |  |  |  |  |  |  |  |  |  |  |  |

Splits and Phases: 8: Ogden Ave \& Jackson Blvd


|  | $\dagger$ | $\downarrow$ |  |  | 4 | 4 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Group | SBL | SBR | NEL | NET | SWT | SWR. |
| Lane Configurations | * |  | \% | 4 | $4{ }^{1}$ |  |
| Traffic Volume (vph) | 1 | 175 | 85 | 720 | 1150 | 5 |
| Future Volume (vph) | 1 | 175 | 85 | 720 | 1150 | 5 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width ( t ) | 12 | 12 | 10 | 13 | 12 | 12 |
| Storage Length (ft) | 0 | 0 | 90 |  |  | 0 |
| Storage Lanes | 1 | 0 | 1 |  |  | 0 |
| Taper Length (ft) | 25 |  | 115 |  |  |  |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 0.95 |
| Ped Bike Factor |  |  |  |  |  |  |
| Frt | 0.866 |  |  |  | 0.999 |  |
| Filt Protected |  |  | 0.950 |  |  |  |
| Satd. Flow (prot) | 1629 | 0 | 1574 | 1944 | 3536 | 0 |
| Fit Permitted |  |  | 0.950 |  |  |  |
| Satd. Flow (perm) | 1629 | 0 | 1574 | 1944 | 3536 | 0 |
| Link Speed (mph) | 30 |  |  | 30 | 30 |  |
| Link Distance ( ft ) | 292 |  |  | 233 | 395 |  |
| Travel Time (s) | 6.6 |  |  | 5.3 | 9.0 |  |
| Confl. Peds. (\#/hr) | 5 | 12 | 12 |  |  | 12 |
| Confl. Bikes (\#/hr) |  |  |  |  |  | 1 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Heavy Vehicles (\%) | 0\% | 1\% | 7\% | 1\% | 2\% | 0\% |
| Adj. Flow (vph) | 1 | 184 | 89 | 758 | 1211 | 5 |
| Shared Lane Traffic (\%) |  |  |  |  |  |  |
| Lane Group Flow (vph) | 185 | 0 | 89 | 758 | 1216 | 0 |
| Enter Blocked Intersection | Yes | Yes | No | No | No | No |
| Lane Alignment | Left | Right | Left | Left | Left | Right |
| Median Width(t) | 12 |  |  | 10 | 10 |  |
| Link Offset(f) | 0 |  |  | 0 | 0 |  |
| Crosswalk Width(t) | 16 |  |  | 16 | 16 |  |
| Two way Left Turn Lane |  |  |  |  |  |  |
| Headway Factor | 1.00 | 1.00 | 1.09 | 0.96 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | 9 | 15 |  |  | 9 |
| Sign Control | Stop |  |  | Free | Free |  |
| Intersection Summary |  |  |  |  |  |  |
| Area Type: _- Other |  |  |  |  |  |  |
| Control Type: Unsignalized |  |  |  |  |  |  |
| Intersection Capacity Utilization 59.2\% |  |  |  | ICU Level of Service |  |  |
| Analysis Period (min) 15 |  |  |  |  |  |  |

HCM 6th TWSC
9: Ogden Ave \& Wood St





Splits and Phases: 10: Damen Ave \& Van Buren St

Lane Group
Actuated g/C Ratio
v/c Ratio
Control Delay
Queue Delay
Total Delay
LOS
Approach Delay
Approach LOS
Queue Length 50th (ft)
Queue Length 95th (ft)
Internal Link Dist (ft)
Turn Bay Length (ft)
Base Capacity (vph)
Starvation Cap Reductn
Spillback Cap Reductn
Storage Cap Reductn
Reduced v/c Ratio
Intersection Summary





|  |  |  |  |  |  |  | 3 |  | $\cdots$ |  |  | 4 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Group. | EBL | EBT | EBR | WBL | WBT | WBR | NEL | NET | NER | SWL | SWT | SWR |
| Lane Configurations |  |  |  |  | 41 |  | 7 | 4 |  |  | 4 | 7 |
| Traffic Volume (vph) | 0 | 0 | 0 | 165 | 650 | 45 | 40 | 760 | 0 | 0 | 920 | 405 |
| Future Volume (vph) | 0 | 0 | 0 | 165 | 650 | 45 | 40 | 760 | 0 | 0 | 920 | 405 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 2000 | 1900 | 1900 | 2000 | 1900 |
| Lane Width (t) | 12 | 12 | 12 | 16 | 16 | 14 | 11 | 11 | 10 | 12 | 11 | 11 |
| Storage Length (t) | 0 |  | 0 | 0 |  | 0 | 130 |  | 0 | 0 |  | 0 |
| Storage Lanes | 0 |  | 0 | 0 |  | 0 | 1 |  | 0 | 0 |  | 1 |
| Taper Length (ti) | 25 |  |  | 25 |  |  | 135 |  |  | 25 |  |  |
| Lane Utilil Factor | 1.00 | 1.00 | 1.00 | 0.95 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor |  |  |  |  | 1.00 |  | 1.00 |  |  |  |  | 0.98 |
| Ft |  |  |  |  | 0.992 |  |  |  |  |  |  | 0.850 |
| Filt Protected |  |  |  |  | 0.990 |  | 0.950 |  |  |  |  |  |
| Satid. Flow (prot) | 0 | 0 | 0 | 0 | 3890 | 0 | 1745 | 1914 | 0 | 0 | 1895 | 1546 |
| Flt Permitted |  |  |  |  | 0.990 |  | 0.065 |  |  |  |  |  |
| Satd. Flow (perm) | 0 | 0 | 0 | 0 | 3886 | - | 119 | 1914 | 0 | 0 | 1895 | 1516 |
| Right Tum on Red |  |  | Yes |  |  | Yes |  |  | Yes |  |  | Yes |
| Satd. FIow (RTOR) |  |  |  |  | 5 |  |  |  |  |  |  | 113 |
| Link Speed (mph) |  | 30 |  |  | 30 |  |  | 30 |  |  | 30 |  |
| Link Distance (tt) |  | 209 |  |  | 1434 |  |  | 465 |  |  | 233 |  |
| Travel Time (s) |  | 4.8 |  |  | 32.6 |  |  | 10.6 |  |  | 5.3 |  |
| Confil Peds. (\#\#hr) |  |  |  | 2 |  | 13 | 14 |  |  |  |  | 14 |
| Conil. Bikes (\#/hr) |  |  |  |  |  | 1 |  |  |  |  |  | 1 |
| Peak Hour Factor | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 |
| Heay Vehicles (\%) | 0\% | $0 \%$ | 0\% | 1\% | 2\% | 6\% | 0\% | 1\% | 0\% | 0\% | 2\% | 1\% |
| Bus Blockages (\#f/hr) | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Adj. Flow (vph) | 0 | 0 | 0 | 176 | 691 | 48 | 43 | 809 | 0 | 0 | 979 | 431 |
| Shared Lane Traffic (\%) |  |  |  |  |  |  |  |  |  |  |  |  |
| Lane Group Flow (vph) | 0 | 0 | 0 | 0 | 915 | 0 | 43 | 809 | 0 | 0 | 979 | 431 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Leff | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(t) |  | 0 |  |  | 0 |  |  | 11 |  |  | 10 |  |
| Link Offset(t) |  | 0 |  |  | 0 |  |  | 0 |  |  | 0 |  |
| Crosswalk Width(ti) |  | 16 |  |  | 16 |  |  | 16 |  |  | 16 |  |
| Two way Left Turn Lane |  |  |  |  |  |  |  |  |  |  |  |  |
| Headway Factor | 1.00 | 1.00 | 1.00 | 0.85 | 0.86 | 0.92 | 1.04 | 0.98 | 1.09 | 1.00 | 0.98 | 1.04 |
| Turning Speed (mph) | 15 |  | 9 | 15 |  | 9 | 15 |  | 9 | 15 |  | 9 |
| Turn Type |  |  |  | Perm | NA |  | pm+pt | NA |  |  | NA | Perm |
| Protected Phases |  |  |  |  | 4 |  | 1 | 6 |  |  | 2 |  |
| Permitted Phases |  |  |  | 4 |  |  | 6 |  |  |  |  | 2 |
| Minimum Split (s) |  |  |  | 31.0 | 31.0 |  | 8.0 | 74.0 |  |  | 66.0 | 66.0 |
| Total Split (s) |  |  |  | 31.0 | 31.0 |  | 8.0 | 74.0 |  |  | 66.0 | 66.0 |
| Total Split (\%) |  |  |  | 29.5\% | 29.5\% |  | 7.6\% | 70.5\% |  |  | 62.9\% | 62.9\% |
| Yellow Time (s) |  |  |  | 3.0 | 3.0 |  | 3.0 | 3.0 |  |  | 3.0 | 3.0 |
| All-Red Time ( s ) |  |  |  | 2.0 | 2.0 |  | 0.0 | 2.0 |  |  | 2.0 | 2.0 |
| Lost Time Adjust (s) |  |  |  |  | 0.0 |  | 0.0 | 0.0 |  |  | 0.0 | 0.0 |
| Total Lost Time (s) |  |  |  |  | 5.0 |  | 3.0 | 5.0 |  |  | 5.0 | 5.0 |
| Lead/Lag |  |  |  |  |  |  | Lead |  |  |  | Lag | Lag |
| Lead-Lag Optimize? |  |  |  |  |  | Yes |  |  |  |  | Yes | Yes |
| Act Effct Green (s) |  |  | 26.0 |  |  |  | 71.0 | 69.0 |  |  | 61.0 |  |


|  |  |  | 2 | $\sim$ |  |  | * | $\nearrow$ | $\rightarrow$ | $\downarrow$ | \( |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ) | 4 |  |  |  |  |  |  |  |  |  |  |  |
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR. | NEL | NET | NER | SWL | SWT | SWR |
| Actuated g/C Ratio |  |  |  |  | 0.25 |  | 0.68 | 0.66 |  |  | 0.58 | 0.58 |
| v/c Ratio |  |  |  |  | 0.95 |  | 0.27 | 0.64 |  |  | 0.89 | 0.46 |
| Control Delay |  |  |  |  | 58.0 |  | 10.0 | 13.7 |  |  | 22.1 | 3.8 |
| Queue Delay |  |  |  |  | 0.0 |  | 0.0 | 0.0 |  |  | 0.0 | 0.0 |
| Total Delay |  |  |  |  | 58.0 |  | 10.0 | 13.7 |  |  | 22.1 | 3.8 |
| LOS |  |  |  |  | E |  | A | B |  |  | C | A |
| Approach Delay |  |  |  |  | 58.0 |  |  | 13.5 |  |  | 16.5 |  |
| Approach LOS |  |  |  |  | E |  |  | B |  |  | B |  |
| Queue Length 50 th (tt) |  |  |  |  | 317 |  | 9 | 292 |  |  | 535 | 12 |
| Queue Length 95th (ft) |  |  |  |  | \#444 |  | 20 | 414 |  |  | \#847 | 20 |
| Internal Link Dist (fit) |  | 129 |  |  | 1354 |  |  | 385 |  |  | 153 |  |
| Turn Bay Length ( t ) |  |  |  |  |  |  | 130 |  |  |  |  |  |
| Base Capacity (vph) |  |  |  |  | 966 |  | 157 | 1257 |  |  | 1100 | 928 |
| Starvation Cap Reductn |  |  |  |  | 0 |  | 0 | 0 |  |  | 0 | 0 |
| Spillback Cap Reductn |  |  |  |  | 0 |  | 0 | 0 |  |  | 0 | 0 |
| Storage Cap Reductn |  |  |  |  | 0 |  | 0 | 0 |  |  | 0 | 0 |
| Reduced v/c Ratio |  |  |  |  | 0.95 |  | 0.27 | 0.64 |  |  | 0.89 | 0.46 |

Intersection Summary Other $\quad$ Area Type:

Cycle Length: 105
Actuated Cycle Length: 105
Offset: 52 ( $50 \%$ ), Referenced to phase 2:SWT and 6:NETL, Start of Green
Natural Cycle: 105
Control Type: Pretimed
Maximum v/c Ratio: 0.95
Intersection Signal Delay: 27.6 -
Intersection Capacity Utilization $90.9 \% \quad$ ICU Level of Sevice E
Analysis Period (min) 15
\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
Splits and Phases: 13: Ogden Ave \& Van Buren St


|  |  |  | $\checkmark$ |  |  |  |  | 4 | $p$ | + |  | $\downarrow$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Group. | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | 1 | 41 | 「 |  |  |  |  | 4 | 7 | \% | 4 |  |
| Traffic Volume (vph) | 455 | 175 | 315 | 0 | 0 | 0 | 0 | 935 | 445 | 240 | 595 | 0 |
| Future Volume (vph) | 455 | 175 | 315 | 0 | 0 | 0 | 0 | 935 | 445 | 240 | 595 | 0 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 2000 | 1900 | 1900 | 2000 | 1900 |
| Lane Width ( ft ) | 10 | 10 | 10 | 12 | 12 | 12 | 12 | 12 | 13 | 9 | 12 | 11 |
| Storage Length (ft) | 0 |  | 0 | 0 |  | 0 | 0 |  | 0 | 115 |  | 0 |
| Storage Lanes | 1 |  | 1 | 0 |  | 0 | 0 |  | 1 | 1 |  | 0 |
| Taper Length (ft) | 25 |  |  | 25 |  |  | 25 |  |  | 135 |  |  |
| Lane Util. Factor | 0.91 | 0.86 | 0.91 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 |
| Ped Bike Factor | 1.00 | 0.99 | 0.97 |  |  |  |  |  | 0.94 | 0.99 |  |  |
| Fit |  | 0.970 | 0.850 |  |  |  |  |  | 0.850 |  |  |  |
| Filt Protected | 0.950 | 0.979 |  |  |  |  |  |  |  | 0.950 |  |  |
| Satd. Flow (prot) | 1533 | 2849 | 1332 | 0 | 0 | 0 | 0 | 3725 | 1636 | 1608 | 3645 | 0 |
| Fit Permitted | 0.950 | 0.979 |  |  |  |  |  |  |  | 0.205 |  |  |
| Satd. Flow (perm) | 1528 | 2845 | 1287 | 0 | 0 | 0 | 0 | 3725 | 1534 | 343 | 3645 | 0 |
| Right Turn on Red |  |  | Yes |  |  | Yes |  |  | Yes |  |  | Yes |
| Satd. Flow (RTOR) |  | 26 | 224 |  |  |  |  |  | 357 |  |  |  |
| Link Speed (mph) |  | 30 |  |  | 30 |  |  | 30 |  |  | 30 |  |
| Link Distance ( ft ) |  | 806 |  |  | 725 |  |  | 893 |  |  | 427 |  |
| Travel Time (s) |  | 18.3 |  |  | 16.5 |  |  | 20.3 |  |  | 9.7 |  |
| Confl. Peds. (\#/hr) | 3 |  | 21 |  |  |  |  |  | 82 | 82 |  |  |
| Confl Bikes (\#/hr) |  |  |  |  |  |  |  |  | 7 |  |  |  |
| 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 |
| Heavy Vehicles (\%) | 0\% | 1\% | 3\% | 0\% | 0\% | 0\% | 0\% | 2\% | 2\% | 1\% | 3\% | 0\% |
| Bus Blockages (\#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 0 |
| Adj. Flow (vph) | 469 | 180 | 325 | 0 | 0 | 0 | 0 | 964 | 459 | 247 | 613 | 0 |
| Shared Lane Traffic (\%) | 46\% |  | 31\% |  |  |  |  |  |  |  |  |  |
| Lane Group Flow (vph) | 253 | 497 | 224 | 0 | 0 | 0 | 0 | 964 | 459 | 247 | 613 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(f) |  | 10 |  |  | 10 |  |  | 14 |  |  | 15 |  |
| Link Offset(t) |  | 0 |  |  | 0 |  |  | 0 |  |  | 0 |  |
| Crosswalk Width(f) |  | 16 |  |  | 16 |  |  | 16 |  |  | 16 |  |
| Two way Left Tum Lane |  |  |  |  |  |  |  |  |  |  |  |  |
| Headway Factor | 1.09 | 1.09 | 1.09 | 1.00 | 1.00 | 1.00 | 1.00 | 0.94 | 0.96 | 1.14 | 0.95 | 1.04 |
| Turning Speed (mph) | 15 |  | 9 | 15 |  | 9 | 15 |  | 9 | 15 |  | 9 |
| Turn Type | Perm | NA | Perm |  |  |  |  | NA | Perm | pm+pt | NA |  |
| Protected Phases |  | 8 |  |  |  |  |  | 6 |  | 5 | 2 |  |
| Permitted Phases | 8 |  | 8 |  |  |  |  |  | 6 | 2 |  |  |
| Minimum Split (s) | 35.0 | 35.0 | 35.0 |  |  |  |  | 56.0 | 56.0 | 14.0 | 70.0 |  |
| Total Split (s) | 35.0 | 35.0 | 35.0 |  |  |  |  | 56.0 | 56.0 | 14.0 | 70.0 |  |
| Total Split (\%) | 33.3\% | 33.3\% | 33.3\% |  |  |  |  | 53.3\% | 53.3\% | 13.3\% | 66.7\% |  |
| Yellow Time ( s ) | 3.0 | 3.0 | 3.0 |  |  |  |  | 3.0 | 3.0 | 3.0 | 3.0 |  |
| All-Red Time (s) | 2.0 | 2.0 | 2.0 |  |  |  |  | 0.0 | 0.0 | 2.0 | 2.0 |  |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 |  |  |  |  | 0.0 | 0.0 | 0.0 | 0.0 |  |
| Total Lost Time (s) | 5.0 | 5.0 | 5.0 |  |  |  |  | 3.0 | 3.0 | 5.0 | 5.0 |  |
| Lead/Lag |  |  |  |  |  |  |  | Lead | Lead | Lag |  |  |
| Lead-Lag Optimize? |  |  |  |  |  |  |  | Yes | Yes | Yes |  |  |
| Act Effct Green (s) | 30.0 | 30.0 | 30.0 |  |  |  |  | 53.0 | 53.0 | 65.0 | 65.0 |  |


|  |  |  |  |  |  |  |  | 4 |  |  |  | $\downarrow$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Actuated g/C Ratio | 0.29 | 0.29 | 0.29 |  |  |  |  | 0.50 | 0.50 | 0.62 | 0.62 |  |
| V/c Ratio | 0.58 | 0.60 | 0.43 |  |  |  |  | 0.51 | 0.48 | 0.77 | 0.27 |  |
| Control Delay | 38.4 | 34.1 | 6.6 |  |  |  |  | 18.6 | 5.6 | 34.3 | 3.5 |  |
| Queue Delay | 0.0 | 0.0 | 0.0 |  |  |  |  | 0.0 | 0.0 | 0.0 | 0.0 |  |
| Total Delay | 38.4 | 34.1 | 6.6 |  |  |  |  | 18.6 | 5.6 | 34.3 | 3.5 |  |
| LOS | D | C | A |  |  |  |  | B | A | C | A |  |
| Approach Delay |  | 28.9 |  |  |  |  |  | 14.4 |  |  | 12.4 |  |
| Approach LOS |  | C |  |  |  |  |  | B |  |  | B |  |
| 'Queue Length 50th (ft) | 159 | 158 | 0 |  |  |  |  | 218 | 35 | 71 | 43 |  |
| Queue Length 95th (tt) | 252 | 220 | 62 |  |  |  |  | 275 | 103 | m\#167 | m54 |  |
| Internal Link Dist (ti) |  | 726 |  |  | 645 |  |  | 813 |  |  | 347 |  |
| Turn Bay Length (ft) |  |  |  |  |  |  |  |  |  | 115 |  |  |
| Base Capacity (vph) | 436 | 831 | 527 |  |  |  |  | 1880 | 951 | 320 | 2256 |  |
| Starvation Cap Reductn | 0 | 0 | 0 |  |  |  |  | 0 | 0 | 0 | 0 |  |
| Spillback Cap Reductn | 0 | 0 | 0 |  |  |  |  | 0 | 0 | 0 | 0 |  |
| Storage Cap Reductn | 0 | 0 | 0 |  |  |  |  | 0 | 0 | 0 | 0 |  |
| Reduced v/c Ratio | 0.58 | 0.60 | 0.43 |  |  |  |  | 0.51 | 0.48 | 0.77 | 0.27 |  |
| Intersection Summary |  |  |  |  |  |  |  |  |  |  |  |  |
| Area Type: Other |  |  |  |  |  |  |  |  |  |  |  |  |
| Cycle Length: 105 |  |  |  |  |  |  |  |  |  |  |  |  |
| AActuated Cycle Length: 105 |  |  |  |  |  |  |  |  |  |  |  |  |
| Offset: 47 (45\%), Referenced to phase 2:SBTL and 6:NBT, Start of Green |  |  |  |  |  |  |  |  |  |  |  |  |
| Natural Cycle: 105 |  |  |  |  |  |  |  |  |  |  |  |  |
| Control Type: Pretimed |  |  |  |  |  |  |  |  |  |  |  |  |
| Maximum vic Ratio: 0.77 |  |  |  |  |  |  |  |  |  |  |  |  |
| Intersection Signal Delay: 18.2 |  |  |  |  | Intersection LOS: B |  |  |  |  |  |  |  |
| Intersection Capacity Utilization $99.3 \%$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Analysis Period (min) 15 |  |  |  |  |  |  |  |  |  |  |  |  |
| \# 95th percentile volume exceeds capacity, queue may be longer. |  |  |  |  |  |  |  |  |  |  |  |  |
| Queue shown is maximum atter two cycles. |  |  |  |  |  |  |  |  |  |  |  |  |
| m Volume for 95th percentile queue is metered by upstream signal. |  |  |  |  |  |  |  |  |  |  |  |  |

Splits and Phases: 14: Damen Ave \& Congress Pwky


|  | $\rightarrow$ |  |  |  |  | $p$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Group | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations _- ¢ $\downarrow$ |  |  |  |  |  |  |
| Traffic Volume (vph) | 485 | 50 | 0 | 0 | 0 | 40 |
| Future Volume (vph) | 485 | 50 | 0 | 0 | 0 | 40 |
| Ideal FIow (vphipl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (t) | 11 | 12 | 12 | 12 | 12 | 12 |
| Lane Util. Factor 0.95 0.95 1.00 1.00 1.00 1.00 <br> Ped Bike Factor       |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| Fit - $0.98 \overline{6}$--- 0.865 |  |  |  |  |  |  |
| Flt Protected |  |  |  |  |  |  |
| Satd. Flow (prot) | 3410 | 0 | 0 | 0 | 0 | 1644 |
| Fit Permitted |  |  |  |  |  |  |
| Satd. Flow (perm) | 3410 | 0 | 0 | 0 | 0 | 1644 |
| Link Speed (mph) | 30 |  |  | 30 | 20 |  |
| Link Distance (t) | 155 |  |  | 186 | 164 |  |
| Travel Time (s) | 3.5 |  |  | 4.2 | 5.6 |  |
| Confl. Peds. (\#/hr) 21 |  |  |  |  |  |  |
| Peak Hour Factor | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 |
| Heavy Vehicles (\%) | 1\% | 0\% | 0\% | 0\% | 0\% | 0\% |
| Adj. Flow (vph) | 591. | 61 | 0 | 0 | 0 | 49 |
| Shared Lane Traftic (\%) |  |  |  |  |  |  |
| Lane Group Fiow (vph) | 652 | 0 | 0 | 0 | 0 | 49 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Left | Left | Right |
| Median Width $(\mathrm{t})$ | 0 |  |  | 0 | 0 |  |
| Link Offset(t) | 0 |  |  | 0 | 0 |  |
| Two way Left Tum Lane |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| Headway Factor | 1.04 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) |  | 9 | 15 |  | 15 | 9 |
| Sign Control | Free |  |  | Free | Stop |  |
| Intersection Summary |  |  |  |  |  |  |
| Area Type: Other |  |  |  |  |  |  |
| Control Type: Unsignalized |  |  |  |  |  |  |
| Intersection Capacity Utiliz | 25.2\% |  |  |  | Level | Servic |
| Analysis Period (min) 15 |  |  |  |  |  |  |





| Major/Minor | Major 1 |  | Minor 1 |  |
| :---: | :---: | :---: | :---: | :---: |
| Conflicting Flow All | 0 | 0 | - | 341 |
| Stage 1 | - | - | - | - |
| Stage 2 | - | - | - | - |
| Critical Hdwy | - | - | - | 6.9 |
| Critical Hdwy Stg 1 | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - |
| Follow-up Hdwy | - | - | - | 3.3 |
| Pot Cap-1 Maneuver | - | - | 0 | 661 |
| Stage 1 | - | - | 0 | - |
| Stage 2 |  | - | 0 | - |

## Platoon blocked, \%

Mov Cap-1 Maneuver _- 648
Mov Cap-2 Maneuver ___

Stage 1
Stage 2

| Approach. | EB | NB |
| :---: | :---: | :---: |
| HCM Control Delay, S | 0 | 11.2 |

HCMLOS

| Minor Lane/Major Mvmt | NBLn1: EBT EBR |  |
| :--- | :---: | :---: |
| Capacity (veh/h) | 648 | - |
| HCM Lane V/C Ratio | 0.104 | - |
| HCM Control Delay (s) | 11.2 | - |
| HCM Lane LOS | - |  |
| HCM 95th \%tile Q(veh) | 0.3 | - |


|  | $\checkmark$ |  | 4 | $p$ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
| Lane Configurations | K |  | 中 |  |  | 44 |
| Traffic Volume (vph) | 25 | 15 | 1190 | 90 | 0 | 815 |
| Future Volume (vph) | 25 | 15 | 1190 | 90 | 0 | 815 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 900 |
| Lane Util. Factor | 1.00 | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 |
| Ped Bike Factor |  |  |  |  |  |  |
| Fit | 0.950 |  | 0.989 |  |  |  |
| Fil Protected - | 0.970 |  |  |  |  |  |
| Satd. Flow (prot) | 1751 | 0 | 3505 | 0 | 0 | 3505 |
| Fll Permitted | 0.970 |  |  |  |  |  |
| Satd. Flow (perm) | 1751 | 0 | 3505 | 0 | 0 | 3505 |
| Link Speed (mph) | 20 |  | 30 |  |  | 30 |
| Link Distance (ft) | 236 |  | 230 |  |  | 229 |
| Travel Time (s) | 8.0 |  | 5.2 |  |  | 5.2 |
| Confl. Peds. (\#hr) |  |  |  | 74 |  |  |
| Confl. Bikes (\#/hr) |  |  |  | 6 |  |  |
| Peak Hour Factor | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 |
| Heavy Vehicles (\%) | 0\% | 0\% | 2\% | 0\% | 0\% | 3\% |
| Adj. Flow (vph) | 27 | 16 | 1266 | 96 | 0 | 867 |
| Shared Lane Traffic (\%) |  |  |  |  |  |  |
| Lane Group Flow (vph) | 43 | 0 | 1362 | 0 | 0 | 867 |
| Enter Blocked Intersection | No | No | № | No | No | No |
| Lane Alignment | Left | Right | Left | Right | Left | Left |
| Median Width(t) | 12 |  | 0 |  |  | 10 |
| Link Offset(t) | 0 |  | 0 |  |  | 0 |
| Crosswalk Width(t) | 16 |  | 16 |  |  | 16 |
| Two way Left Tum Lane |  |  |  |  |  |  |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | 9 |  | 9 | 15 |  |
| Sign Control | Stop |  | Free |  |  | Free |
| Intersection Summary |  |  |  |  |  |  |
| Area Type: |  |  |  |  |  |  |
| Control Type: Unsignalized |  |  |  |  |  |  |
| Intersection Capacity Utilization 46.1\% |  | ICU Level of Service |  |  |  |  |
|  |  |  |  |  |  |  |





HCM 6th TWSC
19: Van Buren St \& Driveway 5


|  |  |  |  |  |  |  |  | $\uparrow$ |  |  |  | $\checkmark$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  |  |  | 4 1 |  |  | $\uparrow$ |  |  | 1 |  |
| Traffic Volume (vph) | 0 | 0 | 0 | 5 | 75 | 10 | 35 | 55 | 0 | 0 | 60 | 30 |
| Future Volume (vph) | 0 | 0 | 0 | 5 | 75 | 10 | 35 | 55 | 0 | 0 | 60 | 30 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 0.95 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor |  |  |  |  |  |  |  |  |  |  |  |  |
| Fit |  |  |  |  | 0.984 |  |  |  |  |  | 0.955 |  |
| Fil Protected |  |  |  |  | 0.997 |  |  | 0.981 |  |  |  |  |
| Satd. Flow (prot) | 0 | 0 | 0 | 0 | 3423 | 0 | 0 | 1842 | 0 | 0 | 1814 |  |
| Flt Permitted |  |  |  |  | 0.997 |  |  | 0.981 |  |  |  |  |
| Satd Flow (perm) | 0 | 0 | 0 | 0 | 3423 | 0 | 0 | 1842 | 0 | 0 | 1814 |  |
| Link Speed (mph) |  | 30 |  |  | 30 |  |  | 30 |  |  | 30 |  |
| Link Distance (tt) |  | 715 |  |  | 438 |  |  | 207 |  |  | 467 |  |
| Travel Time (s) |  | 16.3 |  |  | 10.0 |  |  | 4.7 |  |  | 10.6 |  |
| Confl. Peds. (\#\#hr) |  |  |  | 2 |  | 6 | 16 |  |  |  |  | 16 |
| Peak Hour Factor | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 |
| Heary Vehicles (\%) | 0\% | 0\% | 0\% | 0\% | 3\% | 9\% | 3\% | 0\% | 0\% | 0\% | 0\% | 0\% |
| ${ }^{\text {Addj }}$ Flow (vph) | 0 | 0 | 0 | 6 | 85 | 11 | 40 | 63 | 0 | 0 | 68 | 34 |
| Shared Lane Traffic (\%) |  |  |  |  |  |  |  |  |  |  |  |  |
| Lane Group Flow (vph) | 0 | 0 | 0 | 0 | 102 | 0 | 0 | 103 | 0 | 0 | 102 |  |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width (t) |  | 0 |  |  | 0 |  |  | 0 |  |  | 0 |  |
| Link Offset(t) |  | 0 |  |  | 0 |  |  | 0 |  |  | 0 |  |
| Crosswalk Width(t) |  | 16 |  |  | 16 |  |  | 16 |  |  | 16 |  |
| Two way Left Tum 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 |  |  |
| Sign Control |  | Stop |  |  | Stop |  |  | Stop |  |  | Stop |  |
| Intersection Summary |  |  |  |  |  |  |  |  |  |  |  |  |
| $\begin{aligned} & \text { Area Type: } \\ & \text { Control Type: Unsignalized } \end{aligned}$ |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intersection Capacity Utilization 23.3\% - ICU Level of Service A |  |  |  |  |  |  |  |  |  |  |  |  |
| Intersection Capacity Uilization 23.3\% Analy $^{\text {a }}$ ( Period (min) 15 |  |  |  |  |  |  |  |  |  |  |  |  |

Intersection
Intersection Delay, s/veh
Intersection LOS


| Approach | WB | NB | SB |
| :---: | :---: | :---: | :---: |
| Opposing Approach |  | SB | NB |
| Opposing Lanes | 0 | 1 | 1 |
| Conflicting Approach Left | NB |  | WB |
| Conflicting Lanes Left | 1 | 0 | 2 |
| Conflicting Approach Right | SB | WB |  |
| Conflicting Lanes Right | 1 | 2 | 0 |
| HCM Control Delay | 8 | 8 | 7.6 |
| HCMLOS | A | A | A |


| Lane | NBLn1 | WBLn1 | WBLn2 | SBLn1 |
| :---: | :---: | :---: | :---: | :---: |
| Vol Left, \% | 39\% | 12\% | 0\% | 0\% |
| Vol Thru, \% | 61\% | 88\% | 79\% | 67\% |
| Vol Right, \% | 0\% | 0\% | 21\% | 33\% |
| Sign Control | Stop | Stop | Stop | Stop |
| Traffic Vol by Lane | 90 | 43 | 48 | 90 |
| LTVOL | 35 | 5 | 0 | 0 |
| Through Vol | 55 | 38 | 38 | 60 |
| RT Vol | 0 | 0 | 10 | 30 |
| Lane Flow Rate | 102 | 48 | 54 | 102 |
| Geometry Grp | 2 | 7 | 7 | 2 |
| Degree of Util ( $X$ ) | 0.125 | 0.067 | 0.073 | 0.116 |
| Departure Headway (Hd) | 4.387 | 5.022 | 4.866 | 4.066 |
| Convergence, Y/N | Yes | Yes | Yes | Yes |
| Cap | 820 | 718 | 741 | 886 |
| Service Time | 2.396 | 2.722 | 2.566 | 2.074 |
| HCM Lane VIC Ratio | 0.124 | 0.067 | 0.073 | 0.115 |
| HCM Control Delay | 8 | 8.1 | 7.9 | 7.6 |
| HCM Lane LOS | A | A | A | A |
| HCM 95th-tile Q | 0.4 | 0.2 | 0.2 | 0.4 |


| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL. | SBT | SBR |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Configurations | 1 | F |  |  |  |  | 7 | 46 |  | 1 | 中 |  |
| Traffic Volume (vph) | 10 | 100 | 60 | 0 | 0 | 0 | 30 | 630 | 240 | 95 | 490 | 20 |
| Future Volume (vph) | 10 | 100 | 60 | 0 | 0 | 0 | 30 | 630 | 240 | 95 | 490 | 20 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width ( t ) | 10 | 10 | 12 | 12 | 12 | 12 | 10 | 10 | 10 | 10 | 10 | 10 |
| Storage Length (ft) | 50 |  | 95 | 0 |  | 0 | 45 |  | 0 | 120 |  | 0 |
| Storage Lanes | 1 |  | 0 | 0 |  | 0 | 1 |  | 0 | 1 |  | 0 |
| Taper Length ( t ) | 75 |  |  | 25 |  |  | 70 |  |  | 160 |  |  |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 |
| Ped Bike Factor | 1.00 | 0.99 |  |  |  |  | 0.99 | 0.99 |  | 1.00 | 1.00 |  |
| Frt |  | 0.944 |  |  |  |  |  | 0.959 |  |  | 0.994 |  |
| Flt Protected | 0.950 |  |  |  |  |  | 0.950 |  |  | 0.950 |  |  |
| Satd. Flow (prot) | 1685 | 1626 | 0 | 0 | 0 | 0 | 1440 | 3155 | 0 | 1685 | 3282 | 0 |
| Fit Permitted | 0.950 |  |  |  |  |  | 0.407 |  |  | 0.209 |  |  |
| Satd. Flow (perm) | 1676 | 1626 | 0 | 0 | 0 | 0 | 614 | 3155 | 0 | 370 | 3282 | 0 |
| Right Tum on Red |  |  | Yes |  |  | Yes |  |  | Yes |  |  | Yes |
| Satd. Flow (RTOR) |  | 59 |  |  |  |  |  | 110 |  |  | 8 |  |
| Link Speed (mph) |  | 20 |  |  | 30 |  |  | 30 |  |  | 30 |  |
| Link Distance ( ft ) |  | 535 |  |  | 155 |  |  | 229 |  |  | 901 |  |
| Travel Time (s) |  | 18.2 |  |  | 3.5 |  |  | 5.2 |  |  | 20.5 |  |
| Confl. Peds. (\#/hr) | 7 |  | 6 |  |  |  | 10 |  | 14 | 14 |  | 10 |
| Confl. Bikes (\#/hr) |  |  |  |  |  |  |  |  | 1 |  |  |  |
| Peak Hour Factor | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 |
| Heavy Vehicles (\%) | 0\% | 0\% | 3\% | 0\% | 0\% | 0\% | 17\% | 1\% | 1\% | 0\% | 2\% | 0\% |
| Bus Blockages (\#/hr) | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 |
| Adj. Flow (vph) | 11 | 106 | 64 | 0 | 0 | 0 | 32 | 670 | 255 | 101 | 521 | 21 |
| Shared Lane Traffic (\%) |  |  |  |  |  |  |  |  |  |  |  |  |
| Lane Group Flow (vph) | 11 | 170 | 0 | 0 | 0 | 0 | 32 | 925 | 0 | 101 | 542 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(f) |  | 10 |  |  | 10 |  |  | 10 |  |  | 10 |  |
| Link Offset(t) |  | 0 |  |  | 0 |  |  | 0 |  |  | 0 |  |
| Crosswalk Width(t) |  | 16 |  |  | 16 |  |  | 16 |  |  | 16 |  |
| Two way Left Turn Lane |  |  |  |  |  |  |  |  |  |  |  |  |
| Headway Factor | 1.09 | 1.11 | 1.00 | 1.00 | 1.00 | 1.00 | 1.09 | 1.10 | 1.09 | 1.09 | 1.09 | 1.09 |
| Turning Speed (mph) | 15 |  | 9 | 15 |  | 9 | 15 |  | 9 | 15 |  | 9 |
| Turn Type | Perm | NA |  |  |  |  | Perm | NA |  | Perm | NA |  |
| Protected Phases |  | 4 |  |  |  |  |  | 2 |  |  | 6 |  |
| Permitted Phases | 4 |  |  |  |  |  | 2 |  |  | 6 |  |  |
| Minimum Split (s) | 32.0 | 32.0 |  |  |  |  | 33.0 | 33.0 |  | 33.0 | 33.0 |  |
| Total Split (s) | 32.0 | 32.0 |  |  |  |  | 33.0 | 33.0 |  | 33.0 | 33.0 |  |
| Total Split (\%) | 49.2\% | 49.2\% |  |  |  |  | 50.8\% | 50.8\% |  | 50.8\% | 50.8\% |  |
| Yellow Time (s) | 3.0 | 3.0 |  |  |  |  | 3.0 | 3.0 |  | 3.0 | 3.0 |  |
| All-Red Time (s) | 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 |  |
| Total Lost Time (s) | 4.0 | 4.0 |  |  |  |  | 4.0 | 4.0 |  | 4.0 | 4.0 |  |
| Lead/Lag |  |  |  |  |  |  |  |  |  |  |  |  |
| Lead-Lag Optimize? |  |  |  |  |  |  |  |  |  |  |  |  |
| Act Effct Green (s) | 28.0 | 28.0 |  |  |  |  | 29.0 | 29.0 |  | 29.0 | 29.0 |  |



Splits and Phases: 3: Damen Ave \& Jackson Blvd






| Intersection |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Int Delay, s/veh | 0.3 |  |  |  |  |  |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | 中 |  |  |  |  | $\stackrel{7}{ }$ |
| Traffic Vol, veh/h | 405 | 25 | 0 | 0 | 0 | 15 |
| Future Vol, veh/h | 405 | 25 | 0 | 0 | 0 | 15 |
| Conflicting Peds, \#/hr | 0 | 38 | 0 | 0 | 0 | 0 |
| Sign Control Fr | ree | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None |  | None |
| Storage Length |  | - | . | - | - | 0 |
| Veh in Median Storage, \# |  | - | - | 0 | 0 | - |
| Grade \% | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 89 | 89 | 89 | 89 | 89 | 89 |
| Heavy Vehicles, \% | 1 | 0 | 0 | 0 | 0 | 0 |
| Mumt Flow | 455 | 28 | 0 | 0 | 0 | 17 |


| Major/Minor | Major 1 |  | Minor1 |  |
| :---: | :---: | :---: | :---: | :---: |
| Conflicting Flow All | 0 | 0 | - | 280 |
| Stage 1 | - | - | - | - |
| Stage 2 | - | - | - | - |
| Critical Hdwy | - | - | - | 6.9 |
| Critical Hdwy Stg 1 | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - |
| Follow-up Hdwy | - | - | - | 3.3 |
| Pot Cap-1 Maneuver | - | - | 0 | 723 |
| Stage 1 | - | - | 0 | - |
| Stage 2 | - | - | 0 | - |
| Platoon blocked, \% | - |  |  |  |
| Mov Cap-1 Maneuver | --- | - | - | 697 |
| Mov Cap-2 Maneuver | - | - | - | - |
| Stage 1 | -- | - | - | - |
| Stage 2 | - | - | - | - |



|  |  |  |  |  |  |  |  | $\dagger$ | 7 |  | $\downarrow$ | $\checkmark$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  | 41 |  |  |  |  |  | t |  |  | $\uparrow$ |  |
| Traffic Volume (vph) | 75 | 290 | 55 | 0 | 0 | 0 | 0 | 35 | 1 | 35 | 70 |  |
| Future Volume (vph) | 75 | 290 | 55 | 0 | 0 | 0 | 0 | 35 | 1 | 35 | 70 | 0 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ti) | 12 | 11 | 11 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| Lane Utili. Factor | 0.95 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor |  |  |  |  |  |  |  |  |  |  |  |  |
| Ft |  | 0.980 |  |  |  |  |  | 0.997 |  |  |  |  |
| Fit Protected |  | 0.991 |  |  |  |  |  |  |  |  | 0.984 |  |
| Satd. Flow (prot) | 0 | 3377 | 0 | 0 | 0 | 0 | 0 | 1894 | 0 | 0 | 1870 |  |
| Flt Permitted |  | 0.991 |  |  |  |  |  |  |  |  | 0.984 |  |
| Satd. Flow (perm) | 0 | 3377 | 0 | 0 | 0 | 0 | 0 | 1894 | 0 | 0 | 1870 |  |
| Link Speed (mph) |  | 30 |  |  | 30 |  |  | 30 |  |  | 30 |  |
| Link Distance (t) |  | 134 |  |  | 263 |  |  | 292 |  |  | 245 |  |
| Travel Time (s) |  | 3.0 |  |  | 6.0 |  |  | 6.6 |  |  | 5.6 |  |
| Confil Peds. (\#hr) | 8 |  | 20 |  |  |  |  |  | 24 | 24 |  |  |
| 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 |
| Heay Vehicles (\%) | 2\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% |
| Adj. Flow (vph) | 82 | 315 | 60 | 0 | 0 | 0 | 0 | 38 | 1 | 38 | 76 |  |
| Shared Lane Traffic (\%) |  |  |  |  |  |  |  |  |  |  |  |  |
| Lane Group Flow (vph) | 0 | 457 | 0 | 0 | 0 | 0 | 0 | 39 | 0 | 0 | 114 |  |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(t) |  | 15 |  |  | 15 |  |  | 0 |  |  | O |  |
| Link Offset(t) |  | 0 |  |  | 0 |  |  | 0 |  |  | 0 |  |
| Crosswalk Width(t) |  | 16 |  |  | 16 |  |  | 16 |  |  | 16 |  |
| Two way Left Turn Lane |  |  |  |  |  |  |  |  |  |  |  |  |
| Headway Factor | 1.00 | 1.04 | 1.04 | 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 |  |  |
| Sign Control |  | Stop |  |  | Stop |  |  | Stop |  |  | Stop |  |
| Intersection Summary |  |  |  |  |  |  |  |  |  |  |  |  |
| 'Area Type: Other |  |  |  |  |  |  |  |  |  |  |  |  |
| Control Type: Unsignalized |  |  |  |  |  |  |  |  |  |  |  |  |
| Intersection Capacity Utilization 31.7\% -----CULevel of Service A |  |  |  |  |  |  |  |  |  |  |  |  |
| Analysis Period (min) 15 |  |  |  |  |  |  |  |  |  |  |  |  |


| Intersection : : |
| :--- |
| Intersection Delay, s/veh |
| Intersection LOS |


| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL゙ | SBT | SBR |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Configurations |  | * 1 |  |  |  |  |  | T |  |  | 4 |  |
| Traffic Vol, veh/h | 75 | 290 | 55 | 0 | 0 | 0 | 0 | 35 | 1 | 35 | 70 | 0 |
| Future Vol, veh/h | 75 | 290 | 55 | 0 | 0 | 0 | 0 | 35 | 1 | 35 | 70 | 0 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Heavy Vehicles, \% | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvit Flow | 82 | 315 | 60 | 0 | 0 | 0 | 0 | 38 | 1 | 38 | 76 | 0 |
| Number of Lanes | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 |
| Approach | EB |  |  |  |  |  |  | NB |  | SB |  |  |
| Opposing Approach |  |  |  |  |  |  |  | SB |  | NB |  |  |
| Opposing Lanes | 0 |  |  |  |  |  |  | 1 |  | 1 |  |  |
| Conflicting Approach Left | SB |  |  |  |  |  |  | EB |  |  |  |  |
| Conficting Lanes Left | 1 |  |  |  |  |  |  | 2 |  | 0 |  |  |
| Conflicting Approach Right | NB |  |  |  |  |  |  |  |  | EB |  |  |
| Conflicting Lanes Right | 1 |  |  |  |  |  |  | 0 |  | 2 |  |  |
| HCM Control Deiay | 9.9 |  |  |  |  |  |  | 8.4 |  | 9 |  |  |
| HCM LOS | A |  |  |  |  |  |  | A |  | A |  |  |


| Lane | NBLn1 | EBLn1 | EBLn2 | SBLn1 |
| :---: | :---: | :---: | :---: | :---: |
| Vol Left, \% | 0\% | 34\% | 0\% | 33\% |
| Vol Thru, \% | 97\% | 66\% | 72\% | 67\% |
| Vol Right, \% | 3\% | 0\% | 28\% | 0\% |
| Sign Control | Stop | Stop | Stop | Stop |
| Traffic Vol by Lane | 36 | 220 | 200 | 105 |
| LT Vol | 0 | 75 | 0 | 35 |
| Through Vol | 35 | 145 | 145 | 70 |
| RTVol | 1 | 0 | 55 | 0 |
| Lane Flow Rate | 39 | 239 | 217 | 114 |
| Geometry Grp | 2 | 7 | 7 | 2 |
| Degree of Util ( $X$ ) | 0.055 | 0.338 | 0.283 | 0.159 |
| Departure Headway (Hd) | 5.045 | 5.092 | 4.694 | 5.024 |
| Convergence, Y/N | Yes | Yes | Yes | Yes |
| Cap | 710 | 708 | 765 | 714 |
| Service Time | 3.077 | 2.819 | 2.421 | 3.049 |
| HCM Lane VIC Ratio | 0.055 | 0.338 | 0.284 | 0.16 |
| HCM Control Delay | 8.4 | 10.4 | 9.3 | 9 |
| HCM Lane LOS | A | B | A | A |
| HCM 95th-tile Q | 0.2 | 1.5 | 1.2 | 0.6 |


| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NEL | NET | NER | SWL | SWT | SWR |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Configurations | 1 | 性 |  |  |  |  |  | 1 |  | 7 | 个 |  |
| Traffic Volume (vph) | 200 | 115 | 10 | 0 | 0 | 0 | 0 | 395 | 30 | 5 | 675 | 0 |
| Future Volume (vph) | 200 | 115 | 10 | 0 | 0 | 0 | 0 | 395 | 30 | 5 | 675 | 0 |
| Ideal Flow (vphpi) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (fi) | 15 | 11 | 10 | 12 | 12 | 12 | 12 | 13 | 13 | 10 | 12 | 12 |
| Storage Length (t) | 80 |  | 0 | 0 |  | 0 | 0 |  | 0 | 120 |  | 0 |
| Storage Lanes | 1 |  | 0 | 0 |  | 0 | 0 |  | 0 | 1 |  | 0 |
| Taper Length (tt) | 75 |  |  | 25 |  |  | 25 |  |  | 135 |  |  |
| Lane Utill. Factor | 1.00 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 1.00 |
| Ped Bike Factor | 0.99 |  |  |  |  |  |  | 1.00 |  | 1.00 |  |  |
| Frt |  | 0.988 |  |  |  |  |  | 0.991 |  |  |  |  |
| Fll Protected | 0.950 |  |  |  |  |  |  |  |  | 0.950 |  |  |
| Satd. Flow (prot) | 1986 | 3448 | 0 | 0 | 0 | 0 | 0 | 1908 | 0 | 1685 | 3574 | 0 |
| Fil Permitted | 0.950 |  |  |  |  |  |  |  |  | 0.383 |  |  |
| Satd. Flow (perm) | 1962 | 3448 | 0 | 0 | 0 | 0 | 0 | 1908 | 0 | 678 | 3574 | 0 |
| Right Tum on Red |  |  | Yes |  |  | Yes |  |  | Yes |  |  | Yes |
| Satd. Flow (RTOR) |  | 8 |  |  |  |  |  | 6 |  |  |  |  |
| Link Speed (mph) |  | 30 |  |  | 30 |  |  | 30 |  |  | 30 |  |
| Link Distance (ft) |  | 263 |  |  | 1046 |  |  | 395 |  |  | 594 |  |
| Travel Time(s) |  | 6.0 |  |  | 23.8 |  |  | 9.0 |  |  | 13.5 |  |
| Confl. Peds. (\#/hr) | 6 |  |  |  |  |  |  |  | 5 | 5 |  |  |
| Confl. Bikes (\#/hr) |  |  |  |  |  |  |  |  | 2 |  |  |  |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Heay Vehicles (\%) | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 2\% | 0\% | 0\% | 1\% | 0\% |
| Adj. Flow (vph) | 222 | 128 | 11 | 0 | 0 | 0 | 0 | 439 | 33 | 6 | 750 | 0 |
| Shared Lane Traftic (\%) |  |  |  |  |  |  |  |  |  |  |  |  |
| Lane Group Flow (vph) | 222 | 139 | 0 | 0 | 0 | 0 | 0 | 472 | 0 | 6 | 750 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(t) |  | 15 |  |  | 15 |  |  | 10 |  |  | 12 |  |
| Link Offisel(t) |  | 0 |  |  | 0 |  |  | 0 |  |  | 0 |  |
| Crosswalk Width(t) |  | 16 |  |  | 16 |  |  | 16 |  |  | 16 |  |

Two way Left Tum Lane

| Headway Factor | 0.88 | 1.04 | 1.09 | 1.00 | 1.00 | 1.00 | 1.00 | 0.96 | 0.96 | 1.09 | 1.00 | 1.00 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Turning Speed (mph) | 15 |  | 9 | 15 |  | 9 | 15 |  | 9 | 15 |  | 9 |
| Turn Type | Perm | NA |  |  |  |  |  | NA |  | pm+pt | NA |  |
| Protected Phases |  | 4 |  |  |  |  |  | 2 |  | 1 | 6 |  |
| Permitted Phases | 4 |  |  |  |  |  |  |  |  | 6 |  |  |
| Minimum Split (s) | 32.0 | 32.0 |  |  |  |  |  | 65.0 |  | 8.0 | 73.0 |  |
| Total Split (s) | 32.0 | 32.0 |  |  |  |  |  | 65.0 |  | 8.0 | 73.0 |  |
| Total Split (\%) | 30.5\% | 30.5\% |  |  |  |  |  | 61.9\% |  | 7.6\% | 69.5\% |  |
| Yellow Time (s) | 3.0 | 3.0 |  |  |  |  |  | 3.0 |  | 3.0 | 3.0 |  |
| All-Red Time (s) | 2.0 | 2.0 |  |  |  |  |  | 2.0 |  | 0.0 | 2.0 |  |
| Lost Time Adjust (s) | 0.0 | 0.0 |  |  |  |  |  | 0.0 |  | 0.0 | 0.0 |  |
| Total Lost Time (s) | 5.0 | 5.0 |  |  |  |  |  | 5.0 |  | 3.0 | 5.0 |  |
| Lead/Lag |  |  |  |  |  |  |  | Lag |  | Lead |  |  |
| Lead-Lag Optimize? |  |  |  |  |  |  |  | Yes |  | Yes |  |  |
| Act Efft Green (s) | 27.0 | 27.0 |  |  |  |  |  | 60.0 |  | 70.0 | 68.0 |  |
| Actuated g/C Ratio | 0.26 | 0.26 |  |  |  |  |  | 0.57 |  | 0.67 | 0.65 |  |


|  | $\rightarrow$ |  | 7 |  |  | 1 |  | $\ngtr$ | $\rho$ | 4 | $\downarrow$ | $\star$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Group | EBL. | EBT | EBR | WBL | WBT | WBR. | NEL | NET | NER: | SWL. | SWT | SWR |
| V/cRatio | 0.44 | 0.16 |  |  |  |  |  | 0.43 |  | 0.01 | 0.32 |  |
| Control Delay | 36.0 | 29.0 |  |  |  |  |  | 9.6 |  | 6.0 | 8.7 |  |
| Queue Delay | 0.0 | 0.0 |  |  |  |  |  | 0.0 |  | 0.0 | 0.0 |  |
| Total Delay | 36.0 | 29.0 |  |  |  |  |  | 9.6 |  | 6.0 | 8.7 |  |
| LOS | D | C |  |  |  |  |  | A |  | A | A |  |
| Approach Delay |  | 33.3 |  |  |  |  |  | 9.6 |  |  | 8.7 |  |
| Approach LOS |  | C |  |  |  |  |  | A |  |  | A |  |
| Queue Length 50th (t) , | 125 | 35 |  |  |  |  |  | 85 |  | 1 | 107 |  |
| Queue Length 95th (ti) | 198 | 62 |  |  |  |  |  | 112 |  | 6 | 138 |  |
| Internal Link Dist (ti) |  | 183 |  |  | 966 |  |  | 315 |  |  | 514 |  |
| Turn Bay Length (t) | 80 |  |  |  |  |  |  |  |  | 120 |  |  |
| Base Capacity (vph) | 504 | 892 |  |  |  |  |  | 1092 |  | 499 | 2314 |  |
| Starvation Cap Reductn | 0 | 0 |  |  |  |  |  | 0 |  | 0 | 0 |  |
| Spillback Cap Reductn | 0 | 0 |  |  |  |  |  | 0 |  | 0 | 0 |  |
| Storage Cap Reductn | 0 | 0 |  |  |  |  |  | 0 |  | 0 | 0 |  |
| Reduced v/c Ratio | 0.44 | 0.16 |  |  |  |  |  | 0.43 |  | 0.01 | 0.32 |  |


| Intersection Summary |  |
| :---: | :---: |
| Area Type: Other |  |
| Cycle Length: 105 |  |
| Actuated Cycle Length: 105 |  |
| Offset: 44 (42\%), Referenced to phase | tof Green |
| Natural Cycle: 105 |  |
| Control Type: Pretimed |  |
| Maximum v/c Ratio: 0.44 |  |
| Intersection Signal Delay: 14.6 | Intersection LOS: B |
| Intersection Capacity Utilization 87.5\% | ICU Level of Service E |
| Analysis Period (min) 15 |  |

Splits and Phases: 8: Ogden Ave \& Jackson Blvd


| Lane Group | SBL | SBR | NEL | NET | SWT | SWR |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Configurations | M |  | 7 | 1 | 12 |  |
| Trafic Volume (vph) | 1 | 125 | 30 | 425 | 680 | 5 |
| Future Volume (vph) | 1 | 125 | 30 | 425 | 680 | 5 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ti) | 12 | 12 | 10 | 13 | 12 | 12 |
| Storage Length (tt) | 0 | 0 | 90 |  |  | 0 |
| Storage Lanes | 1 | 0 | 1 |  |  | 0 |
| Taper Length (tt) | 25 |  | 115 |  |  |  |
| Lane Utili. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 0.95 |



Intersection Summary
'Area Type: Other

Control Type: Unsignalized
Intersection Capacity Utilization $39.7 \%$ ICU Level of Service $A$
Analysis Period (min) 15

HCM 6th TWSC
9: Ogden Ave \& Wood St


|  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |



| 4 |  |  |  |  |  |  | 4 | $p$ |  |  | $\downarrow$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Group EBL | EBT | EBR. | WBL | WBT. | WBR | NBL | NBT | NBR: | SBL | SBT | SBR |
| v/c Ratio |  |  | 0.62 | 0.71 |  | 0.47 | 0.26 |  |  | 0.22 | 0.24 |
| Control Delay |  |  | 42.7 | 31.0 |  | 13.9 | 7.7 |  |  | 16.5 | 3.1 |
| Queue Delay |  |  | 0.0 | 0.0 |  | 0.0 | 0.2 |  |  | 0.0 | 0.0 |
| Total Delay |  |  | 42.7 | 31.0 |  | 13.9 | 7.9 |  |  | 16.5 | 3.1 |
| LOS |  |  | D | C |  | B | A |  |  | B | A' |
| Approach Delay |  |  |  | 33.4 |  |  | 9.7 |  |  | 12.1 |  |
| Approach LOS |  |  |  | C |  |  | A |  |  | B |  |
| Queue Length 50 th (t) |  |  | 146 | 159 |  | 72 | 88 |  |  | 79 | 0 |
| Queue Length 95th (ti) |  |  | 240 | 210 |  | 105 | 112 |  |  | 110 | 37 |
| Internal Link Dist (t) | 1180 |  |  | 164 |  |  | 347 |  |  | 150 |  |
| Turn Bay Length (t) |  |  |  |  |  | 50 |  |  |  |  | 150 |
| Base Capacity (vph) |  |  | 339 | 1162 |  | 586 | 2458 |  |  | 1773 | 802 |
| Starvation Cap Reductn |  |  | 0 | 0 |  | 0 | 964 |  |  | 0 | 0 |
| Spillback Cap Reductn |  |  | 0 | 0 |  | 0 | 0 |  |  | 0 | 0 |
| Storage Cap Reductn |  |  | 0 | 0 |  | 0 | 0 |  |  | 0 | 0 |
| Reduced v/c Ratio |  |  | 0.62 | 0.71 |  | 0.47 | 0.43 |  |  | 0.22 | 0.24 |
| Intersection Summary |  |  |  |  |  |  |  |  |  |  |  |
| Area Type: Other |  |  |  |  |  |  |  |  |  |  |  |
| Cycle Length: 105 |  |  |  |  |  |  |  |  |  |  |  |
| Actuated Cycle Length: 105 |  |  |  |  |  |  |  |  |  |  |  |
| Offset: 38 (36\%), Referenced to phase 2:SBT and 6:NBTL, Start of Green |  |  |  |  |  |  |  |  |  |  |  |
| Natural Cycle: 105 |  |  |  |  |  |  |  |  |  |  |  |
| Control Type: Pretimed |  |  |  |  |  |  |  |  |  |  |  |
| Maximum v/c Ratio: 0.71 |  |  |  |  |  |  |  |  |  |  |  |
| Intersection Signal Delay 19.9 --- Intersection LOS: B |  |  |  |  |  |  |  |  |  |  |  |
| Intersection Capacity Utilization 95.2\% - ICU Level of Service F |  |  |  |  |  |  |  |  |  |  |  |
| Analysis Period (min) 15 |  |  |  |  |  |  |  |  |  |  |  |

Splits and Phases: 10: Damen Ave \& Van Buren St

Lane Group
v/c Ratio
Control Delay
Queue Delay
Total Delay
LOS
Approach Delay
Approach LoS
Queue Length 50th ( ft
Queue Length 95 (h) $(\mathrm{ft})$
Internal Link Dist ( ft$)$
Turn Bay Length (ft)
Base Capacity (vph)
Starvation Cap Reductn
Spillback Cap Reductn
Storage Cap Reductn
Reduced v/c Ratio
Intersection Summary



| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Configurations |  |  | 个 |  |  | F |
| Traffic Volume (vph) | 0 | 0 | 480 | 10 | 0 | 35 |
| Future Volume (voh) | 0 | 0 | 480 | 10 | 0 | 35 |
| Ideal Flow (vphpi) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Widith (ti) | 12 | 12 | 16 | 13 | 12 | 11 |
| Lane Utill. Factor | 1.00 | 1.00 | 0.95 | 0.95 | 1.00 | 1.00 |
| Ped Bike Factor --- |  |  |  |  |  |  |
| Flt Protected |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| Satd. Flow (proi) | 0 | 0 | 4039 | 0 | 0 | 1589 |
| FIt Permitted |  |  |  |  |  |  |
| Satd. Flow (perm) | 0 | 0 | 4039 | 0 | 0 | 1589 |
| Link Speed (mph) |  | 30 | 30 |  | 20 |  |
| Link Distance (tt) |  | 635 | 209 |  | 211 |  |
| Travel Time (s) |  | 14.4 | 4.8 |  | 7.2 |  |
| Confl. Peds. (\#/hr) |  |  |  | 11 |  |  |
| Peak Hour Factor | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 |
| Heary Vehicles (\%) | 0\% | 0\% | 1\% | 0\% | 0\% | 0\% |
| Adj. Flow (vph) | 0 | 0 | 545 | 11 | 0 | 40 |
| Shared Lane Traffic (\%) |  |  |  |  |  |  |
| Lane Group Flow (vph) | 0 | 0 | 556 | 0 | 0 | 40 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Left | Right | Left | Right |
| Median Width(t) |  | 0 | 0 |  | 0 |  |
| Link Offset(t) |  | 0 | 0 |  | 0 |  |
| Crosswalk Width(t) |  | 16 | 16 |  | 16 |  |
| Two way Left Turn Lane |  |  |  |  |  |  |
| Headway Factor | 1.00 | 1.00 | 0.85 | 0.96 | 1.00 | 1.04 |
| Turning Speed (mph) | 15 |  |  | 9 | 15 | 9 |
| Sign Control |  | Free | Free |  | Stop |  |

Intersection Summary
Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 23.6\% ICU Level of Service A
Analysis Period (min) 15


|  |  |  |  |  |  |  |  |  | $\rightarrow$ |  | 4 | $\checkmark$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR. | NEL | NET | NER | SWL | SWT | SWR |
| Lane Configurations |  |  |  |  | 410 |  | 7 | 4 |  |  | 4 |  |
| Traffic Volume (vph) | 0 | 0 | 0 | 45 | 35 | 15 | 40 | 440 | 0 | 0 | 390 | 415 |
| Future Volume (vph) | 0 | 0 | 0 | 45 | 35 | 15 | 40 | 440 | 0 | 0 | 390 | 415 |
| Ideal Flow (vphpi) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (t) | 12 | 12 | 12 | 16 | 16 | 14 | 11 | 11 | 10 | 12 | 11 | 11 |
| Storage Length (t) | 0 |  | 0 | 0 |  | 0 | 130 |  | 0 | 0 |  | 0 |
| Storage Lanes | 0 |  | 0 | 0 |  | 0 | 1 |  | 0 |  |  |  |
| Taper Length (ti) | 25 |  |  | 25 |  |  | 135 |  |  | 25 |  |  |
| Lane Utili. Factor | 1.00 | 1.00 | 1.00 | 0.95 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor |  |  |  |  | 0.99 |  | 1.00 |  |  |  |  | 0.98 |
| Fr |  |  |  |  | 0.976 |  |  |  |  |  |  | 0.850 |
| Fli Protected |  |  |  |  | 0.977 |  | 0.950 |  |  |  |  |  |
| Satd. Flow (prot) | 0 | 0 | 0 | 0 | 3875 | 0 | 1745 | 1818 | 0 | 0 | 1818 | 1546 |
| Filt Permitted |  |  |  |  | 0.977 |  | 0.431 |  |  |  |  |  |
| Satd. Flow (perm) | 0 | 0 | 0 | 0 | 3875 | 0 | 790 | 1818 | 0 | 0 | 1818 | 1522 |
| Right Turn on Red |  |  | Yes |  |  | Yes |  |  | Yes |  |  | Yes |
| Satd. FIow (RTOR) |  |  |  |  | 16 |  |  |  |  |  |  | 437 |
| Link Speed (mph) |  | 30 |  |  | 30 |  |  | 30 |  |  | 30 |  |
| Link Distance (tt) |  | 209 |  |  | 1434 |  |  | 465 |  |  | 233 |  |
| Travel Time (s) |  | 4.8 |  |  | 32.6 |  |  | 10.6 |  |  | 5.3 |  |
| Confi. Peds. (\#/hr) |  |  |  |  |  | 11 | 6 |  |  |  |  | 6 |
| Confl. Bikes (\#hr) |  |  |  |  |  |  |  |  |  |  |  |  |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Heary Vehicles (\%) | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 1\% | 0\% | 0\% | 1\% | 1\% |
| Adj. Flow (vph) | 0 | 0 | 0 | 47 | 37 | 16 | 42 | 463 | 0 | 0 | 411 | 437 |
| Shared Lane Traffic (\%) |  |  |  |  |  |  |  |  |  |  |  |  |
| Lane Group Flow (vph) | 0 | 0 | 0 | 0 | 100 | 0 | 42 | 463 | 0 | 0 | 411 | 437 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(t) |  | 0 |  |  | 0 |  |  | 11 |  |  | 10 |  |
| Link Offset(f) |  | 0 |  |  | 0 |  |  | 0 |  |  | 0 |  |
| Crosswalk Wioth(t) |  | 16 |  |  | 16 |  |  | 16 |  |  | 16 |  |
| Two way Left Turn Lane |  |  |  |  |  |  |  |  |  |  |  |  |
| Headway Factor | 1.00 | 1.00 | 1.00 | 0.85 | 0.85 | 0.92 | 1.04 | 1.04 | 1.09 | 1.00 | 1.04 | 1.04 |
| Turning Speed (mph) | 15 |  | 9 | 15 |  | 9 | 15 |  | 9 | 15 |  | 9 |
| Turn Type |  |  |  | Perm | NA |  | pm+pt | NA |  |  | NA | Perm |
| Protected Phases |  |  |  |  | 4 |  | 1 | 6 |  |  | 2 |  |
| Permitted Phases |  |  |  | 4 |  |  | 6 |  |  |  |  | 2 |
| Minimum Split (s) |  |  |  | 31.0 | 31.0 |  | 8.0 | 74.0 |  |  | 66.0 | 66.0 |
| Total Split (s) |  |  |  | 31.0 | 31.0 |  | 8.0 | 74.0 |  |  | 66.0 | 66.0 |
| Total Split (\%) |  |  |  | 29.5\% | 29.5\% |  | 7.6\% | 70.5\% |  |  | 62.9\% | 62.9\% |
| Yellow Time $(\mathrm{s}$ ) |  |  |  | 3.0 | 3.0 |  | 3.0 | 3.0 |  |  | 3.0 | 3.0 |
| All-Red Time (s) |  |  |  | 2.0 | 2.0 |  | 0.0 | 2.0 |  |  | 2.0 | 2.0 |
| Lost Time Adjust (s) |  |  |  |  | 0.0 |  | 0.0 | 0.0 |  |  | 0.0 | 0.0 |
| Total Lost Time (s) |  |  |  |  | 5.0 |  | 3.0 | 5.0 |  |  | 5.0 | 5.0 |
| Lead/Lag |  |  |  |  |  |  | Lead |  |  |  | Lag | Lag |
| Lead-Lag Optimize? |  |  |  |  |  |  | Yes |  |  |  | Yes | Yes |
| Act Effict Green (s) |  |  |  |  | 26.0 |  | 71.0 | 69.0 |  |  | 61.0 | 61.0 |
| Actuated g/C Ratio |  |  |  |  | 0.25 |  | 0.68 | 0.66 |  |  | 0.58 | 0.58 |


| Lane Group | EBL: . EBT | EBR | WBL | WBT | WBR | NEL | NET | NER | SWL | SWT. | SWR |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| V/c Ratio |  |  |  | 0.10 |  | 0.07 | 0.39 |  |  | 0.39 | 0.41 |
| Control Delay |  |  |  | 25.9 |  | 6.0 | 9.4 |  |  | 6.6 | 2.2 |
| Queue Delay |  |  |  | 0.0 |  | 0.0 | 0.0 |  |  | 0.0 | 0.0 |
| Total Delay |  |  |  | 25.9 |  | 6.0 | 9.4 |  |  | 6.6 | 2.2 |
| LOS |  |  |  | C |  | A | A |  |  | A | A |
| Approach Delay |  |  |  | 25.9 |  |  | 9.2 |  |  | 4.3 |  |
| Approach LOS |  |  |  | C |  |  | A |  |  | A |  |
| Queue Length 50th (ti) |  |  |  | 23 |  | 8 | 130 |  |  | 34 | 0 |
| Queue Length 95th (ft) |  |  |  | 44 |  | 19 | 188 |  |  | 46 | 0 |
| Internal Link Dist (ft) | 129 |  |  | 1354 |  |  | 385 |  |  | 153 |  |
| Turn Bay Length (t) |  |  |  |  |  | 130 |  |  |  |  |  |
| Base Capacity (vph) |  |  |  | 971 |  | 579 | 1194 |  |  | 1056 | 1067 |
| Starvation Cap Reductn |  |  |  | 0 |  | 0 | 0 |  |  | 0 | 0 |
| Spillback Cap Reductn |  |  |  | 0 |  | 0 | 0 |  |  | 0 | 0 |
| Storage Cap Reductn |  |  |  | 0 |  | 0 | 0 |  |  | 0 | 0 |
| Reduced v/c Ratio |  |  |  | 0.10 |  | 0.07 | 0.39 |  |  | 0.39 | 0.41 |

## Intersection.Summary

Area Type: Other
'Cycle Length: 105
Actuated Cycle Length: 105
'Offset: $52(50 \%)$, Referenced to phase 2:SWI and 6:NETL, Start of Green
Natural Cycle: 105
Control Type: Pretimed
Maximum vic Ratio: 0.41
Intersection Signal Delay: 7.5 Intersection LOS: A
Intersection Capacity Utilization $88.3 \%$ ICU Level of Service E
Analysis Period (min) 15
Splits and Phases: 13: Ogden Ave \& Van Buren St


| Lane Group. | EBL | EBT. | EBR. | WBL | WBT | WBR | .NBL | NBT | NBR | SBL | SBT | SBR |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Configurations | 7 | 41 | 7 |  |  |  |  | 4 | 7 | 7 | 4 |  |
| Traffic Volume (vph) | 340 | 80 | 195 | 0 | 0 | 0 | 0 | 550 | 195 | 260 | 350 |  |
| Future Volume (vph) | 340 | 80 | 195 | 0 | 0 | 0 | 0 | 550 | 195 | 260 | 350 | 0 |
| Ideal Flow (vphpi) | 1900 | 1900 | 1900 | 1900 | -1900 | 1900 | 1900 | 2000 | 1900 | 1900 | 2000 | 1900 |
| Lane Width (t) | 10 | 10 | 10 | 12 | 12 | 12 | 12 | 12 | 13 | 9 | 12 | 11 |
| Storage Length (t) | 0 |  | 0 | 0 |  | 0 | 0 |  | 0 | 115 |  | 0 |
| Storage Lanes | 1 |  | 1 | 0 |  | 0 | 0 |  | 1 | 1 |  | 0 |
| Taper Length (t) | 25 |  |  | 25 |  |  | 25 |  |  | 135 |  |  |
| Lane Utili. Factor | 0.91 | 0.86 | 0.91 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 |
| Ped Bike Factor | 1.00 | 1.00 | 0.99 |  |  |  |  |  | 0.98 | 1.00 |  |  |
| Fit |  | 0.973 | 0.850 |  |  |  |  |  | 0.850 |  |  |  |
| Fll Protected | 0.950 | 0.973 |  |  |  |  |  |  |  | 0.950 |  |  |
| Satd. Flow (prot) | 1533 | 2847 | 1345 | 0 | 0 | 0 | 0 | 3725 | 1636 | 1624 | 3638 | 0 |
| Fll Permitted | 0.950 | 0.973 |  |  |  |  |  |  |  | 0.365 |  |  |
| Satd. Flow (perm) | 1531 | 2846 | 1326 | 0 | 0 | 0 | 0 | 3725 | 1601 | 622 | 3638 | 0 |
| Right Tum on Red |  |  | Yes |  |  | Yes |  |  | Yes |  |  | Yes |
| Said. Flow (RTOR) |  | 22 | 151 |  |  |  |  |  | 212 |  |  |  |
| Link Speed (mph) |  | 30 |  |  | 30 |  |  | 30 |  |  | 30 |  |
| Link Distance (ft) |  | 806 |  |  | 725 |  |  | 893 |  |  | 427 |  |
| Travel Time (s) |  | 18.3 |  |  | 16.5 |  |  | 20.3 |  |  | 9.7 |  |



| Permitted Phases | 8 |  | 8 | $6 \quad 2$ |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Minimum Split (s) | 35.0 | 35.0 | 35.0 | 56.0 | 56.0 | 14.0 | 70.0 |
| Total Split (s) | 35.0 | 35.0 | 35.0 | 56.0 | 56.0 | 14.0 | 70.0 |
| Total Split (\%) | 33.3\% | 33.3\% | 33.3\% | 53.3\% | 53.3\% | 13.3\% | 66.7\% |
| Yellow Time (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Alil-Red Time ( s ) | 2.0 | 2.0 | 2.0 | 0.0 | 0.0 | 2.0 | 2.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| TTotal Lost Time(s) | 5.0 | 5.0 | 5.0 | 3.0 | 3.0 | 5.0 | 5.0 |
| Lead/Lag |  |  |  | Lead | Lead | Lag |  |
| Lead-Lag Optimize? |  |  |  | Yes | Yes | Yes |  |
| Act Efft Green (s) | 30.0 | 30.0 | 30.0 | 53.0 | 53.0 | 65.0 | 65.0 |


|  |  |  |  |  |  |  |  | $\dagger$ |  |  | $\downarrow$ | $\checkmark$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Group | EBL | EBT | EBR. | WBL | WBT | WBR | NBL. | NBT | NBR | SBL | SBT. | SBR |
| Actuated g/C Ratio | 0.29 | 0.29 | 0.29 |  |  |  |  | 0.50 | 0.50 | 0.62 | 0.62 |  |
| v/c Ratio | 0.42 | 0.40 | 0.31 |  |  |  |  | 0.32 | 0.23 | 0.60 | 0.17 |  |
| Control Delay | 34.1 | 29.9 | 6.6 |  |  |  |  | 15.9 | 2.6 | 23.4 | 6.9 |  |
| Queue Delay | 0.0 | 0.0 | 0.0 |  |  |  |  | 0.0 | 0.0 | 0.0 | 0.0 |  |
| Total Delay | 34.1 | 29.9 | 6.6 |  |  |  |  | 15.9 | 2.6 | 23.4 | 6.9 |  |
| LOS | C | C | A |  |  |  |  | B | A | C | A |  |
| Approach Delay |  | 25.8 |  |  |  |  |  | 12.4 |  |  | 14.0 |  |
| Approach LOS |  | C |  |  |  |  |  | B |  |  | B |  |
| Queue Length 50th (ft) | 110 | 97 | 0 |  |  |  |  | 120 | 0 | 86 | 52 |  |
| Queue Length 95th (ti) | 183 | 144 | 51 |  |  |  |  | 158 | 36 | m108 | 71 |  |
| Internal Link Dist (ft) |  | 726 |  |  | 645 |  |  | 813 |  |  | 347 |  |
| Turn Bay Length ( t ) |  |  |  |  |  |  |  |  |  | 115 |  |  |
| Base Capacity (vph) | 437 | 828 | 486 |  |  |  |  | 1880 | 913 | 470 | 2252 |  |
| Starvation Cap Reductn | 0 | 0 | 0 |  |  |  |  | 0 | 0 | 0 | 0 |  |
| Spillback Cap Reductn | 0 | 0 | 0 |  |  |  |  | 0 | 0 | 0 | 0 |  |
| Storage Cap Reductn | 0 | 0 | 0 |  |  |  |  | 0 | 0 | 0 | 0 |  |
| Reduced vic Ratio | 0.42 | 0.40 | 0.31 |  |  |  |  | 0.32 | 0.23 | 0.60 | 0.17 |  |
| Intersection Summary |  |  |  |  |  |  |  |  |  |  |  |  |
| Area Type: Other |  |  |  |  |  |  |  |  |  |  |  |  |
| Cycle Length: 105 |  |  |  |  |  |  |  |  |  |  |  |  |
| Actuated Cycle Length: 105 |  |  |  |  |  |  |  |  |  |  |  |  |
| Offset: $39(37 \%)$, Referenced to phase $2:$ SBTL and 6 :NBT, Start of Green |  |  |  |  |  |  |  |  |  |  |  |  |
| Natural Cycle: 105 |  |  |  |  |  |  |  |  |  |  |  |  |
| Control Type: Pretimed |  |  |  |  |  |  |  |  |  |  |  |  |
| Maximum v/c Ratio: 0.60 |  |  |  |  |  |  |  |  |  |  |  |  |
| Intersection Signal Delay: 17.1 |  |  |  |  |  |  |  |  |  |  |  |  |
| Intersection Capacity Utilization $95.2 \%$ ICU Level of Service $F$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Analysis Period (min) 15 |  |  |  |  |  |  |  |  |  |  |  |  |
| m- Volume for 95th percentie queue is metered by upstream signal. |  |  |  |  |  |  |  |  |  |  |  |  |

Splits and Phases: 14: Damen Ave \& Congress Pwky





| Intersection |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Int Delay, s/veh 1.6 |  |  |  |  |  |  |
| Movement $\quad$ EBT EBR WBL WBT NBL NBR |  |  |  |  |  |  |
| Lane Configurations $\uparrow$ it |  |  |  |  |  |  |
| Traffic Vol, veh/h | 350 | 80 | 0 | 0 | 0 | 75 |
| Future Vol, veh/h | 350 | 80 | 0 | 0 | 0 | 75 |
| Conficicting Peds, \#hr | 0 | 6 | 0 | 0 | 0 | 0 |
| Sign Control F | Free | Free | Free | Free | Stop | Stop |
| RT Channelized |  | None | - N | None | - | None |
| Storage Length |  | - | - | - | - | 0 |
| Veh in Median Storage, \# |  | - | 108175 | 7696 | 0 |  |
| Grade, \% | 0 |  | - | 0 | 0 |  |
| Peak Hour Factor | 86 | 86 | 86 | 86 | 86 | 86 |
| Heavy Vehicles, \% | 1 | 0 | 0 | 0 | 0 | 0 |
| Mumt Flow | 407 | 93 | 0 | 0 | 0 | 87 |









|  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  |  |  | * 1 |  |  | $\uparrow$ |  |  | 1 |  |
| Trafic Volume (vph) | 0 | 0 | 0 | 15 | 235 | 30 | 45 | 135 | 0 | 0 | 80 | 45 |
| Future Volume (yph) | 0 | 0 | 0 | 15 | 235 | 30 | 45 | 135 | 0 | 0 | 80 | 45 |
| Ideal Flow (vphyl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Utill. Factor | 1.00 | 1.00 | 1.00 | 0.95 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor |  |  |  |  |  |  |  |  |  |  |  |  |
| Frt |  |  |  |  | 0.984 |  |  |  |  |  | 0.952 |  |
| Fil Protected |  |  |  |  | 0.997 |  |  | 0.988 |  |  |  |  |
| Satd. Flow (prot) | 0 | 0 | 0 | 0 | 3454 | 0 | 0 | 1849 | 0 | 0 | 1756 | 0 |
| Fll Permitted |  |  |  |  | 0.997 |  |  | 0.988 |  |  |  |  |
| Satd. Flow (perm) | 0 | 0 | 0 | 0 | 3454 | 0 | 0 | 1849 | 0 | 0 | 1756 |  |
| Link Speed (mph) |  | 30 |  |  | 30 |  |  | 30 |  |  | 30 |  |
| Link Distance (ft) |  | 715 |  |  | 438 |  |  | 207 |  |  | 467 |  |
| Travel Time (s) |  | 16.3 |  |  | 10.0 |  |  | 4.7 |  |  | 10.6 |  |
| Confl. Peds. (\#/hr) |  |  |  | 1 |  | 2 | 9 |  |  |  |  | 9 |
| Confl. Bikes (\#hr) |  |  |  |  |  | 4 |  |  |  |  |  |  |
| 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 |
| Heav Vehicles (\%) | 0\% | 0\% | 0\% | 0\% | 3\% | 0\% | 0\% | 2\% | 0\% | 0\% | 3\% | 3\% |
| Adj. Flow (vph) | 0 | 0 | 0 | 16 | 253 | 32 | 48 | 145 | 0 | 0 | 86 | 48 |
| Shared Lane Traftic (\%) |  |  |  |  |  |  |  |  |  |  |  |  |
| Lane Group Flow (vph) | 0 | 0 | 0 | 0 | 301 | 0 | 0 | 193 | 0 | 0 | 134 |  |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(t) |  | 0 |  |  | 0 |  |  | 0 |  |  | 0 |  |
| Link Offfset(f) |  | 0 |  |  | 0 |  |  | 0 |  |  | 0 |  |
| Crosswalk Width(t) |  | 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 |  |  |
| Sign Control |  | Stop |  |  | Stop |  |  | Stop |  |  | Stop |  |
| Intersection Summary |  |  |  |  |  |  |  |  |  |  |  |  |
| Area Type: Other |  |  |  |  |  |  |  |  |  |  |  |  |
| Control Type: Unsignalized |  |  |  |  |  |  |  |  |  |  |  |  |
| Intersection Capacity Utilization 36.7\% |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |


| Intersection $\quad \because$ |  |
| :--- | :--- |
| Intersection Delay, s/veh | 9.4 |
| Intersection LOS | A |


| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Configurations |  |  |  |  | A 1 |  |  | $\uparrow$ |  |  | F |  |
| Traffic Vol, veh/h | 0 | 0 | 0 | 15 | 235 | 30 | 45 | 135 | 0 | 0 | 80 | 45 |
| Future Vol, veh/h | 0 | 0 | 0 | 15 | 235 | 30 | 45 | 135 | 0 | 0. | 80 | 45 |
| Peak Hour Factor | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 |
| Heavy Vehicles, \% | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 2 | 0 | 0 | 3 | 3 |
| Mumt Flow | 0 | 0 | 0 | 16 | 253 | 32 | 48 | 145 | 0 | 0 | 86 | 48 |
| Number of Lanes | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 1 | 0 | 0 | 1 | 0 |
| Approach |  |  |  | WB |  |  | NB |  |  |  | SB |  |
| Opposing Approach |  |  |  |  |  |  | SB |  |  |  | NB |  |
| Opposing Lanes |  |  |  | 0 |  |  | 1 |  |  |  | 1 |  |
| Conflicting Approach Left |  |  |  | NB |  |  |  |  |  |  | WB |  |
| Conflicting Lanes Left |  |  |  | 1 |  |  | 0 |  |  |  | 2 |  |
| Conflicting Approach Right |  |  |  | SB |  |  | WB |  |  |  |  |  |
| Conflicting Lanes Right |  |  |  | 1 |  |  | 2 |  |  |  | 0 |  |
| HCM Control Delay |  |  |  | 9.5 |  |  | 9.6 |  |  |  | 8.8 |  |
| HCMLOS |  |  |  | A |  |  | A |  |  |  | A |  |



|  | 4 |  |  |  |  |  |  | 1 | 7 |  | $\downarrow$ | $\checkmark$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Group | EBL | EBT | EBR. | WBL- | WBT | WBR. | NBL: | NBT. | NBR | SBL | SBT | SBR |
| Lane Configurations | 1 | F |  |  |  |  | 3 | 42 |  | 7 | 中 |  |
| Traffic Volume (vph) | 20 | 170 | 70 | 0 | 0 | 0 | 95 | 850 | 260 | 105 | 745 | 60 |
| Future Volume (vph) | 20 | 170 | 70 | 0 | 0 | 0 | 95 | 850 | 260 | 105 | 745 | 60 |
| (deal Flow (vphol) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (fi) | 10 | 10 | 12 | 12 | 12 | 12 | 10 | 10 | 10 | 10 | 10 | 10 |
| Storage Length (t) | 50 |  | 95 | 0 |  | 0 | 45 |  | 0 | 120 |  | 0 |
| Storage Lanes | 1 |  | 0 | 0 |  | 0 | 1 |  | 0 | 1 |  | 0 |
| Taper Length (tt) | 75 |  |  | 25 |  |  | 70 |  |  | 160 |  |  |
| Lane Utill. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 |
| Ped Bike Factor | 0.98 | 0.99 |  |  |  |  | 0.99 | 0.98 |  | 0.99 | 1.00 |  |
| Fit |  | 0.956 |  |  |  |  |  | 0.965 |  |  | 0.989 |  |
| Fil Protected | 0.950 |  |  |  |  |  | 0.950 |  |  | 0.950 |  |  |
| Satd, Flow (prot) | 1685 | 1594 | 0 | 0 | 0 | 0 | 1620 | 3124 | 0 | 1685 | 3228 | 0 |
| Fllt Permited | 0.950 |  |  |  |  |  | 0.336 |  |  | 0.133 |  |  |
| Satd Flow (perm) | 1649 | 1594 | 0 | 0 | 0 | 0 | 566 | 3124 | 0 | 234 | 3228 | 0 |
| Right Turn on Red |  |  | Yes |  |  | Yes |  |  | Yes |  |  | Yes |
| Satd. FIow (RTOR) |  | 35 |  |  |  |  |  | 76 |  |  | 20 |  |
| Link Speed (mph) |  | 20 |  |  | 30 |  |  | 30 |  |  | 30 |  |
| Link Distance (ft) |  | 535 |  |  | 155 |  |  | 229 |  |  | 901 |  |
| Travel Time (s) |  | 18.2 |  |  | 3.5 |  |  | 5.2 |  |  | 20.5 |  |



Shared Lane Traffic (\%)

| Lane Group Flow (vph) | 21 | 250 | 0 | 0 | 0 | 0 | 99 | 1156 | 0 | 109 | 839 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(t) |  | 10 |  |  | 10 |  |  | 10 |  |  | 10 |  |
| Link Offset(ft) |  | 0 |  |  | 0 |  |  | 0 |  |  | 0 |  |


| Crosswalk Width(t) | 16 |  |  | 16 |  | 16 |  |  | 16 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Two way Left Turn Lane |  |  |  |  |  |  |  |  |  |  |  |  |
| Headway Factor | 1.09 | 1.12 | 1.00 | 1.00 | 1.00 | 1.00 | 1.09 | 1.10 | 1.09 | 1.09 | 1.09 | 1.09 |
| Turning Speed (mph) | 15 |  | 9 | 15 |  | 9 | 15 |  | 9 | 15 |  |  |
| Turn Type | Perm | NA |  |  |  |  | Perm | NA |  | pm+pt | NA |  |
| Protected Phases |  | 4 |  |  |  |  |  | 2 |  | 1 | 6 |  |
| Permitted Phases | 4 |  |  |  |  |  | 2 |  |  | 6 |  |  |
| Minimum Split (s) | 26.0 | 26.0 |  |  |  |  | 31.0 | 31.0 |  | 8.0 | 39.0 |  |
| Total Split (s) | 26.0 | 26.0 |  |  |  |  | 31.0 | 31.0 |  | 8.0 | 39.0 |  |
| Total Split (\%) | 40.0\% | 40.0\% |  |  |  |  | 47.7\% | 47.7\% |  | 12.3\% | 60.0\% |  |
| Yellow Time (s) | 3.0 | 3.0 |  |  |  |  | 3.0 | 3.0 |  | 3.0 | 3.0 |  |
| All-Red Time (s) | 1.0 | 1.0 |  |  |  |  | 1.0 | 1.0 |  | 0.0 | 1.0 |  |
| Lost Time Adjust (s) | 0.0 | 0.0 |  |  |  |  | 0.0 | 0.0 |  | 0.0 | 0.0 |  |
| Total Lost Time (s) | 4.0 | 4.0 |  |  |  |  | 4.0 | 4.0 |  | 3.0 | 4.0 |  |
| Lead/Lag |  |  |  |  |  |  | Lag | Lag |  | Lead |  |  |
| Lead-Lag Optimize? |  |  |  |  |  |  | Yes | Yes |  | Yes |  |  |
| Act Efftt Green (s) | 22.0 | 22.0 |  |  |  |  | 27.0 | 27.0 |  | 36.0 | 35.0 |  |



Splits and Phases: 3: Damen Ave \& Jackson Blvd






Ped Bike Factor

Flt Protected

| Satd. Flow (prot) | 3367 | 0 | 0 | 0 | 0 | 1644 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Fit Permitted |  |  |  |  |  |  |
| Satd. Flow (perm) | 3367 | 0 | 0 | 0 | 0 | 1644 |
| Link Speed (mph) | 30 |  |  | 30 | 20 |  |
| Link Distance (ft) | 93 |  |  | 134 | 253 |  |
| Travel Time (s) | 2.1 |  |  | 3.0 | 8.6 |  |
| Confl. Peds. (\#/hr) |  | 34 |  |  |  |  |
| Peak Hour Factor | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 |
| Heawy Vehicles (\%) | 2\% | 0\% | 0\% | 0\% | 0\%. | 0\% |
| Adj. Flow (vph) | 477 | 64 | 0 | 0 | 0 | 12 |
| Shared Lane Traffic (\%) |  |  |  |  |  |  |
| Lane Group Flow (vph) | 541 | 0 | 0 | 0 | 0 | 12 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Left | Left | Right |
| Median Width $(t)$ | 0 |  |  | 0 | 0 |  |
| Link Offset(t) | 0 |  |  | 0 | 0 |  |
| Crosswalk Width | 16 |  |  | 16 | 16 |  |
| Two way Left Turn Lane |  |  |  |  |  |  |
| Headway Factor | 1.04 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) |  | 9 | 15 |  | 15 | 9 |
| Sign Control | Free |  |  | Free | Stop |  |

Intersection Summary:
Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 23.4\% ICU Level of Service A
Analysis Period (min) 15



| Intersection : |  |
| :--- | :--- |
| Intersection Delay, s/veh : 10.5 | B |
| Intersection LOS |  |


| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Configurations |  | + ${ }^{\text {t }}$ |  |  |  |  |  | $\dagger$ |  |  | 4 |  |
| Traffic Vol, veh/h | 60 | 305 | 55 | 0 | 0 | 0 | 0 | 85 | 5 | 70 | 120 | 0 |
| Future Vol, veh/h | 60 | 305 | 55 | 0 | 0 | 0 | 0 | 85 | 5 | 70 | 120 | 0 |
| Peak Hour Factor | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 |
| Heavy Vehicles, \% | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 4 | 1 | 0 |
| Mvmt Flow | 65 | 328 | 59 | 0 | 0 | 0 | 0 | 91 | 5 | 75 | 129 | 0 |
| Number of Lanes | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 |
| Approach | EB |  |  |  |  |  |  | NB |  | SB |  |  |
| Opposing Approach |  |  |  |  |  |  |  | SB |  | NB |  |  |
| Opposing Lanes | 0 |  |  |  |  |  |  | 1 |  | 1 |  |  |
| Conflicting Approach Left | SB |  |  |  |  |  |  | EB |  |  |  |  |
| Conflicting Lanes Left | 1 |  |  |  |  |  |  | 2 |  | 0 |  |  |
| Conflicting Approach Right | NB |  |  |  |  |  |  |  |  | EB |  |  |
| Conflicting Lanes Right | 1 |  |  |  |  |  |  | 0 |  | 2 |  |  |
| HCM Control Delay | 10.7 |  |  |  |  |  |  | 9.2 |  | 10.5 |  |  |
| HCMLOS | B |  |  |  |  |  |  | A |  | B |  |  |


| Lane | NBLn 1 | EBLn1 | EBLn2 | SBLT1 |
| :---: | :---: | :---: | :---: | :---: |
| Vol Left, \% | 0\% | 28\% | 0\% | 37\% |
| Vol Thru, \% | 94\% | 72\% | 73\% | 63\% |
| Vol Right, \% | 6\% | 0\% | 27\% | 0\% |
| Sign Control | Stop | Stop | Stop | Stop |
| Traffic Vol by Lane | 90 | 213 | 208 | 190 |
| LT Vol | 0 | 60 | 0 | 70 |
| Through Vol | 85 | 153 | 153 | 120 |
| RT Vol | 5 | 0 | 55 | 0 |
| Lane Flow Rate | 97 | 228 | 223 | 204 |
| Geometry Grp | 2 | 7 | 7 | 2 |
| Degree of Util (X) | 0.142 | 0.343 | 0.317 | 0.296 |
| Departure Headway (Hd) | 5.295 | 5.411 | 5.116 | 5.214 |
| Convergence, Y/N | Yes | Yes | Yes | Yes |
| Cap | 673 | 660 | 698 | 686 |
| Service Time | 3.364 | 3.173 | 2.878 | 3.27 |
| HCM Lane V/C Ratio | 0.144 | 0.345 | 0.319 | 0.297 |
| HCM Control Delay | 9.2 | 11 | 10.3 | 10.5 |
| HCM Lane LOS | A | B | B | B |
| HCM 95th-tile Q | 0.5 | 1.5 | 1.4 | 1.2 |


|  | $\rightarrow$ |  | 2 | 1 |  |  | 3 | $>$ | + | 4 | 4 | + |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NEL | NET. | NER | SWL | SWT | SWR |
| Lane Configurations | 7 | 41 |  |  |  |  |  | t |  | 1 | 4 |  |
| Traffic Volume (vph) | 155 | 220 | 5 | 0 | 0 | 0 | 0 | 655 | 65 | 10 | 1150 | 0 |
| Future Volume ( vph ) | 155 | 220 | 5 | 0 | 0 | 0 | 0 | 655 | 65 | 10 | 1150 | 0 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 2000 | 1900 |
| Lane Width ( t ) | 15 | 11 | 10 | 12 | 12 | 12 | 12 | 13 | 13 | 10 | 12 | 12 |
| Storage Length (ft) | 80 |  | 0 | 0 |  | 0 | 0 |  | 0 | 120 |  | 0 |
| Storage Lanes | 1 |  | 0 | 0 |  | 0 | 0 |  | 0 | 1 |  | 0 |
| Taper Length (t) | 75 |  |  | 25 |  |  | 25 |  |  | 135 |  |  |
| Lane Util. Factor | 1.00 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 1.00 |
| Ped Bike Factor | 0.91 | 1.00 |  |  |  |  |  | 1.00 |  | 1.00 |  |  |
| Frt |  | 0.997 |  |  |  |  |  | 0.988 | - |  |  |  |
| Filt Protected | 0.950 |  |  |  |  |  |  |  |  | 0.950 |  |  |
| Satd. Flow (prot) | 1986 | 3319 | 0 | 0 | 0 | 0 | 0 | 1915 | 0 | 1685 | 3725 | 0 |
| Flt Permitted | 0.950 |  |  |  |  |  |  |  |  | 0.189 |  |  |
| Satd. Flow (perm) | 1808 | 3319 | 0 | 0 | 0 | 0 | 0 | 1915 | 0 | 335 | 3725 | 0 |
| Right Tum on Red |  |  | Yes |  |  | Yes |  |  | Yes |  |  | Yes |
| Satd. Flow (RTOR) |  | 2 |  |  |  |  |  | 8 |  |  |  |  |
| Link Speed (mph) |  | 30 |  |  | 30 |  |  | 30 |  |  | 30 |  |
| Link Distance ( ft ) |  | 263 |  |  | 1046 |  |  | 395 |  |  | 594 |  |
| Travel Time (s) |  | 6.0 |  |  | 23.8 |  |  | 9.0 |  |  | 13.5 |  |
| Confl. Peds. (\#/hr) | 46 |  | 20 |  |  |  |  |  | 10 | 10 |  |  |
| Confl. Bikes (\#/hr) |  |  | 1 |  |  |  |  |  | 8 |  |  |  |
| Peak Hour Factor | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 |
| Heavy Vehicles (\%) | 0\% | 4\% | 0\% | 0\% | 0\% | 0\% | 0\% | 1\% | 2\% | 0\% | 2\% | 0\% |
| Bus Blockages (\#/hr) | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Adj. Flow (vph) | 165 | 234 | 5 | 0 | 0 | 0 | 0 | 697 | 69 | 11 | 1223 | 0 |
| Shared Lane Traffic (\%) |  |  |  |  |  |  |  |  |  |  |  |  |
| Lane Group Flow (vph) | 165 | 239 | 0 | 0 | 0 | 0 | 0 | 766 | 0 | 11 | 1223 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(f) |  | 15 |  |  | 15 |  |  | 10 |  |  | 12 |  |
| Link Offset(ft) |  | 0 |  |  | 0 |  |  | 0 |  |  | 0 |  |
| Crosswalk Width(ft) |  | 16 |  |  | 16 |  |  | 16 |  |  | 16 |  |
| Two way Left Tum Lane |  |  |  |  |  |  |  |  |  |  |  |  |
| Headway Factor | 0.88 | 1.06 | 1.09 | 1.00 | 1.00 | 1.00 | 1.00 | 0.96 | 0.96 | 1.09 | 0.94 | 1.00 |
| Turning Speed (mph) | 15 |  | 9 | 15 |  | 9 | 15 |  | 9 | 15 |  | 9 |
| Turn Type | Perm | NA |  |  |  |  |  | NA |  | pm+pt | NA |  |
| Protected Phases |  | 4 |  |  |  |  |  | 2 |  | 1 | 6 |  |
| Permitted Phases | 4 |  |  |  |  |  |  |  |  | 6 |  |  |
| Minimum Split (s) | 32.0 | 32.0 |  |  |  |  |  | 65.0 |  | 8.0 | 73.0 |  |
| Total Split (s) | 32.0 | 32.0 |  |  |  |  |  | 65.0 |  | 8.0 | 73.0 |  |
| Total Split (\%) | 30.5\% | 30.5\% |  |  |  |  |  | 61.9\% |  | 7.6\% | 69.5\% |  |
| Yellow Time (s) | 3.0 | 3.0 |  |  |  |  |  | 3.0 |  | 3.0 | 3.0 |  |
| All-Red Time (s) | 2.0 | 2.0 |  |  |  |  |  | 2.0 |  | 0.0 | 2.0 |  |
| Lost Time Adjust (s) | 0.0 | 0.0 |  |  |  |  |  | 0.0 |  | 0.0 | 0.0 |  |
| Total Lost Time (s) | 5.0 | 5.0 |  |  |  |  |  | 5.0 |  | 3.0 | 5.0 |  |
| Lead/Lag |  |  |  |  |  |  |  | Lag |  | Lead |  |  |
| Lead-Lag Optimize? |  |  |  |  |  |  |  | Yes |  | Yes |  |  |
| Act Effit Green (s) | 27.0 | 27.0 |  |  |  |  |  | 60.0 |  | 70.0 | 68.0 |  |


| $\rightarrow$ |  | 2 | - |  |  |  |  |  | 4 |  | $\checkmark$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane:Group, 6 \% . EBL | EBT | EBR | WBL | WBT | WBR | NEL | NET. | NER | SWL, | SWT. | SWR |
| Actuated g/C Ratio 0.26 | 0.26 |  |  |  |  |  | 0.57 |  | 0.67 | 0.65 |  |
| v/c Ratio - 0.36 | 0.28 |  |  |  |  |  | 0.70 |  | 0.04 | 0.51 |  |
| Control Delay - 34.5 | 32.0 |  |  |  |  |  | 10.4 |  | 6.2 | 10.6 |  |
| Queue Delay 0.0 | 0.0 |  |  |  |  |  | 0.2 |  | 0.0 | 0.1 |  |
| Total Delay - 34.5 | 32.0 |  |  |  |  |  | 10.6 |  | 6.2 | 10.7 |  |
| LOS C | C |  |  |  |  |  | B |  | A | B |  |
| Approach Delay | 33.1 |  |  |  |  |  | 10.6 |  |  | 10.6 |  |
| Approach LOS | C |  |  |  |  |  | B |  |  | B |  |
| Queue Length 50th (ti) - 91 | 67 |  |  |  |  |  | 122 |  | 2 | 206 |  |
| Queue Length 95th (ft) 152 | 102 |  |  |  |  |  | 148 |  | 8 | 255 |  |
| Internal Link Dist (tt) | 183 |  |  | 966 |  |  | 315 |  |  | 514 |  |
| Turn Bay Length (ft) - 80 |  |  |  |  |  |  |  |  | 120 |  |  |
| Base Capacity (vph) 464 | 854 |  |  |  |  |  | 1097 |  | 287 | 2412 |  |
| Starvation Cap Reductn 0 | 0 |  |  |  |  |  | 41 |  | 0 | 0 |  |
| Spillback Cap Reductn | 0 |  |  |  |  |  | 0 |  | 0 | 175 |  |
| Storage Cap Reductn - 0 | 0 |  |  |  |  |  | 0 |  | 0 | 0 |  |
| Reduced V/C Ratio --- 0.36 | 0.28 |  |  |  |  |  | 0.73 |  | 0.04 | 0.55 |  |
| Intersection Suilmmary: |  |  |  |  |  |  |  |  |  |  |  |
| Area Type: Other |  |  |  |  |  |  |  |  |  |  |  |
| Cycle Length: 105 |  |  |  |  |  |  |  |  |  |  |  |
| Actuated Cycle Length: 105 |  |  |  |  |  |  |  |  |  |  |  |
| Offset: 49 (47\%), Referenced to phase 2:NET and 6:SWTL, Start of Green |  |  |  |  |  |  |  |  |  |  |  |
| Natural Cycle: 105 |  |  |  |  |  |  |  |  |  |  |  |
| Control Type: Pretimed |  |  |  |  |  |  |  |  |  |  |  |
| Maximum V/c Ratio: 0.70 |  |  |  |  |  |  |  |  |  |  |  |
| Intersection Signal Delay: 14.4 |  |  |  | Intersection LOS: B |  |  |  |  |  |  |  |
| Intersection Capacity Utilization 87.5\% - ICU Level of ServiceE |  |  |  |  |  |  |  |  |  |  |  |
| Analysis Period (min) 15 |  |  |  |  |  |  |  |  |  |  |  |
| m Volume for 95 th percentile queue is metered by upstream signal. |  |  |  |  |  |  |  |  |  |  |  |

Splits and Phases: 8: Ogden Ave \& Jackson Blvd






| Lane Group: | 010 | 011 |
| :---: | :---: | :---: |
| Laneqtonfigurations |  |  |
| Traffic Volume (vph |  |  |
| Future Volume (vph |  |  |
| Ideal Flow (vphpl) |  |  |
| Lane Width (tt) |  |  |
| Storage Length (tt) |  |  |
| Storage Lanes |  |  |
| Taper Length (t) |  |  |
| Lane Util. Factor |  |  |
| Ped Bike Factor |  |  |
| Frt |  |  |
| Flt Protected |  |  |
| Satd. Flow (prot) |  |  |
| Flt Permitted |  |  |
| Satd. Flow (perm) |  |  |
| Right Tum on Red |  |  |
| Satd. Flow (RTOR) |  |  |
| Link Speed (mph) |  |  |
| Link Distance (ft) |  |  |
| Travel Time (s) |  |  |
| Confl. Peds. (\#/hr) |  |  |
| Confl. Bikes (\#/hr) |  |  |
| Peak Hour Factor |  |  |
| Heavy Vehicles (\%) |  |  |
| Bus Blockages (\#/hr |  |  |
| Adj. Flow (vph) |  |  |
| Shared Lane Traffic |  |  |
| Lane Group Flow (v |  |  |
| Enter Blocked Inters |  |  |
| Lane Alignment |  |  |
| Median Width(t) |  |  |
| Link Offset(ft) |  |  |
| Crosswalk Width(ft) |  |  |
| Two way Left Tum |  |  |
| Headway Factor |  |  |
| Turning Speed (mph |  |  |
| Turn Type |  |  |
| Protected Phases | 10 | 11 |
| Permitted Phases |  |  |
| Minimum Split (s) | 3.0 | 3.0 |
| Total Split ( s ) | 3.0 | 3.0 |
| Total Split (\%) | 3\% | 3\% |
| Yellow Time (s) | . 2.0 | 2.0 |
| All-Red Time (s) | 0.0 | 0.0 |
| Lost Time Adjust (s) |  |  |
| Total Lost Time (s) |  |  |
| Lead/Lag |  |  |
| Lead-Lag Optimize? |  |  |
| Act Effct Green (s) |  |  |

## Lanes, Volumes, Timings

## 10: Damen Ave \& Van Buren St

|  | $\stackrel{\rightarrow}{ } \rightarrow$ | $\geqslant \quad 1$ |  |  |  | 4 | $p$ |  | $\downarrow$ | $\checkmark$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Group | EBL EBT | EBR. WBL | WBT | WBR | NBE: | NBT. | NBR: | SBL | SBT | SBR |
| Actuated g/C Ratio |  | 0.25 | 0.25 |  | 0.60 | 0.60 |  |  | 0.43 | 0.43 |
| v/c Ratio |  | 0.45 | 1.28 |  | 0.90 | 0.41 |  |  | 0.44 | 0.26 |
| Control Delay |  | 49.3 | 173.2 |  | 47.5 | 7.4 |  |  | 22.2 | 8.3 |
| Queue Delay |  | 0.0 | 0.0 |  | 0.0 | 0.2 |  |  | 0.0 | 0.0 |
| Total Delay |  | 49.3 | 173.2 |  | 47.5 | 7.6 |  |  | 22.2 | 8.3 |
| LOS |  | D | F |  | D | A |  |  | C | A |
| Approach Delay |  |  | 161.2 |  |  | 19.4 |  |  | 19.4 |  |
| Approach LOS |  |  | F |  |  | B |  |  | B |  |
| Queue Length 50th (t) |  | 111 | $\sim 463$ |  | 164 | 124 |  |  | 167 | 24 |
| Queue Length 95th (tt) |  | m161 | m\#546 |  | \#290 | 147 |  |  | 217 | 68 |
| Internal Link Dist (tt) | 1180 |  | 164 |  |  | 347 |  |  | 150 |  |
| Turn Bay Length (t) |  |  |  |  | 50 |  |  |  |  | 150 |
| Base Capacity (vph) |  | 339 | 1107 |  | 469 | 2483 |  |  | 1581 | 667 |
| Starvation Cap Reductn |  | 0 | 0 |  | 0 | 638 |  |  | 0 | 0 |
| Spillback Cap Reductn |  | 0 | 0 |  | 0 | 0 |  |  | 0 | 0 |
| Storage Cap Reductn |  | 0 | 0 |  | 0 | 0 |  |  | 0 | 0 |
| Reduced v/c Ratio |  | 0.45 | 1.28 |  | 0.90 | 0.55 |  |  | 0.44 | 0.26 |

Intersection Summary

Cycle Length: 105
Actuated Cycle Length: 105
Offset: $49(47 \%)$, Referenced to phase 2:SBT and 6:NBTL, Start of Green
Natural Cycle: 125
Control Type: Pretimed
Maximum vic Ratio: 1.28
Intersection Signal Delay: 77.0
Intersection LOS: E
Intersection Capacity Utilization $99.3 \%$ ICU Level of Service F
Analysis Period (min) 15

- Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.
\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95 th percentile queue is metered by upstream signal. $\qquad$
Splits and Phases: 10: Damen Ave \& Van Buren St




## $\Rightarrow \rightarrow \leftarrow+\downarrow$



Ped Bike Factor

| Fil Protected |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Satd. Flow (prot) | - | 0 | 0 | 4001 | 0 | 0 | 1589 |


| Satd. Flow (perm) | 0 | 0 | 4001 | 0 | 0 | 1589 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Link Speed (mph) |  | 30 | 30 |  | 20 |  |
| Link Distance (ti) |  | 635 | 209 |  | 211 |  |
| Travel Time (s) |  | 14.4 | 4.8 |  | 7.2 |  |
| Confl. Peds (\#/hr) |  |  |  | 13 |  |  |
| Peak Hour Factor | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 |
| Heaw Vehicles (\%) | 0\% | 0\% | 2\% | 0\% | 0\% | 0\% |
| Adj. Flow (vph) | 0 | 0 | 1236 | 23 | 0 | 17 |



| Two way Left Tum Lane |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Headway Factor | 1.00 | 1.00 | 0.85 | 0.96 | 1.00 | 1.04 |
| Turning Speed (mph) | 15 |  |  | 9 | 15 | 9 |
| Sign Control |  | Free | Free |  | Stop |  |

Anterseaction Summany Type: Other

Control Type: Unsignalized
Intersection Capacity UUtilization 40.4\% --- ICU Level of Sevvice $A$
Analysis Period (min) 15


|  | $\rightarrow$ |  | 2 | 2 | $\longleftarrow$ | $\pm$ | $\cdots$ | 7 | $\dagger$ | 6 | 4 | 4 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NEL | NET | NER | SWL | SWT | SWR |
| Lane Configurations |  |  |  |  | 41 |  | 1 | 4 |  |  | 4 | T |
| Traffic Volume (vph) | 0 | 0 | 0 | 165 | 650 | 45 | 40 | 760 | 0 | 0 | 920 | 405 |
| Future Volume (vph) | 0 | 0 | 0 | 165 | 650 | 45 | 40 | 760 | 0 | 0 | 920 | 405 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 2000 | 1900 | 1900 | 2000 | 1900 |
| Lane Width ( f ) | 12 | 12 | 12 | 16 | 16 | 14 | 11 | 11 | 10 | 12 | 11 | 11 |
| Storage Length (t) | 0 |  | 0 | 0 |  | 0 | 130 |  | 0 | 0 |  | 0 |
| Storage Lanes | 0 |  | 0 | 0 |  | 0 | 1 |  | 0 | 0 |  | 1 |
| Taper Length ( ft ) | 25 |  |  | 25 |  |  | 135 |  |  | 25 |  |  |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 0.95 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor |  |  |  |  | 1.00 |  | 1.00 |  |  |  |  | 0.98 |
| Frt |  |  |  |  | 0.992 |  |  |  |  |  |  | 0.850 |
| Fit Protected |  |  |  |  | 0.990 |  | 0.950 |  |  |  |  |  |
| Satd. Flow (prot) | 0 | 0 | 0 | 0 | 3890 | 0 | 1745 | 1914 | 0 | 0 | 1895 | 1546 |
| Flt Permitted |  |  |  |  | 0.990 |  | 0.065 |  |  |  |  |  |
| Satd. Flow (perm) | 0 | 0 | 0 | 0 | 3886 | 0 | 119 | 1914 | 0 | 0 | 1895 | 1516 |
| Right Tum on Red |  |  | Yes |  |  | Yes |  |  | Yes |  |  | Yes |
| Satd. Flow (RTOR) |  |  |  |  | 5 |  |  |  |  |  |  | 113 |
| Link Speed (mph) |  | 30 |  |  | 30 |  |  | 30 |  |  | 30 |  |
| Link Distance (f) |  | 209 |  |  | 1434 |  |  | 465 |  |  | 233 |  |
| Travel Time (s) |  | 4.8 |  |  | 32.6 |  |  | 10.6 |  |  | 5.3 |  |
| Confl. Peds. (\#/hr) |  |  |  | 2 |  | 13 | 14 |  |  |  |  | 14 |
| Confl. Bikes (\#/hr) |  |  |  |  |  | 1 |  |  |  |  |  | 1 |
| Peak Hour Factor | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 |
| Heavy Vehicles (\%) | 0\% | 0\% | 0\% | 1\% | 2\% | 6\% | 0\% | 1\% | 0\% | 0\% | 2\% | 1\% |
| Bus Blockages (\#/hr) | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Adj. Flow (vph) | 0 | 0 | 0 | 176 | 691 | 48 | 43 | 809 | 0 | 0 | 979 | 431 |
| Shared Lane Traffic (\%) |  |  |  |  |  |  |  |  |  |  |  |  |
| Lane Group Flow (vph) | 0 | 0 | 0 | 0 | 915 | 0 | 43 | 809 | 0 | 0 | 979 | 431 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left. | Right |
| Median Width(f) |  | 0 |  |  | 0 |  |  | 11 |  |  | 10 |  |
| Link Offset(f) |  | 0 |  |  | 0 |  |  | 0 |  |  | 0 |  |
| Crosswalk Width(ft) |  | 16 |  |  | 16 |  |  | 16 |  |  | 16 |  |
| Two way Left Tum Lane |  |  |  |  |  |  |  |  |  |  |  |  |
| Headway Factor | 1.00 | 1.00 | 1.00 | 0.85 | 0.86 | 0.92 | 1.04 | 0.98 | 1.09 | 1.00 | 0.98 | 1.04 |
| Turning Speed (mph) | 15 |  | 9 | 15 |  | 9 | 15 |  | 9 | 15 |  | 9 |
| Turn Type |  |  |  | Perm | NA |  | pm+pt | NA |  |  | NA | Perm |
| Protected Phases |  |  |  |  | 4 |  | 1 | 6 |  |  | 2 |  |
| Permitted Phases |  |  |  | 4 |  |  | 6 |  |  |  |  | 2 |
| Minimum Split (s) |  |  |  | 31.0 | 31.0 |  | 8.0 | 74.0 |  |  | 66.0 | 66.0 |
| Total Split (s) |  |  |  | 31.0 | 31.0 |  | 8.0 | 74.0 |  |  | 66.0 | 66.0 |
| Total Split (\%) |  |  |  | 29.5\% | 29.5\% |  | 7.6\% | 70.5\% |  |  | 62.9\% | 62.9\% |
| Yellow Time (s) |  |  |  | 3.0 | 3.0 |  | 3.0 | 3.0 |  |  | 3.0 | 3.0 |
| All-Red Time (s) |  |  |  | 2.0 | 2.0 |  | 0.0 | 2.0 |  |  | 2.0 | 2.0 |
| Lost Time Adjust (s) |  |  |  |  | 0.0 |  | 0.0 | 0.0 |  |  | 0.0 | 0.0 |
| Total Lost Time (s) |  |  |  |  | 5.0 |  | 3.0 | 5.0 |  |  | 5.0 | 5.0 |
| Lead/Lag |  |  |  |  |  |  | Lead |  |  |  | Lag | Lag |
| Lead-Lag Optimize? |  |  |  |  |  |  | Yes |  |  |  | Yes | Yes |
| Act Effct Green (s) |  |  |  |  | 26.0 |  | 71.0 | 69.0 |  |  | 61.0 | 61.0 |



Splits and Phases: 13: Ogden Ave \& Van Buren St


|  | 4 |  |  |  |  |  | 4 | 9 |  | * |  | $\downarrow$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | $\overline{\mathrm{NBL}}$ | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | ${ }^{4}$ | 40 | 7 |  |  |  |  | 4 | 7 | 1 | 4 |  |
| Traffic Volume (vph) | 455 | 175 | 315 | 0 | 0 | 0 | 0 | 935 | 445 | 240 | 595 | 0 |
| Future Volume (vph) | 455 | 175 | 315 | 0 | 0 | 0 | 0 | 935 | 445 | 240 | 595 | 0 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 2000 | 1900 | 1900 | 2000 | 1900 |
| Lane Width (ti) | 10 | 10 | 10 | 12 | 12 | 12 | 12 | 12 | 13 | 9 | 12 | 11 |
| Storage Length (ti) | 0 |  | 0 | 0 |  | 0 | 0 |  | 0 | 115 |  | 0 |
| Storage Lanes | 1 |  | 1 | 0 |  | 0 | 0 |  | 1 | 1 |  | 0 |
| Taper Length (t) | 25 |  |  | 25 |  |  | 25 |  |  | 135 |  |  |
| Lane Util. Factor | 0.91 | 0.86 | 0.91 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 |
| Ped Bike Factor | 1.00 | 0.99 | 0.97 |  |  |  |  |  | 0.94 | 0.99 |  |  |
| Fit |  | 0.970 | 0.850 |  |  |  |  |  | 0.850 |  |  |  |
| Fll Protected | 0.950 | 0.979 |  |  |  |  |  |  |  | 0.950 |  |  |
| Satd. Flow (prot) | 1533 | 2849 | 1332 | 0 | 0 | 0 | 0 | 3725 | 1636 | 1608 | 3645 | 0 |
| Flt Permitted | 0.950 | 0.979 |  |  |  |  |  |  |  | 0.205 |  |  |
| Satd. Flow (perm) | 1528 | 2845 | 1287 | 0 | 0 | 0 | 0 | 3725 | 1534 | 343 | 3645 | 0 |
| Right Turn on Red |  |  | Yes |  |  | Yes |  |  | Yes |  |  | Yes |
| Satd. Flow (RTOR) |  | 26 | 224 |  |  |  |  |  | 357 |  |  |  |
| Link Speed (mph) |  | 30 |  |  | 30 |  |  | 30 |  |  | 30 |  |
| Link Distance (ft) |  | 806 |  |  | 725 |  |  | 893 |  |  | 427 |  |
| Travel Time (s) |  | 18.3 |  |  | 16.5 |  |  | 20.3 |  |  | 9.7 |  |
| Confl. Peds. (\#/hr) | 3 |  | 21 |  |  |  |  |  | 82 | 82 |  |  |
| Confl Bikes (\#/hr) |  |  |  |  |  |  |  |  | 7 |  |  |  |
| 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 |
| Heavy Vehicles (\%) | 0\% | 1\% | 3\% | 0\% | 0\% | 0\% | 0\% | 2\% | 2\% | 1\% | 3\% | 0\% |
| Bus Blockages (\#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 0 |
| Adj. Flow (vph) | 469 | 180 | 325 | 0 | 0 | 0 | 0 | 964 | 459 | 247 | 613 | 0 |
| Shared Lane Traffic (\%) | 46\% |  | 31\% |  |  |  |  |  |  |  |  |  |
| Lane Group Flow (vph) | 253 | 497 | 224 | 0 | 0 | 0 | 0 | 964 | 459 | 247 | 613 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) |  | 10 |  |  | 10 |  |  | 14 |  |  | 15 |  |
| Link Offset(t) |  | 0 |  |  | 0 |  |  | 0 |  |  | 0 |  |
| Crosswalk Width(f) |  | 16 |  |  | 16 |  |  | 16 |  |  | 16 |  |
| Two way Left Tum Lane |  |  |  |  |  |  |  |  |  |  |  |  |
| Headway Factor | 1.09 | 1.09 | 1.09 | 1.00 | 1.00 | 1.00 | 1.00 | 0.94 | 0.96 | 1.14 | 0.95 | 1.04 |
| Turning Speed (mph) | 15 |  | 9 | 15 |  | 9 | 15 |  | 9 | 15 |  | 9 |
| Turn Type | Perm | NA | Perm |  |  |  |  | NA | Perm | pm+pt | NA |  |
| Protected Phases |  | 8 |  |  |  |  |  | 6 |  | 5 | 2 |  |
| Permitted Phases | 8 |  | 8 |  |  |  |  |  | 6 | 2 |  |  |
| Minimum Split (s) | 35.0 | 35.0 | 35.0 |  |  |  |  | 56.0 | 56.0 | 14.0 | 70.0 |  |
| Total Split (s) | 35.0 | 35.0 | 35.0 |  |  |  |  | 56.0 | 56.0 | 14.0 | 70.0 |  |
| Total Split (\%) | 33.3\% | 33.3\% | 33.3\% |  |  |  |  | 53.3\% | 53.3\% | 13.3\% | 66.7\% |  |
| Yellow Time ( s ) | 3.0 | 3.0 | 3.0 |  |  |  |  | 3.0 | 3.0 | 3.0 | 3.0 |  |
| All-Red Time (s) | 2.0 | 2.0 | 2.0 |  |  |  |  | 0.0 | 0.0 | 2.0 | 2.0 |  |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 |  |  |  |  | 0.0 | 0.0 | 0.0 | 0.0 |  |
| Total Lost Time (s) | 5.0 | 5.0 | 5.0 |  |  |  |  | 3.0 | 3.0 | 5.0 | 5.0 |  |
| Lead/Lag |  |  |  |  |  |  |  | Lead | Lead | Lag |  |  |
| Lead-Lag Optimize? |  |  |  |  |  |  |  | Yes | Yes | Yes |  |  |
| Act Effct Green (s) | 30.0 | 30.0 | 30.0 |  |  |  |  | 53.0 | 53.0 | 65.0 | 65.0 |  |


|  |  |  |  |  |  |  |  | $\dagger$ |  | , | $\dagger$ | $\downarrow$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | $\overline{\mathrm{NBL}}$ | NBT | NBR : | SBL | SBT | SBR |
| 'Actuated g/C Ratio | 0.29 | 0.29 | 0.29 |  |  |  |  | 0.50 | 0.50 | 0.62 | 0.62 |  |
| v/c Ratio | 0.58 | 0.60 | 0.43 |  |  |  |  | 0.51 | 0.48 | 0.77 | 0.27 |  |
| Control Delay | 38.4 | 34.1 | 6.6 |  |  |  |  | 18.6 | 5.6 | 35.1 | 3.5 |  |
| Queue Delay | 0.0 | 0.0 | 0.0 |  |  |  |  | 0.0 | 0.0 | 0.0 | 0.0 |  |
| Total Delay | 38.4 | 34.1 | 6.6 |  |  |  |  | 18.6 | 5.6 | 35.1 | 3.5 |  |
| LOS | D | C | A |  |  |  |  | B | A | D | A |  |
| Approach Delay |  | 28.9 |  |  |  |  |  | 14.4 |  |  | 12.6 |  |
| Approach LOS |  | C |  |  |  |  |  | B |  |  | B |  |
| Queue Length 50th (ft) | 159 | 158 | 0 |  |  |  |  | 218 | 35 | 78 | 43 |  |
| Queue Length 95th (ft) | 252 | 220 | 62 |  |  |  |  | 275 | 103 | m\#179 | m54 |  |
| Internal Link Dist (ft) |  | 726 |  |  | 645 |  |  | 813 |  |  | 347 |  |
| Turn Bay Length (ft) |  |  |  |  |  |  |  |  |  | 115 |  |  |
| Base Capacity (vph) | 436 | 831 | 527 |  |  |  |  | 1880 | 951 | 320 | 2256 |  |
| Starvation Cap Reductn | 0 | 0 | 0 |  |  |  |  | 0 | 0 | 0 | 0 |  |
| Spillback Cap Reductn | 0 | 0 | 0 |  |  |  |  | 0 | 0 | 0 | 0 |  |
| Storage Cap Reductn | 0 | 0 | 0 |  |  |  |  | 0 | 0 | 0 | 0 |  |
| Reduced v/c Ratio | 0.58 | 0.60 | 0.43 |  |  |  |  | 0.51 | 0.48 | 0.77 | 0.27 |  |
| Intersection Summary |  |  |  |  |  |  |  |  |  |  |  |  |
| Area Type: Other |  |  |  |  |  |  |  |  |  |  |  |  |
| Cycle Length: 105 |  |  |  |  |  |  |  |  |  |  |  |  |
| Actuated Cycle Length: 105 |  |  |  |  |  |  |  |  |  |  |  |  |
| Offset: 47 (45\%), Referenced to phase 2:SBTL and 6:NBT, Start of Green |  |  |  |  |  |  |  |  |  |  |  |  |
| Natural Cycle: 105 |  |  |  |  |  |  |  |  |  |  |  |  |
| Control Type: Pretimed |  |  |  |  |  |  |  |  |  |  |  |  |
| Maximum v/c Ratio: 0.77 |  |  |  |  |  |  |  |  |  |  |  |  |
| Intersection Signal Delay: 18.3 |  |  |  |  |  |  |  |  |  |  |  |  |
| Intersection Capacity Utilization 99.3\% --CU Level of Service F |  |  |  |  |  |  |  |  |  |  |  |  |
| Analysis Period (min) 15 |  |  |  |  |  |  |  |  |  |  |  |  |
| \# 95th percentile volume exceeds capacity, queue may be longer. |  |  |  |  |  |  |  |  |  |  |  |  |
| Queue shown is maximum after two cycles. |  |  |  |  |  |  |  |  |  |  |  |  |
| m Volume for 95th percentile queue is metered by upstream signal. |  |  |  |  |  |  |  |  |  |  |  |  |

Splits and Phases: 14: Damen Ave \& Congress Pwky



| Intersection |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Int Delay, s/veh | 0.8 |  |  |  |  |  |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations 1 | 性 |  |  |  |  | $\overline{7}$ |
| Traffic Vol, veh/h | 485 | 50 | 0 | 0 | 0 | 40 |
| Future Vol, veh/h | 485 | 50 | 0 | 0 | 0 | 40 |
| Conflicting Peds, \#hr | 0 | 21 | 0 | 0 | 0 | 0 |
| Sign Control Fraser | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | . | None | - | None | - | None |
| Storage Length | - | - | - | - | - | 0 |
| Veh in Median Storage \# | \# 0 | - | 108025 | 464 | 0 | - |
| Grade, \% | 0 | - | - | 0 | 0 |  |
| Peak Hour Factor | 82 | 82 | 82 | 82 | 82 | 82 |
| Heavy Vehicles, \% | 1 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 591 | 61 | 0 | 0 | 0 | 49 |




Major/Minor Major1 Minor1
Conflicting Flow All $0 \quad 0 \quad-341$

Stage 1
Stage 2
Critical Hdwy - - 6.9
Critical Hdwy Stg 1
Critical Hdwy Stg 2
Follow-up Hdwy - - - 3.3
Pot Cap-1 Maneuver - - $\quad 061$
Stage 1 - - 0

| Stage 2 | - | - |
| :---: | :---: | :---: |
| Platoon locked, $\%$ | - | - |
| Mov Cap-1 Maneuver | - | - |
| Mov Cap-2 Maneuver | - | -648 |
| Stage 1 | - | - |
| Stage | - | - |


| Approach | $E B$ |
| :--- | :--- |
| $H C M$ Control Delay, $S \quad 0$ | NB |
| HCM LOS | 11.2 |






| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Configurations |  |  | 4 P |  |  | $\bar{\square}$ |
| Trafic Volume (vph) | 0 | 0 | 995 | 95 | 0 | 95 |
| Future Volume (vph) | 0 | 0 | 995 | 95 | 0 | 95 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Widith (ft) | 12 | 12 | 16 | 12 | 12 | 12 |
| Lane Utill. Factor | 1.00 | 1.00 | 0.95 | 0.95 | 1.00 | 1.00 |
| Ped Bike Factor |  |  |  |  |  |  |
| Frt   <br> Flt Protected 0.987 0.865 |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| Satd Flow (prot) | 0 | 0 | 3966 | 0 | 0 | 1644 |
| Flt Permitted |  |  |  |  |  |  |
| Satd. Flow (perm) | 0 | 0 | 3966 | 0 | 0 | 1644 |
| Link Speed (mph) |  | 30 | 30 |  | 20 |  |
| Link Distance (tt) |  | 92 | 635 |  | 206 |  |
| Travel Time (s) |  | 2.1 | 14.4 |  | 7.0 |  |
| Confi. Peds. (\#\#r) |  |  |  | 19 |  |  |
| Peak Hour Factor | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 |
| Heary Vehicles (\%) | 0\% | 0\% | 2\% | 0\% | 0\% | 0\% |
| Adj. Flow (vph) | 0 | 0 | 1059 | 101 | 0 | 101 |
| Shared Lane Traffic (\%) |  |  |  |  |  |  |
| Lane Group Flow (vph) | 0 | 0 | 1160 | 0 | 0 | 101 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Left | Right | Left | Right |
| Median Width(t) |  | 0 | 0 |  | 0 |  |
| Link Offset(f) |  | 0 | 0 |  | 0 |  |
| Crosswalk Width(t) |  | 16 | 16 |  | 16 |  |
| Two way Left Turn Lane |  |  |  |  |  |  |
| Headway Factor | 1.00 | 1.00 | 0.85 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15. |  |  | 9 | 15 | 9 |
| Sign Control |  | Free | Free |  | Stop |  |

Intersection:Summary.
Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 43.2\% ———— ICU Level of Service A
Analysis Period (min) 15


|  |  |  |  |  |  |  |  | 4 |  |  |  | $\checkmark$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Group | EBL | EBT | EBR. | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  |  |  | 4. |  |  | $\uparrow$ |  |  | 1 |  |
| Traffic Volume (vph) | 0 | 0 | 0 | 5 | 75 | 10 | 35 | 55 | 0 | 0 | 60 | 30 |
| Future Volume (vph) | 0 | 0 | 0 | 5 | 75 | 10 | 35 | 55 | 0 | 0 | 60 | 30 |
| Ideal Flow (vphpi) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 900 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 0.95 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor |  |  |  |  |  |  |  |  |  |  |  |  |
| Ft |  |  |  |  | 0.984 |  |  |  |  |  | 0.955 |  |
| Flit Protected |  |  |  |  | 0.997 |  |  | 0.981 |  |  |  |  |
| Satd. Flow (prot) | 0 | 0 | 0 | 0 | 3423 | 0 | 0 | 1842 | 0 | 0 | 1814 |  |
| Fil Permitted |  |  |  |  | 0.997 |  |  | 0.981 |  |  |  |  |
| Satd. Flow (perm) | 0 | 0 | 0 | 0 | 3423 | 0 | 0 | 1842 | 0 | 0 | 1814 |  |
| Link Speed (mph) |  | 30 |  |  | 30 |  |  | 30 |  |  | 30 |  |
| Link Distance (ft) |  | 715 |  |  | 438 |  |  | 207 |  |  | 467 |  |
| Travel Time (s) |  | 16.3 |  |  | 10.0 |  |  | 4.7 |  |  | 10.6 |  |
| Confl. Peds. (\#/hr) |  |  |  | 2 |  | 6 | 16 |  |  |  |  | 16 |
| Peak Hour Factor | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 |
| Heavy Vehicles (\%) | 0\% | 0\% | 0\% | 0\% | 3\% | 9\% | 3\% | 0\% | 0\% | 0\% | 0\% | 0\% |
| Adj Flow (vph) | 0 | 0 | 0 | 6 | 85 | 11 | 40 | 63 | 0 | 0 | 68 | 34 |
| Shared Lane Traffic (\%) |  |  |  |  |  |  |  |  |  |  |  |  |
| Lane Group Flow (vph) | 0 | 0 | 0 | 0 | 102 | 0 | 0 | 103 | 0 | 0 | 102 |  |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(t) |  | 0 |  |  | 0 |  |  | 0 |  |  | 0 |  |
| Link Offset(t) |  | 0 |  |  | 0 |  |  | 0 |  |  | 0 |  |
| Crosswalk Width(t) |  | 16 |  |  | 16 |  |  | 16 |  |  | 16 |  |
| Two way Left Tum 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 |  |  |
| Sign Control |  | Stop |  |  | Stop |  |  | Stop |  |  | Stop |  |
| Intersection Summary |  |  |  |  |  |  |  |  |  |  |  |  |
| Area Type: Other |  |  |  |  |  |  |  |  |  |  |  |  |
| Control Type: Unsignalized |  |  |  |  |  |  |  |  |  |  |  |  |
| Intersection Capacity Utilization 23.3\%-ICU Level of Service A |  |  |  |  |  |  |  |  |  |  |  |  |
| Analysis Period (min) 15 |  |  |  |  |  |  |  |  |  |  |  |  |


| Intersection |  |
| :--- | :--- |
| Intersection Delay, s/veh | 7.9 |
| Intersection LOS |  |


| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Configurations |  |  | +1 |  |  |  | $\uparrow$ |  |  | 1 |  |  |
| Traffic Vol, veh/h | 0 | 0 | 0 | 5 | 75 | 10 | 35 | 55 | 0 | 0 | 60 | 30 |
| Future Vol, veh/h | 0 | 0 | 0 | 5 | 75 | 10 | 35 | 55 | 0 | 0 | 60 | 30 |
| Peak Hour Factor | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 |
| Heavy Vehicles, \% | 0 | 0 | 0 | 0 | 3 | 9 | 3 | 0 | 0 | 0 | 0 | 0 |
| Mumt Flow | 0 | 0 | 0 | 6 | 85 | 11 | 40 | 63 | 0 | 0 | 68 | 34 |
| Number of Lanes | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 1 | 0 | 0 | 1 | 0 |


| Approach | WB | NB | SB |
| :---: | :---: | :---: | :---: |
| Opposing Approach |  | SB | NB |
| 'Opposing Lanes | 0 | 1 | 1 |
| Conflicting Approach Left | NB |  | WB |
| Conflicting Lanes Left | 1 | 0 | 2 |
| Conflicting Approach Right | SB | WB |  |
| Conflicting Lanes Right | 1 | 2 | 0 |
| HCM Control Delay | 8 | 8 | 7.6 |
| HCMLOS | A | A | A |


| Lane | NBLn1 | WBLn1 | WBLn2 | SBLn1 |
| :---: | :---: | :---: | :---: | :---: |
| Vol Left, \% | 39\% | 12\% | 0\% | 0\% |
| Vol Thru, \% | 61\% | 88\% | 79\% | 67\% |
| Vol Right, \% | 0\% | 0\% | 21\% | 33\% |
| Sign Control | Stop | Stop | Stop | Stop |
| Traffic Vol by Lane | 90 | 43 | 48 | 90 |
| LT Vol | 35 | 5 | 0 | 0 |
| Through Vol | 55 | 38 | 38 | 60 |
| RT Vol | 0 | 0 | 10 | 30 |
| Lane Flow Rate | 102 | 48 | 54 | 102 |
| Geometry Grp | 2 | 7 | 7 | 2 |
| Degree of Util ( X ) | 0.125 | 0.067 | 0.073 | 0.116 |
| Departure Headway (Hd) | 4.387 | 5.022 | 4.866 | 4.066 |
| Convergence, Y/N | Yes | Yes | Yes | Yes |
| Cap | 820 | 718 | 741 | 886 |
| Service Time | 2.396 | 2.722 | 2.566 | 2.074 |
| HCM Lane V/C Ratio | 0.124 | 0.067 | 0.073 | 0.115 |
| HCM Control Delay | 8 | 8.1 | 7.9 | 7.6 |
| HCM Lane LOS | A | A | A | A |
| HCM 95th-tile Q | 0.4 | 0.2 | 0.2 | 0.4 |




Splits and Phases: 3: Damen Ave \& Jackson Blvd



| Lane-Group | EBL | EBT | WBT | WBR | SBL | SBR |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Configurations |  | 4 |  |  | \% |  |
| Traffic Volume (vph) | 0 | 425 | 0 | 0 | 10 | 0 |
| Future Volume (vph) | 0 | 425 | 0 | 0 | 10 | 0 |
| Ideal Flow (vphpl) | 1900 | 2000 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 11 | 12 | 12 | 11 | 12 |
| Lane Util. Factor | 1.00 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ft |  |  |  |  |  |  |
| Fll Protected |  |  |  |  | 0.950 |  |
| Satd. Flow (prot) | 0 | 3637 | 0 | 0 | 1745 | 0 |
| Flt Permitted |  |  |  |  | 0.950 |  |
| Satd. Flow (perm) | 0 | 3637 | 0 | 0 | 1745 | 0 |
| Link Speed (mph) |  | 30 | 30 |  | 20 |  |
| Link Distance (ft) |  | 532 | 244 |  | 183 |  |
| Travel Time (s) |  | 12.1 | 5.5 |  | 6.2 |  |
| Peak Hour Factor | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 |
| Heavy Vehicles (\%) | 0\% | 1\% | 0\% | 0\% | 0\% | 0\% |
| Adj. Flow (vph) | 0 | 457 | 0 | 0 | 11 | 0 |
| Shared Lane Traffic (\%) |  |  |  |  |  |  |
| Lane Group Flow (vph) | 0 | 457 | 0 | 0 | 11 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Left | Right | Left | Right |
| Median Width(t) |  | 0 | 0 |  | 11 |  |
| Link Offsel(ft) |  | 0 | 0 |  | 0 |  |
| Crosswalk Width(f) |  | 16 | 16 |  | 16 |  |
| Two way Left Turn Lane |  |  |  |  |  |  |
| Headway Factor | 1.00 | 0.98 | 1.00 | 1.00 | 1.04 | 1.00 |
| Turning Speed (mph) | 15 |  |  | 9 | 15 | 9 |
| Sign Control |  | Free | Free |  | Stop |  |
| Intersection Summary |  |  |  |  |  |  |
| Area Type: Other |  |  |  |  |  |  |
| Control Type: Unsignalized |  |  |  |  |  |  |
| Intersection Capacity Utilization 21.2\% ICU Level of Servic |  |  |  |  |  |  |
| Analysis Period (min) 15 |  |  |  |  |  |  |


| Intersection |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Int Delay, s/veh 0.2 |  |  |  |  |  |
| Movement EBL EBT WBT WBR SBL SBR |  |  |  |  |  |
| Lane Configurations $\uparrow \uparrow$ I |  |  |  |  |  |
| Trafic Vol, veh/h | 0425 | 0 | 0 | 10 | 0 |
| Future Vol, veh/h | 0425 | 0 | 0 | 10 | 0 |
| Conflicting Peds, \#hr | 0.0 | 0 | 0 | 0 | 0 |
| Sign Control - F | Free Free | Free | ree | Stop | Stop |
| RT Channelized | - None | - | ne | - | None |
| Storage Length | - - | - | - | 0 |  |
| Veh in Median Storage \# | \# - 108818 | 8224 | - | 0 | - |
| Grade, \% | 0 | 0 | - | 0 |  |
| Peak Hour Factor | $93 \quad 93$ | 93 | 93 | 93 | 93 |
| Heavy Vehicles, \% | $0 \quad 1$ | 0 | 0 | 0 | 0 |
| Mumt Flow | 0457 | 0 | 0 | 11 | 0 |


| Major/Minor | Major1 |  | Minor2 |  |
| :---: | :---: | :---: | :---: | :---: |
| Conflicting Flow All | - | 0 | 229 | - |
| Stage 1 | . | - | 0 | . |
| Stage 2 | - | - | 229 | - |
| Critical Hdwy | - | - | 6.8 |  |
| Critical Hdwy Stg 1 |  |  |  |  |
| Critical Hdw d Stg 2 | - | - | 5.8 | - |
| Follow-up Hdwy | - | - | 3.5 |  |
| Pot Cap-1 Maneuver | 0 |  | 744 | 0 |
| Stage 1 | 0 | - | - | 0 |
| Stage 2 | 0 | - | 793 | 0 |
| Platoon blocked, \% |  | - |  |  |
| Mov Cap-1 Maneuver | - | $=$ | 744 | - |
| Mov Cap-2 Maneuver | - | . | 744 | - |
| Stage 1 | - | - |  | - |
| Stage 2 | - | - | 793 |  |


| Approach | EB |
| :--- | :---: |
| HCM Control Delay, S | 0 |
| HCM LOS | SB |





| Intersection |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Int Delay, S/veh 0.3 |  |  |  |  |  |  |
| Movement | EBT. | EBR. | WBL | WBT | NBL | NBR |
| Lane Configurations $\uparrow$ | 中t |  |  |  |  | 7 |
| Traffic Vol, veh/h | 405 | 25 | 0 | 0 | 0 |  |
| Future Vol, veh/h 4 | 405 | 25 | 0 | 0 | 0 | 15 |
| Conflicting Peds, \#hr | 0 | 38 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length |  |  | . |  |  |  |
| $V$ eh in Median Storage, \# |  | - | . | 0 | 0 |  |
| Grade, \% | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 89 | 89 | 89 | 89 | 89 | 89 |
| Heavy Vehicles, \% | . | 0 | 0 | 0 | 0 | 0 |
| Mumt Flow | 455 | 28 | 0 | 0 | 0 | 17 |



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Configurations |  | +1 |  |  |  |  |  | t |  |  | $\uparrow$ |  |
| Trafic Volume (vph) | 75 | 290 | 55 | 0 | 0 | 0 | 0 | 35 | 1 | 35 | 70 | 0 |
| Future Volume (vph) | 75 | 290 | 55 | 0 | 0 | 0 | 0 | 35 | 1 | 35 | 70 | 0 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (tt) | 12 | 11 | 11 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| Lane Util. Factor | 0.95 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor |  |  |  |  |  |  |  |  |  |  |  |  |
| Frt |  | 0.980 |  |  |  |  |  | 0.997 |  |  |  |  |
| Fit Protected |  | 0.991 |  |  |  |  |  |  |  |  | 0.984 |  |
| Satd. Flow (prot) | 0 | 3377 | 0 | 0 | 0 | 0 | 0 | 1894 | 0 | 0 | 1870 | 0 |
| Fit Permitted |  | 0.991 |  |  |  |  |  |  |  |  | 0.984 |  |
| Satd. Flow (perm) | 0 | 3377 | 0 | 0 | 0 | 0 | 0 | 1894 | 0 | 0 | 1870 | 0 |
| Link Speed (mph) |  | 30 |  |  | 30 |  |  | 30 |  |  | 30 |  |
| Link Distance (t) |  | 134 |  |  | 263 |  |  | 292 |  |  | 245 |  |
| Travel Time (s) |  | 3.0 |  |  | 6.0 |  |  | 6.6 |  |  | 5.6 |  |
| Confl. Peds. (\#/hr) | 8 |  | 20 |  |  |  |  |  | 24 | 24 |  |  |
| 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 |
| Heay Vehicles (\%) | 2\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% |
| Adj. Flow (vph) | 82 | 315 | 60 | - | - | 0 | 0 | 38 | 1 | 38 | 76 |  |
| Shared Lane Traffic (\%) |  |  |  |  |  |  |  |  |  |  |  |  |
| Lane Group Flow (vph) | 0 | 457 | 0 | 0 | 0 | 0 | 0 | 39 | 0 | 0 | 114 | 0 |
| Enter Biocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width( $(t)$ |  | 15 |  |  | 15 |  |  | 0 |  |  | 0 |  |
| Link Offset(f) |  | 0 |  |  | 0 |  |  | 0 |  |  | 0 |  |
| Crosswalk Width(t) |  | 16 |  |  | 16 |  |  | 16 |  |  | 16 |  |


| Two way Left Tum Lane |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Headway Factor | 1.00 | 1.04 | 1.04 | 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 |
| Sign Control |  | Stop |  |  | Stop |  |  | Stop |  |  | Stop |  |

Intersection Summary
Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 31.7\% ICU Level of Service A
Analysis Period (min) 15

|  |  |  |
| :--- | :--- | :--- |
| Intersection | 9.6 | $A$ |
| Intersection Delay, s/veh | Intersection LOS |  |



| Lane | NBLn 1 | EBLD1 | EBLn2 | SBLn1 |
| :---: | :---: | :---: | :---: | :---: |
| Vol Left, \% | 0\% | 34\% | 0\% | 33\% |
| Vol Thru, \% | 97\% | 66\% | 72\% | 67\% |
| Vol Right, \% | 3\% | 0\% | 28\% | 0\% |
| Sign Control | Stop | Stop | Stop | Stop |
| Traffic Vol by Lane | 36 | 220 | 200 | 105 |
| LT Vol | 0 | 75 | 0 | 35 |
| Through Vol | 35 | 145 | 145 | 70 |
| RT Vol | 1 | 0 | 55 | 0 |
| Lane Flow Rate | 39 | 239 | 217 | 114 |
| Geometry Grp | 2 | 7 | 7 | 2 |
| Degree of Util ( $X$ ) | 0.055 | 0.338 | 0.283 | 0.159 |
| Departure Headway (Hd) | 5.045 | 5.092 | 4.694 | 5.024 |
| Convergence, Y/N | Yes | Yes | Yes | Yes |
| Cap | 710 | 708 | 765 | 714 |
| Service Time | 3.077 | 2.819 | 2.421 | 3.049 |
| HCM Lane VIC Ratio | 0.055 | 0.338 | 0.284 | 0.16 |
| HCM Control Delay | 8.4 | 10.4 | 9.3 | 9 |
| HCM Lane LOS | A | B | A | A |
| HCM 95th-tile Q | 0.2 | 1.5 | 1.2 | 0.6 |


| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NEL | NET | NER | SWL | SWT | SWR |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Configurations | 7 | 性 |  |  |  |  |  | $\dagger$ |  | 7 | 14 |  |
| Traffic Volume (voh) | 200 | 115 | 10 | 0 | 0 | 0 | 0 | 395 | 30 | 5 | 675 | 0 |
| Future Volume (vph) | 200 | 115 | 10 | 0 | 0 | 0 | 0 | 395 | 30 | 5 | 675 | 0 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (t) | 15 | 11 | 10 | 12 | 12 | 12 | 12 | 13 | 13 | 10 | 12 | 12 |
| Storage Length (ti) | 80 |  | 0 | 0 |  | 0 | 0 |  | 0 | 120 |  | 0 |
| Storage Lanes | 1 |  | 0 | 0 |  | 0 | 0 |  | 0 | 1 |  | 0 |
| Taper Length ( t ) | 75 |  |  | 25 |  |  | 25 |  |  | 135 |  |  |
| Lane Utill. Factor | 1.00 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 1.00 |
| Ped Bike Factor | 0.99 |  |  |  |  |  |  | 1.00 |  | 1.00 |  |  |
| Fit |  | 0.988 |  |  |  |  |  | 0.991 |  |  |  |  |
| Flt Protected | 0.950 |  |  |  |  |  |  |  |  | 0.950 |  |  |
| Satd. Flow (prot) | 1986 | 3448 | 0 | 0 | 0 | 0 | 0 | 1908 | 0 | 1685 | 3574 | 0 |
| Fil Permitted | 0.950 |  |  |  |  |  |  |  |  | 0.383 |  |  |
| Satd. Flow (perm) | 1962 | 3448 | 0 | 0 | 0 | 0 | 0 | 1908 | 0 | 678 | 3574 | 0 |
| Right Tum on Red |  |  | Yes |  |  | Yes |  |  | Yes |  |  | Yes |
| Satd. Flow (RTOR) |  | 8 |  |  |  |  |  | 6 |  |  |  |  |
| Link Speed (mph) |  | 30 |  |  | 30 |  |  | 30 |  |  | 30 |  |
| Link Distance (ft) |  | 263 |  |  | 1046 |  |  | 395 |  |  | 594 |  |
| Travel Time (s) |  | 6.0 |  |  | 23.8 |  |  | 9.0 |  |  | 13.5 |  |



Two way Left Tum Lane

| Headway Factor | 0.88 | 1.04 | 1.09 | 1.00 | 1.00 | 1.00 | 1.00 | 0.96 | 0.96 | 1.09 | 1.00 | 1.00 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Turning Speed (mph) | 15 |  | - | 15 |  | 9 | 15 |  |  | 15 |  |  |
| Turn Type- | Perm | NA |  |  |  |  |  | NA |  | pm+pt | NA |  |
| Protected Phases |  | 4 |  |  |  |  |  | 2 |  | 1 | 6 |  |
| Permitted Phases | 4 |  |  |  |  |  |  |  |  | 6 |  |  |
| Minimum Split (s) | 32.0 | 32.0 |  |  |  |  |  | 65.0 |  | 8.0 | 73.0 |  |
| Total Split (s) | 32.0 | 32.0 |  |  |  |  |  | 65.0 |  | 8.0 | 73.0 |  |
| Total Split (\%) | 30.5\% | 30.5\% |  |  |  |  |  | 61.9\% |  | 7.6\% | 69.5\% |  |
| Yellow Time (s) | 3.0 | 3.0 |  |  |  |  |  | 3.0 |  | 3.0 | 3.0 |  |
| All-Red Time (s) | 2.0 | 2.0 |  |  |  |  |  | 2.0 |  | 0.0 | 2.0 |  |
| Lost Time Adjust (s) | 0.0 | 0.0 |  |  |  |  |  | 0.0 |  | 0.0 | 0.0 |  |
| Total Lost Time (s) | 5.0 | 5.0 |  |  |  |  |  | 5.0 |  | 3.0 | 5.0 |  |
| Lead/Lag |  |  |  |  |  |  |  | Lag |  | Lead |  |  |
| Lead-Lag Optimize? |  |  |  |  |  |  |  | Yes |  | Yes |  |  |
| Act Effit Green (s) | 27.0 | 27.0 |  |  |  |  |  | 60.0 |  | 70.0 | 68.0 |  |
| Actuated g/C Ratio | 0.26 | 0.26 |  |  |  |  |  | 0.57 |  | 0.67 | 0.65 |  |


|  | $\rightarrow$ | $\rightarrow$ | 2 | $\cdots$ |  | 4 | 1 | $\nearrow$ | $\rightarrow$ | 4 | $\nearrow$ | 4 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NEL | NET | NER | SWL | SWT | SWR |
| v/c Ratio | 0.44 | 0.16 |  |  |  |  |  | 0.43 |  | 0.01 | 0.32 |  |
| Control Delay | 36.0 | 29.0 |  |  |  |  |  | 9.6 |  | 6.0 | 8.7 |  |
| Queue Delay | 0.0 | 0.0 |  |  |  |  |  | 0.0 |  | 0.0 | 0.0 |  |
| Total Delay | 36.0 | 29.0 |  |  |  |  |  | 9.6 |  | 6.0 | 8.7 |  |
| LOS | D | C |  |  |  |  |  | A |  | A | A |  |
| Approach Delay |  | 33.3 |  |  |  |  |  | 9.6 |  |  | 8.7 |  |
| Approach LOS |  | C |  |  |  |  |  | A |  |  | A |  |
| Queue Length 50th (t) | 125 | 35 |  |  |  |  |  | 85 |  | 1 | 107 |  |
| Queue Length 95th (ft) | 198. | 62 |  |  |  |  |  | 112 |  | 6 | 138 |  |
| Internal Link Dist (ft) |  | 183 |  |  | 966 |  |  | 315 |  |  | 514 |  |
| Turn Bay Length (ft) | 80 |  |  |  |  |  |  |  |  | 120 |  |  |
| Base Capacity (vph) | 504 | 892 |  |  |  |  |  | 1092 |  | 499 | 2314 |  |
| Starvation Cap Reductn | 0 | 0 |  |  |  |  |  | 0 |  | 0 | 0 |  |
| Spillback Cap Reductn | 0 | 0 |  |  |  |  |  | 0 |  | 0 | 0 |  |
| Storage Cap Reductn | 0 | 0 |  |  |  |  |  | 0 |  | 0 | 0 |  |
| Reduced v/c Ratio | 0.44 | 0.16 |  |  |  |  |  | 0.43 |  | 0.01 | 0.32 |  |
| Intersection Summary |  |  |  |  |  |  |  |  |  |  |  |  |
| Area Type: Other |  |  |  |  |  |  |  |  |  |  |  |  |
| Cycle Length: 105 |  |  |  |  |  |  |  |  |  |  |  |  |
| Actuated Cycle Length: 105 |  |  |  |  |  |  |  |  |  |  |  |  |
| Offset: 44 (42\%), Referenced to phase 2:NET and 6:SWTL, Start of Green |  |  |  |  |  |  |  |  |  |  |  |  |
| Natural Cycle: 105 |  |  |  |  |  |  |  |  |  |  |  |  |
| Control Type: Pretimed |  |  |  |  |  |  |  |  |  |  |  |  |
| Maximum v/c Ratio: 0.44 |  |  |  |  |  |  |  |  |  |  |  |  |
| Intersection Signal Delay 14.6 |  |  |  |  | Intersection LOS: B |  |  |  |  |  |  |  |
| Intersection Capacity Utilization 87.5\% |  |  |  |  | ICU Level of Service E |  |  |  |  |  |  |  |
| Analysis Period (min) 15 |  |  |  |  |  |  |  |  |  |  |  |  |

Splits and Phases: 8: Ogden Ave \& Jackson Blvd


| Lane Group | SBL | SBR | NEL | NET | SWT | SWR |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Configurations | * |  | \% | 4 | 中 |  |
| ITraffic Volume (vph) | 1 | 125 | 30 | 425 | 680 | 5 |
| Future Volume (vph) | 1 | 125 | 30 | 425 | 680 | 5 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (t) | 12 | 12 | 10 | 13 | 12 | 12 |
| Storage Length (t) | 0 | 0 | 90 |  |  | 0 |
| Storage Lanes | 1 | 0 | 1 |  |  | 0 |
| Taper Length (tt) | 25 |  | 115 |  |  |  |
| Lane Utili. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 0.95 |
| Ped Bike Factor |  |  |  |  |  |  |
| Frt | 0.866 |  |  |  | 0.999 |  |
| Fil Protected |  |  | 0.950 |  |  |  |
| Sald Flow (prot) | 1645 | 0 | 1685 | 1944 | 3571 | 0 |
| Fil Permitted |  |  | 0.950 |  |  |  |
| Satd. Flow (perm) | 1645 | 0 | 1685 | 1944 | 3571 | 0 |
| Link Speed (mph) | 30 |  |  | 30 | 30 |  |
| Link Distance (ti) | 292 |  |  | 233 | 395 |  |
| Travel Time (s) | 6.6 |  |  | 5.3 | 9.0 |  |
| Confl Peds. (\#/hr) | 2 | 1 | 7 |  |  | 7 |
| Confi. Bikes (\#lhr) |  |  |  |  |  | 1 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Heary Vehicles (\%) | 0\% | 0\% | 0\% | 1\% | 1\% | 0\% |
| Adj. Flow (vph) | 1 | 132 | 32 | 447 | 716 | 5 |
| Shared Lane Traffic (\%) |  |  |  |  |  |  |
| Lane Group Flow (vph) | 133 | 0 | 32 | 447 | 721 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Left | Left | Right |
| Median Width(t) | 12 |  |  | 10 | 10 |  |
| Link Offsetift) | 0 |  |  | 0 | 0 |  |
| Crosswalk Width(tt) |  |  |  |  |  |  |
| Two way Left Tum Lane |  |  |  |  |  |  |
| Headway Factor <br> Turning Speed (mph) | 1.00 | 1.00 | 1.09 | 0.96 | 1.00 | 1.00 |
|  | 15 | 9 | 15 |  |  | 9 |
| Sign Controll | Stop |  |  | Free | Free |  |

Intersection Summary.


Control Type: Unsignalized
Intersection Capacity Utilization 39.7\% ICU Level of Service A
Analysis Period (min) 15


| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Configurations |  |  |  | 7 | ttt |  | 7 | 44 |  |  | 44 | F |
| Traffic Volume (vph) | 0 | 0 | 0 | 225 | 445 | 330 | 265 | 625 | 0 | 0 | 385 | 190 |
| Future Volume (vph) | 0 | 0 | 0 | 225 | 445 | 330 | 265 | 625 | 0 | 0 | 385 | 190 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 2000 | 1900 | 1900 | 2000 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 9 | 10 | 11 | 10 | 15 | 10 | 10 | 12 | 10 |
| Storage Length (t) | 0 |  | 0 | 0 |  | 0 | 50 |  | 0 | 0 |  | 150 |
| Storage Lanes | 0 |  | 0 | 1 |  | 0 | 1 |  | 0 | 0 |  | 1 |
| Taper Length (ft) | 25 |  |  | 0 |  |  | 120 |  |  | 25 |  |  |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 0.86 | 0.86 | 0.91 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 |
| Ped Bike Factor |  |  |  | 1.00 | 0.99 |  | 1.00 |  |  |  |  | 0.98 |
| Fit |  |  |  |  | 0.938 |  |  |  |  |  |  | 0.850 |
| Flt Protected |  |  |  | 0.950 | 0.999 |  | 0.950 |  |  |  |  |  |
| Satd. Flow (prot) | 0 | 0 | 0 | 1370 | 4207 | 0 | 1685 | 4098 | 0 | 0 | 3725 | 1492 |
| Flt Permitted |  |  |  | 0.950 | 0.999 |  | 0.477 |  |  |  |  |  |
| Satd. Flow (perm) | 0 | 0 | 0 | 1368 | 4207 | 0 | 844 | 4098 | 0 | 0 | 3725 | 1469 |
| Right Tum on Red |  |  | Yes |  |  | Yes |  |  | Yes |  |  | Yes |
| Satd. Flow (RTOR) |  |  |  |  | 161 |  |  |  |  |  |  | 196 |
| Link Speed (mph) |  | 30 |  |  | 30 |  |  | 30 |  |  | 30 |  |
| Link Distance (ft) |  | 1260 |  |  | 244 |  |  | 427 |  |  | 230 |  |
| Travel Time (s) |  | 28.6 |  |  | 5.5 |  |  | 9.7 |  |  | 5.2 |  |
| Confl. Peds. (\#/hr) |  |  |  | 1 |  | 6 | 5 |  |  |  |  | 5 |
| Confl. Bikes (\#/hr) |  |  |  |  |  | 2 |  |  |  |  |  | , |
| 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 |
| Heavy Vehicles (\%) | 0\% | 0\% | 0\% | 2\% | 1\% | 1\% | 0\% | 2\% | $0 \%$ | 0\% | 2\% | 1\% |
| Adj. Flow (vph) | 0 | 0 | 0 | 232 | 459 | 340 | 273 | 644 | 0 | 0 | 397 | 196 |
| Shared Lane Traffic (\%) |  |  |  | 10\% |  |  |  |  |  |  |  |  |
| Lane Group Flow (vph) | 0 | 0 | 0 | 209 | 822 | 0 | 273 | 644 | 0 | 0 | 397 | 196 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(t) |  | 9 |  |  | 9 |  |  | 10 |  |  | 0 |  |
| Link Offset(f) |  | 0 |  |  | 0 |  |  | 0 |  |  | 0 |  |
| Crosswalk Width(tt) |  | 16 |  |  | 16 |  |  | 16 |  |  | 16 |  |

Two way Left Tum Lane

| Headway Factor | 1.00 | 1.00 | 1.00 | 1.14 | 1.09 | 1.04 | 1.09 | 0.82 | 1.09 | 1.09 | 0.94 | 1.09 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Turning Speed (mph) | 15 |  | 9 | 15 |  | 9 | 15 |  | 9 | 15 |  | 9 |
| Turn Type |  |  |  | Prot | NA |  | pm+pt | NA |  |  | NA | Perm |
| Protected Phases |  |  |  | 3 | 8 |  | 1 | 6 |  |  | 2 |  |
| Permitted Phases |  |  |  |  |  |  | 6 |  |  |  |  | 2 |
| Minimum Split (s) |  |  |  | 31.0 | 31.0 |  | 15.0 | 68.0 |  |  | 53.0 | 53.0 |
| Total Split (s) |  |  |  | 31.0 | 31.0 |  | 15.0 | 68.0 |  |  | 53.0 | 53.0 |
| Total Split (\%) |  |  |  | 29.5\% | 29.5\% |  | 14.3\% | 64.8\% |  |  | 50.5\% | 50.5\% |
| Yellow Time (s) |  |  |  | 3.0 | 3.0 |  | 3.0 | 3.0 |  |  | 3.0 | 3.0 |
| All-Red Time (s) |  |  |  | 2.0 | 2.0 |  | 2.0 | 2.0 |  |  | 0.0 | 0.0 |
| Lost Time Adjust (s) |  |  |  | 0.0 | 0.0 |  | 0.0 | 0.0 |  |  | 0.0 | 0.0 |
| Total Lost Time (s) |  |  |  | 5.0 | 5.0 |  | 5.0 | 5.0 |  |  | 3.0 | 3.0 |
| Lead/Lag |  |  |  |  |  |  | Lag |  |  |  | Lead | Lead |
| Lead-Lag Optimize? |  |  |  |  |  |  | Yes |  |  |  | Yes | Yes |
| Act Efficl Green (s) |  |  |  | 26.0 | 26.0 |  | 63.0 | 63.0 |  |  | 50.0 | 50.0 |
| Actuated g/C Ratio |  |  |  | 0.25 | 0.25 |  | 0.60 | 0.60 |  |  | 0.48 | 0.48 |



|  |  |  |  |  | 4 |  | $\dagger$ | P |  |  | $\downarrow$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Group ... EBL | EBT. | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| v/c Ratio |  |  | 0.62 | 0.71 |  | 0.47 | 0.26 |  |  | 0.22 | 0.24 |
| Control Delay |  |  | 42.7 | 31.0 |  | 13.9 | 7.7 |  |  | 16.5 | 3.1 |
| Queue Delay |  |  | 0.0 | 0.0 |  | 0.0 | 0.2 |  |  | 0.0 | -0.0 |
| Total Delay |  |  | 42.7 | 31.0 |  | 13.9 | 7.9 |  |  | 16.5 | 3.1 |
| Los |  |  | D | C |  | B | A |  |  | B |  |
| Approach Delay |  |  |  | 33.4 |  |  | 9.7 |  |  | 12.1 |  |
| Approach LOS |  |  |  | C |  |  | A |  |  | B |  |
| Queue Length 50th (ft) |  |  | 146 | 159 |  | 72 | 88 |  |  | 79 |  |
| Queue Length 95 (h) (ti) |  |  | 240 | 210 |  | 105 | 112 |  |  | 110 | 37 |
| Internal Link Dist (ft) | 1180 |  |  | 164 |  |  | 347 |  |  | 150 |  |
| Turn Bay Length (f) |  |  |  |  |  | 50 |  |  |  |  | 150 |
| Base Capacity (vph) |  |  | 339 | 1162 |  | 586 | 2458 |  |  | 1773 | 802 |
| Starvation Cap Reductn |  |  | 0 | 0 |  | 0 | 964 |  |  | 0 |  |
| Spillback Cap Reductn |  |  | 0 | 0 |  | 0 | 0 |  |  | 0 |  |
| Storage Cap Reductn |  |  | 0 | 0 |  | 0 | 0 |  |  | 0 |  |
| Reduced v/c Ratio |  |  | 0.62 | 0.71 |  | 0.47 | 0.43 |  |  | 0.22 | 0.24 |
| Intersection Summary |  |  |  |  |  |  |  |  |  |  |  |
| Area Type: Other |  |  |  |  |  |  |  |  |  |  |  |
| Cycle Length: 105 |  |  |  |  |  |  |  |  |  |  |  |
| Actuated Cycle Length: 105 |  |  |  |  |  |  |  |  |  |  |  |
| Offiset: $38(36 \%)$, Referenced to phase 2:SBT and 6:NBTL, Start of Green |  |  |  |  |  |  |  |  |  |  |  |
| Natural Cycle: 105 |  |  |  |  |  |  |  |  |  |  |  |
| Control Type: Pretimed |  |  |  |  |  |  |  |  |  |  |  |
| Maximum v/c Ratio: 0.71 |  |  |  |  |  |  |  |  |  |  |  |
| $\frac{\text { Intersection Signal Delay: } 19.9}{\text { Intersection Capacity Utilization } 95.2 \%}$ |  |  |  | Intersection LOS: B |  |  |  |  |  |  |  |
|  |  |  |  | Intersection Capacity Utilization $95.2 \% \ldots \ldots . \quad$ ICU Level of Service $F$Analysis Period (min) 15 |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

Splits and Phases: 10: Damen Ave \& Van Buren St



## Lanes, Volumes, Timings

11: I-290 WB Exit Ramp \& Van Buren St




| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NEL | NET | NER | SWL | SWT | SWR |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Configurations |  |  |  |  | + $\downarrow$ |  | 8 | 4 |  |  | 4 | F |
| Traffic Volume (vph) | 0 | 0 | 0 | 45 | 35 | 15 | 40 | 440 | 0 | 0 | 390 | 415 |
| Future Volume (vph) | 0 | 0 | 0 | 45 | 35 | 15 | 40 | 440 | 0 | 0 | 390 | 415 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 16 | 16 | 14 | 11 | 11 | 10 | 12 | 11 | 11 |
| 'Storage Length (f) | 0 |  | 0 | 0 |  | 0 | 130 |  | 0 | 0 |  | 0 |
| Storage Lanes | 0 |  | 0 | 0 |  | 0 | 1 |  | 0 | 0 |  | 1 |
| Taper Length (ft) | 25 |  |  | 25 |  |  | 135 |  |  | 25 |  |  |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 0.95 | . 0.95 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor |  |  |  |  | 0.99 |  | 1.00 |  |  |  |  | 0.98 |
| Frt |  |  |  |  | 0.976 |  |  |  |  |  |  | 0.850 |
| Flt Protected |  |  |  |  | 0.977 |  | 0.950 |  |  |  |  |  |
| Satd. Flow (prot) | 0 | 0 | 0 | 0 | 3875 | 0 | 1745 | 1818 | 0 | 0 | 1818 | 1546 |
| Flt Permitted |  |  |  |  | 0.977 |  | 0.431 |  |  |  |  |  |
| Satd. Flow (perm) | 0 | 0 | 0 | 0 | 3875 | 0 | 790 | 1818 | 0 | 0 | 1818 | 1522 |
| Right Tum on Red |  |  | Yes |  |  | Yes |  |  | Yes |  |  | Yes |
| Satd. Flow (RTOR) |  |  |  |  | 16 |  |  |  |  |  |  | 437 |
| Link Speed (mph) |  | 30 |  |  | 30 |  |  | 30 |  |  | 30 |  |
| Link Distance ( ft ) |  | 209 |  |  | 1434 |  |  | 465 |  |  | 233 |  |
| Travel Time (s) |  | 4.8 |  |  | 32.6 |  |  | 10.6 |  |  | 5.3 |  |
| Confl. Peds. (\#/hr) |  |  |  |  |  | 11 | 6 |  |  |  |  | 6 |
| Confl. Bikes (\#/hr) |  |  |  |  |  |  |  |  |  |  |  |  |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Heavy Vehicles (\%) | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 1\% | 0\% | 0\% | 1\% | 1\% |
| Adj. Flow (vph) | 0 | 0 | 0 | 47 | 37 | 16 | 42 | 463 | 0 | 0 | 411 | 437 |
| Shared Lane Traffic (\%) |  |  |  |  |  |  |  |  |  |  |  |  |
| Lane Group Flow (vph) | 0 | 0 | 0 | 0 | 100 | 0 | 42 | 463 | 0 | 0 | 411 | 437 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width $(\mathrm{tt})$ |  | 0 |  |  | 0 |  |  | 11 |  |  | 10 |  |
| Link Offset(ft) |  | 0 |  |  | 0 |  |  | 0 |  |  | 0 |  |
| Crosswalk Width(t) |  | 16 |  |  | 16 |  |  | 16 |  |  | 16 |  |
| Two way Left Turn Lane |  |  |  |  |  |  |  |  |  |  |  |  |
| Headway Factor | 1.00 | 1.00 | 1.00 | 0.85 | 0.85 | 0.92 | 1.04 | 1.04 | 1.09 | 1.00 | 1.04 | 1.04 |
| Turning Speed (mph) | 15 |  | 9 | 15 |  | 9 | 15 |  | 9 | 15 |  | 9 |
| Turn Type |  |  |  | Perm | NA |  | pm+pt | NA |  |  | NA | Perm |
| Protected Phases |  |  |  |  | 4 |  | 1 | 6 |  |  | 2 |  |
| Permitted Phases |  |  |  | 4 |  |  | 6 |  |  |  |  | 2 |
| Minimum Split (s) |  |  |  | 31.0 | 31.0 |  | 8.0 | 74.0 |  |  | 66.0 | 66.0 |
| Total Split (s) |  |  |  | 31.0 | 31.0 |  | 8.0 | 74.0 |  |  | 66.0 | 66.0 |
| Total Split (\%) |  |  |  | 29.5\% | 29.5\% |  | 7.6\% | 70.5\% |  |  | 62.9\% | 62.9\% |
| Yellow Time (s) |  |  |  | 3.0 | 3.0 |  | 3.0 | 3.0 |  |  | 3.0 | 3.0 |
| All-Red Time (s) |  |  |  | 2.0 | 2.0 |  | 0.0 | 2.0 |  |  | 2.0 | 2.0 |
| Lost Time Adjust (s) |  |  |  |  | 0.0 |  | 0.0 | 0.0 |  |  | 0.0 | 0.0 |
| Total Lost Time (s) |  |  |  |  | 5.0 |  | 3.0 | 5.0 |  |  | 5.0 | 5.0 |
| Lead/Lag |  |  |  |  |  |  | Lead |  |  |  | Lag | Lag |
| Lead-Lag Optimize? |  |  |  |  |  |  | Yes |  |  |  | Yes | Yes |
| Act Effot Green (s) |  |  |  |  | 26.0 |  | 71.0 | 69.0 |  |  | 61.0 | 61.0 |
| Actuated g/C Ratio |  |  |  |  | 0.25 |  | 0.68 | 0.66 |  |  | 0.58 | 0.58 |


|  |  |  | 7 |  |  |  |  |  |  | 4 |  | 4 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Group: | EBL | EBT | EBR | WBL | WBT | WBR. | NEL | NET | NER | SWL | SWT | SWR |
| v/c Ratio |  |  |  |  | 0.10 |  | 0.07 | 0.39 |  |  | 0.39 | 0.41 |
| Control Delay |  |  |  |  | 25.9 |  | 6.0 | 9.4 |  |  | 6.6 | 2.2 |
| Queue Delay |  |  |  |  | 0.0 |  | 0.0 | 0.0 |  |  | 0.0 | 0.0 |
| Total Delay |  |  |  |  | 25.9 |  | 6.0 | 9.4 |  |  | 6.6 | 2.2 |
| LOS |  |  |  |  | C |  | A | A |  |  | A | A |
| Approach Delay |  |  |  |  | 25.9 |  |  | 9.2 |  |  | 4.3 |  |
| Approach LOS |  |  |  |  | C |  |  | A |  |  | A |  |
| Queue Length 50th (t) |  |  |  |  | 23 |  | 8 | 130 |  |  | 34 |  |
| Queue Length 95th (ti) |  |  |  |  | 44 |  | 19 | 188 |  |  | 46 |  |
| Internal Link Dist (fi) |  | 129 |  |  | 1354 |  |  | 385 |  |  | 153 |  |
| TTurn Bay Length (ti) |  |  |  |  |  |  | 130 |  |  |  |  |  |
| Base Capacity (vph) |  |  |  |  | 971 |  | 579 | 1194 |  |  | 1056 | 1067 |
| Starvation Cap Reductn |  |  |  |  | 0 |  | 0 | 0 |  |  | 0 | 0 |
| Spillback Cap Reductn |  |  |  |  | 0 |  | 0 | 0 |  |  | 0 | 0 |
| Storage Cap Reductn |  |  |  |  | 0 |  | 0 | 0 |  |  | 0 | 0 |
| Reduced vic Ratio |  |  |  |  | 0.10 |  | 0.07 | 0.39 |  |  | 0.39 | 0.41 |
| Intersection Summary |  |  |  |  |  |  |  |  |  |  |  |  |
| Area Type: Other |  |  |  |  |  |  |  |  |  |  |  |  |
| Cycle Length: 105 |  |  |  |  |  |  |  |  |  |  |  |  |
| Actuated Cycle Length 105 |  |  |  |  |  |  |  |  |  |  |  |  |
| Offset: 52 (50\%), Referenced to phase 2:SWT and 6:NETL, Start of Green |  |  |  |  |  |  |  |  |  |  |  |  |
| Natural Cycle: 105 |  |  |  |  |  |  |  |  |  |  |  |  |
| Control Type: Pretimed |  |  |  |  |  |  |  |  |  |  |  |  |
| Maximum v/c Ratio: 0.41 |  |  |  |  |  |  |  |  |  |  |  |  |
| Intersection Signal Delay 7.5 |  |  |  |  | Intersection LOS: A |  |  |  |  |  |  |  |
| Intersection Capacity Uitilization $88.3 \%$ |  |  |  |  | ICUU Level of Service E |  |  |  |  |  |  |  |
| Analysis Period (min) 15 |  |  |  |  |  |  |  |  |  |  |  |  |

Splits and Phases: 13: Ogden Ave \& Van Buren St


Lanes, Volumes, Timings
14: Damen Ave \& Congress Pwky
05/20/2023

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Configurations | 1 | 4 t | F |  |  |  |  | 14 | T | 7 | 4 |  |
| Traffic Volume (vph) | 340 | 80 | 195 | 0 | 0 | 0 | 0 | 550 | 195 | 280 | 350 | 0 |
| Future Volume (vph) | 340 | 80 | 195 | 0 | 0 | 0 | 0 | 550 | 195 | 260 | 350 | 0 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 2000 | 1900 | 1900 | 2000 | 1900 |
| Lane Width (t) | 10 | 10 | 10 | 12 | 12 | 12 | 12 | 12 | 13 | 9 | 12 | 11 |
| Storage Length (f) | 0 |  | 0 | 0 |  | 0 | 0 |  | 0 | 115 |  | 0 |
| Storage Lanes | 1 |  | 1 | 0 |  | 0 | 0 |  | 1 | 1 |  | 0 |
| Taper Length (ti) | 25 |  |  | 25 |  |  | 25 |  |  | 135 |  |  |
| Lane Util. Factor | 0.91 | 0.86 | 0.91 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 |
| Ped Bike Factor | 1.00 | 1.00 | 0.99 |  |  |  |  |  | 0.98 | 1.00 |  |  |
| Fit |  | 0.973 | 0.850 |  |  |  |  |  | 0.850 |  |  |  |
| Fit Protected | 0.950 | 0.973 |  |  |  |  |  |  |  | 0.950 |  |  |
| Satd. Flow (prot) | 1533 | 2847 | 1345 | 0 | 0 | 0 | 0 | 3725 | 1636 | 1624 | 3638 | 0 |
| Filt Permitted | 0.950 | 0.973 |  |  |  |  |  |  |  | 0.365 |  |  |
| Satd. Flow (perm) | 1531 | 2846 | 1326 | 0 | 0 | 0 | 0 | 3725 | 1601 | 622 | 3638 | 0 |
| Right Tum on Red |  |  | Yes |  |  | Yes |  |  | Yes |  |  | Yes |
| Satd. Flow (RTOR) |  | 22 | 151 |  |  |  |  |  | 212 |  |  |  |
| Link Speed (mph) |  | 30 |  |  | 30 |  |  | 30 |  |  | 30 |  |
| Link Distance (ft) |  | 806 |  |  | 725 |  |  | 893 |  |  | 427 |  |
| Travel Time ( $s$ ) |  | 18.3 |  |  | 16.5 |  |  | 20.3 |  |  | 9.7 |  |
| Confl. Peds. (\#/hr) | 1 |  | 2 |  |  |  |  |  | 16 | 16 |  |  |
| Confl. Bikes (\#/hr) |  |  |  |  |  |  |  |  | 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 (\%) | 0\% | 3\% | 2\% | 0\% | 0\% | 0\% | 0\% | 2\% | 2\% | 0\% | 3\% | 0\% |
| Bus Blockages (\#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 0 |
| Adj. Flow (vph) | 370 | 87 | 212 | 0 | 0 | 0 | 0 | 598 | 212 | 283 | 380 | 0 |
| Shared Lane Traffic (\%) | 50\% |  | 29\% |  |  |  |  |  |  |  |  |  |
| Lane Group Flow (vph) | 185 | 333 | 151 | 0 | 0 | 0 | 0 | 598 | 212 | 283 | 380 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width $(\mathrm{tt})$ |  | 10 |  |  | 10 |  |  | 14 |  |  | 15 |  |
| Link Offset(t) |  | 0 |  |  | 0 |  |  | 0 |  |  | 0 |  |
| Crosswalk Width( t ) |  | 16 |  |  | 16 |  |  | 16 |  |  | 16 |  |
| Two way Left Tum Lane |  |  |  |  |  |  |  |  |  |  |  |  |
| Headway Factor | 1.09 | 1.09 | 1.09 | 1.00 | 1.00 | 1.00 | 1.00 | 0.94 | 0.96 | 1.14 | 0.95 | 1.04 |
| Turning Speed (mph) | 15 |  | 9 | 15 |  | 9 | 15 |  | 9 | 15 |  | 9 |
| Turn Type | Perm | NA | Perm |  |  |  |  | NA | Perm | pm+pt | NA |  |
| Protected Phases |  | 8 |  |  |  |  |  | 6 |  | 5 | 2 |  |
| Permitted Phases | 8 |  | 8 |  |  |  |  |  | 6 | 2 |  |  |
| Minimum Split (s) | 35.0 | 35.0 | 35.0 |  |  |  |  | 56.0 | 56.0 | 14.0 | 70.0 |  |
| Total Split (s) | 35.0 | 35.0 | 35.0 |  |  |  |  | 56.0 | 56.0 | 14.0 | 70.0 |  |
| Total Split (\%) | 33.3\% | 33.3\% | 33.3\% |  |  |  |  | 53.3\% | 53.3\% | 13.3\% | 66.7\% |  |
| Yellow Time ( s ) | 3.0 | 3.0 | 3.0 |  |  |  |  | 3.0 | 3.0 | 3.0 | 3.0 |  |
| All-Red Time (s) | 2.0 | 2.0 | 2.0 |  |  |  |  | 0.0 | 0.0 | 2.0 | 2.0 |  |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 |  |  |  |  | 0.0 | 0.0 | 0.0 | 0.0 |  |
| Total Lost Time (s) | 5.0 | 5.0 | 5.0 |  |  |  |  | 3.0 | 3.0 | 5.0 | 5.0 |  |
| Lead/Lag |  |  |  |  |  |  |  | Lead | Lead | Lag |  |  |
| Lead-Lag Optimize? |  |  |  |  |  |  |  | Yes | Yes | Yes |  |  |
| Act Effct Green (s) | 30.0 | 30.0 | 30.0 |  |  |  |  | 53.0 | 53.0 | 65.0 | 65.0 |  |


| Lane Group. | EBL | EBT. | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Actuated g/C Ratio | 0.29 | 0.29 | 0.29 |  |  |  |  | 0.50 | 0.50 | 0.62 | 0.62 |  |
| v/c Ratio | 0.42 | 0.40 | 0.31 |  |  |  |  | 0.32 | 0.23 | 0.60 | 0.17 |  |
| Control Delay | 34.1 | 29.9 | 6.6 |  |  |  |  | 15.9 | 2.6 | 23.4 | 6.9 |  |
| Queue Delay | 0.0 | 0.0 | 0.0 |  |  |  |  | 0.0 | 0.0 | 0.0 | 0.0 |  |
| Total Delay | 34.1 | 29.9 | 6.6 |  |  |  |  | 15.9 | 2.6 | 23.4 | 6.9 |  |
| LOS | C | C | A |  |  |  |  | B | A | C | A |  |
| Approach Delay |  | 25.8 |  |  |  |  |  | 12.4 |  |  | 14.0 |  |
| Approach LOS |  | C |  |  |  |  |  | B |  |  | B |  |
| Queue Length 50 th (tt) | 110 | 97 | 0 |  |  |  |  | 120 | 0 | 86 | 52 |  |
| Queue Length 95th (ft) | 183 | 144 | 51 |  |  |  |  | 158 | 36 | m108 | 71 |  |
| Internal Link Dist (tt) |  | 726 |  |  | 645 |  |  | 813 |  |  | 347 |  |
| Turn Bay Length (f) |  |  |  |  |  |  |  |  |  | 115 |  |  |
| Base Capacity (vph) | 437 | 828 | 486 |  |  |  |  | 1880 | 913 | 470 | 2252 |  |
| Starvation Cap Reductn | 0 | 0 | 0 |  |  |  |  | 0 | 0 | 0 | 0 |  |
| Spillback Cap Reductn | 0 | 0 | 0 |  |  |  |  | 0 | 0 | 0 | 0 |  |
| Storage Cap Reductn | 0 | 0 | 0 |  |  |  |  | 0 | 0 | 0 | 0 |  |
| Reduced v/c Ratio | 0.42 | 0.40 | 0.31 |  |  |  |  | 0.32 | 0.23 | 0.60 | 0.17 |  |


| Intersection Summary |
| :---: |
| Area Type: Other |
| Cycle Length: 105 |
| Actuated Cycle Length: 105 |
| Offset: $39(37 \%)$, Referenced to phase 2:SBTL and $6:$ NBT, Start of Green |
| Natural Cycle: 105 |
| Control Type: Pretimed |
| Maximum vic Ratio: 0.60 |
| Intersection Signal Delay: 17.1 |
| Intersection Capacity Utilization 95.2\%_-ICU Level of Service F |
| Analysis Period (min) 15 |
| $m$ Volume for 95 th percentile queue is metered by upstream signal. |

Splits and Phases: 14: Damen Ave \& Congress Pwky


[^14]Synchro 11 Report

| Lane Group | EBT | EBR | WBL | WBT | NBL | NBR |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Configurations | 㤽 |  |  |  |  | 7 |
| Traffic Volume (vph) | 365 | 70 | 0 | 0 | 0 | 65 |
| Future Volume (vph) | 365 | 70 | 0 | 0 | 0 | 65 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 11 | 12 | 12 | 12 | 12 | 12 |
| Lane Util. Factor | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor |  |  |  |  |  |  |
| Frt | 0.976 |  |  |  |  | 0.865 |
| Filt Protected |  |  |  |  |  |  |
| Satd. Flow (prot) | 3378 | 0 | 0 | 0 | 0 | 1644 |
| Flt Permitted |  |  |  |  |  |  |
| Satd. Flow (perm) | 3378 | 0 | 0 | 0 | 0 | 1644 |
| Link Speed (mph) | 30 |  |  | 30 | 30 |  |
| Link Distance (ft) | 155 |  |  | 186 | 164 |  |
| Travel Time (s) | 3.5 |  |  | 4.2 | 3.7 |  |
| Confl. Peds. (\#/hr) |  | 6 |  |  |  |  |
| Peak Hour Factor | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 |
| Heavy Vehicles (\%) | 1\% | 0\% | 0\% | 0\% | 0\% | 0\% |
| Adj. Flow (vph) | 424 | 81 | 0 | 0 | 0 | 76 |
| Shared Lane Traffic (\%) |  |  |  |  |  |  |
| Lane Group Flow (vph) | 505 | 0 | 0 | 0 | 0 | 76 |
| Enter Blocked Intersection | No | No | No | No | No | No. |
| Lane Alignment | Left | Right | Left | Left | Left | Right |
| Median Width(t) | 0 |  |  | 0 | 0 |  |
| Link Offset(ft) | 0 |  |  | 0 | 0 |  |
| Crosswalk Width(t) | 16 |  |  | 16 | 16 |  |
| Two way Left Tum Lane |  |  |  |  |  |  |
| Headway Factor | 1.04 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) |  | 60 | 60 |  | 60 | 60 |
| Sign Control | Free |  |  | Free | Stop |  |

Intersection Summary
Area Type: Ot Other
Control Type: Unsignalized
Intersection Capacity Utilization 23.3\% ICU Level of Service A
Analysis Period (min) 15



Platoon blocked, \%

| Mov Cap-1 Maneuver | - | -142 |
| :--- | :--- | :--- |
| Mov Cap-2 Maneuver | - | - |
| Stage 1 | - | - |
| Stage 2 | - | - |


| Approach: | EB |
| :--- | :--- |
| HCM Control Delay S | 0 |
|  | NB |




## HCM 6th TWSC

16: Driveway 4 \& Jackson Blvd







## Raw Count Data

## Adams Street at Wood Street - TMC

Thu Feb 23, 2023
Full Length (4 PM-7:30 PM)
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements

CH|ALGEWAL HAMLLON
Provided by: Gewalt Hamilton Associates Inc. 625 Forest Edge Drive, Vernon Hills, IL, 60061, US

ID: 1.042308, Location: 41.878825, -87.671687

| Leg <br> Direction | Adams <br> Eastbound |  |  |  | Adams <br> Westbound |  |  |  |  |  | Wood <br> Northbound |  |  |  |  |  | Wood Southbound |  |  |  |  |  | lnt |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Time | R T | L U | App | Petl* | R | T | L | U | App | Perd ${ }^{+}$ | R | T | L | U | App | Pedi | R | T | L | U | App | Ped" |  |
| 2023-02-23 4 00PM | 0 0 | 0 | 0 | 1 | 7 | 36 | 3 | 0 | 46 | 1 | 0 | 34 | 9 | 0 | 43 | U | 16 | 20 | 0 | 0 | 36 | 1 | 125 |
| 4 15PM | 0 | 0 0 | 0 | 2 | 14 | 54 | 7 | 0 | 75 | 1 | 0 | 28 | 9 | 0 | 37 | 0 | 7 | 19 | 0 | 1 | 27 | 1 | 139 |
| 4.30 PM | 0 | 0 0 | 0 | 1 | 7 | 53 | 4 | 0 | 64 | 1 | 0 | 35 | 18 | 0 | 53 | 1 | 3 | 14 | 0 | 0 | 17 | 0 | 134 |
| 4.45 PM | 0 | 0 | 0 | 4 | 5 | 67 | 3 | 0 | 75 | 1 | 0 | 27 | 10 | 0 | 37 | $1)$ | 14 | 20 | 0 | 0 | 34 | 0 | 146 |
| Hourly Total | 0 0 | 0 | 0 | 8 | 33 | 210 | 17 | 0 | 260 | 4. | 0 | 124 | 46 | 0 | 170 | 1 | 40 | 73 | 0 | 1 | 114 | 2 | 544 |
| 5:00PM | 0 | 0 | 0 | 3 | 9 | 58 | 2 | 0 | 69 | 1 | 0 | 31 | 7 | 0 | 38 | 1 | 15 | 16 | 0 | 0 | 31 | 0 | 138 |
| 5.15 PM | 0 | 0 | 0 | 1 | 11 | 63 | 7 | 0 | 81 | 1 | 0 | 35 | 3 | 0 | 38 | 0 | 6 | 7 | 0 | 0 | 13 | 1 | 132 |
| 5.30PM | 0 | 0 | 0 | 1 | 6 | 60 | 5 | 0 | 71 | 7 | 0 | 23 | 9 | 0 | 32 | 1 | 7 | 17 | 0 | 0 | 24 | 1 | 127 |
| 545 PM | 0 0 | 0 | 0 | 4 | 3 | 54 | 2 | 0 | 59 | 0 | 0 | 18 | 7 | 0 | 25 | 1 | 7 | 12 | 0 | 0 | 19 | 1 | 103 |
| Hourly Total | 0 | 0 0 | 0 | 9 | 29 | 235 | 16 | 0 | 280 | 5 | 0 | 107 | 26 | 0 | 133 | 2 | 35 | 52 | 0 | 0 | 87 | 2 | 500 |
| 6:00PM | 0 0 | 0 0 | 0 | 2 | 6 | 26 | 0 | 0 | 32 | 1 | 0 | 16 | 4 | 0 | 20 | 1 | 7 | 6 | 0 | 0 | 13 | 4 | 65 |
| 6:15PM | 0 0 | 0 | 0 | 6 | 2 | 14 | 0 | 0 | 16 | 0 | 0 | 13 | 9 | 0 | 22 | 11 | 6 | 9 | 0 | 0 | 15 | i) | 53 |
| 6:30PM | 0 | 10 | 1 | 0 | 2 | 11 | 1 | 0 | 14 | 0 | 0 | 15 | 3 | 0 | 18 | 1 | 4 | 8 | 0 | 0 | 12 | 0 | 45 |
| 6 45PM | 0 | 0 | 0 | 0 | 0 | 10 | 2 | 0 | 12 | 0 | 0 | 6 | 4 | 0 | 10 | 11 | 6 | 4 | 0 | 0 | 10 | ) | 32 |
| Hourly Total | 0 | 10 | 1 | 8 | 10 | 61 | 3 | 0 | 74 | 1 | 0 | 50 | 20 | 0 | 70 | 2 | 23 | 27 | 0 | 0 | 50 | 0 | 195 |
| 700 PM | 0 | 0 0 | 0 | 0 | 0 | 6 | 2 | 0 | 8 | 0 | 0 | 5 | 3 | 0 | 8 | 0 | 5 | 10 | 0 | 0 | 15 | 0 | 31 |
| 7:15PM | 0 | 0 | 0 | 1 | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 10 | 2 | 0 | 12 | 0 | 2 | 4 | 0 | 0 | 6 | 0 | 25 |
| Hourly Total | 0 | 0 0 | 0 | 1 | 0 | 13 | 2 | 0 | 15 | 0 | 0 | 15 | 5 | 0 | 20 | 0 | 7 | 14 | 0 | 0 | 21 | 0 | 56 |
| Total | $0 \quad 0$ | 10 | 1 | 20 | 72 | 519 | 38 | 0 | 629 | 10 | 0 | 296 | 97 | 0 | 393 | 5 | 105 | 166 | 0 | 1 | 272 | 4 | 1295 |
| \% Approach | 0\% 0\% | 100\% 0\% | - |  | 11.4\% | 82.5\% | 6.0\% |  | - |  | 0\% | 75 3\% | 7\% 0 |  | - |  | 38.6\% | 610\% 0 | \% 0 | 0.4\% | - |  |  |
| \% Total | 0\% 0\% | 0.1\% 0\% | 0.1\% | - | 5.6\% | 40.1\% | 2.9\% | 0\% | 48.6\% |  | 0\% | 22.9\% | 75\% 0 | 0\% | 30.3\% | $-1$ | 8.1\% | 12.8\% 0 | \% 0 | .1\% | 21.0\% |  |  |
| Lights |  | 10 | 1 |  | 71 | 505 | 38 | 0 | 614 | - | 0 | 289 | 97 | 0 | 386 |  | 102 | 165 | 0 | 0 | 267 |  | 1268 |
| \% li.ights | 0\% 0\% | 100\% 0\% | 100\% | - | $986 \%$ | 97.3\% | 100\% | 0\% | 97.6\% |  | 0\% 9 | 97.6\% | 100\% 0 | )\% | 98.2\% |  | $971 \%$ | 99.4\% 0 | \% | 0\% | 8.2\% |  | 97.9\% |
| Ariculated Trucks |  | $0 \quad 0$ | 0 |  | 0 | 1 | 0 | 0 | 1 |  | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 |  | 1 |
| \% Ariculated Trucks | 0\% 0\% | 0\% 0\% | 0\% | - |  | 0.2\% | 0\% | 0\% | 0.2\% |  | 0\% | 0\% | 0\% 0 |  | 0\% | - | 0\% | 0\% 0 |  | 0\% | 0\% | - | 0.1\% |
| Buses and Single-Unit Trucks | $0 \quad 0$ | $0 \quad 0$ | 0 | - | 0 | 8 | 0 | 0 | 8 | - | 0 | 3 | 0 | 0 | 3 | - | 3 | 1 | 0 | 1 | 5 | - | 16 |
| \% Buses and Single-Unit Trucks | 0\% 0\% | 0\% 0\% | 0\% | - | 0\% | 1.5\% | 0\% |  | 1.3\% |  | $0 \%$ | 1.0\% | 0\% 0 |  | 0.8\% | - | 2.9\% | 0.6\% | \% 1. | 00\% | 1.8\% | - | 1.2\% |
| Bicycles on Road | $0 \quad 0$ | $0 \quad 0$ | 0 | - | 1 | 5 | 0 | 0 | 6 | - | 0 | 4 | 0 | 0 | 4 | - | 0 | 0 | 0 | 0 | 0 |  | 10 |
| \% Bicycles on Road | 0\% 0\% | 0\% 0\% | 0\% | - | 1.4\% | 1.0\% | 0\% | 0\% | 1.0\% |  | 0\% | 1.4\% | 0\% 0 |  | 1.0\% |  | 0\% | 0\% |  | 0\% | 0\% |  | 0.8\% |
| Pedestrims | - | - - | - | 25 | - | - | - | - | - | 10 | - | - | - | - | - | $\overline{3}$ | - | - | - | - | - | 4 |  |
| C, Pedrenidill | - | - | - | 100\% | - | - | - | - | - | 1014! | - | - | - | - |  | 11000. | - | - | - | $\cdot$ |  | $100{ }^{1}$ |  |
| Bicycles on Cinsswalh | - - | - | - |  | - | - | - |  | - | 0 | - | - | - | - | - | $1)$ | - | - | - | - | - | \% |  |
| $\because$ Bicycles on Ciosswath | - - | - - | - | 0 n | - | - | - | - | - | 0\% | - | - | - | - | - | $0 \%$ | - | - | $\bullet$ | - | - | $0^{4}$ | - |

[^15]Thu Feb 23, 2023
Full Length (4 PM-7:30 PM)
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
Provided by: Gewalt Hamilton Associates Inc.

ID: 1042308, Location: 41.878825, -87.671687
[N] Wood
Total: 642
In: 272 Out: 370


Out: 204 In: 393
Total: 597
[S] Wood

Adarns Street at Wood Street - TMC
Thu Feb 23, 2023
PM Peak (4:15 PM - 5: 1.5 PM) - Overall Peak Hour
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements

Provided by! Gewalt Hamilton Associates Inc. 625 Forest Edge Drive, Vernon Hills, IL, 60061, US

ID: 1042308, Location: 41.878825, -87.671687

| Leg <br> Drection | Adams <br> Eastbound |  | Adams Westbound |  |  |  |  |  | Wood <br> Nordbound |  |  |  |  |  | Wood <br> Southbound |  |  |  |  |  | Int |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Tıme | R T L U | A App Ped** | R | T | L U |  | App | Fed* | R | T | L | U | App | Pod* | R | T | L | U |  | Ped* |  |
| 2023-02-23 4:15PM | $\begin{array}{llll}0 & 0 & 0 & 0\end{array}$ | 0 0 2 | 14 | 54 | 7 | 0 | 75 | 1 | 0 | 28 | 9 | 0 | 37 | 0 | 7 | 19 | 0 | 1 | 27 | 1 | 139 |
| 4:30PM | $\begin{array}{llll}0 & 0 & 0 & 0\end{array}$ | 0 | 7 | 53 | 4 | 0 | 64 | 1 | 0 | 35 | 18 | 0 | 53 | 1 | 3 | 14 | 0 | 0 | 17 | $1)$ | 134 |
| 4:45PM | $\begin{array}{llll}0 & 0 & 0 & 0\end{array}$ |  | 5 | 67 | 3 | 0 | 75 | 1 | 0 | 27 | 10 | 0 | 37 | 0 | 14 | 20 | 0 | 0 | 34 | 0 | 146 |
| 5:00PM | $\begin{array}{llll}0 & 0 & 0 & 0\end{array}$ | 0 0 3 | 9 | 58 | 2 | 0 | 69 | 1 | 0 | 31 | 7 | 0 | 38 | I | 15 | 16 | 0 | 0 | 31 | 1 | 138 |
| Total | $\begin{array}{llll}0 & 0 & 0 & 0\end{array}$ | ) 0 0-10 | 35 | 232 | 16 | 0 | 283 | 4 | 0 | 121 | 44 | 0 | 165 | 2 | 39 | 69 | 0 | 1 | 109 | 1 | 557 |
| \% Approach | 0\% 0\% 0\% 0\% |  | 12.4\% | 82.0\% | 5.7\% 0\% |  |  |  |  | 73.3\% 2 | $267 \% 0$ |  | - |  | 35.8\% 6 | 63.3\% 0 | \% | 0.9\% |  |  |  |
| \% Total | 10\% 0\% 0\% 0\% | 0\% | 6.3\% | 41.7\% | 2.9\% 0\% | \% 5 | 50.8\% |  |  | 21.7\% | $79 \% 0$ | \% | 29.6\% |  | 7.0\% | $124 \% 0$ | \% | 0.2\% | 19.6\% |  |  |
| PHF | - - - - | - - - | 0.654 | 0.8710 | 0.571 |  | 0.946 |  |  | 0.902 | 0.611 |  | 0.799 |  | 0.650 | 0.863 | -0 |  | 0.801 |  | 0.952 |
| Lights | $\begin{array}{llll}0 & 0 & 0 & 0\end{array}$ | 0 | 34 | 225 | 16 | 0 | 275 |  | 0 | 116 | 44 | 0 | 160 |  | 38 | 68 | 0 | 0 | 106 |  | 541 |
| \% Lights | 0\% 0\% 0\% 0\% |  | 97.1\% | 97.0\% | 100\% 0\% | \% 9 | 37.2\% |  |  | 95.9\% | 100\% 0 | \% 9 | 97.0\% |  | 97.4\% 9 | 98.6\% 0 |  | 0\% 9 | 97.2\% |  | 97.1\% |
| Articulated Trucks | $\begin{array}{llll}0 & 0 & 0 & 0\end{array}$ | 0 | 0 | 1 | 0 | 0 | 1 |  | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 |  | 1 |
| \% Articulated Trucks | 0\% 0\% 0\% 0\% |  | 0\% | 0.4\% | 0\% 0\% | \% | 0.4\% |  | 0\% | 0\% | 0\% 0\% |  | 0\% | - | 0\% | 0\% 0 |  | 0\% | 0\% |  | 0.2\% |
| Buses and Single-Unit Trucks | $\begin{array}{llll}0 & 0 & 0 & 0\end{array}$ | 0 | 0 | 4 | 0 | 0 | 4 |  | 0 | 3 | 0 | 0 | 3 | - | 1 | 1 | 0 | 1 | 3 | - | 10 |
| \% Buses and Single-Unit Trucks | 0\% 0\% 0\% 0\% |  | 0\% | 1.7\% | 0\% 0\% |  | 1.4\% |  | 0\% | 2.5\% | 0\% 0 |  | 1.8\% |  | 2.6\% | 14\% | \% 1 | 100\% | 2.8\% |  | 18\% |
| Bicycles on Road | $\begin{array}{llll}0 & 0 & 0 & 0\end{array}$ | 0 | 1 | 2 | 0 | 0 | 3 |  | 0 | 2 | 0 | 0 | 2 | - | 0 | 0 | 0 | 0 | 0 |  | 5 |
| \% Bicycles on Road | 0\% 0\% 0\% 0\% | \% | 2.9\% | 0.9\% | 0\% 0\% |  | 1.1\% |  | (0\% | 1.7\% | 0\% 0 | \% | 1.2\% |  | 0\% | 0\% |  | 0\% | 0\% |  | 0.9\% |
| Pedestiatis | - - - | - - 10 | - | $\checkmark$ | - | - | - | 4 | - | - | - | - | - | $\stackrel{ }{2}$ | - | - | - | - | - | 1 |  |
| \% Pedesiriams | - - - | - $-100 \%$ | - | - | - | - |  | $100 \%$ | - | - | - | - |  | 10090 | - | - | - | - |  | 100\% |  |
| Brycles on Crosswalk | - - - - | - - 0 | - | - | - |  | - | $1)$ | - | - | - | $\bullet$ | - | 0 | - | - | $\cdot$ | - | - | 0 |  |
| \%obaryes on Cruswalk | - - - | - - $0^{\prime \prime}$ iol | - | - | - | - | - | (14) | - | - | - | - | - | $10^{\prime \prime \prime}$ | - | - | - | - | - | $0 \%$ |  |

[^16]PM Peak (4:15 PM - 5:15 PM) - Overall Peak Hour
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk) All Movements
1D: 1042308, Location: 41.878825, -87.671687

Provided by: Gewalt Hamilton Associates Inc. 625 Forest Edge Drive, Vernon Hills, IL, 60061, US
[N] Wood
Total: 266
In: 109 Out: 157
[W] Adams
Total: 315
In: 0
Out: $85 \quad \ln : 165$
Total: 250
[S] Wood

## Adams Street at Wood Street - TMC

Sat Feb 25, 2023
Full Length (11 AM-2 PM)
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements

CIMA GEWALT HAMLTON
Provided by: Gewalt Hamilton Associates Inc. 625 Forest Edge Drive. Vernon Hills, IL, 60061, US

ID: 104231.9, Location: 41.878825, -87.671687

| Leg <br> Direction | Adams <br> Eastbound |  |  |  | Adams <br> Westbound |  |  |  |  |  | Wood <br> Northbound |  |  |  |  |  | Wood <br> Southbound |  |  |  |  |  | Int |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| True | R T | L U | App | Ped* | R | T | L. | U | App | led* | R |  | L | U | App | Petio | R | T | T. | U |  | Ped ${ }^{-}$ |  |
| 2023-02-25 1100AM | 00 | 10 | 1 | 0 | 3 | 6 | 1 | 0 | 10 | 1 | 0 | 3 | 5 | 0 | 8 | 0 | 3 | 3 | 0 | 0 | 6 | 1 | 25 |
| 11:15AM | 0 | 0 0 | 0 | 1 | 1 | 5 | 1 | 0 | 7 | 1 | 0 | 10 | 3 | 0 | 13 | 1 | 6 | 7 | 0 | 0 | 13 | $1)$ | 33 |
| 1.130 AM | 0 0 | 0 0 | 0 |  | 4 | 5 | 4 | 0 | 13 | 1 | 0 | 12 | 4 | 0 | 16 | 1 | 6 | 6 | 0 | 0 | 12 | ? | 41 |
| 1145 MM | 0 | 10 | 1 | \| | 4 | 8 | 0 | 0 | 12 | d) | 0 | 10 | 6 | 0 | 16 | 0 | 3 | 2 | 0 | 0 | 5 | $1)$ | 34 |
| Hourly Total | 0 | 20 | 2 | 3 | 12 | 24 | 6 | 0 | 42 | $\because$ | 0 | 35 | 18 | 0 | 53 | 1 | 18 | 18 | 0 | 0 | 36 | 3 | 133 |
| 12.01)PM | 0 | 0 | 0 |  | 0 | 11 | 1 | 0 | 12 | 2 | 0 | 4 | 13 | 0 | 17 | 11 | 10 | 7 | 0 | 0 | 17 | $1)$ | 46 |
| 12.15 PM | 0 | 0 | 0 |  | 2 | 8 | 1 | 0 | 11 | i) | 0 | 6 | 7 | 0 | 13 | 0 | 8 | 7 | 0 | 0 | 15 | 0 | 39 |
| 12.30PM | 00 | 00 | 0 | 2 | 2 | 7 | 0 | 0 | 9 | 11 | 0 | 12 | 4 | 0 | 16 | 0 | 8 | 8 | 0 | 2 | 18 | 5 | 43 |
| 124.5 PM | 0 0 | 0 0 | 0 |  | 1 | 5 | 0 | 0 | 6 | 1) | 0 | 9 | 7 | 0 | 16 | 0 | 6 | 9 | 0 | 0 | 1.5 | , | 37 |
| Hourly Total | 0 | 0 0 | 0 |  | 5 | 31 | 2 | 0 | 38 | 2 | 0 | 3.1 | 31 | 0 | 62 | 0 | 32 | 31 | 0 | 2 | 6.5 | 10 | 165 |
| 1:00PM | 0 | 10 | 1 | 0 | 1 | 6 | 2 | 0 | 9 | 0) | 0 | 15 | 7 | 0 | 22 | 0 | 9 | 15 | 0 | 0 | 24 | 0 | 56 |
| 1:15PM | 0 | 0 | 0 |  | 3 | 6 | 2 | 0 | 11 | 0 | 0 | 6 | 4 | 0 | 10 | ! | 3 | 14 | 0 | 0 | 17 | 3 | 38 |
| 1:30PM | 0 | 0 | 0 |  | 3 | 13 | 1 | 0 | 17 | \% | 1 | 12 | 10 | 1 | 24 | 1 | 7 | 8 | 1 | 1 | 17 | 1 | 58 |
| 1.45PM | 0 | 00 | 0 | 4 | 4 | 14 | 1 | 0 | 19 | 1 | 0 | 9 | 8 | 0 | 17 | 1 | 5 | 12 | 0 | 0 | 17 | 1 | 53 |
| Hourly Total | 0 0 | 10 | 1 |  | 11 | 39 | 6 | 0 | 56 | 6 | 1 | 42 | 29 | 1 | 73 | 2 | 24 | 49 | 1 | 1 | 75 | 5 | 205 |
| Total | $0 \quad 0$ | 30 | 3 | 25 | 28 | 94 | 14 | 0 | 136 | (i) | 1 | 108 | 78 | 1 | 188 | 3 | 74 | 98 | 1 | 3 | 176 | 18 | 503 |
| \% Approach | 0\% 0\% | 100\% 0\% | - |  | $206 \% 69$ | 69 1\% | 10.3\% 0 |  | - |  | $05 \%$ | 57.4\% | 41.5\% | 05\% | - |  | 42.0\% 5 | 55 7\% | 0.6\% | 1.7\% | - |  |  |
| \% Total | 0\% 0\% | 06\% 0\% | 0.6\% |  | 5.6\% 1 | 18.7\% | 28\% 0 | 0\% | 27.0\% |  | $02 \%$ | $215 \%$ | 155\% | 0.2\% | 37.4\% |  | 14\% 1 | 19.5\% | 0 2\% | 06\% | 35.0\% |  |  |
| I.ights | $0 \quad 0$ | 30 | 3 |  | 27 | 93 | 14 | 0 | 134 |  | 1 | 107 | 77 | 1 | 186 |  | 69 | 97 | 1 | 3 | 170 |  | 493 |
| \% Li.ights | 0\% 0\% | 100\% 0\% | 100\% |  | 96.4\% 9 | 98.9\% | 100\% 0 | 0\% | 98.5\% |  | 100\% | 99.1\% | 987\% | 1.00\% | 98.9\% |  | . 932 | 99.0\% | 100\% | 100\% | 96.6\% |  | 980\% |
| Articulated Trucks | 0 0 | 00 | 0 |  | 0 | 1 | 0 | 0 | 1 |  | 0 | 0 | 0 | 0 | 0 |  | 0 | 0 | 0 | 0 | 0 |  | 1 |
| \% Articulated Trucks | 0\% 0\% | 0\% 0\% | 0\% |  | 0\% | 1.1\% | 0\% 0 | 0\% | 0.7\% | - | 0\% | 0\% | 0\% | 0\% | 0\% |  | 0\% | 0\% | 0\% | 0\% | 0\% |  | 02\% |
| Buses and Single-Unit Trucks | $0 \quad 0$ | $0 \quad 0$ | 0 |  | 1 | 0 | 0 | 0 | 1 | - | 0 | 0 | 1 | 0 | 1 |  | 5 | 1 | 0 | 0 | 6 |  | 8 |
| \% Buses and Single-Unit Trucks | 0\% 0\% | 0\% 0\% | 0\% |  | $3 \mathrm{~F} \%$ | 0\% | 0\% |  | 0.7\% | - | 0\% | 0\% | 1.3\% | 0\% | 0.5\% | - | 6.8\% | 1.0\% | 0\% | 0\% | 3.4\% |  | 1.6\% |
| Bicycles on Road | 0 0 | $0 \quad 0$ | 0 |  | 0 | 0 | 0 | 0 | 0 | - | 0 | 1 | 0 | 0 | 1 | - | 0 | 0 | 0 | 0 | 0 |  | 1 |
| \% Bicycles on Road | 0\% 0\% | 0\% 0\% | 0\% |  | 0\% | 0\% | 0\% 0 |  | 0\% |  | 0\% | 09\% | 0\% | 0\% | 0.5\% |  | 0\% | 0\% | 0\% | 0\% | 0\% |  | 0.2\% |
| Pedestratis | - - | -- | - | 25 | - | - | - | - | $\cdots$ | 10 | - | - | - | - | - | . ${ }^{\text {a }}$ | - | - | - | - | - | 18 |  |
| yn Pedestams | - - | - - |  | 1100 | - | - | - | - |  | $1(1))^{\prime}:$ | - | - | - | - |  | -114 $\mathrm{H}_{4}$ | - | - | - | - |  | $1011 \%$ |  |
| Buycles on Ciosswalh | - - | $\bullet$ | - | 10 | - | - | - | - | - |  | - | - | - | - | - | 0 | - | - | - | - | - | 0 |  |
| Qii Bryctes un Comssualk | - - | - - | - | 1) $\square_{1}$ | - | - | - - | - |  | 00: | - | $\bullet$ | - | - | - | 1"!im | - | - | $\cdot$ | - | - | $0 \%$ | - |

*Pedestrians and Bicycle's on Crosswalk. L: Lefl, R: Right. T: Thru, U: LI-Turn

Sat Feb 25, 2023
Full Length (11 AM-2 PM)
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
Provided by: Gewalt Hamilton Associates Inc. 625 Forest Edge Drive, Vernon Hills, IL, 60061, US

ID: 1042319, Location: 41.878825, -87.671687
[N] Wood
Total: 318
In: $176 \quad$ Out: 142


Out: 113 In: 188
Total: 301
[S] Wood

## Adams Street at Wood Street - TMC

Sat Feb 25, 2023
Midday Peak (WKND), PM Peak (WKND) (1 PM - 2 PM) - Overall Peak Hour All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
Provided by: Gewalt Hamilton Associates Inc. 625 Forest Edge Drive, Vernon Hills, IL, 60061, US

ID: 1042319, Location: $41.878825,-87.671687$

"Pedestrians and Bicycles on Crosswalk. L.: Left, R: Right. T: Thru, U: U-Turn

## Adams Street at Wood Street - TMC

Sat Feb 25, 2023
Midday Peak (WKND), PM Peak (WKND) (1 PM - 2 PM) - Overall Peak Hour
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

Provided by: Gewalt Hamilton Associates Inc. 625 Forest Edge Drive, Vernon Hills, IL, 60061, US

All Movements
ID: 1042319, Location: 41.878825, -87.671687
[N] Wood
Total: 130
In: 75 Out: 55


Out: 56
In: 73
Total: 129
[S] Wood

Driveway 3-2 lanes - ATR
Thu Feb 23, 2023
Full Length (4 PM-7:30 PM)
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Bicycles on Road)

Provided by: Gewalt Hamilton Associates Inc. 625 Forest Edge Drive, Vernon Hills, IL, 60061, US

All Channels
ID: 1042326, Location: 41.878228, -87.671506

| leg <br> Direction |  | West <br> Easthound |  | East <br> Westbound |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Time |  | T | App | T | App | Int |
|  | 2023-02-23 4:00PM | 1 | 1 | 26 | 26 | 27 |
|  | 4:15PM | 2 | 2 | 22 | 22 | 24 |
|  | 4:30PM | 2 | 2 | 38 | 38 | 40 |
|  | 4:45PM | 2 | 2 | 29 | 29 | 31 |
|  | Hourly Total | 7 | 7 | 115 | 115 | 122 |
|  | 5:00PM | 4 | 4 | 23 | 23 | 27 |
|  | 5:15PM | 2 | 2 | 23 | 23 | 25 |
|  | 5:30PM | 2 | 2 | 19 | 19 | 21 |
|  | 5:45PM | 1 | 1 | 14 | 14 | 15 |
|  | Hourly Total | 9 | 9 | 79 | 79 | 88 |
|  | 6:00PM | 0 | 0 | 16 | 16 | 16 |
|  | 6.15 PM | 2 | 2 | 8 | 8 | 10 |
|  | 6.30 PM | 0 | 0 | 6 | 6 | 6 |
|  | 6:45PM | 0 | 0 | 6 | 6 | 6 |
|  | Hourly Total | 2 | 2 | 36 | 36 | 38 |
|  | 7:00PM | 3 | 3 | 4 | 4 | 7 |
|  | 7:15PM | 1 | 1 | 5 | 5 | 6 |
|  | Hourly Total | 4 | 4 | 9 | 9 | 13 |
|  | Total | 22 | 22 | 23.9 | 239 | 261 |
|  | \% Approach | 100\% | - | 100\% | - | - |
|  | \% Total | 8.4\% | 8.4\% | 91.6\% | 91.6\% | - |
|  | Lights | 18 | 18 | 235 | 235 | 253 |
|  | \% Lights | 81.8\% | 81.8\% | 98.3\% | 98.3\% | 96.9\% |
|  | Articulated Trucks | 0 | 0 | 0 | 0 | 0 |
|  | \% Articulated Trucks | 0\% | 0\% | 0\% | 0\% | 0\% |
|  | Buses and Single-Unit Trucks | 4 | 4 | 4 | 4 | 8 |
|  | \% Buses and Single-Unit Trucks | 18.2\% | 18.2\% | 1.7\% | 1.7\% | 31\% |
|  | Bicycles on Road | 0 | 0 | 0 | 0 | 0 |
|  | \% Bicycles on Road | 0\% | 0\% | $0 \%$ | 0\% | 0\% |

*T: 7hru

## Driveway 3-2 lanes - ATR

Thu Feb 23, 2023
Full Length (4 PM-7:30 PM)
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Bicycles on Road)
All Channels
ID: 1042326, Location: 41.878228, -87.671506


PM Peak (4:30 PM - 5:30 PM) - Overall Peak Hour
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Bicycles on Road)
All Channels
ID: 1042326, Location: 41.878228, -87.671.506

| I.eg <br> Direction |  | West <br> Eastbound |  | East <br> Wesibound |  | , |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Time |  | T | App | T | App | Int |
|  | 2023-02-2.3 4:30PM | 2 | 2 | 38 | 38 | 40 |
|  | 4:45PM | 2 | 2 | 29 | 29 | 31 |
|  | 5:00PM | 4 | 4 | 23 | 23 | 27 |
|  | 5:15PM | 2 | 2 | 23 | 23 | 2.5 |
|  | Total | 10 | 10 | 113 | 113 | 123 |
|  | \% Approach | 100\% | - | 100\% | - | - |
|  | \% 'Total | 8.1\% | 8.1\% | 91.9\% | 91.9\% |  |
|  | PHF | 0.625 | 0.625 | 0.743 | 0.743 | 0.769 |
|  | Lights | 6 | 6 | 109 | 109 | 115 |
|  | \% Lights | 60.0\% | 60.0\% | 96.5\% | 96.5\% | 93.5\% |
|  | Articulated Trucks | 0 | 0 | 0 | 0 | 0 |
|  | \% Articulated Trucks | 0\% | 0\% | 0\% | 0\% | 0\% |
|  | Buses and Single-Unit Trucks | 4 | 4 | 4 | 4 | 8 |
|  | \% Buses and Single-Unit Trucks | 40.0\% | 40.0\% | 3.5\% | 3.5\% | 6.5\% |
|  | Bicycles on Road | 0 | 0 | 0 | 0 | 0 |
|  | \% Bicycles on Road | 0\% | 0\% | 0\% | 0\% | 0\% |

[^17]PM Peak (4:30 PM - 5:30 PM) - Overall Peak Hour
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Bicycles on Road)

Provided by: Gewalt Hamilton Associates Inc. 625 Forest Edge Drive, Vernon Hills, IL, 60061, US

All Channels
ID: 1042326, Location: 41.878228, -87.671506


Full Length ( 10 AM-3 PM)
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Bicycles on Road)
All Channels
ID: 1042330, Location: 41.878228, -87.671506

| I.cg <br> Direction |  | West <br> Eastbound |  | East <br> Westbound |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Time | - | T | App | T | App | Int |
|  | 2023-02-25. 10:00AM | 1. | 1 | 0 | 0 | 1 |
|  | 1015 AM | 0 | 0 | 0 | 0 | 0 |
|  | 10.30AM | 0 | 0 | 0 | 0 | 0 |
|  | 1045 AM | 0 | 0 | 0 | 0 | 0 |
|  | Hourly Total | 1 | 1 | 0 | 0 | 1 |
|  | 11:00AM | 0 | 0 | 0 | 0 | 0 |
|  | 11:15AM | 1 | 1 | 2 | 2 | 3 |
|  | 11:30AM | 0 | 0 | 0 | 0 | 0 |
|  | 11:45AM | 0 | 0 | 0 | 0 | 0 |
|  | Hourly Total | 1 | 1 | 2 | 2 | 3 |
|  | 12:00PM | 1 | 1 | 0 | 0 | 1 |
|  | 12:15PM | 2 | 2 | 0 | 0 | 2 |
|  | 12:30PM | 0 | 0 | 0 | 0 | 0 |
|  | 12:45PM | 3 | 3 | 0 | 0 | 3 |
|  | Hourly Total | 6 | 6 | 0 | 0 | 6 |
|  | 1:00PM | 1 | 1 | 0 | 0 | 1 |
|  | $1 \cdot 15 \mathrm{PM}$ | 3 | 3 | 0 | 0 | 3 |
|  | 1.30PM | 0 | 0 | 2 | 2 | 2 |
|  | 1:45PM | 0 | 0 | 2 | 2 | 2 |
|  | Hourly Total | 4 | 4 | 4 | 4 | 8 |
|  | 2:00PM | 1 | 1 | 2 | 2 | 3 |
|  | 2:15PM | 0 | 0 | 1 | 1 | 1 |
|  | 2.30 PM | 0 | 0 | 3 | 3 | 3 |
|  | 2.45 PM | 0 | 0 | 1 | 1 | 1 |
|  | Hourly Total | 1 | 1 | 7 | 7 | 8 |
|  | Total | 13 | 13 | 13 | 13 | 26 |
|  | \% Approach | 100\% | - | 100\% | - | - |
|  | \% Total | 50.0\% | 50.0\% | 50.0\% | 50.0\% | - |
|  | Lights | 13 | 13 | 13 | 13 | 26 |
| - | \% Lights | 100\% | 100\% | 100\% | 100\% | 100\% |
|  | Articulated Trucks | 0 | 0 | 0 | 0 | 0 |
|  | \% Ariculated Trucks | 0\% | 0\% | 0\% | 0\% | 0\% |
|  | Buses and Single-Unit Trucks | 0 | 0 | 0 | 0 | 0 |
|  | \% Buses and Single-Unit Trucks | 0\% | 0\% | 0\% | 0\% | 0\% |
|  | Bicycles on Road | 0 | 0 | 0 | 0 | 0 |
|  | \% Bicycles on Road | 0\% | 0\% | 0\% | 0\% | 0\% |

T": Thru

Full Length ( $10 \mathrm{AM}-3 \mathrm{PM}$ )
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Bicycles on Road)
All Channels
ID: 1042330, Location: 41.878228, -87.671.506

Provided by: Gewalt Hamilton Associates Inc. 625 Forest Edge Drive, Vernon Hills, IL, 60061, US


Driveway 3-2 lanes - ATR
Sat Feb 25, 2023
AM Peak (WKND) (10 AM - 11 AM )
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Bicycles on Road)

Provided by: Gewalt Hamilton Associates Inc. 625 Forest Edge Drive, Vernon Hills, IL, 60061, US

All Channels
ID: 1042330, Location: 41.878228, -87.671.506

| T.eg <br> Direction |  | West <br> Eastbound |  | East <br> Westhound |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Time |  | T | App | T | $\wedge \mathrm{pp}$ | Int |
|  | 2023-02-25 1.0.00AM | 1 | 1 | 0 | 0 | 1 |
|  | 10:15AM | 0 | 0 | 0 | 0 | 0 |
|  | 10:30AM | 0 | 0 | 0 | 0 | 0 |
|  | 10:45AM | 0 | 0 | 0 | 0 | 0 |
|  | Total | 1 | 1 | 0 | 0 | 1 |
|  | \% Approach | 100\% | - | 0\% | - | - |
|  | \% Total | 100\% | 100\% | 0\% | 0\% | - |
|  | PHF | 0.250 | 0.250 | - | - | 0250 |
|  | T.ights | 1 | 1 | 0 | 0 | 1 |
|  | \% Lights | 100\% | 100\% | 0\% | - | 100\% |
|  | Articulated Trucks | 0 | 0 | 0 | 0 | 0 |
|  | \% Articulated Trucks | 0\% | 0\% | 0\% | - | 0\% |
|  | Buses and Single-Unit Trucks | 0 | 0 | 0 | 0 | 0 |
|  | \% Buses and Single-Unit Trucks | 0\% | 0\% | 0\% | - | 0\% |
|  | Bicycles on Road | 0 | 0 | 0 | 0 | 0 |
|  | \% Bicycles on Road | 0\% | $0 \%$ | 0\% | - | 0\% |

[^18]Driveway 3-2 lanes-ATR
Sat Feb 25, 2023
AM Peak (WKND) (10 AM - 11 AM)
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Bicycles on Road)
All Channels
ID: 1042330, Location: 41.878228, -87.671506


Provided by: Gewalt Hamilton Associates Inc. 625 Forest Edge Drive, Vernon Hills, IL, 60061, US
Midday Peak (WKND) (12:45 PM - 1:45 PM)
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Bicycles on Road)
All Channels
ID: 1.042330, Location: $41.878228,-87.671506$

| Leg <br> Direction |  | West <br> Eastbound |  | East <br> Westbound |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Time |  | T | ^pp | T | App | Int |
|  | 2023-02-25 12:45PM | 3 | 3 | 0 | 0 | 3 |
|  | 1:00PM | 1 | 1 | 0 | 0 | 1 |
|  | 1:15PM | 3 | 3 | 0 | 0 | 3 |
|  | 130 PM | 0 | 0 | 2 | 2 | 2 |
|  | Total | 7 | 7 | 2 | 2 | 9 |
|  | \% Approach | 100\% | - | 100\% | - | - |
|  | \% Total | $778 \%$ | 77.8\% | 22.2\% | 22.2\% | - |
|  | PHF | 0.58 .3 | 0.583 | 0.250 | 0.250 | 0.750 |
|  | Lights | 7 | 7 | 2 | 2 | 9 |
|  | \% Lights | 100\% | 100\% | 100\% | 100\% | 100\% |
|  | Articulated Trucks | 0 | 0 | 0 | 0 | 0 |
|  | \% Ariculated Trucks | 0\% | 0\% | 0\% | 0\% | 0\% |
|  | Buses and Single-Unit Trucks | 0 | 0 | 0 | 0 | 0 |
|  | \% Buses and Single-Unit Trucks | 0\% | 0\% | 0\% | 0\% | 0\% |
|  | Bicycles on Road | 0 | 0 | 0 | 0 | 0 |
|  | \% Bicycles on Road | 0\% | 0\% | 0\% | O\% | 0\% |

[^19]Midday Peak (WKND) (12:45 PM - 1:45 PM)
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Bicycles on Road)
All Channels
ID: 1042330, Location: 41.878228, -87.671506


## Driveway 3-2 lanes-ATR

Sat Feb 25, 2023
PM Peak (WKND) (1:15 PM - 2:15 PM) - Overall Peak Hour
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Bicycles on Road)

Provided by: Gewalt Hamilton Associates Inc. 625 Forest Edge Drive, Vernon Hills, IL, 60061, US
All Channels
ID: 1.042330, Location: $41.878228,-87.671506$

| Leg <br> Direction |  | West <br> Eascbound |  | East <br> Westhound |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Time |  | T | App | T | App | Int |
|  | 2023-02-2.5 1.15PM | 3 | 3 | 0 | 0 | 3 |
|  | 1.30 PM | 0 | 0 | 2 | 2 | 2 |
|  | 1:45PM | 0 | 0 | 2 | 2 | 2 |
|  | 2:00PM | 1 | 1 | 2 | 2 | 3 |
|  | Total | 4 | 4 | 6 | 6 | 10 |
|  | \% Approach | 100\% | - | 100\% | - | - |
|  | \% Total | 40.0\% | 40.0\% | 60.0\% | 60.0\% | - |
|  | PHF | 0.333 | 0.333 | 0.750 | 0.750 | 0.833 |
|  | L.ights | 4 | 4 | 6 | 6 | 10 |
|  | \% Lights | 100\% | 100\% | 100\% | 100\% | 100\% |
|  | Articulated Trucks | 0 | 0 | 0 | 0 | 0 |
|  | \% Ariculated Trucks | 0\% | 0\% | 0\% | 0\% | 0\% |
|  | Buses and Single-Unit Trucks | 0 | 0 | 0 | 0 | 0 |
|  | \% Buses and Single-Unit Trucks | 0\% | 0\% | 0\% | 0\% | 0\% |
|  | Bicycles on Road | 0 | 0 | 0 | 0 | 0 |
|  | \% Bicycles on Road | 0\% | 0\% | 0\% | 0\% | 0\% |

[^20]Provided by: Gewalt Hamilton Associates Inc. 625 Forest Edge Drive, Vernon Hills, IL, 60061, US

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Bicycles on Road)
All Channels
ID: 1042330, Location: 41.878228, -87.671506


Thu Feb 23, 2023
Full Length (4 PM-7:30 PM)
All Classes (Lights, Articulated Trucks, Buses and Single-Unıt Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

Provided by: Gewalt Hamilton Associates Inc. 625 Forest Edge Drive, Vernon Hills, IL, 6006.1, US
All Movements
ID: 1042301, Location: 41.877471, -87.676545

| Leg <br> Direction | Jackson Eastbound |  |  |  |  |  | Jackson Westbound |  |  |  |  |  | Damen <br> Northbound |  |  |  |  |  | Damen <br> Southbound |  |  |  |  |  | Int |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Time | R | T | L | U | App | rede |  | R T | L | U | App | $\mathrm{Pa}^{+1+}$ | R | T | L | U | App | Ped ${ }^{+}$ | R | T | L U | U |  | Ped* |  |
| 2023-02-23400PM | 11 | 32 | 4 | 0 | 47 | 1 |  | 00 | 0 | 0 | 0 | 11 | 41 | 188 | 23 | 0 | 252 | 2 | 14 | 200 | 130 | 0 | 227 | 3 | 526 |
| 4.15PM | 21 | 36 | 6 | 0 | 63 | 12 |  | 0 | 0 | 0 | 0 | 16 | 26 | 181 | 21 | 0 | 228 | 6 | 12 | 160 | 170 | 0 | 189 | 13 | 480 |
| 430 PM | 18 | 41 | 8 | 0 | 67 | H |  | 0 | 0 | 0 | 0 | 13 | 54 | 180 | 23 | 0 | 257 | 5 | 18 | 188 | 120 | 0 | 218 | 2 | 542 |
| 4 45PM | 19 | 33 | 4 | 0 | 56 | 17 | 0 | 0 | 0 | 0 | 0 | 14 | 31 | 231 | 27 | 0 | 289 | 6 | 14 | 174 | $10 \quad 0$ | 0 | 198 | 3 | 543 |
| Hourly Total | 69 | 142 | 22 | 0 | 233 | 3 B |  | 0 | 0 | 0 | 0 | 54 | 152 | 780 | 94 | 0 | 1.026 | 19 | 58 | 722 | 520 | 0 | 832 | 21 | 2091 |
| 5:00PM | 18 | 35 | 7 | 0 | 60 | 6 |  | 0 | 0 | 0 | 0 | 10 | 32 | 209 | 31 | 0 | 272 | 3 | 22 | 171 | 120 | 0 | 205 | 3 | 537 |
| 5:15PM | 10 | 34 | 5 | 0 | 49 | 6 | 0 | 0 | 0 | 0 | 0 | 13 | 3.5 | 187 | 21 | 0 | 243 | 4 | 14 | 158 | 150 | 0 | 187 | 4 | 479 |
| 5:30PM | 11 | 24 | 10 | 0 | 45 | 12 |  | 0 | 0 | 0 | 0 | 15 | 41 | 206 | 24 | 0 | 271 | 2 | 10 | 1.28 | 18 0 | 1 | 156 | 6 | 472 |
| 5:45PM | 12 | 27 | 4 | 0 | 43 | ) |  | 0 | 0 | 0 | 0 | 6 | 36 | 166 | 15 | 0 | 217 | 1 | 6 | 129 | 80 | 0 | 143 | 0 | 403 |
| Hourly Total | 51 | 1.20 | 26 | 0 | 197 | 24 |  | 0 | 0 | 0 | 0 | 44 | 1.44 | 768 | 91 | 0 | 1003 | 10 | 52 | 586 | 530 | 0 | 691 | 13 | 1891 |
| 6.00 PM | 9 | 24 | 1 | 0 | 34 | 2 |  | 0 | 0 | 0 | 0 | 7 | 19 | 163 | 16 | 0 | 198 | 1 | 8 | 119 | 90 | 0 | 136 | 2 | 368 |
| 6.15PM | 13 | 30 | 3 | 1 | 47 | 1 | 0 | 0 | 0 | 0 | 0 | 7 | 24 | 140 | 17 | 1 | 182 | 2 | 7 | 121 | 90 | 0 | 137 | 1 | 366 |
| 630 PM | 14 | 13 | 1 | 0 | 28 | 2 |  | 0 | 0 | 0 | 0 | 6 | 12 | 140 | 16 | 0 | 168 | 2 | 9 | 116 | 50 | 0 | 130 | 0 | 326 |
| 64.5 PM | 8 | 15 | 2 | 1 | 2 G | 1 |  | 0 | 0 | 0 | 0 | 4 | 13 | 144 | 8 | 0 | 165 | 0 | 6 | 107 | 40 | 0 | 117 | 1 | 308 |
| Hourly Total | 44 | 82 | 7 | 2 | 135 | 6 | 0 | 0 0 | 0 | 0 | 0 | 4 | 68 | 587 | 57 | 1. | 713 | 5 | 30 | 463 | 270 | 0 | 520 | 4 | 1368 |
| 7:00PM | 11 | 7 | 4 | 0 | 22 | 6 |  | 00 | 0 | 0 | 0 | 0 | 21 | 110 | 10 | 0 | 141 | 1 | 3 | 84 | 50 | 0 | 92 | 2 | 25.5 |
| 7:15PM | 9 | 13 | 1 | 0 | 23 | 0 |  | 0 0 | 0 | 0 | 0 | 1 | 16 | 97 | 5 | 0 | 118 | 1 | 1 | 78 | 70 | 0 | 86 | 0 | 227 |
| Hourly Tocal | 20 | 20 | 5 | 0 | 45 | 6 | 0 | 0 0 | 0 | 0 | 0 | 1 | 37 | 207 | 15 | 0 | 2.59 | 2 | 4 | 162 | 120 | 0 | 178 | 2 | 482 |
| Total | 184 | 364 | 60 | 2 | 610 | 74 | 0 | 0 | 0 | 0 | 0 | 123 | 401 | 2342 | 257 | 1 | 3001 | 36 | 144 | 1933 | 1440 | 0 | 2221 | 40 | 5832 |
| \% Approach | . $302 \%$ | 59, 7\% | 98\% | 0.3\% | - |  |  | \% 0\% 0 | 0\% 0 |  | - |  | 134\% 7 | 780\% | 86\% | 0\% | - |  | $65 \%$ | 870\% | 65\% 0\% |  | - |  | - |
| \% Total | $32 \%$ | 62\% | 10\% | 0\% | 10.5\% |  |  | \% 0\% 0 | 0\% 0 | 0\% | 0\% |  | 69\% | 40 2\% | 44\% | 0\% 5 | 51.5\% |  | $25 \%$ | 33.1\% | 2 5\% 0\% | \% 38 | 8.1\% |  |  |
| Lights | 182 | 346 | 59 | 2 | 589 |  | 0 | 00 | 0 | 0 | 0 |  | 398 | 2280) | 240 | 1 | 2919 |  | 144 | 1886 | 1440 | 0 | 2174 |  | 5682 |
| \% Lights | 98.9\% | 95.1\% | 983\% | 100\% | 96.6\% |  |  | \% 0\% 0 | 0\% 0 |  | - |  | $993 \% 9$ | 974\%! | 93 4\% | 100\% | 97.3\% |  | 100\% 3 | 97.6\% | 100\% 0\% | \% 97 | 7.9\% |  | 97.4\% |
| Ariculated Trucks | 0 | 0 | 0 | 0 | 0 |  |  | $0 \quad 0$ | 0 | 0 | 0 |  | 0 | 1 | 0 | 0 | 1 |  | 0 | 2 | 0 0 | 0 | 2 |  | 3 |
| \% Ariculated Trucks | 0\% | 0\% | 0\% | 0\% | 0\% |  |  | 61) $\% 0$ | 0\% 0 | 0\% | - |  | 0\% | 0\% | 0\% | 0\% | 0\% |  | 0\% | 0.1\% | 0\% 0\% | \% | 0.1\% |  | 0.1\% |
| Buses and Single-Unit Trucks | 2 | 16 | 0 | 0 | 18 |  |  | 0 | 0 | 0 | 0 | - | 1 | 38 | 17 | 0 | 56 | - | 0 | 44 | $0 \quad 0$ | 0 | 44 |  | 118 |
| \% Buses and Single-Unit Trucks | 1.1\% | 4.4\% | 0\% | 0\% | 3.0\% |  |  | 0\% 0 | 0\% 0 |  | - |  | 0.2\% | 1.6\% | $66 \%$ | 0\% | 1.9\% | - | 0\% | 23\% | 0\% 0\% |  | 2.0\% |  | $20 \%$ |
| Bicycles on Road | 0 | 2 | 1 | 0 | 3 |  | 0 | 00 | 0 | 0 | 0 |  | 2 | 23 | 0 | 0 | 25 |  | 0 | 1 | 0 0 | 0 | 1 |  | 29 |
| \% Bicycles on Road | 0\% | 05\% | 1.7\% | 0\% | 0.5\% |  |  | 0\% 0 | 0\% 0 |  | - |  | 0.5\% | 1.0\% | 0\% | 0\% | 0.8\% |  | $0 \%$ | 0.1\% | 0\% 0\% |  | 0\% |  | 0.5\% |
| Pedestrians | - | - | - | - | - | 71 |  | - - | - | - | - | 117 | - | - | - | - | - | 35 | - | - | - - | - | - | 36 |  |
| $0_{6}$ Pedestriams | - | - | - | - |  | 944 6 |  | - - | - | - | -! | 95.10 | - | - | - | - |  | 93 | - | - | - - | - |  | 9-5\% |  |
| Bugher me Cromentis | - | - | - | - | - | 4 |  | - - | - | - | - | (i) | - | .- | - | - | - | 1 | - | - | - - | - | - | 1 |  |
| wit Bucles an Crossmath | - | - | - | - |  | : 4 \% |  | - - | - | - | - | 4 4, | - | - | - | - | - | $288 \%$ | - | - | - | - | - | 2.50 | - |

*Pedestrians and Bicycles on Crosswalh. 1.: Lefi, R: Right. T: Thru, U: U-Turn

Damen Avenue at Jackson Boulevard - TMC
Thu Feb 23, 2023
Full Length (4 PM-7:30 PM)
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk) All Movements

Provided by: Gewalt Hamilton Associates Inc. 625 Forest Edge Drive, Vernon Hills, IL, 60061, US

ID: 1042301, Location: 41.877471, -87.676545
[N] Damen
Total: 4623
In: $2221 \quad$ Out: 2402


Out: 2118
In: 3001
Total: 5119
[S] Damen

Thu Feb 23, 2023
PM Peak (4:15 PM - 5:15 PM) - Overall Peak Hour
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements

Provided by: Gewalt Hamilton Associates Inc. 625 Forest Edge Drive, Vernon Hills, IL, 60061, US

ID: 1042301, Location: 41.877471, -87.676545

| Leg <br> Direction | Jackson <br> Easthound |  |  |  |  |  | Jackson <br> Westhound |  |  |  |  |  | Damen <br> Northbound |  |  |  |  |  | Damen <br> Southbound |  |  |  |  |  | Int |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Time | R | T | L U | U | App | Pert+ |  | T | L |  | pp | Pedt ${ }^{\text {- }}$ | R | T |  | U | App | reet* | R | T | L | U | App | Pet ${ }^{\text {a }}$ |  |
| 2023-02-2.34 1.5PM | 21 | 36 | 6 | 0 | 63 | 12 | 0 | 0 | 0 | 0 | 0 | 16 | 26 | 1.81 |  | 0 | 228 | 6 | 12 | 160 | 17 | 0 | 18.9 | 13 | 480 |
| 4.30PM | 18 | 41 | 8 | 0 | 67 | 8 | 0 | 0 | 0 | 0 | 0 | 13 | 54 | 180 |  | 0 | 257 | 5 | 18 | 188 | 12 | 0 | 218 | 2 | 542 |
| 445 PM | 19 | 3.3 | 4 | 0 | 56 | 17 | 0 | 0 | 0 | 0 | 0 | 14 | 31 | 231 | 27 | 0 | 289 | $1 ;$ | 14 | 174 | 10 | 0 | 1.98 | 3 | 54.3 |
| 5:00PM | 18 | 3.5 | 7 | 0 | 60 | 6 | 0 | 0 | 0 | 0 | 0 | 10 | 32 | 209 |  | 0 | 272 | 3 | 22 | 171 | 12 | 0 | 205 | 3 | 537 |
| Total | 76 | 145 | 25 | 0 | 246 | 43 | 0 | 0 | 0 | 0 | 0 | 33 | 143 | 801 | 102 | 0 | 1046 | 20 | 66 | 693 | 51 | 0 | 810 | 21 | 2102 |
| \% Approach | 30 9\% 5 | 58\% 10 | 10.2\% 0\% |  | - |  | 0\% 0 | 0\% 0 | 0\% 0\% | \% | - |  | $137 \%$ | 76.6\% | 9.8\% 0\% |  | - | - | 8.1\% | 85.6\% | 6.3\% 0\% |  | - |  |  |
| \% Total | 3.6\% | 6,9\% | 1.2\% $0 \%$ | \% 1 | 1.7\% |  | 0\% | 0\% 0 | 0\% 0\% | \% | 0\% |  | 6.8\% | 38.1\% | $49 \% 0 \%$ | \% 4 | 49.8\% |  | 3.1\% 3 | 33.0\% | 2.4\% 0 | \% | 38.5\% |  |  |
| PHF | 0.905 | 0.900 | 0.781 | - 0 | 0.928 |  | - | - | - | - | - |  | 0670 | 0863 | 0.823 | - | 0.901 |  | 0.750 | 0.922 | 750 | - | 0.929 |  | 0.965 |
| Lights | 75 | 139 | 25 | 0 | 239 |  | 0 | 0 | 0 | 0 | 0 |  | 142 | 782 | 97 | 0 | 1021 |  | 66 | 681 | 51 | 0 | 798 |  | 2058 |
| \% Lights | 98.7\% 9 | 95.9\% | 100\% 0\% | \% 9 | 97.2\% | - | 0\% | 0\% 0 | 0\% 0\% |  | - |  | 99.3\% 9 | 97.6\% | 95.1\% 0\% | \% 9 | 97.6\% |  | 100\% | 98.3\% | 100\% 0\% | \% | 8.5\% |  | 97.9\% |
| Articulated Trucks | 0 | 0 | 0 | 0 | 0 |  | 0 | 0 | 0 | 0 | 0 |  | 0 | 1 | 0 | 0 | 1 |  | 0 | 2 | 0 | 0 | 2 |  | 3 |
| \% Ariculated Trucks | 0\% | 0\% | 0\% 0\% |  | 0\% |  | 0\% 0 | 0\% 0 | \%\% $0 \%$ |  | - |  | 0\% | 0.1\% | 0\% 0\% |  | 0.1\% |  | 0\% | 03\% | $0 \% 0 \%$ |  | 0.2\% |  | 01\% |
| Buses and Single-Unit Trucks | 1 | 5 | 0 | 0 | 6 |  | 0 | 0 | 0 | 0 | 0 | - | 0 | 11 | 5 | 0 | 16 |  | 0 | 10 | 0 | 0 | 10 |  | 32 |
| \% Buses and Single-Unit Trucks | 1.3\% | 3.4\% | 0\% 0\% |  | 2.4\% |  | 0\% | 0\% 0 | 0\% 0\% |  | - | - | 0\% | 1.4\% | 4.9\% 0\% |  | 1.5\% | - | 0\% | 1.4\% | 0\% 0\% |  | 1.2\% |  | 1.5\% |
| Bicycles on Road | 0 | 1 | 0 | 0 | 1 |  | 0 | 0 | 0 | 0 | 0 | - | 1 | 7 | 0 | 0 | 8 |  | 0 | 0 | 0 | 0 | 0 |  | 9 |
| \% Bicycles on Road | 0\% | 0.7\% | 0\% 0\% | \% | 0.4\% |  | 0\% 0 | 0\% 0 | 0\% 0\% |  | - |  | $07 \%$ | 0.9\% | 0\% $0 \%$ |  | 0.8\% |  | 0\% | 0\% | 0\% 0 |  | 0\% |  | 0.4\% |
| Pedesirians | - | - | - | - | : | . 39 | - | - | - | - | - | 51 | - | - | - | - | - | 20 | - | - | - | - | - | 21 |  |
| nis Pedramans | - | - | - | - |  | -90 7"! | - | - | - | - | - | 96.23in | - | - | - | - |  | $100 \%$ | - | - | - | - |  | 10104 |  |
| Bucycles on Ciossuralk | - | - | - | - | - | 4 | - | - | $\cdot$ | - | - | 2 | - | - | - | - | - | 0 | - | - | - | - | - | 0 |  |
| ai. Bryclen on Croswalh | - | - | - | - | - | 43 | - | - | - | - | - | $34: 0$ | - | - |  | - | - | $0 \cdot 1$ | - | - | - | - | - | $1{ }^{\circ}$ |  |

[^21]Damen Avenue at Jackson Boulevard - TMC
Thu Feb 23, 2023
PM Peak (4:15 PM - 5:15 PM) - Overall Peak Hour
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks,
Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
Provided by: Gewalt Hamilton Associates Inc. 625 Forest Edge Drive, Vernon Hills, IL, 60061, US

ID: 1.042301, Location: 41.877471, -87.676545
[ N ] Damen
Total: 1636


Out: 769
In: 1046
Total: 1815
[S] Damen

Damen Avenue at Jackson Boulevard - TMC
Sat Feb 25, 2023
Full Length (11 AM-2 PM)
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

Provided by: Gewalt Hamilton Associates Inc. 625 Forest Edge Drive, Vernon Hills, IL, 60061, US

All Movements
ID: 1042312, Location: 41.877471, -87.676545

| Leg <br> Direction | Jackson <br> Easibuund |  |  |  |  |  | Jackson Westbound |  |  |  |  |  | Damen <br> Northbound |  |  |  |  |  | Damen Southbound |  |  |  |  |  | Int |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Time | R | T | I | U | App | Ped ${ }^{+}$ |  | T | L | U | App | Ped ${ }^{\text {² }}$ | R | T | I. | U | App | Peed ${ }^{-}$ | R | T | L | U | App | Peel ${ }^{-}$ |  |
| 2023-02-25 11:00^M | 20 | 16 | 1 | 1 | 38 | $u$ | 0 | 0 | 0 | 0 | 0 | 17 | 1.2 | 105 | 8 | 1 | 126 | 1 | 4 | 79 | 11 | 0 | 94 | 0 | 258 |
| 11:1:5AM | 12 | 13 | 8 | 0 | 33 | 1 | 0 | 0 | 0 | 0 | 0 | 0 ? | 28 | 115 | 8 | 0 | 151 | 1 | 5 | 117 | 9 | 0 | 131 | 1 | 31.5 |
| 11:30AM | 11 | 20 | 6 | 0 | 37 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 28 | 123 | 7 | 0 | 158 | 0 | 3 | 108 | 3 | 0 | 114 | 1 | 309 |
| 11.45AM | 15 | 16 | 1 | 1 | 33 | 4 | 0 | 0 | 0 | 0 | 0 | 0 - | 35 | 146 | 6 | D | 187 | 4 | 3 | 129 | 13 | 0 | 14.5 | 2 | 365 |
| Hourly Total | 58 | 65 | 16 | 2 | 141 | 5 | 0 | 0 | 0 | 0 | 0 | 12 | 103 | 489 | 29 | 1 | 622 | G | 15 | 433 | 36 | 0 | 484 | 4 | 1247 |
| 12 00PM | 7 | 22 | 1 | 1 | 31 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 31 | 128 | 8 | 0 | 1.67 | - | 6 | 100 | 16 | 0 | 122 | 1 | 320 |
| 1215 PM | 12 | 24 | $\underline{2}$ | 0 | 38 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 24 | 119 | 11 | 0 | 154 | 3 | 5 | 110 | 11 | 0 | 126 | 1 | 318 |
| 12:30PM | 19 | 8 | 2 | 0 | 29 | 1 |  | 0 | 0 | 0 | 0 | 8 | 36 | 139 | 8 | 0 | 183 | 4 | 2 | 106 | 6 | 0 | 114 | $1)$ | 326 |
| 12:45PM | 12 | 15 | 7 | 0 | 34 | 2 | 0 | 0 | 0 | 0 | 0 | 0 3 | 34 | 177 | 11 | 0 | 222 | 3 | 2 | 108 | 10 | 0 | 120 | 1 | 376 |
| Hourly Total | 50 | 69 | 12 | 1 | 132 | 9 | 0 | 0 | 0 | 0 | 0 | - 1.3 | 125 | 563 | 38 | 0 | 726 | 12 | 1.5 | 424 | 43 | 0 | 482 | 3 | 1340 |
| 1:00PM | 15 | 15 | 4 | 0 | 34 | 2 | 0 | 0 | 0 | 0 | 0 | 4 | 27 | 155 | 9 | 0 | 191 | 1 | 4 | 116 | 10 | 0 | 130 | 1 | 355 |
| 1:15PM | 14 | 12 | 2 | 0 | 28 | 4 | 0 | 0 | 0 | 0 | 0 | ) 1 i | 28 | 124 | 8 | 0 | 160 | 3 | 4 | 110 | 5 | 0 | 119 | 4 | 307 |
| 130 PM | 14 | 11 | 3 | 1 | 29 | i | 0 | 0 | 0 | 0 | 0 | 1 | 20 | 150 | 3 | 0 | 173 | 11 | 5 | 122 | 3 | 0 | 130 | 1) | 332 |
| 1.45PM | 15 | 22 | 1 | 0 | 38 | 3 | 0 | 0 | 0 | 0 | 0 | 0 2 | 25 | 160 | 3 | 0 | 188 | 1 | 5 | 105 | 7 | 0 | 117 | 1 | 343 |
| Hourly Total | 58 | 60 | 10 | 1 | 129 | 9 | 0 |  | 0 | 0 | 0 | 12 | 100 | 589 | 23 | 0 | 712 | 5 | 18 | 45.3 | 25 | 0 | 496 | 6 | 1337 |
| Total | 166 | 194 | 38 | 4 | 402 | 23 | 0 |  | 0 | 0 | 0 | 3 | 328 | 1641 | 90 | 1 | 2060 | $\because$ | 48 | 1310 | 104 | 0 | 1462 | 13 | 3924 |
| \% $\Lambda$ pproach | 41 3\% | 48.3\% | 9.5\% | 1.0\% | - |  | 0\% | 0\% 0 | 0\% 0 | 0\% | - | - - | 15.9\% | 79.7\% | 4.4\% | 0\% | - |  | 3.3\% | 89.6\% | 7.1\% 0 |  | - |  |  |
| \% Tutal | 4.2\% | 49\% | 1.0\% | 0.1\% | 10.2\% |  | 10\% | 0\% 0 | 0\% 0 | 0\% |  |  | 84\% | 41.8\% | 2.3\% | 0\% 5 | 52.5\% |  | 1.2\% | 33.4\% | 2.7\% 0 | \% | 37.3\% |  |  |
| I.ights | 155 | 193 | 38 | 4 | 390 |  | 0 | 0 | 0 | 0 | 0 | - | 325 | 1602 | 78 | 1 | 2006 |  | 48 | 1271 | 103 | 0 | 1422 |  | 3818 |
| \% Lights | 93.4\% 9 | 995\% | 100\% | 100\% | 97.0\% |  | 0\% | 0\% | 0\% 0 | 0\% | - | - - | 99.1\% | 97.6\% | 86.7\% | 00\% 9 | 97.4\% |  | 100\% 97 | 97.0\% | $990 \% 0$ | \% | 7.3\% |  | 973\% |
| Ariculated Trucks | 0 | 0 | 0 | 0 | 0 |  | 0 | 0 | 0 | 0 | 0 |  | 0 | 2 | 0 | 0 | 2 |  | 0 | 1 | 0 | 0 | 1 |  | 3 |
| \% Articulated Trucks | 0\% | 0\% | 0\% | 0\% | 0\% |  | 0\% | 0\% 0 | 0\% 0 | 0\% | - | - - | 0\% | 01\% | 0\% | 0\% | 0.1\% |  | 0\% | 01\% | 0\% 0 |  | 0.1\% |  | 0.1\% |
| Buses and Single-Unit Tinucks | 10 | 1 | 0 | 0 | 11 |  | 0 | 0 | 0 | 0 | 0 | - - | 3 | 34 | 12 | 0 | 49 | - | 0 | 38 | 1 | 0 | 39 | ; | 99 |
| \% Buses and Single-Unit Trucks | 60\% | 0.5\% | $0 \%$ | 0\% | 2.7\% |  | 0\% | 0\% | 0\% 0 |  | - | - - | 0.9\% | 23\% | 13.3\% | 0\% | 2.4\% | - | 0\% | 2.9\% | 10\% 0 |  | 2.7\% |  | 2.5\% |
| Bicycles on Road | 1 | 0 | 0 | 0 | 1 |  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 3 |  | 0 | 0 | 0 | 0 | 0 |  | 4 |
| \% Bicycles on Road | 0.6\% | 0\% | 0\% | 0\% | 0.2\% |  | 0\% | 0\% | 0\% 0 | 0\% | - | - | 0\% | 0.2\% | 0\% | 0\% | 0.1\% |  | 0\% | 0\% | 0\% 0 |  | 0\% |  | 0 1\% |
| Pedesmone | - | - | - | - | - | 2 | - | - | - | - | - | 3 | - | - | - | - |  | 23 | - | - | - | - | - | $1: 1$ |  |
| $00_{i}$ Pedesimions | - | - | - | - |  | 95.84 |  | - | - | - | - | -9730 | - | - | - | - |  | 1019\% | - | - | - | - |  | 100\% |  |
| Bicycles on Crosswalli | - | - | - | - |  | -1 | - | - | - | - | - | - 1 | - | - | - | - | - | 0 | - | - | $\cdot$ | - | - | 0 |  |
|  | - | - | - | - | - | $4.3{ }^{30}$ | - | - | - | - | - | $\underline{2}$ | - | - | - | - | - | (1) ${ }^{\text {a }}$ | - | - | $\bullet$ | $-$ | - | $00^{2}$ |  |

[^22]Sat Feb 25, 2023
Full Length (11 AM-2 PM)
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
Provided by: Gewalt Hamilton Associates Inc. 625 Forest Edge Drive, Vernon Hills, IL, 60061, US

ID: 1042312, Location: 41.877471, -87.676545


Out: 1477
In: 2060
Total: 3537
[S] Damen

Damen Avenue at Jackson Boulevard - TMC
Sat Feb 25, 2023
Midday Peak (WKND) (12:15 PM - 1:15 PM) - Overall Peak Hour
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements

Provided by: Gewalt Hamilton Associates Inc. 625 Forest Edge Drive, Vernon Hills, IL, 60061, US

ID: 1042312, Location: 41.877471, -87.676545

| Leg <br> Direction | Jackson <br> Eastbound |  |  |  |  |  | Jackson <br> Westbound |  |  |  |  |  | Damen <br> Northbound |  |  |  |  |  | Damen <br> Southbound |  |  |  |  |  | Int |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Time | R | T | L U | U | App | $\mathrm{pa}^{2} \mathrm{c}^{+}$ | R | T | L |  | App | Pedl ${ }^{\text {P }}$ | R | T | L U | U | App | 「0.4* | R | T | L U | U | App | ! $\mathrm{med}^{\text {+ }}$ |  |
| 2023-02-25 12 15PM | 12 | 24 | 2 | 0 | 38 | 3 | 0 | 0 | 0 | 0 | 0 | 2 | 24 | 11.9 | 11 | 0 | 154 | 3 | 5 | 110 | 11 | 0 | 126 | 1 | 318 |
| 12:30PM | 19 | 8 | 2 | 0 | 29 | 1 | 0 | 0 | 0 | 0 | 0 | 8 | 36 | 139 |  | 0 | 183 | 4 | 2 | 106 | 6 | 0 | 114 | 0 | 326 |
| 12:45PM | 12 | 15 | 7 | 0 | 34 | 2 | 0 | 0 | 0 | 0 | 0 | 3 | 34 | 177 | 11 | 0 | 222 | 3 | 2 | 108 | 10 | 0 | 120 | 1 | 376 |
| 1:00PM | 15 | 15 | 4 | 0 | 34 | 2 | 0 | 0 | 0 | 0 | 0 | 4 | 27 | 155 | 9 | 0 | 191 | 1 | 4 | 116 | $10^{\circ}$ | 0 | 130 | 1 | 355 |
| Total | 58 | 62 | 1.5 | 0 | 135 | 8 | 0 | 0 | 0 | 0 | 0 | 17 | 121 | 590 | 39-0 | 0 | 750 | 11 | 13 | 440 | 37 | 0 | 4.90 | 3 | 1375 |
| \% ^pproach | 43.0\% 4 | 45.9\% 1 | $111 \% 0 \%$ |  | - |  | 0\% | 0\% 0 | 0\% 0\% | \% | - | - | 16.1\% 7 | 78.7\% | 5.2\% 0\% |  | - |  | 2.7\% | $898 \%$ | 7.6\% 0\% |  |  |  | - |
| \% Total | 4.2\% | 4.5\% | 11\% 0\% | \% | 9.8\% |  | 0\% | 0\% 0 | 0\% 0\% | \% | 0\% |  | 8.8\% | 429\% | 2.8\% 0\% | \% 5 | 54.5\% |  | 0.9\% | $320 \%$ | 2.7\% 0\% | \% | 35.6\% |  |  |
| PHF | 0.763 | 0.646 | 0536 | 0 | 0.888 |  | - | - | - | - | - |  | 0.840 | 0837 | 0886 | - | 0.847 |  | 0.650 | 0.9480 | 841 | - | 0.942 |  | 0916 |
| L.ights | 53 | 62 | 15 | 0 | 130 |  | 0 | 0 | 0 | 0 | 0 | - | 120 | 579 | 36 | 0 | 735 |  | 13 | 423 | 37 | 0 | 473 |  | 1338 |
| \% Lights | 91.4\% | 100\% | 100\% 0\% | \% 96 | 96.3\% |  | 0\% | 0\% 0 | 0\% 0' |  | - |  | 99.2\% 9 | 98.1\% | $923 \% 0 \%$ | \% 9 | 98.0\% |  | 100\% | 96.1\% | 00\% 0\% | \% 9 | 96.5\% |  | 97.3\% |
| Articulated Trucks | 0 | 0 | 0 | 0 | 0 |  | 0 | 0 | 0 | 0 | 0 |  | 0 | 0 | 0 | 0 | 0 |  | 0 | 0 | 0 | 0 | 0 | - | 0 |
| \% Ariculated Trucks | 0\% | 0\% | 0\% 0\% | \% | 0\% |  | 0\% | 0\% 0 | 0\% 0\% |  | - |  | 0\% | 0\% | 0\% 0\% |  | 0\% | - | 0\% | 0\% | 0\% 0\% |  | 0\% |  | 0\% |
| Buses and Single-Unit Trucks | 5 | 0 | 0 | 0 | 5 |  | 0 | 0 | 0 | 0 | 0 | - | 1 | 10 | 3 | 0 | 14 | $\sim$ | 0 | 17 | 0 | 0 | 17 | - | 36 |
| \% Buses and Single-Unit Trucks | 8.6\% | 0\% | 0\% 0\% |  | 3.7\% |  | 0\% | 0\% 0 | 0\% 0 |  | - | - | 0.8\% | 17\% | 7.7\% 0\% |  | 1.9\% | - | 0\% | 39\% | 0\% 0\% |  | 3.5\% | - | 2.6\% |
| Bicycles on Roar | 0 | 0 | 0 | 0 | 0 |  | 0 | 0 | 0 | 0 | 0 |  | 0 | 1 | 0 | 0 | 1 | - | 0 | 0 | 0 | 0 | 0 |  | 1 |
| \% Bicycles on Road | 0\% | 0\% | 0\% 0\% |  | 0\% |  | 0\% | 0\% 0 | 0\% 0\% |  | - | - | 0\% | 0.2\% | 0\% 0\% |  | 0.1\% | - | 0\% | 0\% | 0\% $0 \%$ |  | 0\% | - | 01\% |
| Pedestrians | - | - | - | - | - | 8 | - | - | - | - | - | 16 | - | - | .- | - | - | 11 | - | - | - | - | - | 3 |  |
| "u Pedestuthis | - | - | - | - | - | $106 \%$ | - | - | - | - | - | 941\% | - | - | - | - | - | 100\% | - | - | - | - |  | $1010 \%$ |  |
| Brceles on Conswails | - | - | - | - | - | 0 | - | - | - | - | - | 1 | - | - |  | - | - | 4 | - | - |  | - | - | 0 |  |
| Ci, Bicycles on Ciosswialk | - | - | - | - | - | (1) | - | - | - | - | - | 5.94 | - | - | - | - | - | $10^{\circ} \mathrm{in}$ | - | - | - | - | - | $11 \%$ | - |

[^23]
## Damen Avenue at Jackson Boulevard - TMC

Sat Feb 25, 2023
Midday Peak (WKND) (12:15 PM - 1:15 PM) - Overall Peak Hour All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

Provided by: Gewalt Hamilton Associates Inc. 625 Forest Edge Drive, Vernon Hills, IL, 60061, US All Movements
ID: 1042312, Location: 41.877471, -87.676545


Out: 498
In: 750
Total: 1248
[S] Damen

Sat Feb 25, 2023
PM Peak (WKND) (1 PM - 2 PM)
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

Provided by: Gewalt Hamilton Associates Inc. 625 Forest Edge Drive, Vernon Hills, IL, 60061, US
All Movements
ID: 1042312, Location: 41.877471, -87.676545

| Leg <br> Direction | Jackson <br> Eastbound |  |  |  |  |  | Jackson Westbound |  |  |  |  |  | Damen <br> Northbound |  |  |  |  |  | Damen <br> Southbound |  |  |  |  |  | Int |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Time | R | T | L | U | App | Pedr: | R | T | L |  | App | Ped ${ }^{\prime}$ | R | T | L | U | App | F'rem | R | T | L | U | App | F'ud* |  |
| 2023-02-25 1:00PM | 15 | 15 | 4 | 0 | 34 | 2 | 0 | 0 | 0 | 0 | 0 | $+$ | 27 | 155 | 9 | 0 | 191 | 1 | 4 | 116 | 10 | 0 | 130 | 1 | 355 |
| 115 PM | 14 | 12 | 2 | 0 | 28 | 4 | 0 | 0 | 0 | 0 | 0 | 6 | 28 | 124 | 8 | 0 | 160 | 3 | 4 | 110 | 5 | 0 | 119 | 4 | 307 |
| 1.30PM | 14 | 11 | 3 | 1 | 29 | 11 | 0 | 0 | 0 | 0 | 0 | 11 | 20 | 150 | 3 | 0 | 173 | n | 5 | 122 | 3 | 0 | 130 | $1!$ | 332 |
| 1:4,5PM | 15 | 22 | 1. | 0 | 38 | 3 | 0 | 0 | 0 | 0 | 0 | 2 | 25 | 160 | 3 | 0 | 188 | 1 | 5 | 105 | 7 | 0 | 117 | 1 | 343 |
| Total | 58 | 60 | 10 | 1 | 129 | ? | 0 | 0 | 0 | 0 | 0 | 12 | 100 | 589 | 23 | 0 | 712 | 5 | 18 | 453 | 25 | 0 | 496 | 6 | 1337 |
| \% Approach | 450\% | 46.5\% | 7.8\% | 08\% | - |  | 0\% | 0\% 0 | 0\% 0 |  | - | - | 14.0\% | 82.7\% | 3.2\% 0\% |  | - | - | 36\% | 91.3\% | 5.0\% 0\% |  | - |  |  |
| \% Total | $43 \%$ | 4.5\% | 0.7\% | 01\% | 9.6\% |  | 0\% | 0\% 0 | 0\% 0 | 0\% | 0\% |  | 7.5\% | 44.1\% | 1.7\% 0 | \% 5 | 53.3\% | - | 1.3\% | 33.9\% | 1.9\% 0\% | \% | 3.1\% |  |  |
| PHF | 0967 | 0.6820 | 0.6250 | () 2.50 | 0.849 |  | - | - | - | - | - |  | 0.893 | 0.925 | 0.639 | - | 0.931 |  | 0.900 | 0.928 | . 625 |  | 0.954 |  | 0941 |
| Lights | 56 | 60 | 10 | 1 | 127 |  | 0 | 0 | 0 | 0 | 0 |  | 99 | 580 | 19 | 0 | 698 |  | 18 | 445 | 25 | 0 | 488 |  | 1313 |
| \% Lights | 96.6\% | 100\% | 1.00\% | 100\% | 98.4\% |  | 0\% | 0\% 0 | 0\% 0\% |  | - |  | 99.0\% | 985\% | 82.6\% 08 | \% 9 | 38.0\% |  | 100\% | 98 2\% | 00\% 0\% | \% 9 | 8.4\% |  | 98.2\% |
| Articulated Trucks | 0 | 0 | 0 | 0 | 0 |  | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 1 | 0 | 0 | 1 |  | 1 |
| \% Articulated Trucks | 0\% | 0\% | 0\% | 0\% | 0\% |  | 0\% | 0\% 0 | 0\% 0 |  | - | - | 0\% | 0\% | 0\% 0 |  | 0\% |  | 0\% | 02\% | 0\% 0\% |  | 0.2\% |  | 0.1\% |
| Buses and Single-Unit Trucks | 2 | 0 | 0 | 0 | 2 |  | 0 | 0 | 0 | 0 | 0 | - | 1 | 8 | 4 | 0 | 13 | - | 0 | 7 | 0 | 0 | 7 | - | 22 |
| \% Buses and Single-Unit Trucks | 34\% | 0\% | 0\% | 0\% | 1.6\% |  | 10\% | 0\% 0 | 0\% 08 |  | - | - | 10\% | 14\% | 17.4\% 0\% |  | 1.8\% | - | 0\% | 1.5\% | 0\% 0 |  | 1.4\% |  | $16 \%$ |
| Bicycles on Road | 0 | 0 | 0 | 0 | 0 |  | 0 | 0 | 0 | 0 | 0 | - | 0 | 1 | 0 | 0 | 1 | - | 0 | 0 | 0 | 0 | 0 |  | 1 |
| \% Bicycles on Road | 0\% | 0\% | 0\% | 0\% | 0\% |  | 0\% | 0\% 0 | 0\% 0 |  | - |  | 0\% | 0.2\% | 0\% 0\% |  | 0.1\% |  | 0\% | 0\% | 0\% 0\% |  | 0\% |  | 0.1\% |
| Pedestuanc: | - | - | - | - | - | a | - | - | - | - | - | 11 | - | - | - | - | - | : | - | - | - | - | - | (i) |  |
| ${ }^{\circ} \mathrm{O}$ Pedestidats | - | - | - | - |  | 88.4 | - | - | - | - | - | 91.7\% | - | - | - | - | - | $100 \%$ | - | - | $\cdot$ | - | - | $100{ }^{\prime \prime}$ |  |
| Bractes on Crosswalk | - | - | 1 - | - | - | 1 | - | - | - | - | - | 1 | - | - | - | - | - | 0 | - | - | - | - | - | 1 |  |
| \% Breycles an Crosswalt | - | - | - | - |  | 11.19:in | - | - | - | - | - | 8.34, | - | - | - | $\checkmark$ | - | 1)"n | - | - | - | - | - | $10^{\prime \prime}$ |  |

[^24]Damen Avenue at Jackson Boulevard - TMC
Sat Feb 25, 2023
PM Peak (WKND) (1 PM - 2 PM)
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk) All Movements

Provided by: Gewalt Hamilton Associates Inc. 625 Forest Edge Drive, Vernon Hills, IL, 60061, US

ID: 1042312, Location: 41.877471, -87.676545


Out: 511 In: 712
Total: 1223
[S] Damen

Jackson Boulevard at the Malcolm X College p... - TMC
Thu Feb 23, 2023
Full Length (4 PM-7:30 PM)
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements

Provided by: Gewalt Hamilton Associates Inc. 625 Forest Edge Drive, Vernon Hills, IL, 60061, US

ID: 1042305, Location: 41.877577, -87.672494

| Leg Direction |  | Jackson Easthound |  |  |  |  | Jackson Westbound |  |  |  |  |  | Entrance <br> Southbound |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Time |  | T | L | U | App | Pedr | R | R | T | U | App | Ped* | R | L. | U | App | Ped ${ }^{+}$ | Int |
|  | 2023-02-23 4:00PM | 73 | 10 | 0 | 83 | 0 |  | 0 | 0 | 0 | 0 | 13 | 0 | 0 | 0 | 0 | 5 | 83 |
|  | 4:15PM | 75 | 6 | 0 | 81 | 0 |  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 81 |
|  | 4:30PM | 97 | 1.9 | 0 | 116 | 0 |  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 116 |
|  | 4:45PM | 80 | 8 | 0 | 88 | 0 |  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 88 |
|  | Hourly Total | 325 | 4.3 | 0 | 368 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.5 | 368 |
|  | 5:00PM | 72 | 15 | 0 | 87 | $1)$ |  | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 5. | 87 |
|  | 5:15PM | 68 | 20 | 0 | 88 | 0 |  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 88 |
|  | 5:30PM | 72 | 1.9 | 0 | 91 | 0 |  | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 4 | 92 |
|  | 5:45PM | 73 | 9 | 0 | 82 | 0 |  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 82 |
|  | Hourly Total | 285 | 63 | 0 | 348 | 0 |  | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 13 | 349 |
|  | 6:00PM | 65 | 8 | 0 | 73 | 0 |  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 73 |
|  | 6:15PM | 82 | 2 | 0 | 84 | 0 |  | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 1 | 84 |
|  | 6:30PM | 54 | 2 | 0 | 56 | 0 |  | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 56 |
|  | 6:45PM | 47 | 0 | 0 | 47 | 0 |  | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 47 |
|  | Hourly Total | 248 | 12 | 0 | 260 | 0 |  | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 3 | 260 |
|  | 7:00PM | 39 | 1 | 0 | 40 | 0 |  | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 4 | 40 |
|  | 7:15PM | 37 | 0 | 0 | 37 | 0 |  | 0 | 0 | 0 | 0 | $1)$ | 0 | 0 | 0 | 0 | 1 | 37 |
|  | Hourly Total | 76 | 1 | 0 | 77 | 0 |  | 0. | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 5 | 77 |
|  | Total | 934 | 119 | 0 | 1053 | 0 |  | 0 | 1 | 0 | 1 | 7 | 0 | 0 | 0 | 0 | 31. | 1054 |
|  | \% Approach | 88.7\% | 11.3\% | 0\% | - | - | 0\% |  | 100\% | 0\% | - | - | 0\% | 0\% | 0\% | - | - | - |
|  | \% Total | 88.6\% | $113 \%$ | 0\% | 99.9\% | - | 0\% |  | 0.1\% | 0\% | 0.1\% | - | 0\% | 0\% | 0\% | 0\% | - |  |
|  | Lights | 907 | 119 | 0 | 1026 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | - | 1026 |
|  | \% Lights | 97.1\% | 100\% | 0\% | 97.4\% | - | 0\% |  | 0\% | 0\% | 0\% | - | 0\% | 0\% | 0\% | - | - | 97.3\% |
|  | Articulated Trucks | 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\% |
|  | Buses and Single-Unit Trucks | 16 | 0 | 0 | 16 | - |  | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | - | 16 |
|  | \% Buses and Single-Unit Trucks | $17 \%$ | 0\% | 0\% | 1.5\% | - | 0\% |  | 0\% | 0\% | 0\% | - | 0\% | 0\% | 0\% | - | - | 15\% |
|  | Bicycles on Road | 11 | 0 | 0 | 11 | - |  | 0 | 1 | 0 | 1 | - | 0 | 0 | 0 | 0 | - | 12 |
|  | \% Bicycles on Road | 1.2\% | 0\% | 0\% | 1.0\% |  | 0\% |  | 100\% | 0\% | 100\% | - | 0\% | 0\% | 0\% | - | - | 1.1\% |
|  | Predestrians | - | - | - | - | 0. |  | - | - | - | - | 7 | - | - | - | - | 31) |  |
|  | \%, Petesiluans | - | - | - | - | - |  | - | - | - | - | I1000, | - | - | - | - | 100\% | - |
|  | Bicycles on Crosswalk | - | - | - | - | 0 |  | - | - | - | - | 0 | - | - | - | - | 0 |  |
|  | "t, Bucydes on Crosswilk | - | - | - | - | - |  | - | - | - | - | 0 O | - | - | - | - | $0 \% ;$ | - |

[^25]All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk) All Movements

Provided by: Gewalt Hamilton Associates Inc. 625 Forest Edge Drive, Vernon Hills, IL, 60061, US

ID: 1042305, Location: 41.877577, -87.672494
[N] Entrance
Total: 119
In: $0 \quad$ Out: 119


Thu Feb 23, 2023
PM Peak (4:30 PM - 5:30 PM) - Overall Peak Hour
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements

Provided by: Gewalt Hamilton Associates Inc. 625 Forest Edge Drive, Vernon Hills, IL, 60061, US

ID: 1042305, Location: 41.877577, -87.672494

| t.eg Direction | Jackson Eastbound |  |  |  |  | Jackson Westbound |  |  |  |  | Entrance Southbound |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Time | T | L | U | ^pp | Ped* | R | T | U | App | Pedi* | R | L | U | App | Perl* | Int |
| 2023-02-2.3 4.30PM | 97 | 1.9 | 0 | 116 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 116 |
| 4.45 PM | 80 | 8 | 0 | 88 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 88 |
| 5.00PM | 72 | 15 | 0 | 87 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 5 | 87 |
| 5.15 PM | 68 | 20 | 0 | 88 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 88 |
| Total | 317 | 62 | 0 | 379 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 16 | 379 |
| \% Approach | 83.6\% | 16.4\% | 0\% | - | - | 0\% | 0\% | 0\% | - | - | 0\% | 0\% | 0\% | - |  |  |
| \% Total | 83.6\% | 16.4\% | 0\% | 100\% |  | 0\% | 0\% | 0\% | 0\% | - | 0\% | 0\% | 0\% | 0\% | - | - |
| PHF | 0824 | 0.775 | - | 0.822 | - | - | - | - | - | - | - | - | - | - |  | 0.822 |
| Lights | 306 | 62 | 0 | 368 | - | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 |  | 368 |
| \% Lights | 96.5\% | 100\% | 0\% | 97.1\% | - | 0\% | 0\% | 0\% | - | - | 0\% | 0\% | 0\% | - | - | 97.1\% |
| Articulated Trucks | 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\% |
| Buses and Single-Unit Trucks | 7 | 0 | 0 | 7 | - | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | - | 7 |
| \% Buses and Single-Unit Trucks | $22 \%$ | 0\% | 0\% | 1.8\% | - | 0\% | 0\% | 0\% | - | - | 0\% | 0\% | 0\% | - | - | 18\% |
| Bicycles on Road | 4 | 0 | 0 | 4 | - | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | - | 4 |
| \% Bicycles on Road | 13\% | 0\% | 0\% | 1.1\% | - | 0\% | 0\% | 0\% | - | - | 0\% | 0\% | 0\% | - | - | 1.1\% |
| Pedesilumins | - | - | - | - | 0 | - | - | - | - | 1 | - | - | - | - | 16 |  |
| Oó Perdestrams | - | - | - | - | - | - | - | - | - | 100\% | - | - | - | - | 100\% |  |
| Bucycles on Cinsswalk | - | - | - | - | $1)$ | - | - | - | - | 0 | - | - | - | - | 0 |  |
| \% Bucy les on Coroswalk | - - | - | - | - |  | - | - | - | - | ( $0_{1}$ | - | - | - | - | ${ }^{(1)}$ |  |

[^26]PM Peak (4:30 PM - 5:30 PM) - Overall Peak Hour
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk) All Movements Provided by: Gewalt Hamilton Associates Inc. 625 Forest Edge Drive, Vernon Hills, IL, 60061, US

ID: 1.042305, Location: 41.877577, -87.672494
[N] Entrance
Total: 62
In: $0 \quad$ Out: 62


Full Length (11 AM-2 PM)
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements

CHEMAGMAL HAMLIDN
Provided by: Gewalt Hamilton Associates Inc. 625 Forest Edge Drive, Vernon Hills, IL, 60061, US

| Leg Direction | Jackson Easthound |  |  |  |  | Jackson Westbound |  |  |  |  | Entrance <br> Southbound |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Time | $\uparrow$ | L | U | App | Ped* | R | T | U | App | Ped* | R | L | U | App | Ped* | Int |
| 2023-02-25 11.00AM | 38 | 0 | 0 | 38 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 2 | 38 |
| 1115 AM | 50 | 6 | 0 | 56 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 56 |
| 11.30AM | 45 | 4 | 0 | 49 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 49 |
| 1145 AM | 59 | 0 | 0 | 59 | 0 | 0 | 0 | 0 | 0 | , | 0 | 0 | 0 | 0 | 1 | 59 |
| Hourly Total | 192 | 10 | 0 | 202 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 202 |
| 12:00PM | 60 | 4 | 0 | 64 | 11 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 64 |
| 12:15PM | 56 | 8 | 0 | 64 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 2 | 0 | 2 | 1 | 66 |
| 12:30PM | 51 | 10 | 0 | 61 | 11 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 4 | 61 |
| 12:45PM | 47 | 9 | 0 | 56 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 4 | 56 |
| Hourly Total | 214 | 31 | 0 | 245 | 1 | 0 | 0 | 0 | 0 | 6 | 0 | 2 | 0 | 2 | 9 | 247 |
| 1:00PM | 47 | 3 | 0 | 50 | $1)$ | 0 | 0 | 0 | 0 | - | 0 | 1 | 0 | 1 | 0 | 51 |
| 1:15PM | 51 | 4 | 0 | 55 | 1 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 1 | 55 |
| 1:30PM | 40 | 0 | 0 | 40 | 0 | 0 | 0 | 0 | 0 | , | 0 | 0 | 0 | 0 | 0 | 40 |
| 1:45PM | 53 | 0 | 0 | 53 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 4 | 53 |
| Hourly Total | 191 | 7 | 0 | 198 |  | 0 | 0 | 0 | 0 | 6 | 0 | 1 | 0 | 1 | 5 | 199 |
| Total | 597 | 48 | 0 | 645 | 3 | 0 | 0 | 0 | 0 | 12 | 0 | 3 | 0 | 3 | 17 | 648 |
| \% Approach | $926 \%$ | 7.4\% | 0\% | - |  | 0\% | 0\% | 0\% | - |  | 0\% | 100\% | 0\% | - |  |  |
| \% Total | 32 1\% | 7.4\% | 0\% | 99.5\% |  | 0\% | 0\% | 0\% | 0\% |  | 0\% | 0.5\% | 0\% | 0.5\% |  |  |
| Lights | 592 | 48 | 0 | 640 |  | 0 | 0 | 0 | 0 |  | 0 | 3 | 0 | 3 |  | 643 |
| \% Lights | 99.2\% | 100\% | 0\% | 99.2\% |  | 0\% | 0\% | 0\% | - |  | 0\% | 100\% | 0\% | 100\% |  | 99.2\% |
| Articulated Trucks | 0 | 0 | 0 | 0 |  | 0 | 0 | 0 | 0 |  | 0 | 0 | 0 | 0 |  | 0 |
| \% Articulated Trucks | 0\% | (1) | 0\% | 0\% |  | 0\% | 0\% | (1\% | - |  | 0\% | 0\% | 0\% | 0\% |  | 0\% |
| Buses and Single-Unit Trucks | 5 | 0 | 0 | 5 |  | 0 | 0 | 0 | 0 |  | 0 | 0 | 0 | 0 |  | 5 |
| \% Buses and Single-Unit Trucks | $0 \mathrm{~B} \%$ | 0\% | 0\% | 0.8\% |  | 0\% | 0\% | 0\% | - |  | 0\% | 0\% | 0\% | 0\% |  | 08\% |
| Bicycles on Road | 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\% |
| Perlesmians | - | - | - | - | 3 | - | - | - | - | 12 | - | - | - | - | 17 |  |
| \% Pedestram | - | - | - | - | $1000 \%$ | - | - | - | - | 100\% | - | - | - | - | $100 \%$ |  |
| Buy ies on Cinsswalk | - | - |  | - | 0 | - | - | - | - | 0 | - | - | - | - | 0 |  |
| \% Bicycles on Crosswalk | - | - | - | - | $0^{n}$ | - | - | - | - | $0 \%$ | - | - | - | - | $0^{\circ} 0$ |  |

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk) All Movements
ID: 1042316, Location: 41.877577, -87.672494

Provided by: Gewalt Hamilon Associates Inc. 625 Forest Edge Drive, Vernon Hills, IL, 60061, US
[ N ] Entrance
Total: 51
In: 3 Out: 48


Jackson Boulevard at the Malcolm X College p... - TMC
Sat Feb 25, 2023
Midday Peak (WKND) (11:45 AM - 12:45 PM) - Overall Peak Hour All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements

Provided by: Gewalt Hamilton Associates Inc. 625 Forest Edge Drive, Vernon Hills, IL, 60061, US

ID: 1042316, Location: 41.877577, -87.672494

| I.eg <br> Direcuon |  | Jackson Easthound |  |  |  |  | Jackson Westbound |  |  |  |  | Entrance <br> Southbound |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Time |  | T | L | U | ^pp | Perl* | R | T | U | App | Ped* | R | L | U | App | Ped* | Int |
|  | 2023-02-25 11:45AM | 59 | 0 | 0 | 59 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 59 |
|  | 12:00P:M | 60 | 4 | 0 | 64 | 11 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | $1)$ | 64 |
|  | 12:15PM | 56 | 8 | 0 | 64 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 2 | 0 | 2 | 1 | 66 |
|  | 12:30PM | 51 | 10 | 0 | 61 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 4 | 61 |
|  | Total | 226 | 22 | 0 | 248 | 1 | 0 | 0 | 0 | 0 | 4 | 0 | 2 | 0 | 2 | 5 | 250 |
|  | \% Approach | 91.1\% | 8.9\% | 0\% | - | - | 0\% | 0\% | 0\% | - | - | 0\% | 100\% | 0\% | - |  | - |
|  | \% Total | 90.4\% | 8.8\% | 0\% | 99.2\% | - | 0\% | 0\% | 0\% | 0\% | - | 0\% | $08 \%$ | 0\% | 0.8\% |  | - |
|  | PHF | 0.942 | 0.550 | - | 0.969 | - |  | ! | - | - | - | - | 0.250 | - | 0.250 |  | 0.947 |
|  | Linghts | 223 | 22 | 0 | 245 | - | 0 | 0 | 0 | 0 | - | 0 | 2 | 0 | 2 |  | 247 |
|  | \% Lights | 98.7\% | 100\% | 0\% | 98.8\% | - | 0\% | 0\% | 0\% | - | - | 0\% | 100\% | 0\% | 100\% | - | $988 \%$ |
|  | Articulated Trucks | 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\% |
|  | Buses and Single-Unit Trucks | 3 | 0 | 0 | 3 | - | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | - | 3 |
|  | \% Buses and Single-Unit Trucks | 1.3\% | 0\% | 0\% | 1.2\% | - | 0\% | 0\% | 0\% | - |  | 0\% | 0\% | 0\% | 0\% | - | 1.2\% |
|  | Bicycles on Road | 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\% |
|  | Pedestrians | - | - | - | - | 1. | - | - | - | - | 4 | - | - | - | - | 5 |  |
|  | ni, Pedestams | - | - | - | - | $100^{3} 9$ | - | - | - | - | 10109 | - | - | - | - | 1004:" | - |
|  | Bicyrles on Crosswalk | - | - | - | - | 0 | - | - | - | - | 0 | - | - | - | - | 0 |  |
|  | ${ }^{\text {i, Bicyeles on Conssualk }}$ | - | - | - | - | $0^{1010}$ | - | - | - | - | 0\% 0 | - | - | - | - | (1) ${ }^{\circ}$ |  |

[^27]$N$


All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements

Provided by: Gewalt Hamilton Associates Inc. 625 Forest Edge Drive, Vernón Hills, IL, 60061, US

ID: 1042316, Location: 41.877577, -87.672494

| Leg <br> Direcuon | Jackson <br> Easthound |  |  |  |  | Jackson <br> Westhound |  |  |  |  | Entrance <br> Southbound |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Time | T | L | U | App | Pod* | R | T | U | App | Ped ${ }^{-1}$ | R | L. | U | App | $\mathrm{J}^{\text {cod }}$ * | Int |
| 2023-02-25 1:00PM | 47 | 3 | 0 | 50 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 1 | 0 | 1 | 0 | 51 |
| 1:15PM | 51 | 4 | 0 | 55 | 1. | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 1 | 55 |
| 1:30PM | 40 | 0 | 0 | 40 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 40 |
| 1:45PM | 53 | 0 | 0 | 53 | $1)$ | 0 | 0 | 0 | 0 | 1) | 0 | 0 | 0 | 0 | 4 | 53 |
| Total | 191 | 7 | 0 | 198 | 1 | 0 | 0 | 0 | 0 | 6 | 0 | 1 | 0 | 1 | 5 | 199 |
| \% Approach | 96.5\% | 3.5\% | 0\% | - | - | 0\% | 0\% | 0\% | - | - | 0\% | 100\% | 0\% | - |  |  |
| \% Total | 96.0\% | 3.5\% | 0\% | 99.5\% | - | 0\% | 0\% | 0\% | 0\% | - | 0\% | 0.5\% | 0\% | 0.5\% | - |  |
| PHF | 0.901 | 0.438 | - | 0.900 | - | - | - | - | - | - | - | 0.250 | - | 0.250 | - | 0.905 |
| I.ights | 190 | 7 | 0 | 197 | - | 0 | 0 | 0 | 0 | - | 0 | 1 | 0 | 1 |  | 198 |
| \% Lights | 99.5\% | 100\% | 0\% | 99.5\% | - | 0\% | 0\% | 0\% | - | - | 0\% | 100\% | 0\% | 100\% | - | 99.5\% |
| Articulated Trucks | 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\% |
| Buses and Single-Unit Trucks | 1 | 0 | 0 | 1 | - | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | - | 1 |
| \% Buses and Single-Unit Trucks | 05\% | 0\% | 0\% | 0.5\% | - | 0\% | 0\% | 0\% | - | - | 0\% | 0\% | 0\% | 0\% | - | 0.5\% |
| Bicycles on Road | 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\% |
| Pedesimims | $\cdot$ | - | - | - | 1 | - | - | - | - | 6 | - | - | - | - | 5 |  |
| \% Feclestrams | - | - | - | - | $1000^{4} 4$ | - | - | - | - | 100? | - | - | - | - | $100 \%$ |  |
| Bucyches on Conswalk | - | - | - | - | 0 | - | - | - | - | 0 | - | - | - | - | 0 |  |
|  | $\bullet$ | - | - | - | $00^{\circ}$ | - | - | - | - | $0 \times$ | - | - | - | - | $\mathrm{tb}^{2}$ | $\square$ |

[^28]PM Peak (WKND) (1 PM - 2 PM)
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk) All Movements
ID: 1.042316, Location: 41.877577, -87.672494

Provided by: Gewalt Hamilton Associates lnc. 625 Forest Edge Drive, Vernon Hills, IL, 60061, US
[N] Entrance
Total: 8
In: $1 \quad$ Out: 7


Jackson Boulevard at the Malcolm X College p... - TMC
Thu Feb 23, 2023
Full Length ( 4 PM-7:30 PM)
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements

C'I|A| GEWAL HAMLLON
Provided by: Gewalt Hamilton Associates Inc. 625 Forest Edge Drive, Vernon Hills, IL, 60061, US

ID: 1042304, Location: 41.877591, -87.673359

| Leg <br> Direction |  | Jackson Easthound |  |  |  |  | Jackson <br> Westbound |  |  |  |  | Parking Garage EXIT Southbound |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Time |  | T | L | U | App | Ped* | R | T | U | App | Pod* | R | L | U | App | Tred* | Int |
|  | 202:3-02-23 4:00PM | 78 | 0 | 0 | 78 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 2 | 80 |
|  | 4:15PM | 78 | 0 | 0 | 78 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 3 | 3 | 81 |
|  | 4:30PM | 109 | 0 | 0 | 109 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 8 | 8 | 117 |
|  | 4:45PM | 75 | 0 | 0 | 75 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 11 | 0 | 11 | 1 | 86 |
|  | Hourly Toal | 340 | 0 | 0 | 340 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 24 | 0 | 24 | 14 | 364 |
|  | 5:00PM | 73 | 0 | 0 | 73 | (1) | 0 | 0 | 0 | 0 | 0 | 0 | 11 | 0 | 11 | 6 | 84 |
|  | 5.15PM | 82 | 0 | 0 | 82 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 7 | 3 | 89 |
|  | 5:30PM | 83 | 0 | 0 | 83 | $1)$ | 0 | 1 | 0 | 1 | 0 | 0 | 8 | 0 | 8 | 4 | 92 |
|  | 5:45PM | 75 | 0 | 0 | 75 | $1)$ | 0 | 0 | 0 | 0 | 2 | 0 | 9 | 0 | 9 | $\stackrel{-}{2}$ | 84 |
|  | Hourly Total | 313 | 0 | 0 | 313 | 1 | 0 | 1 | 0 | 1 | 2 | 0 | 35 | 0 | 35 | 20 | 349 |
|  | 6:00PM | 55 | 0 | 0 | 55 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 13 | 0 | 13 | 3 | 68 |
|  | 6:15PM | 66 | 0 | 0 | 66 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 19 | 0 | 19 | ? | 85 |
|  | 6:30PM | 42 | 0 | 0 | 42 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 12 | 0 | 12 | 11 | 54 |
|  | 645 PM | 35 | 0 | 0 | 35 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 13 | 0 | 13 | 0 | 48 |
|  | Hourly Total | 198 | 0 | 0 | 198 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 57 | 0 | 57 | 6 | 255 |
|  | 7:00P.M | 36 | 0 | 0 | 36 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 8 | 1 | 44 |
|  | 7:15PM | 33 | 0 | 0 | 33 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 4 | 0 | 37 |
|  | Hourly Total | 69 | 0 | 0 | 69 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 12 | 0 | 12 | 1 | 81 |
|  | Total | 920 | 0 | 0 | 920 | 8 | 0 | 1 | 0 | 1 | 2 | 0 | 128 | 0 | 128 | 41 | 1049 |
|  | \% Approach | 100\% | 0\% | 0\% | - | - | 0\% | 100\% | 0\% | - | - | 0\% | 100\% | 0\% | - | - |  |
|  | \% Total | 877\% | 0\% | 0\% | 87.7\% | - | 0\% | 0.1\% | 0\% | 0.1\% | - | 0\% | 12.2\% | 0\% | 12.2\% | - |  |
|  | Lights | 897 | 0 | 0 | 897 | - | 0 | 0 | 0 | 0 | - | 0 | 126 | 0 | 126 | - | 1023 |
|  | \% Lights | 97.5\% | 0\% | 0\% | 97.5\% | - | 0\% | 0\% | 0\% | 0\% | - | 0\% | 98.4\% | 0\% | 98.4\% | - | 97.5\% |
|  | Articulated Trucks | 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\% |
|  | Buses and Single-Unit Trucks | 1.6 | 0 | 0 | 16 | - | 0 | 0 | 0 | 0 |  | 0 | 0 | 0 | 0 | - | 16 |
|  | \% Buses and Single-Unit Trucks | 1.7\% | 0\% | 0\% | 1.7\% | - | 0\% | 0\% | 0\% | 0\% | - | 0\% | 0\% | 0\% | 0\% | - | 1.5\% |
|  | Bicycles on Road | 7 | 0 | 0 | 7 |  | 0 | 1 | 0 | 1 |  | 0 | 2 | 0 | 2 | - | 10 |
|  | \% Bicycles on Road | 0.8\% | 0\% | 0\% | 0.8\% | - | 0\% | 100\% | 0\% | 100\% | - | 0\% | 1.6\% | 0\% | 1.6\% | - | 1.0\% |
|  | Pedestrians | - | - | - | - | 8 | - | - | - | - | 2 | - | - | - | - | 3 B |  |
|  | \% Pedestans | - | - | - | - | $10 \% 10$ | - | - | - | - | 10096 | - | - | - | $\cdot$ | 9274 | - |
|  | Bicycles on Crosswalt | - | - | - | - | 0 | - | - | - | - | 0 | - | - | - | - | 3 |  |
|  | Si, Bicy les om Cimswail | - | - | - | - | $0^{1}+$ | - | - | - | $\cdot$ | $00^{\prime \prime}$ | - | - | - | - | $\cdots$ |  |

*Pedestrans and Bicycles on Crosswalk: L: Left, R: Rıght, T: Jhov, U: U-Turn

Full Length (4 PM-7:30 PM)
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

## All Movements

625 Forest Edge Drive, Vernon Hills, IL, 60061, US

JD: 1042304, Location: 41.877591, -87.673359

## [N] Parking Garage EXIT

Total: 128
In: 128 Out: 0


Jackson Boulevard at the Malcolm X College p... - TMC
Thu Feb 23, 2023
PM Peak (4:30 PM - 5:30 PM) - Overall Peak Hour
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements

Provided by: Gewalt Hamilton Associates Inc. 625 Forest Edge Drive, Vernon Hills, IL, 60061, US

ID: 1042304, Location: 41.877591, -87.673359

| Leg <br> Direcuon | Jackson Eastbound |  |  |  |  | Jackson <br> Westhound |  |  |  |  | Parking Garage EXIT <br> Southbound |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Time | T | 1. | U | App | Ped* | R | T | L | ^pp | Perd* | R | I. | U | App | Pe, ${ }^{-}$ | Int |
| 2023-02-23 4:30PM | 109 | 0 | 0 | 109 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 8 | 8 | 117 |
| 4:45PM | 75 | 0 | 0 | 75 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 11 | 0 | 11 | 1 | 86 |
| 5:00PM | 73 | 0 | 0 | 73 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11 | 0 | 11 | fi | 84 |
| 5.15PM | 82 | 0 | 0 | 82 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 7 | 3 | 89 |
| Total | 339 | 0 | 0 | 339 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 37 | 0 | 37 | 13 | 376 |
| \% Approach | 100\% | 0\% | 0\% | - | - | 0\% | 0\% | 0\% | - |  | 0\% | 100\% | 0\% | - |  |  |
| \% Total | 90\% $\%$ | 0\% | 0\% | 90.2\% | - | 0\% | 0\% | 0\% | 0\% | - | 0\% | 9.8\% | 0\% | 9.8\% | - |  |
| PHF | 0778 | - | - | 0.778 | - | - | - | - | - | - | - | 0.841 | - | 0.841 | - | 0.804 |
| Lights | 329 | 0 | 0 | 329 | - | 0 | 0 | 0 | 0 | - | 0 | 37 | 0 | 37 | - | 366 |
| \% Lights | 97.1\% | 0\% | 0\% | 97.1\% | - | 0\% | 0\% | 0\% | - | - | 0\% | 100\% | 0\% | 100\% | - | 97.3\% |
| Ariculated Trucks | 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\% |
| Buses and Single-Unit Trucks | 7 | 0 | 0 | 7 | - | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | - | 7 |
| \% Buses and Single-Unit Trucks | 2.1\% | 0\% | 0\% | 2.1\% | - | 0\% | 0\% | 0\% | - | - | 0\% - | 0\% | 0\% | 0\% | - | 1.9\% |
| Bicycles on Road | 3 | 0 | 0 | 3 | - | 0 | 0 | 0 | 0 |  | 0 | 0 | 0 | 0 |  | 3 |
| \% Bicycles on Road | 0 9\% | 0\% | 0\% | 0.9\% | - | 0\% | 0\% | 0\% | - | - | 0\% | 0\% | 0\% | 0\% | - | 0.8\% |
| Pedestrians | - | - | - | - | 4 | - | - | - | - | 18 | - | - | - | - | 18 |  |
| Ub Predestitans | - | - | - | - | 100\% | - | - | - | - | - | - | - | - | - | 100: |  |
| Bucycles on Cinosswalk | - | - | - | - | 0 | - | - | - | - | 0 | - | - | - | - | 0 |  |
| \% Buyrles on Coussualk | - | - | - | - | $0 \%$ | - | - | - | - | - | - | - | - | - | $0{ }^{10}$ |  |

[^29]PM Peak (4:30 PM - 5:30 PM) - Overall Peak Hour
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk) All Movements
ID: 1042304, Location: 41.877591, -87.673359

## [N] Parking Garage EXIT

Total: 37
In: $37 \quad$ Out: 0


Jackson Boulevard at the Malcolm X College p... - TMC
Sat Feb 25, 2023
Full Length (11 AM-2 PM)
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements

Provided by: Gewalt Hamilton Associates Inc. 625 Forest Edge Drive, Vernon Hills, IL, 60061, US

ID: 1042315, Location: 41.877591, -87.673359

| I.cg <br> Direction | Jackson <br> Eastbound |  |  |  |  |  | on <br> ound |  |  |  | Exit South | ound |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Time | T | L | U | App | $\Gamma \mathrm{Cu}{ }^{+}$ | R | T | U | App | Fedr | R | I. | U | App | Tert | 1nt |
| 2023-02-25 11.00AM | 37 | 0 | 0 | 37 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | - | 37 |
| 11:15AM | 52 | 0 | 0 | 52 | , 1) | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 3 | 1 | 55 |
| 11.30AM | 52 | 0 | 0 | 52 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 52 |
| 11.45 AM | 57 | 0 | 0 | 57 | 0 | 0 | 0 | 0 | 0 | $1)$ | 0 | 0 | 0 | 0 | 0 | 57 |
| Hourly Total | 198 | 0 | 0 | 198 | 0 | 0. | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 3 | 4 | 201 |
| 12.00PM | 64 | 0 | 0 | 64 | 11 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 3 | 3 | 67 |
| 12.15PM | 60 | 0 | 0 | 60 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 5 | 1 | 65 |
| 12:30PM | 57 | 0 | 0 | 57 | 2 | 0 | 0 | 0 | 0 | $1)$ | 0 | 4 | 0 | 4 | 3 | 61 |
| 12:45PM | 54 | 0 | 0 | 54 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 55 |
| Hourly Total | 235 | 0 | 0 | 235 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 1.3 | 0 | 13 | 1.3 | 248 |
| 1:00PM | 49 | 0 | 0 | 49 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 49 |
| 1.15 PM | 50 | 0 | 0 | 50 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 2 | 52 |
| 130 PM | 37 | 0 | 0 | 37 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 4 | $1)$ | 41 |
| 1.45 PM | 51 | 0 | 0 | 51 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 51 |
| Hourly Total | 187 | 0 | 0 | 187 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 6 | 3 | 193 |
| Total | 620 | 0 | 0 | 620 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 22 | 0 | 22 | 20 | 642 |
| \% Approach | 100\% | 0\% | 0\% | - | - | 0\% | 0\% | 0\% | - |  | 0\% | 100\% | 0\% | - |  |  |
| \% Total | 966\% | 0\% | 0\% | 96.6\% | - | 0\% | 0\% | 0\% | 0\% | - | 0\% | 3.4\% | 0\% | 3.4\% | - |  |
| Lights | 615 | 0 | 0 | 615 | - | 0 | 0 | 0 | 0 | - | 0 | 22 | 0 | 22 | - | 637 |
| \% Iights | 992\% | 0\% | 0\% | 99.2\% | - | 0\% | 0\% | 0\% | - | - | 0\% | 100\% | 0\% | 100\% | - | 99.2\% |
| Articulated Trucks | 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\% |
| Buses and Single-Unit Trucks | 5 | 0 | 0 | 5 | - | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 - | - | 5 |
| \% Buses and Single-Unit Trucks | 0.8\% | 0\% | 0\% | 0.8\% | - | 0\% | 0\% | 0\% | - | - | 0\% | 0\% | 0\% | 0\% | - | 0.8\% |
| Bicycles on Road | 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\% |
| Peicstums | - | - | - | $\bullet$ | 8 | - | - | - | - | 0 | - | - | - | - | 20 |  |
| "b l'edestriams | - | - | - | - | 1010'\% | - | - | - | - | - | - | - | - | - | 16140 |  |
| Bicycles on Ciosswalk | - | - | - | - | 0 | - | - | - | - | 0 | - | - | - | - | 0 |  |
| 4, Brcuelec on Conswalk | - | - | - | - | 1)\% | - | - | - | $\cdot$ | - | - | - | - | - | 0 |  |

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Full Length (11 AM-2 PM)
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

## All Movements

ID: 1042315, Location: 41.877591, -87.673359
[ N$]$ Exit
Total: 22
In: 22 Out: 0


Jackson Boulevard at the Malcolm X College p... - TMC
Sat Feb 25, 2023
Midday Peak (WKND) (11:45 AM - 12:45 PM) - Overall Peak Hour All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements

Provided by: Gewalt Hamilton Associates Inc. 625 Forest Edge Drive, Vernon Hills, IL, 60061, US

ID: 1042315, Location: 41.877591, -87.673359

| Leg <br> Direction |  | Jackson Eastbound |  |  |  |  | Jackson <br> Westhound |  |  |  |  | Exit <br> Southbound |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Time |  | T | L | U | App | 「edl ${ }^{-}$ | R | T | U | App | Fed* | R | I. | U | App | $\Gamma \mathrm{er} \mathrm{l}^{+}$ | Int |
|  | 2023-02-25 11.45AM | 57 | 0 | 0 | 57 | 0 | 0 | 0 | 0 | 0 | 1) | 0 | 0 | 0 | 0 | 0 | 57 |
|  | 12:00PM | 64 | 0 | 0 | 64 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 3 | 3 | 67 |
|  | 12:15PM | 60 | 0 | 0 | 60 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 5 | 0 | 5 | 1 | 65 |
|  | 12:30PM | 57 | 0 | 0 | 57 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 4 | 3 | 61 |
|  | Total | 238 | 0 | 0 | 238 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 12 | 0 | 12 | 7 | 250 |
|  | \% Approach | 100\% | 0\% | 0\% | - | - | 0\% | 0\% | 0\% | - |  | 0\% | 100\% | 0\% | - |  |  |
|  | \% Total | 95.2\% | 0\% | 0\% | 95.2\% | - | 0\% | 0\% | 0\% | 0\% | - | 0\% | 48\% | 0\% | 4.8\% | - | - |
|  | PHF | 0.930 | - | - | 0.930 | - | - | - | - | - | - | - | 0.600 | - | 0.600 | - | 0.933 |
|  | Lights | 235 | 0 | 0 | 235 | - | 0 | 0 | 0 | 0 | - | 0 | 12 | 0 | 12 | - | 247 |
|  | \% Lights | 98.7\% | 0\% | 0\% | 98.7\% | - | 0\% | 0\% | 0\% | - |  | 0\% | 100\% | 0\% | 100\% | - | 98.8\% |
|  | Articulated Trucks | 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\% |
|  | Buses and Single-Unit Trucks | 3 | 0 | 0 | 3 | - | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | - | 3 |
|  | \% Buses and Single-Unit Trucks | 1.3\% | 0\% | 0\% | 1.3\% | - | 0\% | 0\% | 0\% | - | - | 0\% | 0\% | 0\% | 0\% | - | 12\% |
|  | Bicycles on Road | 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\% |
|  | Pedesuians | - | - | - | - | 2 | - | - | - | - | 0 | - | - | - | - | 7 |  |
|  | \% Pederstuams | - | - | - | - | $100 \%$ | - | - | - | - | - | - | - | - | - | $1010{ }^{1 \%}$ | - |
|  | - Buyctes on Camswalk | - | - | $\cdot$ | - | 0 | - | - | - | - | 0 | - | - | - | - | 0 |  |
|  | O, Bucycles on Cosssualk | - | - | - | - | U\% | - | - | - | - | - | - | - | - | - | $11^{10}$ |  |

[^30]Midday Peak (WKND) (11:45 AM - 12:45 PM) - Overall Peak Hour All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk) All Movements

Provided by: Gewalt Hamilton Associates Inc. 625 Forest Edge Drive, Vernon Hills, IL, 60061, US
[N] Exit
Total: 12
In: 12 Out: 0


Sat Feb 25, 2023
PM Peak (WKND) (1 PM - 2 PM)
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements

Provided by: Gewalt Hamilton Associates Inc. 625 Forest Edge Drive, Vernon Hills, IL, 60061, US

ID: 1.042315, Location: 41.877591, -87.673359

| I.cg <br> Direction | Juckson Easthound |  |  |  |  | Jackson Westhound |  |  |  |  | Exil <br> Southbound |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Time | T | L | U | ^pp | Ped ${ }^{*}$ | R | T | U | App | Perd* | R | L | U | App | Ped+ | Int |
| 2023-02-25 1.00PM | 49 | 0 | 0 | 49 | 11 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 49 |
| 1 15PM | 50 | 0 | 0 | 50 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 2 | 52 |
| 1:30PM | 37 | 0 | 0 | 37 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 4 | 0 | 41 |
| 1:45PM | 51 | 0 | 0 | 51 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 51 |
| Total | 187 | 0 | 0 | 187 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 6 | 3 | 193 |
| \% Approach | 100\% | 0\% | 0\% | - |  | 0\% | 0\% | 0\% | - |  | 0\% | 100\% | 0\% | - |  | - |
| \% Total | $969 \%$ | 0\% | 0\% | 96.9\% | - | 0\% | 0\% | 0\% | 0\% | - | 0\% | 3.1\% | 0\% | 3.1\% |  | - |
| PHF | 0.917 | - | - | 0.917 |  | - | - | - | - | - | - | 0.375 | - | 0.375 |  | 0.928 |
| L.ights | 186 | 0 | 0 | 186 | - | 0 | 0 | 0 | 0 | - | 0 | 6 | 0 | 6 |  | 192 |
| \% Lights | 99.5\% | 0\% | 0\% | 99.5\% |  | 0\% | 0\% | 0\% | - | - | 0\% | 100\% | 0\% | 100\% |  | 99.5\% |
| Articulated Trucks | 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\% |
| Buses and Single-Unit Trucks | 1 | 0 | 0 | 1 | - | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 |  | 1 |
| \% Buses and Single-Unit Trucks | $05 \%$ | 0\% | 0\% | 0.5\% | - | 0\% | 0\% | 0\% | - | - | 0\% | 0\% | 0\% | 0\% | - | 0.5\% |
| Bicycles on Road | 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\% |
| Pedestians | - | - | - | - | G | - | - | - | - | 0 | - | - | - | - | 3 |  |
| Oi Pedertrians | - | - | - | - | 101\% | - | - | - | - | - | - | - | - | - | 100\% | - |
| Bucucles on Corustailk | - | - | $\cdot$ | - | 0 | - | $\cdot$ | - | - | 0 | - | - | - | - | , |  |
| \% Bucreles on Ciosswalk | - | - | - | - | $0 \%$ | - | - | - | - | - | - | - | - | - | $\mathrm{OHO}_{0}$ | - |

[^31]All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk) All Movements
ID: 1042315, Location: 41.877591, -87.673359

## [N] Exit

Total: 6
In: 6 Out: 0
$\circ$

Out: 193 In: 0
Total: 193
[E] Jackson

Thu Feb 23, 2023
Full Length (4 PM-7:30 PM)
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Bicycles on Road)

CHIMAGMAL HAMLION
Provided by: Gewalt Hamilton Associates Inc. 625 Forest Edge Drive, Vernon Hills, IL, 60061, US

All Channels
ID: 1042323, Location: 41.877434, -87.672141

| Leg <br> Direction |  | South <br> Northbound |  | North <br> Southbound |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Time |  | T | App | T | App | Int |
|  | 2023-02-23 4.00PM | 9 | 9 | 10 | ; 10 | 19 |
|  | 4.15PM | j | 5 | 13 | 13 | 18 |
|  | 4:30PM | 4 | 4 | 16 | 16 | 20 |
|  | 4 45PM | 1 | 1 | 8 | 8 | 9 |
|  | Hourly Total | 19 | 19 | 47 | 47 | 66 |
|  | 5.00PM | 2 | 2 | 2 | 2 | 4 |
|  | 5:15PM | 17 | 17 | 7 | 7 | 24 |
|  | 5:30PM | 7 | 7 | 3 | 3 | 10 |
|  | 5:45PM | 4 | 4 | 8 | 8 | 12 |
|  | Hourly Total | 30 | 30 | 20 | 20 | 50 |
|  | 6:00PM | 0 | 0 | 6 | 6 | 6 |
|  | 6.15PM | 2 | 2 | 6 | 6 | 8 |
|  | 6:30PM | 4 | 4 | 3 | 3 | 7 |
|  | 6.45 PM | 5 | 5 | 2 | 2 | 7 |
|  | Hourly Total | 11 | 11 | 17 | 17 | 28 |
|  | 7 00PM | 3 | 3 | 11 | 11 | 14 |
|  | 7:15PM | 9 | 9 | 9 | 9 | 18 |
|  | Hourly Total | 12 | 12 | 20 | 20 | 32 |
|  | Total | 72 | 72 | 104 | 104 | 176 |
|  | \% ^pproach | 100\% | - | 100\% | - | - |
|  | \% Total | 40.9\% | 40.9\% | 59.1\% | 59.1\% |  |
|  | Lights | 72 | 72 | 104 | 104 | 176 |
|  | \% Lights | 100\% | 100\% | 100\% | 100\% | 100\% |
|  | Ariculated Trucks | 0 | 0 | 0 | 0 | 0 |
|  | \% Articulated Trucks | 0\% | 0\% | 0\% | 0\% | 0\% |
|  | Buses and Single-Unil Trucks | 0 | 0 | 0 | 0 | 0 |
|  | \% Buses and Single-Unit TTrucks | 0\% | 0\% | 0\% | 0\% | 0\% |
|  | Bicycles un Road | 0 | 0 | 0 | 0 | 0 |
|  | \% Bicycles on Road | 0\% | 0\% | 0\% | 0\% | 0\% |

[^32]Thu Feb 23, 2023
Full Length (4 PM-7:30 PM)
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Bicycles on Road)
All Channels
ID: 1042323, Location: 41.877434, -87.672141

625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Out: $104 \quad \ln : 72$
Total: 176
$S$

Thu Feb 23, 2023
PM Peak (4 PM - 5 PM) - Overall Peak Hour
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Bicycles on Road)

Provided by: Gewalt Hamilton Associates Inc. 625 Forest Edge Drive, Vernon Hills, IL, 60061, US

All Channels
ID: 1042323, Location: 41.877434, -87.672141.

| L.eg <br> Direcuon |  | South <br> Nurthbound |  | North <br> Southbound |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Time |  | T | $\Lambda \mathrm{pp}$ | T | App | Int |
|  | 2023-02-2.3 4.00PM | 9 | 9 | 10 | 10 | 19 |
|  | 415 PM | 5 | 5 | 13 | 13 | 18 |
|  | 4.30 PM | 4 | 4 | 16 | 16 | 20 |
|  | 4:45PM | 1 | 1 | 8 | 8 | 9 |
|  | Total | 19 | 19 | 47 | 47 | 66 |
|  | \% Approach | 100\% | - | 100\% | - | - |
|  | \% Toral | 288\% | 28.8\% | $712 \%$ | 71.2\% | - |
|  | PHF | 0.528 | 0.528 | 0.734 | 0.734 | 0.825 |
|  | Lights | 19 | 19 | 47 | 47 | 66 |
|  | \% Lights | 100\% | 100\% | 100\% | 100\% | 100\% |
|  | Articulated 'Trucks | 0 | 0 | 0 | 0 | 0 |
|  | \% Articulated Trucks | 0\% | 0\% | 0\% | 0\% | 0\% |
|  | Buses and Single-Unit Trucks | 0 | 0 | 0 | 0 | 0 |
|  | \% Buses and Single-Unit Trucks | 0\% | 0\% | 0\% | 0\% | 0\% |
|  | Bicycles on Road | 0 | 0 | 0 | 0 | 0 |
|  | \% Bicycles on Road | 0\% | 0\% | 0\% | 0\% | 0\% |

[^33]Thu Feb 23, 2023
PM Peak (4 PM - 5 PM) - Overall Peak Hour
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Bicycles on Road)
All Channels
ID: 1042323, Location: 41.877434, -87.672141


Out: 47 In: 19
Total: 66
S

Sat Feb 25, 2023
Full Length (10 AM-3 PM)
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Bicycles on Road)

Provided by: Gewalt Hamilton Associates Inc. 625 Forest Edge Drive, Vernon Hills, IL, 60061, US
All Channels
ID: 1042327, Location: 41.877434, -87.672141

| Leg <br> Direcuon |  | South <br> Northbound |  | Norh <br> Southbound |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Time |  | T | App | T | App | Int |
|  | 2023-02-25 10:00AM | 17 | 17 | 13 | 13 | 30 |
|  | 1015AM | 9 | 9 | 4 | 4 | 13 |
|  | 10.30AM | 0 | 0 | 2 | 2 | 2 |
|  | 10:45AM | 5 | 5 | 2 | 2 | 7 |
|  | Hourly Total | 31 | 31 | 21 | 21 | 52 |
|  | 11.00AM | 17 | 17 | 6 | 6 | 23 |
|  | 11.15AM | 4 | 4 | 17 | 17 | 21 |
|  | 1.1:30AM | 5 | 5 | 13 | 13 | 18 |
|  | 11:45AM | 10 | 10 | 17 | 17 | 27 |
|  | Hourly Total | 36 | 36 | 53 | 53 | 89 |
|  | 12:00PM | 3 | 3 | 22 | 22 | 25 |
|  | 12:15PM | 7 | 7 | 14 | 14 | 21 |
|  | 12 30PM | 4 | 4 | 12 | 12 | 16 |
|  | 12.45PM | 8 | 8 | 12 | 12 | 20 |
|  | Hourly Total | 22 | 22 | 60 | 60 | 82 |
|  | 1:00PM | 8 | 8 | 12 | 12 | 20 |
|  | $1 \cdot 15 \mathrm{PM}$ | 20 | 20 | 8 | 8 | 28 |
|  | 1:30PM | 21 | 21 | 5 | 5 | 26 |
|  | 1.45 PM | 1 | 1 | 5 | 5 | 6 |
|  | Hourly Total | 50 | 50 | 30 | 30 | 80 |
|  | 2:00PM | 9 | 9 | 3 | 3 | 12 |
|  | 2:15PM | 28 | 28 | 5 | 5 | 33 |
|  | $2: 30 \mathrm{PM}$ | 14 | 14 | 8 | 8 | 22 |
|  | 2.45 PM | 5 | 5 | 17 | 17 | 22 |
|  | Hourly Total | 56 | 56 | 33 | 33 | 89 |
|  | Total | 195 | 195 | 197 | 197 | 392 |
|  | \% Approach | 100\% | - | 100\% | - | - |
|  | \% Total | 49.7\% | 49.7\% | 50.3\% | 50.3\% |  |
|  | I.ights | 195 | 195 | 197 | 197 | 392 |
|  | \% Lights | 100\% | 100\% | 100\% | 100\% | 100\% |
|  | Articulated Trucks | 0 | 0 | 0 | 0 | 0 |
|  | \% Articulated Trucks | 0\% | 0\% | 0\% | 0\% | 0\% |
|  | Buses and Single-Unit Trucks | 0 | 0 | 0 | 0 | 0 |
|  | \% Buses and Single-Unit Trucks | 0\% | , 0\% | 0\% | 0\% | 0\% |
|  | Bicycles on Road | 0 | 0 | 0 | 0 | 0 |
|  | \% Bicycles on Road | 0\% | 0\% | 0\% | $0 \%$ | 0\% |

"T: Thru

Sat Feb 25, 2023
Full Length ( $10 \mathrm{AM}-3 \mathrm{PM}$ )
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Bicycles on Road)
All Channels
ID: 1042327, Location: 41.877434, -87.672141


Out: 197 In: 195 Total: 392

S

Sat Feb 25, 2023
AM Peak (WKND) (1.0 AM - 11 AM)
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Bicycles on Road)

CGMAGMALHAMION
Provided by: Gewalt Hamilton Associates Inc. 625 Forest Edge Drive, Vernon Hills, IL, 60061, US

ID: 1042327, Location: 41.877434, -87.672141

| Leg <br> Directün |  | South <br> Northbound |  | North <br> Southbound |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Time |  | T | App | T | App | Int |
|  | 2023-02-25 10.00AM | 17 | 17 | 13 | 13 | 30 |
|  | 10:15^M | 9 | 9 | 4 | 4 | 13 |
|  | 10:30AM | 0 | 0 | 2 | 2 | 2 |
|  | $1045 \wedge \mathrm{M}$ | 5 | 5 | 2 | 2 | 7 |
|  | Total | 31 | 31 | 21 | 21 | 52 |
|  | \% Approach | 100\% | - | 100\% | - | - |
|  | \% Tutal | 59 6\% | 59.6\% | 40.4\% | 40.4\% | - |
|  | PHF | 0.456 | 0.456 | 0.404 | 0.404 | 0.433 |
|  | I.ights | 31 | 31 | 21 | 21 | 52 |
|  | \% Lights | 100\% | 100\% | 100\% | 100\% | 100\% |
|  | Arriculated Trucks | 0 | 0 | 0 | 0 | 0 |
|  | \% Articulated Trucks | 0\% | 0\% | 0\% | 0\% | 0\% |
|  | Buses and Single-Unit Trucks | 0 | 0 | 0 | 0 | 0 |
|  | \% Buses and Single-Unit Trucks | 0\% | 0\% | 0\% | 0\% | 0\% |
|  | Bicycles on Road | 0 | 0 | 0 | 0 | 0 |
|  | \% Bicycles on Road | 0\% | 0\% | 0\% | 0\% | 0\% |

"T: Thru

AM Peak (WKND) (10 AM - 11 AM)
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Bicycles on Road)
All Channels
ID: 1042327, Location: 41.877434, -87.672141


Driveway 1-2 lanes-ATR
Sat Feb 25, 2023
Midday Peak (WKND) (12:45 PM - 1:45 PM) - Overall Peak Hour
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Bicycles on Road)
All Channels
Provided by: Gewalt Hamilton Associates Inc. 625 Forest Edge Drive, Vernon Hills, IL, 60061, US

ID: 1042327, Location: 41.877434, -87.672141

| Leg <br> Durection |  | South <br> Northbound |  | North <br> Southbound |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Time |  | T | App | T | ^pp | Int |
|  | 2023-02-25 12:45PM | 8 | 8 | 12 | 12 | 20 |
|  | 100 PM | 8 | 8 | 12 | 12 | 20 |
|  | 1.15PM | 20 | 20 | 8 | 8 | 28 |
|  | 130 PM | 21 | 21 | 5 | 5 | 26 |
| . | Total | 57 | 57 | 37 | 37 | 94 |
|  | \% Approach | 100\% | - | 100\% | - | - |
|  | \% Total | 60.6\% | 60.6\% | 39.4\% | 39.4\% | - |
|  | PHF | 0.679 | 0.679 | 0.771 | 0.771 | 0.839 |
|  | $\sim$ Lights | 57 | 57 | 37 | 37 | 94 |
|  | \% Lights | 100\% | 100\% | 100\% | 100\% | 100\% |
|  | Ariculated Trucks | 0 | 0 | 0 | 0 | 0 |
|  | \% Articulated Trucks | 0\% | 0\% | 0\% | 0\% | 0\% |
|  | Buses and Single-Unit Trucks | 0 | 0 | 0 | 0 | 0 |
|  | \% Buses and Single-Unit Trucks | 0\% | 0\% | 0\% | 0\% | 0\% |
|  | Bicycles on Road | 0 | 0 | 0 | 0 | 0 |
|  | \% Bicycles on Road | 0\% | 0\% | 0\% | 0\% | 0\% |

*T: Thru

Sat Feb 25, 2023
Midday Peak (WKND) (12:45 PM - 1:45 PM) - Overall Peak Hour All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Bicycles on Road)
All Channels


Sat Feb 25, 2023
PM Peak (WKND) (2 PM - 3 PM)
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Bicycles on Road)
All Channels
Provided by: Gewalt Hamilton Associates Inc. 625 Forest Edge Drive, Vernon Hills, IL, 60061, US

ID: 1042327, Location: 41.877434, -87.672141

| Leg <br> Direcuon |  | South <br> Northbound |  | North <br> Southbound |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Time |  | T | App | T | App | Int |
|  | 2023-02-25 2.00PM | 9 | 9 | 3 | 3 | 12 |
|  | 2 15PM | 28 | 28 | 5 | 5 | 33 |
|  | 2:30PM | 14 | 14 | 8 | 8 | 22 |
|  | 2:45PM | 5 | 5 | 17 | 17 | 22 |
|  | Total | 56 | 56 | 33 | 33 | 89 |
|  | \% Approach | 100\% | - | 100\% | - | - |
|  | \% Total | 62.9\% | 62.9\% | 37 1\% | 37.1\% | - |
|  | PHF | 0.500 | 0.500 | 0.485 | 0.485 | 0.674 |
|  | Lights | 56 | 56 | 33 | 33 | 89 |
|  | \% Lights | 100\% | 100\% | 100\% | 100\% | 100\% |
|  | Articulated Trucks | 0 | 0 | 0 | 0 | 0 |
|  | \% Articulated Trucks | 0\% | 0\% | 0\% | 0\% | 0\% |
|  | Buses and Single-Unit Trucks | 0 | 0 | 0 | 0 | 0 |
|  | \% Buses and Single-Unit Trucks | 0\% | 0\% | 0\% | 0\% | 0\% |
|  | Bicycles on Road | 0 | 0 | 0 | 0 | 0 |
|  | \% Bicycles on Road | 0\% | 0\% | 0\% | 0\% | 0\% |

[^34]All Channels

- ID: 1042327, Location: 41.877434, -87.672141


Jackson Boulevard at Wood Street - TMC
Thu Feb 23, 2023
Full Length (4 PM-7:30 PM)
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 1042306, Location: 41.87756, -87.671.664

| Leg <br> Direction | Jackson Eastbound |  |  |  |  |  | Jackson <br> Westbound |  |  |  |  |  | Wood <br> Northbnund |  |  |  |  |  | Wood <br> Southbound |  |  |  |  |  | Int |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Time | R | T | L | U | App I | Ped ${ }^{-}$ | R | T | L | U | App | P'cd* | R | T | L | U | App | Ped ${ }^{-1}$ | R | T | L | U | ^pp | Pedi* |  |
| 2023-02-23 4.00PM | 8 | 52 | 14 | 0 | 74 |  | 0 | 2 | 0 | 0 | 2 | 1 | 1 | 18 | 0 | 0 | 19 | , | 0 | 27 | 19 | 0 | 46 | $\checkmark$ | 141 |
| 4.15PM | 7 | 46 | 13 | 0 | 66 |  | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 20 | 0 | 0 | 20 | 1 | 0 | 31 | 11 | 0 | 42 | 1 | 128 |
| 4:30PM | 13 | 57 | 16 | 0 | 86 |  | 0 | 0 | 0 | 0 | 0 | 3. | 2 | 22 | 0 | 0 | 24 | 4 | 0 | 22 | 24 | 0 | 46 | 4 | 156 |
| 4.45 PM | 12 | 52 | 8 | 0 | 72 |  | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 23 | 0 | 0 | 24 | 1 | 0 | 32 | 17 | 0 | 49 | 3 | 145 |
| Hourly Total | 40 | 207 | 51 | 0 | 298 |  | 0 | 2 | 0 | 0 | 2 | 7 | 4 | 83 | 0 | 0 | 87 | 9 | 0 | 112 | 71 | 0 | 183 | 10 | 570 |
| 5:001M | 11 | 50 | 11 | 0 | 72 |  | 1 | 0 | 0 | 0 | 1 | 5 | 1 | 20 | 0 | 0 | 21. | -1 | 0 | 22 | 15 | 0 | 37 | 11 | 131 |
| 5:15PM | 20 | 50 | 8 | 0 | 78 |  | 0 | 0 | 0 | 0 | 0 | 3 | 2 | 20 | 0 | 0 | 22 | 1 | 0 | 17 | 12 | 0 | 29 | G | 129 |
| 530 PM | 14 | 54 | 7 | 0 | 75 |  | 1 | 0 | 0 | 0 | 1 | 2 | 0 | 21 | 0 | 0 | 21 | 1 | 0 | 24 | 14 | 0 | 38 | 14 | 135 |
| 5 45PM | 11 | 49 | 8 | 0 | 68 |  | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 15 | 0 | 0 | 15 | 2 | 0 | 14 | 7 | 0 | 21 | i) | 104 |
| Hourly Total | 56 | 203 | 34 | 0 | 293 |  | 2 | 0 | 0 | 0 | 2 | 11 | 3 | 76 | 0 | 0 | 79 | 8 | 0 | 77 | 48 | 0 | 125 | 30 | 499 |
| 6.00PM | 13 | 42 | 6 | 0 | 61 |  | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 12 | 0 | 0 | 12 | 1 | 0 | 13 | 12 | 0 | 25 | 3 | 98 |
| 6.15 PM | 13 | 52 | 11 | 0 | 76 |  | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 8 | 0 | 0 | 11 | 2 | 0 | 15 | 4 | 0 | 19 | 3 | 106 |
| 6:30PM | 12 | 38 | 5 | 0 | 55 |  | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 9 | 0 | 0 | 9 | 2 | 0 | 8 | 7 | 0 | 15 | 1 | 79 |
| 6.45PM | 14 | 32 | 3 | 0 | 49 |  | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 5 | 0 | 0 | 7 | ; | 0 | 8 | 3 | 0 | 11 | $!$ | 67 |
| I fourly Total | 52 | 164 | 25 | 0 | 241 |  | 0 | 0 | 0 | 0 | 0 | 4 | 5 | 34 | 0 | 0 | 39 | 8 | 0 | 44 | 26 | 0 | 70 | 6 | 350 |
| 7:00PM | 9 | 17 | 3 | 0 | 29 |  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 6 | $\stackrel{1}{2}$ | 0 | 10 | 5 | 0 | 1.5 | 2 | 50 |
| 7:15PM | 7 | 25 | 4 | 0 | 36 |  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 3 | 1 | 0 | 9 | 1 | 0 | 10 | 5 | 49 |
| Hourly Total | 16 | 42 | 7 | 0 | 65 |  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 0 | 0 | 9 | 3 | 0 | 19 | 6 | 0 | 25 | 7 | 99 |
| Total | 164 | 616 | 117 | 0 | 8.97 |  | 2 | 2 | 0 | 0 | 4 | 22 | 12 | 202 | 0 | 0 | 214 | 28 | 0 | 252 | 151 | 0 | 403 | 5 | 1518 |
| \% Approach | 18.3\% 6 | 68.7\% | 13.0\% 0 |  | - |  | 500\% | 50.0\% 0 | 0\% 0 |  | - |  | 5.6\% | 94.4\% 0 | 0\% 0 |  | - |  | 0\% | 62 5\% | 37.5\% 0 |  | - |  |  |
| \% Total | 10.8\% 4 | 40.6\% | 7.7\% 0 | 0\% | 59.1\% |  | 01\% | 0.1\% 0\% | 0\% 0\% | 0\% | 0.3\% |  | 0.8\% | 13.3\% 0\% | 0\% 0 | 0\% | 14.1\% |  | 0\% | 16.6\% | 9.9\% 0 | \% | 6.5\% |  |  |
| Lights | 164 | 5.94 | 116 | 0 | 874 |  | 2 | 2 | 0 | 0 | 4 |  | 12 | 191 | 0 | 0 | 203 |  | 0 | 250 | 147 | 0 | 397 |  | 1478 |
| \% Lights | 1014\% 9 | 96.4\% | $9.91 \% 0$ | 0\% 9 | 97.4\% |  | 100\% | 100\% 0\% | 0\% 0\% | 9\% | 100\% |  | $100 \%$ | 946\% 0 | 0\% 0 | 0\% | 94.9\% |  | 0\% | 99.2\% 97 | 97.4\% 0 | \% | 8.5\% |  | 97.4\% |
| Ariculated 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\% |
| Buses and Single-Unit Trucks | 0 | 16 | 0 | 0 | 16 |  | 0 | 0 | 0 | 0 | 0 | - | 0 | H | 0 | 0 | 8 | - | 0 | 2 | 4 | 0 | 6 |  | 30 |
| \% Buses and Single-Unit Trucks | 0\% | 2.6\% | 0\% 0 |  | 1.8\% | - | 0\% | 0\% $0 \%$ | 0\% 0 |  | 0\% | - | 0\% | $40 \% 0 \%$ | 0\% 0 |  | 3.7\% |  | 0\% | 0.8\% | 2.6\% 0 |  | 1.5\% |  | 20\% |
| Bicycles on Road | 0 | 6 | 1 | 0 | 7 |  | 0 | 0 | 0 | 0 | 0 |  | 0 | 3 | 0 | 0 | 3 |  | 0 | 0 | 0 | 0 | 0 |  | 10 |
| \% Bicycles on Road | 0\% | 1.0\% | 09\% 0 | 0\% | 0.8\% |  | 0\% | 0\% 0 | 0\% 0 |  | 0\% |  | 0\% | 1.5\% 0 | 0\% 0 |  | 1.4\% |  | 0\% | 0\% | 0\% 0 |  | 0\% |  | 0.7\% |
| Pedenains | - | - | - | - | - |  | - | - | - | - | - | 12 | - | - | - | - | - | 28 | - | - | - | - | - | 48 |  |
| \% Pedestinans | - | - | - | - | - |  | - - | - | - | - |  | 100\% | - | - | - | - |  | 100\% | - | - | - | - | - | 90.6\% |  |
| Bracles un Cruswalk | - | - | - | - | - |  | - | - | - | - | - |  |  | - | - | - | - | 0 | - | - | - | - | - |  |  |
| Yi Bucycles un Crosswalk | - | - | - | - | - |  | - | $\cdots$ | $\square$ | - | - | (10\% | - | - | - | - | - | $\mathrm{OH}_{4}$ | - | - | - | - | - | 9.46 | - |

*Pedestrians and Bicycles on Crosswalk. L: I eft. R: Right, T: Thru. U: U-Turn

Jackson Boulevard at Wood Street - TMC
Thu Feb 23, 2023
Full Length (4 PM-7:30 PM)
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements

Provided by: Gewalt Hamilton Associates lnc. 625 Forest Edge Drive, Vernon Hills, IL, 60061, US

ID: 1042306, Location: 41.87756, -87.671664


Out: $416 \ln : 214$
Total: 630
[S] Wood

PM Peak (4 PM - 5 PM) - Overall Peak Hour
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements

CHMA MEMAL HAMLIDN
Provided by: Gewalt Hamilton Associates Inc. 625 Forest Edge Drive, Vernon Hills, IL, 60061, US

ID: 1042306, Location: 41.87756, -87.671664

| L.cg <br> Direction | Jackson <br> Easthound |  |  |  |  | Jackson Westbound |  |  |  |  |  | Wood <br> Northbound |  |  |  |  |  | Wood Southbound |  |  |  |  |  | Int |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Time | R | T | L. U | U | App I'ed* | R | T | I. U | U | App | Peds | R | T | L. | U | App | 「ed- | R | T |  | U | App | Ped* |  |
| 2023-02-23 4:00PM | 8 | 52 | 14 | 0 | 74 | 0 | 2 | 0 | 0 | 2 | 1 | 1 | 18 | 0 | 0 | 19 | 3 | 0 | 27 | 19 | 0 | 46 | 2 | 141 |
| 4:15PM | 7 | 46 | 13 | 0 | 66 | 0 | 0 | 0 | 0 | 0 | $?$ | 0 | 20 | 0 | 0 | 20 | 1 | 0 | 31 | 11 | 0 | 42 | 1 | 128 |
| 4:30PM | 13 | 57 | 16 | 0 | 86 | 0 | 0 | 0 | 0 | 0 | 3 | 2 | 22 | 0 | 0 | 24 | 4 | 0 | 22 | 24 | 0 | 46 | 1 | 156 |
| 4:45PM | 12 | 52 | 8 | 0 | 72 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 23 | 0 | 0 | 24 | 1 | 0 | 32 | 17 | 0 | 49 | 3 | 145 |
| Total | 40 | 207 | 51 | 0 | 298 | 0 | 2 | 00 | 0 | 2 | 7 | 4 | 83 | 0 | 0 | 87 | 9 | 0 | 112 | 71 | 0 | 183 | 10 | 570 |
| \% Approach | 13.4\% 69.5\% 17.1\% 0\% |  |  |  |  | 0\% 100\% 0\% 0\% |  |  |  |  |  | 4.6\% 95.4\% 0\% 0\% |  |  |  |  |  | 0\% 61. $2 \% .388 \% 0 \%$ |  |  |  |  |  | - |
| \% Total | 7.0\% 36 3\% 8.9\% 0\% 52.3\% |  |  |  |  | 0\% 0.4\% 0\% 0\% 0.4\% |  |  |  |  |  | 0.7\% 14.6\% 0\% 0\% 15.3\% |  |  |  |  |  | $0 \% 19.6 \% 125 \% 0 \% 32.1 \%$ |  |  |  |  |  |  |
| PHF |  |  |  |  |  | -0250 |  | - -0.250 |  |  |  | 0500 | 0.891 | - - 0.896 |  |  |  | -0.875 0.740-0.934 |  |  |  |  |  | 0.926 |
| Lights | 40 | 201 | 50 | 0 | 291 | 0 | 2 | 0 | 0 | 2 | - | 4 | 77 | 0 | 0 | 81 |  | 0 | 111 | 68 | 0 | 179 |  | 553 |
| \% Lights | 100\% 97.1\% $980 \% 0 \% 97.7 \%$ |  |  |  |  | 0\% 100\% 0\% 0\% 100\% - |  |  |  |  |  | 100\% 92.8\% 0\% 0\% 93.1\% |  |  |  |  |  | 0\% $991 \% 95.8 \% 0 \% 97.8 \%$ |  |  |  |  |  | 97.0\% |
| Articulated Trucks | 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\% |
| Buses and Single-Unit Trucks | 0 | 5 | $0 \quad 0$ | 0 | 5 |  | $\begin{array}{lllllll}0 & 0 & 0 & 0 & 0 & -1\end{array}$ |  |  |  |  | $\begin{array}{lllll}0 & 5 & 0 & 0 & 5\end{array}$ |  |  |  |  |  |  | 1 | 0 |  | 4 |  | 14 |
| \% Buses and Single-Unit Trucks | 0\% 2.4\% |  | 0\% 0\% |  | 1.7\% | 0\% | 0\% 0\% 0\% |  |  | 0\% | - | 0\% | 60\% 0\% 0\% |  |  | 5.7\% |  | 0\% | \% 0.9\% | 4.2\% 0\% |  | 2.2\% |  | 2.5\% |
| Bicycles on Road | 0 | 1 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |  | 0 | 1 | 0 | 0 | 1 |  | 0 | 0 | 0 | 0 | 0 |  | 3 |
| \% Bicycles on Road | 0\% | 0.5\% | 2.0\% 0\% | \% | 0.7\% | 0\% | 0\% 0\% 0\% |  |  | 0\% |  | 0\% | 1.2\% 0\% 0\% 1.1\% |  |  |  | - | 0\% | 0\% | 0\% 0\% |  | 0\% |  | 0.5\% |
| Pedestriatis | - | - | - | - | - 0 | - | - | - | - | - | - | - | - | - | - | - | 9 |  | - | - | - | - | 8 |  |
| \% Pedestrans | - | - | - | - | - - | - | - | - | - | - | $100 \%$ | - | - | - | - |  | 100 $0^{\circ}$ |  | - | - | - | - | 80) $0 \%$ | - |
| Bracles on Crosswalk | - | - | - | - | $1)$ | - | - | - | - | - | 0 | - | - | - | - | - | 0 |  | - | - | - | - | 2 |  |
| ¢, Bucyers on Crashalk | - | - | - | - | - - | - | - | - | - | - | O", | - - - 0\% |  |  |  |  | 10, |  | - | - - | - | - | (1), $10 \%$ |  |

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Jackson Boulevard at Wood Street - TMC
Thu Feb 23, 2023
PM Peak (4 PM - 5 PM) - Overall Peak Hour
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks; Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
Provided by: Gewalt Hamilon Associates Inc. 625 Forest Edge Drive, Vernon Hills, IL, 60061, US

ID: 1042306, Location: 41.87756, -87.671.664
[N] Wood
Total: 317


Out: 152 In: 87
Total: 239
[S] Wood

## Jackson Boulevard at Wood Street - TMC

Sat Feb 25, 2023
Full Length (11. AM-2 PM)
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements

Provided by: Gewalt Hamilton Associates Inc. 625 Forest Edge Drive, Vernon Hills, IL, 60061, US

ID: 1042317, Location: 41.87756, -87.671664

| Leg <br> Direction | Jackson <br> Eastbound |  |  |  |  |  | Jackson <br> Westbound |  |  |  |  |  |  | Wood <br> Northbound |  |  |  |  |  | Wood <br> Southbound |  |  |  |  |  | Int |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Time | R | T | L | U | App P | Pd* | R | T |  | L | U | App | Perd* | R | T | L | U | App | Ped ${ }^{-1}$ | R | T | 1. | U | App | Prert ${ }^{+}$ |  |
| 2023-02-25 11:00^M | 8 | 36 | 3 | 0 | 47 |  | 0 | 0 |  | 0 | 0 | 0 | 1 | 0 | 4 | 0 | 0 | 4 | 4 | 0 | 3 | 4 | 0 | 7 | 2 | 58 |
| 11.15AM | 10 | 21 | 6 | 0 | 37 |  | 0 | 0 |  | 0 | 0 | 0 | $?$ | 1 | 6 | 1 | 0 | 8 | 1 | 0 | 6 | 1 | 0 | 7 | 6 | 52 |
| 11.30AM | 6 | 22 | 11 | 0 | 39 |  | 0 | 0 |  | 0 | 0 | 0 | 4 | 1 | 6 | 0 | 0 | 7 | 7 | 0 | 5 | 5 | 0 | 10 | 4 | 56 |
| 1145 MM | 9 | 26 | 11 | 0 | 46 |  | 0 | 0 |  | 0 | 0 | 0 | 0 | 1 | 6 | 0 | 0 | 7 | 1 | 0 | 0 | 3 | 0 | 3 | 3 | 56 |
| Hourly Total | 33 | 105 | 31 | 0 | 169 |  | 0 | 0 |  | 0 | 0 | 0 | 7 | 3 | 22 | 1 | 0 | 26 | 1.3 | 0 | 14 | 13 | 0 | 27 | 1.5 | 222 |
| 12:00PM | 5 | 25 | 14 | 0 | 44 |  | 0 | 0 |  | 0 | 0 | 0 | 4 | 2 | 10 | 0 | 0 | 12 | 0 | 0 | 5 | 0 | 0 | 5 | 7 | 61 |
| 12:15PM | 9 | 29 | 14 | 0 | 52 |  | 0 | 0 |  | 0 | 0 | 0 | $\therefore$ | 0 | 2 | 0 | 0 | 2 | $\underline{1}$ | 0 | 6 | 3 | 0 | 9 | : | 63 |
| 12:30PM | 12 | 19 | 11 | 0 | 42 |  | 0 | 0 |  | $1)$ | 0 | 0 | 3 | 0 | 6 | 0 | 0 | 6 | 1 | 0 | 8 | 2 | 0 | 10 | 1 | 58 |
| 12:45PM | 5 | 25 | 13 | 0 | 43 |  | 0 | 0 |  | 0 | 0 | 0 | 1 | 0 | 8 | 0 | 0 | 8 | 3 | 0 | 6 | 5 | 0 | 11 | 3 | 62 |
| Hourly Total | 31 | 98 | 52 | 0 | 181 |  | 0 | 0 |  | 0 | 0 | 0 | 1.0 | 2 | 26 | 0 | 0 | 28 | 6 | 0 | 25 | 10 | 0 | 35 | 1.3 | 244 |
| 100 PM | 8 | 21 | 12 | 0 | 41 |  | 0 | 0 |  | 1 | 0 | 1 | 1 | 0 | 12 | 0 | 0 | 12 | 1 | 0 | 10 | 6 | 0 | 16 | 3 | 70 |
| 1.15 PM | 18 | 32 | 11 | 0 | 61 |  | 0 | 0 |  | 0 | 0 | 0 | 12 | 0 | 4 | 0 | 0 | 4 | 13 | 0 | 13 | 5 | 0 | 18 | 2 | 83 |
| 1:30PM | 17 | 36 | 10 | 0 | 63 |  | 0 | 0 |  | 0 | 0 | 0 | 7 | 0 | 12 | 0 | 0 | 12 | 4 | 0 | 8 | 3 | 0 | 11 | U | 86 |
| 1:45PM | 4 | 27 | 19 | 0 | 50 | - | 0 | 0 |  | 0 | 0 | 0 | 1 | 1 | 8 | 0 | 0 | 9 | 1 | 0 | 11 | 6 | 0 | 17 | 2 | 76 |
| Hourly Total | 47 | 116 | 52 | 0 | 215 |  | 0 | 0 |  | 1 | 0 | 1 | 21 | 1 | 36 | 0 | 0 | 37 | 1.8 | 0 | 42 | 20 | 0 | 62 | 7 | 315 |
| Total | 111 | 319 | 135 | 0 | 565 |  | 0 | 0 |  | 1 | 0 | 1 | 38 | 6 | 84 | 1 | 0 | 91 | $3 \cdot$ | 0 | 81 | 43 | 0 | 124 | 35 | 781 |
| \% Approach | 19.6\% | 56.5\% | 23.9\% 0 |  | - |  | 0\% 0 | 0\% | 10 | 00\% 0 |  | - |  | 6.6\% | 92.3\% | 1.1\% 0 |  | - |  | 0\% | 5.3\% | 34.7\% 0 |  | - |  |  |
| \% Total | 14.2\% | 40.8\% 1 | $73 \% 0$ | 0\% 7 | 72.3\% |  | 0\% 0 | 0\% |  | .1\% 0 | 0\% | 0.1\% |  | 0.8\% | $108 \%$ | 0.1\% 0 | 0\% | 11.7\% |  | 0\% | 0.4\% | 5.5\% 0 | \% 1 | 5.9\% |  |  |
| Lights | 111 | 315 | 134 | 0 | 560 |  | 0 | 0 |  | 1 | 0 | 1 | - | 6 | 81 | 1 | 0 | 88 |  | 0 | 81 | 42 | 0 | 123 |  | 772 |
| \% Lights | 100\% | 98.7\% 9 | 99.3\% 0 | 0\% 9 | 99.1\% |  | 0\% 0 | 0\% | 10 | 00\% 0 | 0\% | 100\% |  | 100\% | 96.4\% | 100\% 0 | \% | 96.7\% |  | 0\% | 100\% | 97\% 0 | \% 9 | 99.2\% |  | $988 \%$ |
| 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\% |
| Buses and Single-Unit Trucks | 0 | 4 | 1 | 0 | 5 |  | 0 | 0 |  | 0 | 0 | 0 | - | 0 | 2 | 0 | 0 | 2 |  | 0 | 0 | 1 | 0 | 1 | - | 8 |
| \% Buses and Single-Unit Trucks | 0\% | 1.3\% | 07\% 0 |  | 0.9\% |  | 0\% 0 | 0\% |  | 0\% 0 |  | 0\% | - | 0\% | 24\% | 0\% |  | 2.2\% |  | 0\% | 0\% | 2.3\% 0 |  | 0.8\% | - | 1.0\% |
| Bicycles on Road | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 |  | 0 | 0 | 0 | - | 0 | 1 | 0 | 0 | 1 |  | 0 | 0 | 0 | 0 | 0 |  | 1 |
| \% Bicycles on Road | 0\% | 0\% | 0\% 0 |  | 0\% |  | 0\% 0 | 0\% |  | 0\% 0 |  | 0\% | - | 0\% | 12\% | 0\% 0 |  | 1.1\% |  | 0\% | 0\% | 0\% 0 |  | 0\% | - | 0.1\% |
| Pedesiriams | - | - | - | - | - | 0 | - | - | - | - | - | - | 38 | - | - | - | - | - | 37 | - | - |  | - | - | 34 |  |
|  | $\cdot$ | - | - | - | - |  | - | - |  | - | - | - | 1004 | - | - | - | - | - | 10040 | - | - | - | - |  | 97 1", | - |
| Bicycles on Crusswalk | - | - | - | - | - |  | - | - | - | - | - | - |  | - | - | - | - | - | 0 | - | - | - | - | - | 1 |  |
| \% Bicycles on Coosswaik | - | - | - | - | $\cdot$ |  | - |  |  | - | $\bullet$ | - | 0 | - | - | - | - | - | (0) | - | - | - | - | - | 29 |  |

*Pedestrians and Bicycles on Crosswalk. I.: Left, R: Right, T: Thru, U: U-Turn

Jackson Boulevard at Wood Street - TMC
Sat Feb 25, 2023
Full Length (11 AM-2 PM)
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

Provided by: Gewalt Hamilton Associates Inc. 625 Forest Edge Drive, Vernon Hills, IL, 60061, US All Movements
ID: 1042317, Location: 41.87756, -87.671.664
[N] Wood
Total: 343
In: 124 Out: 219


Out: 193 In: 91
Total: 284
[S] Wood

Sat Feb 25, 2023
Midday Peak (WKND), PM Peak (WKND) (1. PM - 2 PM) - Overall Peak Hour
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

Provided by: Gewalt Hamilton Associates Inc. 625 Forest Edge Drive, Vernon Hills, IL, 60061, US

All Movements
ID: 1042317, Location: 41.87756, -87.671664

| Leg <br> Drection | Jackson E.astbound |  |  |  |  |  | Jackson Westbound |  |  |  |  | Wood <br> Northbound |  |  |  |  |  | Wood <br> Southbound |  |  |  |  |  | Int |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Time | R | T | L. 1 | L | App P |  |  | T | L U | App | Fed* | R | T | L | U | App | Pedr | R | T | L | U | App | Ped ${ }^{\text {d }}$ |  |
| 2023-02-25 1:00PM | 8 | 21 | 12 | 0 | 41 | - | 0 | 0 | 10 | 1 | 1 | 0 | 12 | 0 | 0 | 12 | 0 | 0 | 10 | 6 | 0 | 16 | 3 | 70 |
| 1:15PM | 18 | 32 | 11 | 0 | 61. |  | 0 | 0 | 0 | 0 | 12 | 0 | 4 | 0 | 0 | 4 | 1.3 | 0 | 13 | 5 | 0 | 18 | 2 | 83 |
| 1:30PM | 17 | 36 | 10 | 0 | 63 |  | 0 | 0 | 0 0 | 0 | 7 | 0 | 12 | 0. | 0 | 12 | 4 | 0 | 8 | 3 | 0 | 11 | 0 | 86 |
| 1:45PM | 4 | 27 | 1.9 | 0 | 50 |  | 0 | 0 | 0 | 0 | 1 | 1 | 8 | 0 | 0 | 9 | 1 | 0 | 11. | 6 | 0 | 17 | 2 | 76 |
| Total | 47 | 116 | 52 | 0 | 215 |  | 0 | 0 | 10 | 1 | 21 | 1 | 36 | 0 | 0 | 37 | 18 | 0 | 42 | 20 | 0 | 62 | 7 | 31.5 |
| \% Approach | 21.9\% | 54.0\% | 24.2\% 0\% |  | - |  | 0\% 0\% | 0\% | 100\% 0\% | - |  | 2.7\% 9 | 97.3\% | 0\% 0 |  | - |  | 0\% 6 | 67.7\% | 3? $3 \% 0 \%$ |  | - |  |  |
| \% Total | 14.9\% | 36 8\% | 16.5\% 0\% | \% | 68.3\% |  | 0\% 0\% | 0\% | 03\% 0\% | 0.3\% |  | $03 \% 1$ | 11.4\% | 0\% 0 | \% 1 | 11.7\% |  | 0\% 1 | 13.3\% | 6.3\% 0\% | \% 19 | 9.7\% |  |  |
| PHF | 0.653 | 0.806 | 0.684 | - | 0.853 |  | - | - 0 | . 250 | 0.250 |  | 0250 | 0.750 | - | - | 0.771 |  | - | 0.808 | 0.833 |  | 0.861 |  | 0.916 |
| Lights | 47 | 116 | 51 | 0 | 214 |  | 0 | 0 | 10 | 1 | - | 1 | 36 | 0 | 0 | 37 |  | 0 | 42 | 20 | 0 | 62 |  | 314 |
| \% Lights | 100\% | 100\% 9 | 98.1\% 0\% | \% 9 | 99.5\% |  | 0\% 0\% | \% 1 | 100\% 0\% | 100\% |  | 100\% | 100\% | 0\% 0 |  | 100\% | - | 0\% | 100\% | 100\% 0\% | \% | 100\% |  | 99.7\% |
| Articulated Trucks | 0 | 0 | 0 | 0 | 0 |  | 0 | 0 | $0 \quad 0$ | 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\% |
| Buses and Single-Unit Trucks | 0 | 0 | 1 | 0 | 1 |  | 0 | 0 | $0 \quad 0$ | 0 |  | 0 | 0 | 0 | 0 | 0 |  | 0 | 0 | 0 | 0 | 0 | - | 1 |
| \% Buses and Single-Unit Trucks | 0\% | 0\% | 1.9\% 0\% |  | 0.5\% |  | 0\% 0\% |  | 0\% 0\% | 0\% |  | 0\% | 0\% | 0\% 0 |  | 0\% |  | 0\% | 0\% | 0\% 0\% |  | 0\% | - | 0.3\% |
| Bicycles on Road | 0 | 0 | 0 | 0 | 0 |  | 0 | 0 | $0 \quad 0$ | 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 | \% | U\% |  | 0\% | 0\% | 0\% 0\% |  | 0\% | - | 0\% |
| Pedestriams | - | - | - |  | - | 0 | - | - | - - |  | 21 | - | - | - | - | - | 18 | - | - | - | $\cdot$ | - | 7 |  |
| Uis Pedestriams | - | - | - | - | - | - | - | - | - - |  | 100\% | - | - | - | - |  | 100\% | - | - | - | - | - | $1010 \%$ |  |
| Bicycles on Crusswalh | - | - | - |  | - | 0 | - | - | - - | - | 0 | - | - | - | - | - | 0 | - | $\cdot$ | - | - | - | 0 |  |
| "-i Buycles on Cruswalk | - | - | - | - | - |  | - | - | - | - | (12:3) | - | - | $\cdot$ | - | - | $0 \%$ | - | - | - | - | - | (1) | - |

*Pedestrians and Bucycles on Crosswalk. I : I.eft, R: Right, T: Thru, U: U-Turn

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

Provided by: Gewalt Hamilton Associates Inc. 625 Forest Edge Drive, Vernon Hills, IL, 60061, US

All Movements
ID: 1042317, Location: 41.87756, -87.671664
[N] Wood
Total: 150
In: 62 Out: 88


Out: $90 \quad$ In: 37
Total: 127
[S] Wood

Thu Feb 23, 2023
Full Length (4 PM-7:30 PM)
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements

CIT I
Provided by: Gewalt Hamilton Associates Inc. 625 Forest Edge Drive, Vernon Hills, IL, 60061, US

ID: 1042307, Location: 41.877553, -87.670706

| Leg <br> Directuon | Jackson <br> Easthound |  |  |  |  |  | Jackson Westbound |  |  |  |  |  | Ogden <br> Northbound |  |  |  |  |  | Ogden <br> Southbound |  |  |  |  | Int |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Time | R | T | L |  | App | P'ed ${ }^{\text {c }}$ | R | T | L | U | App | P.d* | R | 7 | L | U | App | Ped* | R | T | L U | \ 1 pp | Ped- |  |
| 2023-02-23 4:00PM | 1 | 48 | 24 | 0 | 73 | 3 | 0 | 0 | 0 | 0 | 0 | 2 | 21 | 139 | 0 | 0 | 1G0 | 2 | 0 | 255 | 50 | $0 \quad 260$ | 16 | 493 |
| 4:15PM | 3 | 37 | 12 | 0 | 52 | 0 | 0 | 0 | 1 | 0 | 1 | 2 | 24 | 157 | 0 | 0 | 181 | 3 | 0 | 236 | 10 | 0237 | 8 | 471 |
| 4:30PM | 2 | 52 | 16 | 0 | 70 | 4 | 0 | 0 | 0 | 0 | 0 | 3 | 13 | 163 | 0 | 0 | 176 | 11 | 0 | 247 | 30 | 0250 | $1-$ | 496 |
| 4.45PM | 0 | 60 | 16 | 0 | 76 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 7 | 184 | 0 | 0 | 191 | 3 | 0 | 261 | 10 | 0 26i2 |  | 529 |
| Hourly Total | 6 | 197 | 68 | 0 | 271 | 7 | 0 | 0 | 1 | 0 | 1 | 9 | 65 | 643 | 0 | 0 | 708 | 18 | 0 | 999 | $10 \quad 0$ | 01009 | 46 | 1989 |
| 5:00PM | 1 | 42 | 20 | 0 | 63 | 1 | 0 | 0 | 0 | 0 | 0 | 4 | 18 | 162 | 0 | 0 | 180 | 1 | 0 | 277 | 10 | 0278 | 14 | 521 |
| 5:15PM | 0 | 41 | 23 | 0 | 64 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 12 | 159 | 0 | 0 | 171 | 1 | 0 | 208 | 30 | 0211 | 12 | 446 |
| 5:30PM | 2 | 46 | 18 | 0 | 66 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 21 | 116 | 0 | 0 | 137 | 1 | 0 | 244 | 10 | 0245 | 3 | 448 |
| 5:45PM | 1 | 39 | 12 | 0 | 52 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 18 | 128 | 0 | 0 | 146 | 2 | 0 | 257 | 10 | 0258 | K | 456 |
| Hourly Total | 4 | 168 | 73 | 0 | 24.5 | 1 | 0 | 0 | 0 | 0 | 0 | 6 | 69 | 565 | 0 | 0 | 634 | 5 | 0 | 986 | 6.0 | 0992 | 43 | 187.1 |
| 6:00PM | 0 | 44 | 1.3 | 0 | 57 | n | 0 | 0 | 0 | 0 | 0 | 3 | 10 | 107 | 0 | 0 | 117 | 1 | 0 | 209 | 10 | $0 \quad 210$ | 4 | 384 |
| 615 PM | 1 | 45 | 11 | 0 | 57 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 14 | 101 | 0 | 0 | 115 | 0 | 0 | 193 | 10 | 0194 | 4 | 366 |
| 6:30PM | 1 | 29 | 14 | 0 | 44 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 83 | 0 | 0 | 92 | $\checkmark$ | 0 | 146 | 0 0 | $0 \quad 146$ | 5 | 282 |
| 64.5 PM | 2 | 20 | 15 | 0 | 37 | 10 | 0 | 0 | 0 | 0 | 0 | 1 | 4 | 70 | 0 | 0 | 74 | 1 | 0 | 136 | 0 0 | 01.36 | 0 | 247 |
| Hourly Total | 4 | 138 | 53 | 0 | 1.95 | $1)$ | 0 | 0 | 0 | 0 | 0 | 4 | 37 | 361 | 0 | 0 | 398 | 4 | 0 | 684 | 20 | 0686 | 18 | 1279 |
| 7:00PM | 1 | 17 | 9 | 0 | 27 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 5 | 4.9 | 0 | 0 | 54 | 2 | 0 | 103 | 10 | $0 \quad 104$ | 1 | 185 |
| 7:15PM | 1 | 14 | 9 | 0 | 24 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 4 | 65 | 0 | 0 | 69 | 2 | 0 | 87 | 10 | 088 | 1 | 181 |
| Hourly Total | 2 | 31 | 18 | 0 | 51 | 3 | 0 | 0 | 0 | 0 | 0 | 1 | 9 | 114 | 0 | 0 | 123 | 4 | 0 | 190 | 20 | 0192 | J | 366 |
| Total | 16 | 534 | 212 | 0 | 762 | 11 | 0 | 0 | 1 | 0 | 1 | 20 | 180 | 1683 | 0 | 0 | 1863 | 31 | 0 | 2859 | $20 \quad 0$ | 02879 | 112 | 5505 |
| \% Approach | 2.1\% | 70.1\% | 27.8\% 0 |  | - | - | 0\% 0 | 0\% | 100\% 0 |  | - | - | 9.7\% | 90.3\% | 0\% 0 |  |  |  | 0\% | 99.3\% 0 | 7\% 0\% | \% |  |  |
| \% Total | 0.3\% | 97\% | 3.9\% 0 | 0\%1 | 13.8\% |  | 0\% 0 |  | (0\% 0 | \% | 0\% |  | 3.3\% | 30.6\% | 0\% 0 | \% | 33.8\% |  | 0\% 5 | 51.9\% 0 | 0.4\% 0\% | \% 52.3\% |  |  |
| Lights | 15 | 510 | 21.1 | 0 | 736 | - | 0 | 0 | 1 | 0 | 1 | - | 177 | 1659 | 0 | 0 | 1836 |  | 0 | 27.92 | $20 \quad 0$ | 02812 |  | 5385 |
| \% Lights | 93.8\% | 95.5\% 9 | 99.5\% 0 | $0 \% 9$ | 96.6\% | - | 0\% | 0\% | 100\% 0 | \% 1 | 100\% |  | 98.3\% | 986\% | 0\% 0 | \% | 98.6\% |  | 0\% | 77\% 1 | 00\% 0\% | 97.7\% |  | 978\% |
| Ariculated Trucks | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 1 | 0 | 0 | 1 |  | 0 | 1 | 0 0 | 01 |  | 2 |
| \% Articulated Trucks | 0\% | 0\% | 0\% 0 |  | 0\% |  | 0\% | 0\% | 0\% 0 |  | 0\% |  | 0\% | 0.1\% | 0\% 0 | \% | 0.1\% |  | 0\% | 0\% | 0\% 0\% | \% 0\% |  | 0\% |
| Buses and Single-Unit Trucks | 0 | 19 | 0 | 0 | 19 | - | 0 | 0 | 0 | 0 | 0 | - | 3 | 13 | 0 | 0 | 16 | - | 0 | 54 | 0 0 | ) 54 |  | 89 |
| \% Buses and Single-Unit $\begin{array}{r}\text { Trucks } \\ \hline\end{array}$ | 0\% | 3.6\% | 0\% 0 | 0\% | 2.5\% | - | 0\% 0 | 0\% | 0\% 0\% |  | 0\% |  | 1.7\% | 0.8\% | 0\% 0 |  | 0.9\% |  | 0\% | 1.9\% | 0\% 0\% | \% 1.9\% |  | 16\% |
| Bicycles on Road | 1 | 5 | 1 | 0 | 7 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 10 | 0 | 0 | 10 | - | 0 | 12 | $0 \quad 0$ | 012 |  | 29 |
| \% Bicycles on Road | 6.3\% | 0.9\% | 0.5\% 0 | 0\% | 0.9\% |  | 0\% 0 | 0\% | 0\% 0 |  | 0\% |  | 0\% | 0.6\% | 0\% 0 |  | 0.5\% |  | 0\% | 04\% | 0\% 0\% | 0.4\% |  | 0.5\% |
| Perlestiams | - | - | - | - | - | 9 | - | - | - | - | - | 18 | - | - | - | - | - | 30 | - | - | - - | - - | 110 |  |
| \% Pedestrans | - | - | - | - |  | 81.80 | - | - | - | - | - | 90 ก̣" | - | - | - | - |  | $96.8^{\prime}$ ? | - | - | - - | - - | 982\% |  |
| Bucycles on Crosstratk | - | - | - | - | - | 2 | - |  | - | - | - | $\therefore$ | - | - | - | - | - |  | - | - | - - | - - | 2 |  |
| Up Bicycles on Croswalk | - | - | - | - | - | 18.20\% | - |  |  |  | - | 10.10\% | - | - | - | - |  | 32 n | - | - | - - | - - | $1.8 \%$ |  |

*Pedestrians and Bicycles on Crosswalk. L.: Left, R: Right, T: Thru. U: U-Turn

Thu Feb 23, 2023
Full Length (4 PM-7:30 PM)
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
Provided by: Gewalt Hamilton Associates Inc. 625 Forest Edge Drive, Vernon Hills, IL, 60061, US

ID: 1042307, Location: 41.877553, -87.670706
[ N$]$ Ogden
Total: 4774


Out: 2876
In: 1863
Total: 4739
[S] Ogden

Jackson Boulevard at Ogden Avenue - TMC
Thu Feb 23, 2023
PM Peak (4:15 PM - 5:15 PM) - Overall Peak Hour
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements

Provided by: Gewalt Hamilton Associates Inc. 625 Forest Edge Drive, Vernon Hills, IL, 60061, US

ID: 1042307, Location: 41.877553, -87.670706

| Leg <br> Drecuon | Jackson <br> Eastbound |  |  |  |  |  | Jackson Westbound |  |  |  |  |  | Ogden <br> Northbound |  |  |  |  |  | Ogden <br> Southbound |  |  |  |  |  | Int |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Time | R | T | L |  | App | Peter | R | T | L | U |  | Ped* | R | T | L | U | App | Ped* | R- | T | L | U | App | Ped* |  |
| 2023-02-2.3 4:15PM | 3 | 37 | 12 | 0 | 52 | 0 | 0 | 0 | 1 | 0 | 1 | 2 | 24 | 157 | 0 | 0 | 181 | 3 | 0 | 236 | 1 | 0 | 237 | 8 | 471 |
| 4:30PM | 2 | 5'3 | 16 | 0 | 70 | 4 | 0 | 0 | 0 | 0 | 0 | 3 | 13 | 163 | 0 | 0 | 176 | 10 | 0 | 247 | 3 | 0 | 250 | 15 | 496 |
| 4:45PM | 0 | 60 | 16 | 0 | 76 | $1)$ | 0 | 0 | 0 | 0 | 0 | 2 | 7 | 184 | 0 | 0 | 191 | 3 | 0 | 261 | 1 | 0 | 262 | - | 529 |
| 500 PM | 1 | 42 | 20 | 0 | 63 | 1 | 0 | 0 | 0 | 0 | 0 | 4 | 18 | 162 | 0 | 0 | 180 | 1 | 0 | 277 | 1 | 0 | 278 | 14 | 521 |
| Total | ${ }^{6}$ | 191 | 64 | 0 | 261 | - | 0 | 0 | 1 | 0 | 1 | 11 | 62 | 666 | 0 | 0 | 728 | 17 | 0 | 102] | 6 | 0 | 1027 | 14 | 2017 |
| \% Approach | 2.3\% | 73 2\% | 24.5\% 0 |  | - | - | 0\% 0 | 0\% | 100\% 0 |  | - | - | 8.5\% | 91.5\% 0 | \% 0 |  | - |  | 0\% 9 | 99.4\% | 0.6\% 0\% |  | - |  |  |
| $\%$ Total | 0.3\% | 95\% | 3.2\% 0 | 0\% 1 | 12.9\% |  | 0\% 0 |  | 0\% 0 |  | 0\% |  | 3.1\% | 33.0\% 0 | \% 0 | 0\% | 36.1\% |  | 0\% 5 | 50.6\% 0 | 0.3\% $3 \%$ | \% 5 | 0.9\% |  |  |
| PIIF | 0.417 | 0.796 | 0.800 | - 0 | 0.855 | - | - | - | 0.250 | -0 | . 250 |  | 0.646 | 0900 | - | - | 0.949 |  |  | 0.9230 | . 500 | - 0 | 0.925 |  | 0.952 |
| Lights | 5 | 184 |  | 0 | 25.3 | - | 0 | 0 | 1 | 0 | 1 | - | 62 | 654 | 0 | 0 | 716 |  | 0 | 996 | 6 | 0 | 1002 |  | 1972 |
| \% Lights | 83.3\% | 96.3\% | 100\% 0 | 0\% 9 | 96.9\% | - | 0\% 0 | 0\% | 100\% 0 | \% 1 | 100\% |  | 100\% | 98 2\% 0 | \% 0 | \% | 8.4\% |  | 0\% 9 | 97.6\% 1 | 00\% 0\% | \% 9 | 7.6\% |  | 978\% |
| Ariculated Trucks | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 |  | 0 | 0 | 0 | 0 | 0 |  | 0 | 0 | 0 | 0 | 0 | - | 0 |
| \% Ariculated Trucks | 0\% | 0\% | 0\% 0 | 0\% | 0\% | - | 0\% 0 |  | 0\% 0 |  | 0\% | - | 0\% | 0\% 0 | \% 0 |  | 0\% |  | 0\% | 0\% | 0\% 0\% |  | 0\% |  | 0\% |
| Buses and Single-Unit Trucks | 0 | 7 | 0 | 0 | 7 |  | 0 | 0 | 0 | 0 | 0 | - | 0 | 5 | 0 | 0 | 5 | - | 0 | 23 | 0 | 0 | 23 | - | 33 |
| \% Buses and Single-Unit Trucks | 0\% | 3.7\% | 0\% 0 |  | 2.7\% |  | 0\% 0 |  | 0\% |  | 0\% | - | 0\% | 08\% 0 | \% 0 |  | 0.7\% |  | 0\% | 2.3\% | 0\% 0\% |  | 2.2\% |  | 1.7\% |
| Bicycles on Road | 1 | 0 | 0 | 0 | 1 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 7 | 0 | 0 | 7 |  | 0 | 2 | 0 | 0 | 2 |  | 10 |
| \% Bicycles on Road | 16.7\% | 0\% | 0\% 0 | \% | 0.4\% |  | 0\% |  | 0\% 0 |  | 0\% | - | 0\% | 11\% 0 | \% 0 |  | 1.0\% |  | 0\% | 0.2\% | 0\% 0\% |  | 0.2\% | - | 0.5\% |
| Pedestams | - | - | - | - | - | 4 | - | - | - | - | - | 10 | - | - | - | - | - | 16 | - | - | - | - | $\cdot$ | 43 |  |
| 0 \% Pedestrams | - | - | $\cdot$ | - |  | 80, (0) | - | - | - | - | - | 43049 | - | - | - | - | - | 94.1\% | - | - | - | - | - | - -0 |  |
| Bucyctes on Ciusswals | - | - | - | - | - | 1 | - | - | - | - | - | 1 | - | - | - | - | - | 1 | - | - | - | - | - | 1 |  |
| Bi, Bractes on Crosswalk | - | - | - | - |  | 2009 | , | - | - | - | - | $9.1{ }^{\prime \prime}{ }^{\prime \prime}$ | - | $\cdot$ | - | $\bullet$ | - | 598 | - | - | - | - | - | 230\% | $\square$ |

*Pedestrians and Bicycles on Crusswalk. L: Left. R: Right, T: Thru, U: U-Turn

Thu Feb 23, 2023
PM Peak (4:15 PM - 5:1.5 PM) - Overall Peak Hour
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
Provided by: Gewalt Hamilton Associates Inc. 625 Forest Edge Drive, Vernon Hills, IL, 60061, US

ID: 1042307, Location: 41.877553, -87.670706
[N] Ogden
Total: 1757


Out: 1028 In: 728
Total: 1756
[S] Ogden

Sat Feb 25, 2023
Full Length ( 11 AM-2 PM)
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
Provided by: Gewalt Hamilton Associates Inc. 625 Forest Edge Drive, Vernon Hills, IL, 60061, US

ID: 1042318, Location: 41.877553, -87.670706

| Leg <br> Direction | Jackson Eastbound |  |  |  |  |  | Jackson <br> Wesibound |  |  |  |  |  | Ogden <br> Northbound |  |  |  |  |  | Ogden Southbound |  |  |  |  |  | Int |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Tıme | R | T | L | U | App | Pudx | R | T | L | U | App | Pede | R | T | I. | U | App | Ped ${ }^{\text {d }}$ | R | T | I. | U | App | Ped |  |
| 2023-02-25 11.00AM | 2 | 15 | 23 | 0 | 40 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 64 | 0 | 0 | 74 | 5 | 0 | 119 | 1 | 0 | 120 | 1 | 234 |
| 11.15AM | 3 | 8 | 11 | 0 | 22 | 2 | 0 | 0 | 0 | 0 | 0 | 4 | 5 | 72 | 1 | 0 | 78 | 2 | 0 | 105 | 1 | 0 | 106 | 1 | 206 |
| 11:30AM | 2 | 16 | 12 | 0 | 30 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 4 | 69 | 0 | 0 | 73 | 0 | 0 | 103 | 2 | 0 | 105 | 1 | 208 |
| 11:45AM | 2 | 16 | 12 | 0 | 30 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 7 | 70 | 0 | 0 | 77 | 2 | 0 | 85 | 2 | 0 | 87 | $\because$ | 194 |
| Hourly Total | 9 | 55 | 58 | 0 | 122 | 4 | 0 | 0 | 0 | 0 | 0 | 6 | 26 | 275 | 1 | 0 | 302 | 9 | 0 | 412 | 6 | 0 | 418 | 5 | 842 |
| 12:00PM | 1 | 16 | 10 | 0 | 27 | 1 | 0 | 0 | 0 | 0 | 0 | 5 | 2 | 72 | 0 | 0 | 74 | . | 0 | 116 | 1 | 0 | 117 | 2 | 218 |
| 12:15PM | 3 | 12 | 12 | 0 | 27 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 1 | 96 | 1 | 0 | 98 | 4 | 0 | 119 | 0 | 0 | 119 | 2 | 244 |
| 12:30PM | 2 | 19 | 7 | 0 | 28 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 90 | 0 | 0 | 93 | 1. | 0 | 134 | 1 | 0 | 135 | 0 | 2.56 |
| 12:45PM | 1 | 19 | 8 | 0 | 28 | 3 | 0 | 0 | 0 | 0 | 0 | 4 | 2 | 96 | 0 | 0 | 98 | 2 | 0 | 131 | 0 | 0 | 131 | 3 | 257 |
| Hourly Total | 7 | 66 | 37 | 0 | 110 | 5 | 0 | 0 | 0 | 0 | 0 | 14 | 8 | 354 | 1. | 0 | 363 | 12 | 0 | 500 | 2 | 0 | 502 | 7 | 975 |
| 1:00PM | 2 | 17 | 10 | 0 | 29 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 83 | 0 | 0 | 88 | 0 | 0 | 126 | 0 | 0 | 126 | 0 | 243 |
| 1:15PM | 2 | 15 | 20 | 0 | 37 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 96 | 0 | 0 | 105 | 0 | 0 | 118 | 2 | 0 | 120 | 1 | 262 |
| 1:30PM | 3 | 22 | 14 | 0 | 39 | $1)$ | 0 | 0 | 0 | 0 | 0 | 4 | 9 | 92 | 0 | 0 | 101 | 0 | 1 | 115 | 0 | 0 | 116 | 1 | 256 |
| 1:4.3PM | 3 | 21 | 14 | 0 | 38 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 100 | 0 | 0 | 106 | 0 | 1 | 145 | 1 | 0 | 147 | 3 | 291 |
| Hourly Total | 10 | 75 | 58 | 0 | 143 | 5 | 0 | 0 | 0 | 0 | 0 | 4 | 29 | 371 | 0 | 0 | 400 | 0 | 2 | 504 | 3 | 0 | 509 | 5 | 1.052 |
| Total | 26 | 196 | 153 | 0 | 375 | $1+$ | 0 | 0 | 0 | 0 | 0 | 24 | 63 | 1000 | 2 | 0 | 1065 | 21 | 2 | 1416 | 11 | 0 | 1429 | 17 | 2869 |
| \% Approach | 6.9\% | 52.3\% 4 | 40.8\% 0 |  | - |  |  | 0\% 0 | 0\% 0 | 0\% | - | - | 5.9\% | 93.9\% | 0.2\% 0 | \% | - | - | 0.1\% | $991 \%$ | 0.8\% 0 | 0\% | - |  |  |
| \% Total | 0.9\% | 68\% | 53\% 0 | 0\% 1 | 13.1\% |  |  | 0\% 0 | 0\% 0 |  | 0\% |  | 2.2\% | 34.9\% | 0.1\% () | )\% 3 | 37.1\% |  | 0.1\% | 49 4\% | 0.4\% 0 | 0\% | 49.8\% |  |  |
| Lights | 26 | 193 | 153 | 0 | 372 |  | 0 | 0 | 0 | 0 | 0 | - | 61 | 976 | 2 | 0 | 1.039 |  | 2 | 1392 | 11 | 0 | 1405 |  | 2816 |
| \% Lights | 100\% | 48.5\% | 100\% 0 | $0 \% 9$ | 99.2\% |  |  | 0\% 0 | 0\% 0 |  | - |  | 96.8\% 9 | $976 \%$ | 100\% 0 | \% 9 | 97.6\% |  | 100\% | 98.3\% | 100\% 0 | 0\% | 8.3\% |  | 98,2\% |
| Articulated Trucks | 0 | 0 | 0 | 0 | 0 |  | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 1 | 0 | 0 | 1 | - | 1 |
| \% Articulated Trucks | 0\% | 0\% | 0\% 0 |  | 0\% |  | 0\% | 0\% 0 | 0\% 0 |  | - | - | 0\% | 0\% | 0\% 0 |  | 0\% | - | 0\% | 0.1\% | 0\% 0 |  | 0.1\% | - | 0\% |
| Buses and Single-Unit Trucks | 0 | 3 | 0 | 0 | 3 |  | 0 | 0 | 0 | 0 | 0 | - | 2 | 16 | 0 | 0 | 18 | - | 0 | 22 | 0 | 0 | 22 | - | 43 |
| \% Buses and Single-Unit Trucks | 0\% | 1.5\% | 0\% 0 |  | 0.8\% |  | 10\% | 0\% 0 | (0\%0 |  | - | - | 3.2\% | 1.6\% | 0\% 0 |  | 1.7\% | - | 0\% | 1.6\% | 0\% 0 |  | 1.5\% | - | 1.5\% |
| Bicycles on Road | 0 | 0 | 0 | 0 | 0 |  | 0 | 0 | 0 | 0 | 0 |  | 0 | 8 | 0 | 0 | 8 |  | 0 | 1 | 0 | 0 | 1 |  | 9 |
| \% Bicycles on Road | 0\% | 0\% | 0\% 0 |  | 0\% |  | 0\% | 0\% 0 | 0\% 0 |  | - | - | 0\% | 0.8\% | 0\% 0 |  | 0.8\% |  | 0\% | 0.1\% | 0\% 0 |  | 0.1\% |  | 0.3\% |
| Pedesmans | - | - | - | - | - | 14 | - | - | - | - | - | 23 | - | - | - | - | - | 21 | - | - | - | - | - | 17 |  |
| "is Pedestians | - | - | - | - | - | 1000 | - | - | - | - | - | 95.84:0 | - | - | - | - | - | $100 \%$ | - | * | - | - | - | 100 |  |
| Bucycles on Crosswalk | - | - | - | $\cdot$ | - | 0 | - | - | - |  | - | 1 | - | - | - | - | - | 0 | - | - | - | - | - | 0 |  |
| ?, Bracles an Consmall | - | - | - | - | - | Un, | - | - | - | - | - | +.2" | - | - | - | - | - | . $0:$ | - | - | - | - | - | U'\% |  |

*Pedestrians and Bicycles on Crosswalk. L: I.eft. R: Right. T: Thru, U: U-Turn

Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

All Movements
ID: 1.042318, Location: 41.877553, -87.670706


Out: $1442 \ln : 1065$
Total: 2507
[S] Ogden

Sat Feb 25, 2023
Midday Peak (WKND), PM Peak (WKND) (1. PM - 2 PM) - Overall Peak Hour
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

CHEMAGMAL HAMLON
Provided by: Gewalt Hamilton Associates Inc. 625 Forest Edge Drive, Vernon Hills, IL, 60061, US

All Movements
ID: 104231.8, Location: 41.877553, -87.670706

| Leg <br> Direction | Jackson <br> Eastbound |  |  |  |  |  | Jackson <br> Westbound |  |  |  |  |  | Ogden <br> Northbound |  |  |  |  |  | Ogden <br> Southbound |  |  |  |  |  | Int |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Time | R | T | L |  | App | Ped- | R | T | L |  | pp | Ped ${ }^{-}$ | R | T | L | U | App |  | R | T | L | U | App | Ped* |  |
| 2023-02-25 100 PM | 2 | 17 | 10 | 0 | 29 | 1 | 0 | 0 | 0 | 0 | 0 | $1)$ | 5 | 83 | 0 | 0 | 88 | 0 | 0 | 126 | 0 | 0 | 126 | 0 | 243 |
| 1:15PM | 2 | 15 | 20 | 0 | 37 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 96 | 0 | 0 | 105 | 11 | 0 | 1.18 | 2 | 0 | 120 | 1 | 262 |
| 1:30PM | 3 | 22 | 14 | 0 | 39 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 9 | 92 | 0 | 0 | 101 | 0 | 1 | 115 | 0 | 0 | 116 | 1 | 256 |
| 1:45PM | 3 | 21 | 14 | 0 | 38 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 100 | 0 | 0 | 106 | 10 | 1 | 145 | 1 | 0 | 147 | 3 | 291 |
| Total | 10 | 75 | 58 | 0 | 143 | 5 | 0 | 0 | 0 | 0 | 0 | 4 | 29 | 371 | 0 | 0 | 400 | 0 | 2 | 504 | 3 | 0 | 509 | 5 | 1052 |
| \% Approach | 7.0\% | 52.4\% 4 | $406 \% 0$ |  | - |  | 0\% | 0\% 0 | \% 0\% |  | - | - | $73 \%$ | 92.8\% 0 | \% 0\% |  | - |  | 0.4\% | 99.0\% | 0.6\% 0\% |  | - |  |  |
| \% Total | 1.0\% | 7.1\% | 55\%0 | \% 1 | 3.6\% |  | 0\% 0 | 0\% 0 | 0\% 0\% | \% | 0\% | - | 2.8\% | 35.3\% 0 | \% 0\% | \% 38 | 38.0\% |  | 0.2\% | 47.9\% | 0.3\% 0\% | \% 4 | 8.4\% | - |  |
| PHF | 0.833 | 0.852 | 0.725 | - 0 | 0.917 | - | - | - | - | - | - | - | 0.806 | 0932 | - | - 0 | 0.948 |  | 0.500 | 0.867 | 0.375 | - 0 | 0.864 |  | 0.904 |
| Lights | 10 | 75 | 58 | 0 | 143 | - | 0 | 0 | 0 | 0 | 0 | - | 29 | 363 | 0 | 0 | 392 |  | 2 | 498 | 3 | 0 | 503 |  | 1038 |
| \% Lights | 100\% | 100\% | 100\% 0 | \% | 100\% |  | 0\% | 0\% 0 | 0\% 0\% |  | - | - | 100\% | $478 \% 0$ | \% 0\% | \% 98 | 98.0\% |  | 100\% 9 | 98.8\% | 100\% $0 \%$ | \% 9 | 8.8\% |  | 98.7\% |
| Articulated Trucks | 0 | 0 | 0 | 0 | 0 |  | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 |  | 0 | 0 | 0 | 0 | 0 |  | 0 |
| \% Ariculated Trucks | 0\% | 0\% | 0\% 0 |  | 0\% |  | 0\% | 0\% 0 | 0\% 0\% |  | - | - | 0\% | 0\% 0 | \% 0\% |  | 0\% | - | 0\% | 0\% | 0\% 0\% |  | 0\% | - | 0\% |
| Buses and Single-Unit Trucks | 0 | 0 | 0 | 0 | 0 |  | 0 | 0 | 0 | 0 | 0 | - | 0 | 6 | 0 | 0 | 6 | - | 0 | 5 | 0 | 0 | 5 | - | 11 |
| \% Buses and Single-Unit Trucks | 0\% | 0\% | 0\% 0 |  | 0\% |  | 0\% | 0\% 0 | 0\% 0\% |  | - | - | 0\% | 1.6\% 0 | \% 0\% |  | 1.5\% | - | 0\% | 1.0\% | 0\% 0\% |  | 1.0\% | - | 10\% |
| Bicycles on Road | 0 | 0 | 0 | 0 | 0 |  | 0 | 0 | 0 | 0 | 0 |  | 0 | 2 | 0 | 0 | 2 | - | 0 | 1 | 0 | 0 | 1 |  | 3 |
| \% Bicycles on Road | 0\% | 0\% | $0 \% 0$ |  | 0\% |  | 0\% | 0\% 0 | \% 0 \% |  | - | - | 0\% | $05 \% 0$ | \% 0\% | \% | 0.5\% | - | 0\% | 0.2\% | 0\% 0\% | \% | 0.2\% |  | 0.3\% |
| Pedestrians | - | - | - | - | - | $\therefore$ | - | - | - | $\checkmark$ | - | 3 | - | - | - | - | - | 0 | - | - | - | - | - | 5 |  |
| 4 Fetestriams | - | - | - | - | - | 10010 | - | - | - | - | - 7 | $50 \%$ | - | - | - | - | - | - | - | - | - | - | - | 100\% |  |
| Pryycles onf Crussualls | - | - | - | - | - | 0 | - | - | - | - | - | 1 | - | - | - | - | - | 0 | - | - | - | - | - | $1)$ |  |
| Ci, Rirycles sm Cronswali, | - | - | - | - | - | 0 \% |  | - | - | - | - | 250\% | - | - | - | - | - | - | - | - | - | - | - | 10\% |  |

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Rıght, T: Thru, U: U-Turn

Jackson Boulevard at Ogden Avenue - TMC
Sat Feb 25, 2023
Midday Peak (WKND), PM Peak (WKND) (1 PM - 2 PM) - Overall Peak Hour
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US
All Movements
ID: 1042318, Location: 41.877553, -87.670706

## [N] Ogden

Total: 938
In: $509 \quad$ Out: 429


Out: $514 \quad \operatorname{In}: 400$
Total: 914
[S] Ogden

Thu Feb 23, 2023

Provided by: Gewalt Hamilton Associates Inc. 625 Forest Edge Drive, Vernon Hills, IL, 60061, US
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 1042309, Location: 41.876788, -87.671612

| Leg <br> Direction | Ogden <br> Eastbound |  |  |  |  | Ogden <br> Westbound |  |  |  |  | Wood Southbound |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Time | T | I. | U | App | Ped* | R | T | U | App | Ped+ | R | L | U | ^pp | Ped* | Int |
| 2023-02-23 4:00PM | 164 | 18 | 0 | 182 | 3 | 0 | 259 | 0 | 259 | 0 | 37 | 1 | 0 | 38 | 4 | 479 |
| 4:15PM | 173 | 17 | 0 | 190 | 4 | 2 | 235 | 0 | 241 | 0 | 36 | 0 | 0 | 36 | 3 | 467 |
| 4.30 PM | 182 | 19 | 0 | 201 | 2 | 2 | 246 | 0 | 248 | 3 | 37 | 0 | 0 | 37 | 2 | 486 |
| 4 45PM | 183 | 22 | 0 | 205 | 2 | 1 | 260 | 0 | 261 | 1 | 44 | 0 | 0 | 44 | 3 | 510 |
| Hourly Total | 702 | 76 | 0 | 778 | 1.1 | 5 | 1004 | 0 | 1009 | 4 | 154 | 1 | 0 | 155 | 12 | 1942 |
| 5.00PM | 181 | 22 | 0 | 203 | 3 | 2 | 270 | 0 | 272 | 3 | 34 | 0 | 0 | 34 | 2 | 509 |
| 5:15PM | 177 | 19 | 0 | 196 | 1 | 0 | 220 | 0 | 220 | 0 | 35 | 0 | 0 | 35 | 1 | 451 |
| 5:30PM | 134 | 16 | 0 | 150 | 1 | 1 | 238 | 0 | 239 | 0 | 34 | 0 | 0 | 34 | 1 | 423 |
| 5:45PM | 145 | 15 | 0 | 160 | 0 | 1 | 258 | 0 | 259 | 1 | 26 | 0 | 0 | 26 | 0 | 445 |
| Hourly Total | 637 | 72 | 0 | 709 | 5 | 4 | 986 | 0 | 990 | 4 | 129 | 0 | 0 | 129 | 4 | 1828 |
| 600 PM | 113 | 10 | 0 | 123 | 0 | 1 | 213 | 0 | 214 | 2 | 28 | 0 | 0 | 28 | 2 | 365 |
| 6:15PM | 116 | 9 | 0 | 12.5 | 1 | 0 | 194 | 0 | 194 | 2 | 29 | 0 | 0 | 29 | 1 | 348 |
| 6.30P. ${ }^{\text {M }}$ | 95 | 1 | 0 | 104 | 0 | 1 | 147 | 0 | 148 | 0 | 19 | 0 | 0 | 19 | 0 | 271 |
| 6:45PM | 72 | 4 | 0 | 76 | 1 | 0 | 138 | 0 | 138 | 1 | 22 | 0 | 0 | 22 | 2 | 236 |
| Hourly Total | 396 | 32 | 0 | 428 | 2 | 2 | 692 | 0 | 694 | 5 | 98 | 0 | 0 | 98 | 5 | 1220 |
| 7:00PM | 57 | 6 | 0 | 63 | 0 | 0 | 107 | 0 | 107 | 1 | 17 | 1 | 0 | 18 | 0 | 188 |
| 715 PM | 66 | 3 | 0 | 69 | 0 | 0 | 90 | 0 | 90 | 4 | 15 | 0 | 0 | 15 | 1 | 174 |
| Hourly Total | 123 | 9 | 0 | 132 | 0 | 0 | 197 | 0 | 197 | 5 | 32 | 1 | 0 | 33 | 1 | 362 |
| Total | 1858 | 189 | 0 | 2047 | 18 | 11 | 2879 | 0 | 2890 | 18 | 413 | 2 | 0 | 415 | 22 | 5352 |
| \% Approach | 90.8\% | 92\% | 0\% | - | - | 0.4\% | 99.6\% | 0\% | - | - | 99.5\% | 0.5\% | 0\% | - | - |  |
| \% Total | 34.7\% | 3.5\% | 0\% | 38.2\% | - | 0.2\% | 53.8\% | 0\% | 54.0\% | - | 7.7\% | 0\% | 0\% | 7.8\% | - |  |
| Lights | 1832 | 179 | 0 | 2011 | - | 10 | 2816 | 0 | 2826 | - | 411 | 2 | 0 | 413 |  | 5250 |
| \% Lights | 98.6\% | 94.7\% | 0\% | 98.2\% | - | 909\% | 97.8\% | 0\% | 97.8\% | - | 99.5\% | 100\% | 0\% | 99.5\% | - | 98.1\% |
| Articulated Trucks | 1 | 0 | 0 | 1 | - | 0 | 1 | 0 | 1 | - | 0 | 0 | 0 | 0 | - | 2 |
| \% Articulated Trucks | 0.1\% | 0\% | 0\% | 0\% | - | 0\% | 0\% | 0\% | 0\% | - | 0\% | 0\% | 0\% | 0\% | - | 0\% |
| Buses and Single-Unit Trucks | 15 | 8 | 0 | 23 | - | 0 | 53 | 0 | 53 | - | 2 | 0 | 0 | 2 |  | 78 |
| \% Buses and Single-Unit Trucks | 0.8\% | $42 \%$ | 0\% | 1.1\% | - | 0\% | 1.8\% | 0\% | 1.8\% | - | 0.5\% | 0\% | 0\% | 0.5\% | - | 15\% |
| Bicycles on Road | 10 | 2 | 0 | 12 | - | 1 | 9 | 0 | 10 | - | 0 | 0 | 0 | 0 | - | 22 |
| \% Bicycles on Road | 0.5\% | 11\% | 0\% | 0.6\% |  | 9.1\% | 0.3\% | 0\% | 0.3\% | - | 0\% | 0\% | 0\% | 0\% | - | 0.4\% |
| Pedicirians | - | - | - | - | 18 | - | - | - | - | 17 | - | - | - | - | 19 |  |
| \% Pedestrians | - | - | - | - | $100 \%$ | - | $\cdot$ | - | - | 94,46 | - | - | - | - | $864 \%$ |  |
| Bicycles on Crosswalk | - | - | - | - | 0 | - | - | - | - | 1 | - | - | - | - | 3 |  |
| 4o Bicycles micosswalk | - | - | - | - | $0 \%$ | - | - | - | - | -. 6.4 | - | - | - | - | $136 \%$ |  |

[^35]Thu Feb 23, 2023
Full Length (4 PM-7:30 PM)
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

Provided by: Gewalt Hamilton Associates Inc.
All Movements 625 Forest Edge Drive, Vernon Hills, IL, 60061, US

ID: 1042309, Location: 41.876788, -87.671612
[N] Wood
Total: 615
In: 415 Out: 200


Thu Feb 23, 2023
PM Peak (4:15 PM - 5:15 PM) - Overall Peak Hour
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements

CHMAGEMAL HAMLION
Provided by: Gewalt Hamilton Associates Inc. 625 Forest Edge Drive, Vernon Hills, IL, 60061, US

ID: 1042309, Location: 41.876788, -87.671612

| Leg <br> Direction | Ogden <br> Eastbound |  |  |  |  | Ogden <br> Westbound |  |  |  |  | Wood <br> Southbound |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Time | T | I. | U | App | T'ed* | R | T | U | App | $\mathrm{recd}^{-1}$ | R | I. | U | App | Ped ${ }^{\text {a }}$ | Int |
| 2023-02-23 4:15PM | 173 | 17 | 0 | 190 | 4 | 2 | 239 | 0 | 241 | 4 | 36 | 0 | 0 | 36 | 3 | 467 |
| 4.30 PM | 182 | 19 | 0 | 201 | 2 | 2 | 246 | 0 | 248 | 3 | 37 | 0 | 0 | 37 | $\bigcirc$ | 486 |
| 4.45PM | 18.3 | 22 | 0 | 205 | $-$ | 1 | 260 | 0 | 261 | 1 | 44 | 0 | 0 | 44 | 3 | 510 |
| 5.00PM | 181 | 22 | 0 | 203 | 3 | 2 | 270 | 0 | 272 | 3 | 34 | 0 | 0 | 34 | 2 | 509 |
| Total | 719 | 80 | 0 | 799 | 11 | 7 | 1015 | 0 | 1022 | 7 | 151 | 0 | 0 | 151 | 10 | 1972 |
| \% Approach | 900\% | 10.0\% | 0\% | - | - | 0.7\% | 993\% | 0\% | - | - | 100\% | 0\% | 0\% | - | - | - |
| \% Total | 36.5\% | 4.1\% | 0\% | 40.5\% | - | 04\% | 515\% | 0\% | 51.8\% | - | 7.7\% | 0\% | 0\% | 7.7\% |  | - |
| PHF | 0.978 | 0.909 | - | 0.971 | - | 0.750 | 0.940 | - | 0.938 |  | 0.858 | - | - | 0.8 .88 | - | 0.965 |
| Lights | 707 | 73 | 0 | 780 | - | 6 | 993 | 0 | 999 | - | 149 | 0 | 0 | 149 |  | 1928 |
| \% Lights | 983\% | 91.3\% | 0\% | 97.6\% |  | 85.7\% | 97.8\% | 0\% | 97.7\% | - | 98.7\% | 0\% | 0\% | 98.7\% |  | 97.8\% |
| Articulated Trucks | 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\% |
| Buses and Single-Unit Trucks | 5 | 7 | 0 | 12 |  | 0 | 22 | 0 | 22 | - | 2 | 0 | 0 | 2 |  | 36 |
| \% Buses and Single-Unit Trucks | 0.7\% | 8.8\% | 0\% | 1.5\% | - | 0\% | 2 2\% | 0\% | 2.2\% | - | 1.3\% | 0\% | 0\% | 1.3\% | - | 1.8\% |
| Bicycles on Road | 7 | 0 | 0 | 7 | - | 1 | 0 | 0 | 1 | - | 0 | 0 | 0 | 0 |  | 8 |
| \% Bicycles on Road | 1.0\% | 0\% | 0\% | 0.9\% | - | 14.3\% | 0\% | 0\% | 0.1\% | - | 0\% | 0\% | 0\% | 0\% | - | 0.4\% |
| Fedestrians | - | $\cdot$ | - | - | 11 | - | - | - | - | 6 | - | - | - | - | 9 |  |
| Oi, Pedestians | - | - | - | - | $100 \%$ | - | - | - | - | 85.76 | - | - | - | - | 8000 | - |
| Birviles un Crusemilk | - | - | - | - | 0 | - | - | - | - | 1 | - | - | - | - | 2 |  |
| \% Brycles on Coosswalk | - | - | - | - | $00_{i-1}$ | - | - | - | - | $143 \%$ | - | - | - | . - | $20.0 \%$ | - |

[^36]PM Peak (4:15 PM - 5:15 PM) - Overall Peak Hour
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk) All Movements

Provided by: Gewalt Hamilton Associates Inc. 625 Forest Edge Drive, Vernon Hills, IL, 60061, US

ID: 1042309, Location: 41.876788, -87.671612
[N] Wood
Total: 238
In: 151 Out: 87


Sat Feb 25, 2023
Full Length (1.1 AM-2 PM)
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements

Provided by: Gewalt Hamilton Associates Inc. 625 Forest Edge Drive, Vernon Hills, IL, 60061, US

ID: 1042320, Location: 41.876788, -87.671612

| Leg Direction | Ogden <br> Easthound |  |  |  |  | Ogden <br> Westlound |  |  |  |  | Wood <br> Southbound |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Time | T | L | L | App | Ped+ | R | T | U | App | Ped* | R | L. |  | App | Pecl* | Int |
| 2023-02-25 11.00AM | 74 | 6 | 0 | 80 | 0 | 0 | 120 | 0 | 120 | 0 | 12 | 0 | 0 | 12 | 0 | 212 |
| 11:15^M | 81 | 6 | 1 | 88 | 1 | 1 | 111 | 0 | 112 | 0 | 14 | 0 | 0 | 14 | 0 | 214 |
| 11:30AM | 74 | 5 | 0 | 79 | 1 | 2 | 99 | 0 | 101 | 0 | 10 | 0 | 0 | 10 | 0 | 190 |
| 11:45^M | 73 | 6 | 0 | 79 | 0 | 1 | 87 | 0 | 88 | 11 | 8 | 0 | 0 | 8 | 2 | 175 |
| Hourly Total | 302 | 23 | 1 | 326 | 2 | 4 | 417 | 0 | 421 | 0 | 44 | 0 | 0 | 44 | 2 | 791 |
| 12 00PM | 75 | 8 | 0 | 83 | 1 | 4 | 117 | 0 | 121 | $1)$ | 9 | 0 | 0 | 9 | 1 | 213 |
| $12 \mathrm{15PM}$ | 100 | 2 | 0 | 102 | 1 | 0 | 118 | 0 | 1.18 | 0 | 12 | 0 | 0 | 12 | 0 | 232 |
| 12:30PM | 100 | 3 | 0 | 103 | 0 | 0 | 138 | 0 | 138 | 0 | 14 | 0 | 0 | 14 | 1 | 255 |
| 12:45PM | 97 | 6 | 0 | 103 | 0 | 1 | 131 | 0 | 132 | 0 | 11 | 0 | 0 | 1.1 | 2 | 246 |
| Hourly Total | 372 | 19 | 0 | 391 | 2 | 5 | 504 | 0 | 509 | 0 | 46 | 0 | 0 | 46 | 4 | 946 |
| 1:00PM | 90 | 9 | 0 | 99 | 0 | 1 | 131 | 0 | 132 | 0 | 18 | 0 | 0 | 18 | 0 | 249 |
| 1:15PM | 103 | 4 | 0 | 107 | 1 | 1 | 11.9 | 0 | 120 | $1)$ | 28 | 1 | 0 | 29 | 2 | 256 |
| 1:30PM | 110 | 9 | 0 | 119 | 0 | 0 | 120 | 0 | 120 | 0 | 26 | 0 | 0 | 26 | 3 | 265 |
| 1:4.3PM | 106 | 7 | 0 | 11.3 | 0 | 1 | 147 | 0 | 148 | 2 | 15 | 0 | 0 | 15 | 1 | 276 |
| Hourly Total | 409 | 29 | 0 | 438 | 1 | 3 | 517 | 0 | 520 | 2 | 87 | 1 | 0 | 88 | 6 | 1046 |
| Total | 1083 | 71 | 1 | 1155 | 5 | 12 | 1438 | 0 | 1450 | $\therefore$ | 177 | 1 | 0 | 178 | 12 | 2783 |
| \% Approach | 93.8\% | 6.1\% | 0.1\% | - |  | 0.8\% | 992\% | 0\% | - | - | 99.4\% | 0.6\% | 0\% | - | - |  |
| \% Total | 38.9\% | 2.6\% | 0\% | 41.5\% | - | 0.4\% | 51.7\% | 0\% | 52.1\% | - | $64 \%$ | 0\% | (0\% | 6.4\% | - |  |
| Lights | 1061 | 70 | 1 | 1132 | - | 10 | 1413 | 0 | 1423 | - | 177 | 1 | 0 | 178 | - | 2733 |
| \% Lights | 98.0\% | 986\% | 100\% | 98.0\% | - | 83.3\% | 98.3\% | 0\% | 98.1\% | - | 100\% | 100\% | 0\% | 100\% | - | 982\% |
| Articulated Trucks | 0 | 0 | 0 | 0 | - | 0 | 2 | 0 | 2 | - | 0 | 0 | 0 | 0 | - | 2 |
| \% Ariculated Trucks | 0\% | 0\% | 0\% | 0\% | - | 0\% | 0.1\% | 0\% | 0.1\% | - | 0\% | 0\% | 0\% | 0\% | - | 0.1\% |
| Buses and Single-Unit Trucks | 15 | 0 | 0 | 1.5 | - | 2 | 22 | 0 | 24 | - | 0 | 0 | 0 | 0 | - | 39 |
| \% Buses and Single-Unit Trucks | 1.4\% | 0\% | 0\% | 1.3\% | - | 16.7\% | 1.5\% | 0\% | 1.7\% | - | 0\% | 0\% | 0\% | 0\% | - | 1.4\% |
| Bicycles on Road | 7 | 1 | 0 | 8 | - | 0 | 1 | 0 | 1 | - | 0 | 0 | 0 | 0 | - | 9 |
| \% Bicycles on Road | 0.6\% | 1.4\% | 0\% | 0.7\% | - | 0\% | $01 \%$ | 0\% | 0.1\% | - | 0\% | 0\% | 0\% | 0\% |  | 0.3\% |
| Pedestrians | - | - | - | - | 5 | - | - | - | - | 2 | - | - | - | - | 12 |  |
| \% Pedestrams | - | - | - | - | 1010\% | - | - | - | - | $1000^{\circ}$ | - | - | - | - | 100\% |  |
| Bicycle mon Cireswidl | - | - | - | - | 0 | - | - | - | - | 0 | - | - | - | - | 0 |  |
| ?u Bicycles on Crosswalk | - | - | - | - | 0\% | - | - | - | - | $0 \%$ | - | - | - | - | $0 \%$ |  |

*Pedescrians and Bicycles on Crosswalk. L: T:eft. R: Right, T: Thru, U: U-Turn

Sat Feb 25, 2023
Full Length (11 AM-2 PM)
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
Provided by: Gewalt Hamilton Associates Inc. 625 Forest Edge Drive, Vernon Hills, IL, 60061, US

ID: 1042320, Location: 41.876788, -87.671612
[ N ] Wood
Total: 261


Sat Feb 25, 2023
Midday Peak (WKND), PM Peak (WKND) (1 PM - 2 PM) - Overall Peak Hour
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

Provided by: Gewalt Hamilton Associates Inc. 625 Forest Edge Drive, Vernon Hills, IL, 60061, US

All Movements
ID: 1042320, Location: 41.876788, -87.671612

| Leg <br> Drection | Oglen <br> Eastbound |  |  |  |  | Ogden <br> Westbound |  |  |  |  | Wood <br> Southbound |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Time | T | L | U | App | Ped ${ }^{-1}$ | R | T | U | App | Ped ${ }^{-}$ | R | L | U | App | Ped* | Int |
| 2023-02-25 1:00PM | 90 | 9 | 0 | 99 | 19 | 1 | 131 | 0 | 132 | 0 | 18 | 0 | 0 | 18 | 0 | 249 |
| 1:15PM | 103 | 4 | 0 | 107 | 1 | 1 | 11.9 | 0 | 120 | 0 | 28 | 1 | 0 | 29 | 2 | 256 |
| 1:30PM | 110 | 9 | 0 | 119 | 11 | 0 | 120 | 0 | 120 | 0 | 26 | 0 | 0 | 26 | 3 | 265 |
| 1:45PM | 106 | 7 | 0 | 113 | $1)$ | 1 | 147 | 0 | 148 | 2 | 15 | 0 | 0 | 15 | 1 | 276 |
| Total | 409 | 29 | 0 | 438 | 1 | 3 | 517 | 0 | 520 | 2 | 87 | 1 | 0 | 88 | 6 | 1046 |
| \% Approach | 934\% | 6.6\% | 0\% | - | - | 0.6\% | 99.4\% | 0\% | - |  | 98.9\% | 1.1\% | 0\% | - |  |  |
| \% Total | 391\% | 2.8\% | 0\% | 41.9\% | - | 0.3\% | 49 4\% | 0\% | 49.7\% |  | 8.3\% | 0.1\% | 0\% | 8.4\% |  |  |
| PHF | 0.933 | 0.806 | - | 0.924 | - | 0750 | 0.878 | - | 0.877 |  | 0.777 | 0.250 | - | 0.759 | - | 0.948 |
| Lights | 403 | 29 | 0 | 432 | - | 3 | 5.1 | 0 | 514 | - | 87 | 1 | 0 | 88 |  | 1034 |
| \% Lights | 98.5\% | 101\% | 0\% | 98.6\% |  | 100\% | 98.8\% | 0\% | 98.8\% |  | 100\% | 100\% | 0\% | 100\% | - | 989\% |
| Articulated Trucks | 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\% |
| Buses and Single-Unit Trucks | 4 | 0 | 0 | 4 | - | 0 | 5 | 0 | 5 |  | 0 | 0 | 0 | 0 |  | 9 |
| \% Buses and Single-Unit Trucks | 1.0\% | (0\% | 0\% | 0.9\% | - | 0\% | 1.0\% | 0\% | 1.0\% | - | 0\% | 0\% | 0\% | 0\% | - | 0.9\% |
| Bicycles on Road | 2 | 0 | 0 | 2 | - | 0 | 1 | 0 | 1 | - | 0 | 0 | 0 | 0 | - | 3 |
| \% Bicycles on Road | 0.5\% | 0\% | 0\% | 0.5\% |  | 0\% | 0.2\% | 0\% | 0.2\% |  | 0\% | 0\% | 0\% | 0\% | - | 0.3\% |
| Perlestrams | - | - | - | - | 1 | - | - | - | - | 2 | - | - | - | - | 6 |  |
| $\because$ Oedesrians | - | $\bullet$ | - | - | 100\% | - | - | - | - | 100\% | - | - | - | - | 100\% |  |
| Bucreles on Cinsswalh | - | - | - | - | 11 | - | - | - | - | 11 | - | - | - | - | 0 |  |
| \%/4 Bicycles on Crosswalk | - | - |  | - | 0\% | - | - | - | - | 0\% | - | - | - | - | $0 \%$ |  |

*Pedestrians and Bicycles on Crosswalk. I.: Left, R: Right. T: Thru, U: U-Turn

Sat Feb 25, 2023
Midday Peak (WKND), PM Peak (WKND) (1. PM - 2 PM) - Overall Peak Hour
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

Provided by: Gewalt Hamilton Associates Inc. 625 Forest Edge Drive, Vernon Hills, IL, 60061, US

All Movements
ID: 1042320, Location: 41.876788, -87.671612
[N] Wood
Total: 120
In: 88 Out: 32


## Damen Avenue at Van Buren Street - TMC

Thu Feb 23, 2023
Full Length (4 PM-7:30 PM)
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

Provided by: Gewalt Hamilton Associates Inc. 625 Forest Edge Drive, Vernon Hills, IL, 60061, US
All Movements
ID: 1.042302, Location: 41.87621, -87.676525

| Leg <br> Drectuon | Van Buren F.astbound |  |  |  |  |  | Van Buren <br> Westbound |  |  |  |  |  | Damen <br> Northbound |  |  |  |  |  | Damen <br> Southbound |  |  |  |  |  | Int |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Time | R | T | L | U A | Ap | P'cl ${ }^{\text {a }}$ | R | T | L | U | App | Ped ${ }^{\text {+ }}$ | R | T | L | U | App | Pedt ${ }^{\text {a }}$ | R | T | L U |  | App | PC.dr |  |
| 2023-02-23 4:00PM | 0 | 0 | 0 | 0 | 0 | 0 | 65 | 243 | 42 | 0 | 350 | 12 | 0 | 200 | 82 | 0 | 282 | 0 | 45 | 174 | 0 | 0 | 219 | 4 | 8.51 |
| 4.15 PM | 0 | 0 | 0 | 0 | 0 | 17 | 39 | 217 | 28 | 0 | 284 | 16 | 0 | 185 | 113 | 0 | 298 | $1)$ | 39 | 143 | 0 | 0 | 182 | 4 | 764 |
| 4:30PM | 0 | 0 | 0 | 0 | 0 | 1 | 63 | 241 | 23 | 0 | 327 | 17 | 0 | 208 | 107 | 0 | 315 | 0 | 39 | 171 | $0 \quad 0$ | 0 | 210 | 2 | 852 |
| 4:45PM | 0 | 0 | 0 | 0 | 0 | 8 | 62 | 244 | 33 | 0 | 339 | 21 | 0 | 22.5 | 93 | 0 | 318 | 0 | 33 | 147 | 0 | 0 | 180 | 3 | 837 |
| Hourly Total | 0 | 0 | 0 | 0 | 0 | 26 | 229 | 945 | 126 | 0 | 1300 | 66 | 0 | 818 | 395 | 0 | 1213 | 0 | 156 | 635 | 0 | 0 | 791 | 19 | 3304 |
| 5:00PM | 0 | 0 | 0 | 0 | 0 | 4 | 56 | 236 | 22 | 0 | 314 | 14 | 1 | 220 | 81 | 0 | 302 | 1 | 55 | 151 | 0 | 0 | 206 | 2 | 822 |
| 5:15PM | 0 | 0 | 0 | 0 | 0 | 5 | 48 | 214 | 33 | 0 | 295 | 11 | 1 | 193 | 94 | 0 | 288 | 0 | 37 | 128 | 0 | 0 | 165 | 1 | 748 |
| 5.30PM | 0 | 0 | 0 | 0 | 0 | 7 | 63 | 212 | 23 | 0 | 298 | 12 | 0 | 213 | 73 | 0 | 286 | 10 | 26 | 118 | 0 | 0 | 144 | 3 | 728 |
| 5:45PM | 0 | 0 | 0 | 0 | 0 | 3 | 52 | 206 | 35 | 0 | 293 | 8 | 0 | 172 | 57 | 0 | 229 | 0 | 33 | 113 | 0 | 0 | 146 | 4 | 668 |
| Hourly Total | 0 | 0 | 0 | 0 | 0 | 19 | 219 | 868 | 113 | 0 | 1200 | 45 | 2 | 798 | 305 | 0 | 1105 | 1. | 151 | 510 | 0 | 0 | 661 | 10 | 2966 |
| 6:00PM | 0 | 0 | 0 | 0 | 0 | 3 | 47 | 177 | 37 | 0 | 261 | 6 | 0 | 139 | 65 | 1 | 205 | 11 | 45 | 88 | 0 | 0 | 133 | 1 | 599 |
| 6.15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 54 | 133 | 44 | 0 | 231 | 12 | 0 | 133 | 57 | 0 | 190 | 0 | 32 | 109 | 0 0 | 0 | 141 | 0 | 562 |
| 6.30 PM | 0 | 0 | 0 | 0 | 0 | 2 | 54 | 124 | 48 | 0 | 226 | $\square$ | 0 | 109 | 59 | 0 | 168 | 0 | 26 | 100 | 0 | 0 | 126 | 3 | 520 |
| 64.5 PM | 0 | 0 | 0 | 0 | 0 | 2 | 55 | 65 | 44 | 0 | 164 | 2 | 0 | 111 | 68 | 0 | 179 | 0 | 35 | 95 | 0 | 0 | 130 | 0 | 473 |
| Hourly Total | 0 | 0 | 0 | 0 | 0 | 7 | 210 | 499 | 173 | 0 | 88. | 25 | 0 | 492 | 249 | 1 | 742 | 0 | 138 | 392 | 0 | 0 | 530 | 3 | 2154 |
| 7:001M | 0 | 0 | 0 | 0 | 0 | 2 | 50 | 59 | 3.1 | 0 | 140 | 2 | 0 | 94 | 58 | 0 | 152 | 0 | 30 | 63 | 0 | 0 | 93 | 1 | 385 |
| 7:15PM | 0 | 0 | 0 | 0 | 0 | 0 | 44 | 61 | 26 | 0 | 131 | 1 | 0 | 80 | 74 | 0 | 154 | 0 | 34 | 57 | 0 | 0 | 91 | 1 | 376 |
| Hourly Total | 0 | 0 | 0 | 0 | 0 | 2 | 94 | 120 | 57 | 0 | 271 | 3 | 0 | 174 | 132 | 0 | 306 | 0 | 64 | 120 | 0 | 0 | 184 | 2 | 761 |
| Total | 0 | 0 | 0 | 0 | 0 | 5 | 752 | 2432 | 469 | 0 | 36.3 | 139 | 2 | 2282 | 1081 | 1 | 3366 | 1 | 509 | 1657 | 00 | 0 | 2166 | 34 | 9185 |
| \% Approach | 0\% | 0\% 0 | 0\% 0 |  | - |  | 20.6\% | 666\% | 12.8\% 0 | 0\% | - |  | 0.1\% | 67.8\% | 32.1\% | 0\% | - |  | 23.5\% | $765 \%$ | 0\% 0\% |  | - |  |  |
| \% Total | 0\% | 0\% 0 | 0\% 0 | 0\% | 0\% |  | 8.2\% | 26.5\% | 5.1\% 0 | 0\% | 39.8\% | - | 0\% | $248 \%$ | 11.8\% | 0\% | 36.6\% |  | 5.5\% | 18.0\% 0 | 0\% 0\% | \% 23 | 23.6\% |  |  |
| Lights | 0 | 0 | 0 | 0 | 0 |  | 728 | 2408 | 460 | 0 | 35.96 |  | 0 | 2225 | 1066 | 1 | 3292 |  | 501 | 1614 | $0 \quad 0$ | 0 | 2115 |  | 9003 |
| \% Lights | 0\% | 0\% 0 | 0\% 0 |  | - |  | 96.8\% | 99.0\% | 98.1\% 0 | 0\% | 98.4\% |  | 0\% | 975\% | 98.6\% | 00\% 9 | 97.8\% |  | 98.4\% | 97.4\% | 0\% 0\% | 9 | 7.6\% |  | 98.0\% |
| Ariculated Trucks | 0 | 0 | 0 | 0 | 0 |  | 1 | 2 | 1 | 0 | 4 |  | 0 | 0 | 0 | 0 | 0 |  | 0 | 0 | $0 \quad 0$ | 0 | 0 |  | 4 |
| \% Articulated Trucks | 0\% | 0\% 0 | 0\% 0 |  | - |  | 0.1\% | 0.1\% | 0.2\% 0 | 0\% | 0.1\% | - | 0\% | 0\% | 0\% | 0\% | 0\% |  | 0\% | 0\% | 0\% 0\% |  | 0\% |  | 0\% |
| Buses and Single-Unit Trucks | 0 | 0 | 0 | 0 | 0 |  | 22 | 22 | 8 | 0 | 52 | - | 0 | 30 | 15 | 0 | 45 | - | 8 | 40 | $0 \quad 0$ | 0 | 48 |  | 145 |
| \% Buses and Single-Unit <br> Trucks | 0\% | 0\% 0 | 0\% 0 |  | - | - | 29\% | 0.9\% | 1.7\% |  | 1.4\% | - | 0\% | 1.3\% | 14\% | 0\% | 1.3\% |  | 1.6\% | 24\% | 0\% 0\% |  | 2.2\% |  | 1.6\% |
| Bicycles on Road | 0 | 0 | 0 | 0 | 0 |  | 1 | 0 | 0 | 0 | 1 |  | 2 | 27 | 0 | 0 | 29 |  | 0 | 3 | 0 | 0 | 3 |  | 33 |
| \% Bicycles on Road | 0\% | 0\% 0 | 0\% 0 |  | - | - | 01\% | 0\% | 0\% 0 | 0\% | 0\% |  | 100\% | 1.2\% | 0\% | 0\% | 0.9\% |  | 0\% | $02 \%$ | 0\% 0\% | \% | 0.1\% |  | 0.4\% |
| Pedestriams | - | - | - | - | - | 51 | - | - | - | - | - | 137 | - | - | - | - | - | 1 | - | - | - - | - | - | 33 |  |
| Ti Pedestrias: | - | - | - | - | - | 94.40 | - | - | - | - | - | ! 18.6 | - | $\cdots$ | $\cdot$ | - |  | $100 \%$ | - | - | - - | - |  | $4{ }^{-1 \%}$ |  |
| Bucycles on Crosswailk | - | - | - | - | - | 3 | - |  | - | - | - |  | - | - | - | - | - | 0 | - | - | - | $\bullet$ | - | 1 |  |
| \% Brycles on Crosswalk | - | $\cdots$ | $\cdot$ | $-$ | - | 5 f 为 | - | - | - | - | - | 1.4\% |  | - | $\checkmark$ | - | - | 010 | - | - | - - | - | - | 2.96 |  |

Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru. U: U-Turn

## Damen Avenue at Van Buren Street - TMC

Thu Feb 23, 2023
Full Length (4 PM-7:30 PM)
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk) All Movements

Provided by: Gewalt Hamilton Associates Inc. 625 Forest Edge Drive, Vernon Hills, IL, 60061, US

ID: 1042302, Location: 41.87621, -87.676525


Thu Feb 23, 2023
PM Peak (4 PM - 5 PM) - Overall Peak Hour
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements

Provided by: Gewalt Hamilton Associates Inc. 625 Forest Edge Drive, Vernon Hills, IL, 60061, US

ID: 1042302, Location: 41.87621, -87.676525

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: L-Turn

Provided by: Gewalt Hamilton Associates Jnc.
PM Peak (4 PM - 5 PM) - Overall Peak Hour
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

ID: 1042302, Location: 41.87621, -87.676525


Total: 1974
[S] Damen

Damen Avenue at Van Buren Street - TMC
Sat Feb 25, 2023
Full Length (11 AM-2 PM)
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements

# C]IS GEWALT HAMLLION associates, inc. 

Provided by: Gewalt Hamilton Associates Inc. 625 Forest Edge Drive, Vernon Hills, JL, 60061, US

ID: 1042313, Location: 41.87621, -87.676525

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thro, U: U-Turn

## Damen Avenue at Van Buren Street - TMC

Sat Feb 25, 2023
Full Length (11 AM-2 PM)
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
Provided by: Gewalt Hamilton Associates Inc. 625 Forest Edge Drive, Vernon Hills, IL, 60061, US

ID: 1042313, Location: 41.87621, -87.676525


Out: $1501 \quad$ In: 2074
Total: 3575
[S] Damen

Sat Feb 25， 2023
Midday Peak（WKND）（12：45 PM－1：45 PM）－Overall Peak Hour
All Classes（Lights，Articulated Trucks，Buses and Single－Unit Trucks， Pedestrians，Bicycles on Road，Bicycles on Crosswalk）
All Movements

Provided by：Gewalt Hamilton Associates Inc． 625 Forest Edge Drive，Vernon Hills，IL，60061，US

ID：1042313，Location：41．87621，－87．676525

| Leg <br> Direction | Van Buren Eastbound |  | Van Buren Westhound |  |  |  |  | Damen <br> Northbound |  |  |  |  |  | Damen <br> Southbound |  |  |  |  | Int |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Time | R T L U | App Pode | R | T | I．U | App | Perd ${ }^{+}$ | R | T | L | U | ＾pp | 「eda | R | T | I．U | App | Ped＊ |  |
| 2023－02－25 12：45PM | 0 0 0 0 0 0 | 0 0 | 82 | 71 | 370 | 190 | 4 |  | 134 | 62 | 0 | 196 | 0 | 38 | 88 | $0 \quad 0$ | 126 | 1 | 512 |
| 1：00PM | $\begin{array}{llll}0 & 0 & 0 & 0\end{array}$ | 0 | 64 | 63 | 370 | 164 | $\overline{3}$ | 0 | 131 | 67 | 0 | 198 | 0 | 39 | 91 | 0 | 130 | 1 | 492 |
| 1：15PM | 0 0 0 0 0 | 0 | 52 | 78 | 380 | 168 | － |  | 106 | 61 | 0 | 167 | 1 | 35 | 92 | 0 | 127 | 1 | 452 |
| 1：30PM | $\begin{array}{llll}0 & 0 & 0 & 0\end{array}$ | 0 | 71 | 71 | $34 \quad 0$ | 176 | 2 | 0 | 113 | 60 | 0 | 173 | 0 | 51 | 91 | 0 0 | 142 | 2 | 491 |
| Total | $\begin{array}{llll}0 & 0 & 0 & 0\end{array}$ | 03 | 269 | 283 | 1460 | 698 | 18 | 0 | 484 | 250 | 0 | 734 | 1 | 163 | 362 | $0 \quad 0$ | 525 | 5 | 1957 |
| \％Approach | 0\％0\％0\％0\％ | －－ | 38．5\％40．5\％20．9\％0\％ |  |  |  |  |  | 0\％65．9\％34．1\％0\％ |  |  | － |  | 31．0\％ | 69．0\％ 0 | 0\％0\％ | － |  |  |
| \％Toral | 0\％0\％0\％0\％0\％ |  | 137\％14．5\％7．5\％0\％35．7\％－ |  |  |  |  | （0\％24．7\％ $128 \% 0 \% 37.5 \%$ |  |  |  |  |  | 8．3\％18．5\％0\％0\％26．8\％ |  |  |  |  |  |
| PHF | －－－－ | －－ | $\begin{array}{llllllllll}0.817 & 0.907 & 0.961 & -0.917\end{array}$ |  |  |  |  | －0．908 $0.9333-0.926$ |  |  |  |  |  | 0.799 | 0.984 | － | － 0.924 |  | 0.956 |
| Lights | $\begin{array}{llll}0 & 0 & 0 & 0\end{array}$ | 0 | 267 | 278 | 1420 | 687 |  | 0 | 473 | 248 | 0 | 721 |  |  | 351 | 0 | 511 |  | 1919 |
| \％Lights | 0\％0\％0\％0\％ |  | 99．3\％98．2\％97．3\％0\％98．4\％ |  |  |  |  | 0\％97．7\％99．2\％0\％98．2\％ |  |  |  |  |  | 98．2\％97．0\％0\％0\％97．3\％ |  |  |  |  | 98．1\％ |
| Articulated Trucks | $0 \begin{array}{llll}0 & 0 & 0 & 0\end{array}$ | 0 | 0 | 0 | 0 | 0 |  | 0 | 0 | 0 | 0 | 0 |  | 1 | 0 | $0 \quad 0$ | 1 |  |  |
| \％Articulated Trucks | 0\％0\％0\％0\％ |  | 0\％ | 0\％ | 0\％0\％ | 0\％ |  | 0\％ | 0\％ | 0\％ $0 \%$ |  | 0\％ | － | 0．6\％ | 0\％ 0 | 0\％0\％ | 0．2\％ |  | 0．1．\％ |
| Buses and Single－Unit Trucks | 0 0 0 0 0 |  | 1 | 5 | 40 | 10 | － | 0 | 10 | 2 | 0 | 12 | － | 2 | 11 | $0 \quad 0$ | 13 |  | 35 |
| \％Buses and Single－Unit Trucks | 0\％0\％0\％0\％ | ， | 0 4\％ | 1．8\％ | 27\％0\％ | 1．4\％ | － | 0\％ | 21\％ | 0．8\％0\％ |  | 1．6\％ | － | 1．2\％ | 3．0\％0\％0\％ |  | 2．5\％ | － | 1．8\％ |
| Bicycles on Road | $0 \begin{array}{llll}0 & 0 & 0 & 0\end{array}$ | 0 | 1 | 0 | $0 \quad 0$ | 1 |  | 0 | 1 | 0 | 0 | 1 | － | 0 | 0 | $0 \quad 0$ | 0 |  | 2 |
| \％Bicycles on Road | 0\％0\％0\％0\％ |  | 0．4\％ | 0\％ | 0\％0\％ | 0．1\％ |  | 0\％ | 0．2\％ | 0\％0\％ | \％ | 0．1\％ |  | （0\％ | 0\％ | 0\％0\％ | 0\％ |  | 0．1\％ |
| Pedestians | －－－－ 3 |  | － | － | －－ | －－ | 17 | － | － | － | － | － | 1 | － | － | －－ | － | 5 |  |
| Qi，Pedestriant： | －－－－－1010\％ |  | － | － | － |  | $94.4{ }^{1!} / 1$ | － | － | － | － |  | 100\％ | － | － | － |  | 100\％ |  |
| Brycles on Ciosswaith | －－－－－ 0 |  | － | － | －－ | －－ | 1 | － | － | － | － | － | 0 | － | － | －－ | － | 0 |  |
| ＂u Bicvilen un Crosswulh | －－－－ |  | － |  | － | －－ | 5ヶ゙＂\％ |  | － | － | － | － | $10 \%$ | － |  | － | － | \｛ ${ }^{1}$ |  |

[^37]Sat Feb 25, 2023
Midday Peak (WKND) (12:45 PM - 1:45 PM) - Overall Peak Hour All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

Provided by: Gewalt Hamilton Associates Inc. 625 Forest Edge Drive, Vernon Hills, IL, 60061, US All Movements
ID: 1042313, Location: 41.87621, -87.676525

## [N] Damen

Total: 1278
In: 525
Out: 753


Out: 508 In: 734
Total: 1242
[S] Damen

Sat Feb 25, 2023
PM Peak (WKND) (1 PM - 2 PM)
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

Provided by: Gewalt Hamilton Associates Inc. 625 Forest Edge Drive, Vernon Hills, IL, 60061, US
All Movements
ID: 1042313, Location: 41.87621, -87.676525

"Pedestridns and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Damen Avenue at Van Buren Street - TMC
Sat Feb 25, 2023
PM Peak (WKND) (1 PM - 2 PM)
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

Provided by: Gewalt Hamilton Associates Inc. 625 Forest Edge Drive, Vernon Hills, IL, 60061, US
All Movements
ID: 1042313, Location: 41.87621, -87.676525
[ N ] Damen
Total: 1254
In: 533
Out: 721


Thu Feb 23, 2023

Provided by: Gewalt Hamilton Associates Inc. 625 Forest Edge Drive, Vernon Hills, IL, 60061, US

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements

| Leg Direction |  | Van Buren Eastbound |  |  |  |  |  | $\begin{aligned} & \text { Van Buren } \\ & \text { Westbound } \end{aligned}$ |  |  |  |  |  | Ramp <br> Northbound |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Time |  | R | T |  | U | App | Ped* | T | L |  | U | App | Fedt | R | L. | U | App | Ped- | Int |
|  | 2023-02-23 4:00PM | 0 | 0 |  | 0 | 0 | 0 | 230 | 0 |  | 0 | 230 | $1)$ | 0 | 114 | 0 | 114 | 0 | 344 |
|  | 4:15PM | 0 | 0 |  | 0 | 0 | 1 | 204 | 0 |  | 0 | 204 | 0 | 0 | 82 | 0 | 82 | 0 | 286 |
|  | 4:30PM | 0 | 0 |  | 0 | 0 | $1)$ | 245 | 0 |  | 0 | 245 | 0 | 0 | 80 | 0 | 80 | 0 | 325 |
|  | 4:45PM | 0 | 0 |  | 0 | 0 | 0 | 239 | 0 |  | 0 | 239 | 0 | 0 | 91 | 0 | 91 | 0 | 330 |
|  | Hourly Total | 0 | 0 |  | 0 | 0 | 0 | 918 | 0 |  | 0 | 918 | 0 | 0 | 367 | 0 | 367 | 0 | 1285 |
|  | 5.00PM | 0 | 0 |  | 0 | 0 | 1 | 245 | 0 |  | 0 | 245 | 0 | 0 | 77 | 0 | 77 | 11 | 322 |
|  | 5.15PM | 0 | 0 |  | 0 | 0 | 0 | 182 | 0 |  | 0 | 182 | 0 | 0 | 96 | 0 | 96 | 0 | 278 |
|  | 5.30 PM | 0 | 0 |  | 0 | 0 | 0 | 207 | 0 |  | 0 | 207 | 0 | 0 | 108 | 0 | 108 | 0 | 315 |
|  | 5:45PM | 0 | 0 |  | 0 | 0 | 0 | 188 | 0 |  | 0 | 188 | 0 | 0 | 94 | 0 | 94 | 0 | 282 |
|  | Hourly Total | 0 | 0 |  | 0 | 0 | 0 | 822 | 0 |  | 0 | 822 | 0 | 0 | 375 | 0 | 375 | 0 | 1197 |
|  | 6:00PM | 0 | 0 |  | 0 | 0 | 0 | 161 | 0 |  | 0 | 161 | 0 | 0 | 108 | 0 | 108 | 1 | 269 |
|  | 6 15PM | 0 | 0 |  | 0 | 0 | 0 | 102 | 0 |  | 0 | 102 | 0 | 0 | 130 | 0 | 130 | 0 | 232 |
|  | 6.30PM | 0 | 0 |  | 0 | 0 | 0 | 73 | 0 |  | 0 | 73 | $1)$ | 0 | 149 | 0 | 149 | 1 | 222 |
|  | 6:45PM | 0 | 0 |  | 0 | 0 | ก | 64 | 0 |  | 0 | 64 | 10 | 0 | 103 | 0 | 103 | $1)$ | 167 |
|  | Hourly Total | 0 | 0 |  | 0 | 0 | 0 | 400 | 0 |  | 0 | 400 | 0 | 0 | 490 | 0 | 490 | 0 | 890 |
|  | 7:00PM | 0 | 0 |  | 0 | 0 | 0 | 66 | 0 |  | 0 | 66 | 0 | 0 | 67 | 0 | 67 | 0 | 133 |
|  | 7:15PM | 0 | 0 |  | 0 | 0 | 0 | 67 | 0 |  | 0 | 67 | 1 | 0 | 64 | 0 | 64 | 0 | 131 |
|  | Hourly Toral | 0 | 0 |  | 0 | 0 | 0 | 133 | 0 |  | 0 | 133 | 0 | 0 | 131 | 0 | 131 | 0 | 264 |
|  | Total | 0 | 0 |  | 0 | 0 | n | 2273 | 0 |  | 0 | 2273 | 0 | 0 | 1363 | 0 | 1363 | 0 | 3636 |
|  | \% Approach | 0\% | $0 \%$ |  | \% | - |  | 100\% | 0\% |  | \% | - |  | 0\% | 100\% | 0\% | - |  |  |
|  | \% Total | 0\% | 0\% |  | \% | 0\% |  | 62.5\% | 0\% |  | \% | 62.5\% |  | 0\% | 37.5\% | 0\% | 37.5\% |  |  |
|  | Lights | 0 | 0 |  | 0 | 0 |  | 2242 | 0 |  | 0 | 2242 |  | 0 | 1346 | 0 | 1346 |  | 3588 |
|  | \% Lighs | 0\% | 0\% |  | \% | - |  | 98.6\% | 0\% |  | \% | 98.6\% |  | 0\% | 98.8\% | 0\% | 98.8\% |  | 98.7\% |
|  | Articulated Trucks | 0 | 0 |  | 0 | 0 |  | 0 | 0 |  | 0 | 0 |  | 0 | 3 | 0 | 3 |  | 3 |
|  | \% Articulated Trucks | 0\% | 0\% |  | \% | - |  | 0\% | 0\% |  | \% | 0\% |  | 0\% | 0.2\% | 0\% | 0.2\% |  | 0.1\% |
|  | Buses and Single-Unit Trucks | 0 | 0 |  | 0 | 0 |  | 31 | 0 |  | 0 | 31 |  | 0 | 14 | 0 | 14 |  | 45 |
|  | \% Buses and Single-Unit Trucks | 0\% | 0\% |  | \% | - |  | 1.4\% | 0\% |  | \% | 1.4\% |  | 0\% | 10\% | 0\% | 1.0\% |  | 12\% |
|  | Bicycles on Road | 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\% |
|  | Pedestrinis | - | - |  | - | - | 0 | - | - |  | - | - | 0 | - | - | - | - | 0 |  |
|  | u, Pedestit lans | - | - |  | - | - |  | - | - |  | - | - |  | - | - | - | - |  |  |
|  | Bicycles on Crosswalk | - |  |  | - | - | 0 | - | - |  | - | - | 0 | - | - | - | - | 0 |  |
|  | Bicyder on Cososwalk | - |  |  | - | - |  | - | - |  | - | - |  | - | - | - | - |  |  |

[^38]Van Buren Street at I-290 W exit ramp - TMC
Thu Feb 23, 2023
Full Length (4 PM-7:30 PM)
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US
ID: 1042311, Location: 41.876185, -87.675499


Van Buren Street at I-290 W exit ramp - TMC
Thu Feb 23, 2023
PM Peak (4 PM - 5 PM) - Overall Peak Hour
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements

Provided by: Gewalt Hamilton Associates Inc. 625 Forest Edge Drive, Vernon Hills, IL, 60061, US

ID: 1042311, Location: 41.876185, -87.675499

| Leg <br> Direction |  | Van Buren Easthound |  |  |  |  | Van Buren Westbound |  |  |  |  | Ramp <br> Northbound |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Time |  | R | T | U | App | Ped* | T | L | U | ^pp | Ped+ | R | L | U | App | Ped* | Int |
|  | 2023-02-23 4:00PM | 0 | 0 | 0 | 0 | 0 | 230 | 0 | 0 | 230 | 0 | 0 | 114 | 0 | 114 | 0 | 344 |
|  | 4 15PM | 0 | 0 | 0 | 0 | 0 | 204 | 0 | 0 | 204 | 0 | 0 | 82 | 0 | 82 | $1)$ | 286 |
|  | 4:30PM | 0 | 0 | 0 | 0 | 0 | 245 | 0 | 0 | 245 | 0 | 0 | 80 | 0 | 80 | 0 | 325 |
|  | 4:45PM | 0 | 0 | 0 | 0 | 0 | 239 | 0 | 0 | 239 | 1 | 0 | 91 | 0 | 91 | 0 | 330 |
|  | Total | 0 | 0 | 0 | 0 | 0 | 918 | 0 | 0 | 918 | 0 | 0 | 367 | 0 | 367 | 0 | 1285 |
|  | \% Approach | 0\% | 0\% | 0\% | - | - | 100\% | 0\% | 0\% | - |  | 0\% | 100\% | 0\% | - | - |  |
|  | \% Total | 0\% | 0\% | 0\% | 0\% | - | 71.4\% | 0\% | 0\% | 71.4\% |  | 0\% | 28.6\% | 0\% | 28.6\% | - |  |
|  | PHF | - | - | - | - | - | 0937 | - | - | 0.937 | - | - | 0.805 | - | 0.805 | - | 0.934 |
|  | I.ights | 0 | 0 | 0 | 0 | - | 904 | 0 | 0 | 904 | - | 0 | 363 | 0 | 363 | - | 1267 |
|  | \% Lights | 0\% | 0\% | 0\% | - | - | 98.5\% | 0\% | 0\% | 98.5\% | - | 0\% | 98.9\% | 0\% | 98.9\% | - | 98.6\% |
|  | Articulated Trucks | 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\% |
|  | Buses and Single-Unit Trucks | 0 | 0 | 0 | 0 | - | 14 | 0 | 0 | 14 |  | 0 | 4 | 0 | 4 | - | 18 |
|  | \% Buses and Single-Unit Trucks | 0\% | 0\% | 0\% | - |  | 1.5\% | 0\% | 0\% | 1.5\% | - | 0\% | 1.1\% | 0\% | 1.1\% | - | 1.4\% |
|  | Bicycles on Road | 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\% |
|  | Pedertmans | - | - | - | - | 0 | - | - | - | - | 0 | - | - | - | - | 0 |  |
|  | Oi, Pedentuans | - | - | - | - | - | - | - | $\cdot$ | - | - | - | - | - | - | - |  |
|  | Braces on Cinsswalk | - | - | - | - | 0 | - | - | - | - | 11 | - | - | - | - | 0 |  |
| $\because$ | "i. Buactes on Ciosswalk | - | - | - | $\cdot$ |  | - | - | - | - | $-$ | - | $\cdot$ | - | - | - |  |

[^39]All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk) All Movements
ID: 1.042311, Location: 41.8761.85, -87.675499

Provided by: Gewalt Hamilton Associates Inc. 625 Forest Edge Drive, Vernon Hills, IL, 60061, US

[S] Ramp

Sat Feb 25, 2023
Full Length (11 AM-2 PM)
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements

Provided by: Gewalt Hamilton Associates Inc. 625 Forest Edge Drive, Vernon Hills, IL, 60061, US

ID: 1042322, Location: 41.876185, -87.675499

| I.cg . <br> Direction |  | Van Buren Eastbound |  |  |  |  | Van Buren Westbound |  |  |  |  | Ramp <br> Northbound |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Time |  | R | T | U | App | 「ed** | $T$ | L | U | App | Pal* | R | I. | U | App | Fer | Int |  |
|  | 2023-02-25 11:00AM | 0 | 0 | 0 | 0 | 0 | 66 | 0 | 0 | 66 | 0 | 0 | 94 | 0 | 94 | 0 |  | 160 |
|  | 1115 AM | 0 | 0 | 0 | 0 | 0 | 59 | 0 | 0 | 59 | 0 | 0 | 83 | 0 | 83 | 0 |  | 142 |
|  | 11:30AM | 0 | 0 | 0 | 0 | 0 | 47 | 0 | 0 | 47 | 0 | 0 | 106 | 0 | 106 | 0 |  | 153 |
|  | 11.45 AM | 0 | 0 | 0 | 0 | 0 | 54 | 0 | 0 | 54 | 13 | 0 | 111 | 0 | 111 | 0 |  | 165 |
|  | Hourly Total | 0 | 0 | 0 | 0 | 0 | 226 | 0 | 0 | 226 | 1. | 0 | 394 | 0 | 394 | 0 |  | 620 |
|  | 12:00PM | 0 | 0 | 0 | 0 | 0 | 64 | 0 | 0 | 64 | 0 | 0 | 106 | 0 | 106 | 11 |  | 170 |
|  | 12:15PM | 0 | 0 | 0 | 0 | 0 | 52 | 0 | 0 | 52 | 0 | 0 | 90 | 0 | 90 | 0 |  | 142 |
|  | 12:30PM | 0 | 0 | 0 | 0 | 0 | 76 | 0 | 0 | 76 | 0 | 0 | 104 | 0 | 104 | $1)$ |  | 180 |
|  | 12:45PM | 0 | 0 | 0 | 0 | 0 | 63 | 0 | 0 | 63 | 0 | 0 | 118 | 0 | 118 | 0 |  | 181 |
|  | Hourly Total | 0 | 0 | 0 | 0 | 0 | 255 | 0 | 0 | 25.5 | 0 | 0 | 418 | 0 | 418 | 0 |  | 673 |
|  | 1.00PM | 0 | 0 | 0 | 0 | 0 | 59 | 0 | 0 | 59 | 0 | 0 | 102 | 0 | 102 | 0 |  | 161 |
|  | 115 PM | 0 | 0 | 0 | 0 | 0 | 72 | 0 | 0 | 72 | 0 | 0 | 100 | 0 | 100 | 0 |  | 172 |
|  | 1.30 PM | 0 | 0 | 0 | 0 | 0 | 68 | 0 | 0 | 68 | 0 | 0 | 105 | 0 | 105 | () |  | 173 |
|  | 1:45PM | 0 | 0 | 0 | 0 | 0 | 86 | 0 | 0 | 86 | 0 | 0 | 97 | 0 | 97 | 0 |  | 183 |
|  | Hourly Total | 0 | 0 | 0 | 0 | 0 | 285 | 0 | 0 | 285 | 0 | 0 | 404 | 0 | 404 | 0 |  | 689 |
|  | Total | 0 | 0 | 0 | 0 | 0 | 766 | 0 | 0 | 766 | 0 | 0 | 1216 | 0 | 1216 | 0 |  | 1982 |
|  | \% Approach | 0\% | 0\% | 0\% | - |  | 100\% | 0\% | 0\% | - | - | 0\% | 100\% | 0\% | - |  |  |  |
|  | \% Total | 0\% | 0\% | 0\% | 0\% | - | 38.6\% | 0\% | 0\% | 38.6\% | - | 0\% | 61.4\% | 0\% | 61.4\% | - |  |  |
|  | Lights | 0 | 0 | 0 | 0 | - | 756 | 0 | 0 | 756 | - | 0 | 1202 | 0 | 1202 |  |  | 1958 |
|  | \% Lights | 0\% | 0\% | 0\% | - | - | 98.7\% | 0\% | 0\% | 98.7\% | - | 0\% | 98.8\% | 0\% | 98.8\% |  |  | 98.8\% |
|  | Articulated Trucks | 0 | 0 | 0 | 0 | - | 2 | 0 | 0 | 2 | - | 0 | 0 | 0 | 0 | - |  | 2 |
|  | \% Articulated Trucks | 0\% | 0\% | 0\% | - | - | 0.3\% | 0\% | 0\% | 0.3\% | - | 0\% | 0\% | 0\% | 0\% |  |  | 0.1\% |
|  | Buses and Single-Unit Trucks | 0 | 0 | 0 | 0 | - | 8 | 0 | 0 | 8 | - | 0 | 14 | 0 | 14 | - |  | 22 |
|  | \% Buses and Single-Unit Trucks | 0\% | 0\% | 0\% | - | - | 1.0\% | 0\% | 0\% | 1.0\% | - | 0\% | 1.2\% | 0\% | 1.2\% |  |  | 1.1\% |
|  | Bicycles on Road | 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\% |
|  | Pedesuluans | - | - | - | - | 0 | - | - | - | - | 0 | - | - | - | - | 0 |  |  |
|  | 'u Pedestrims | - | - | - | - | - | - | - | - | - | - | - | - | - | - |  |  |  |
|  | Bracles on Corsswalk | - | - | - | - | 0. | - | - | - | - | 0 | - | - | - | - | 0 |  |  |
|  | ب\% Bicycles on Crosswalk | - | - | - | - | - | - | - | - | - | - | - | - | - | - |  |  |  |

*Pedestrians and Bicycles on Crosswalh, T.: L.eft, R: Right, T: Thru, U: U-Turn

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk) All Movements
ID: 1042322, Location: 41.876185, -87.675499


Out: $0 \quad$ In: 1216
Total: 1216
[S] Ramp

## Van Buren Street at I-290 W exit ramp - TMC

Sat Feb 25, 2023
Midday Peak (WKND) (12:30 PM - 1:30 PM) - Overall Peak Hour All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements

Provided by: Gewalt Hamilton Associates Inc. 625 Forest Edge Drive, Vernon Hills, IL, 60061, US

ID: 1042322, Location: 41.8761.85, -87.675499

| I.eg <br> Direction | Van Buren Eastbound |  |  |  |  | Van Buren Westhound |  |  |  |  | Ramp <br> Northbound |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Time | R | T | U | App | Ped* | T | L | U | App | Ped* | R | I. | U | App | Peti* | Int |
| 2023-02-25 12:30PM | 0 | 0 | 0 | 0 | 11 | 76 | 0 | 0 | 76 | 0 | 0 | 104 | 0 | 104 | 0 | 180 |
| 12.45PM | 0 | 0 | 0 | 0 | 0 | 63 | 0 | 0 | 63 | 0 | 0 | 118 | 0 | 118 | 0 | 181 |
| 1:00PM | 0 | 0 | 0 | 0 | 0 | 59 | 0 | 0 | 59 | n | 0 | 102 | 0 | 102 | 0 | 161 |
| 1:15PM | 0 | 0 | 0 | 0 | 0 | 72 | 0 | 0 | 72 | 0 | 0 | 100 | 0 | 100 | $1)$ | 172 |
| Total | 0 | 0 | 0 | 0 | 0 | 270 | 0 | 0 | 270 | 0 | 0 | 424 | 0 | 424 | 0 | 694 |
| \% Approach | 0\% | 0\% | 0\% | - | - | 100\% | 0\% | 0\% | - | - | 0\% | 100\% | 0\% | - |  |  |
| \% Total | 0\% | 0\% | 0\% | 0\% | - | 38.9\% | 0\% | 0\% | 38.9\% | - | 0\% | 61.1\% | 0\% | 61.1\% | - |  |
| PHF | - | - | - | - | - | 0888 | - | - | 0.888 |  | - | 0.898 | - | 0.898 |  | 0.959 |
| Lights | 0 | 0 | 0 | 0 | - | 264 | 0 | 0 | 264 | - | 0 | 419 | 0 | 419 | - | 683 |
| \% Lights | 0\% | 0\% | 0\% | - | - | 97.8\% | 0\% | 0\% | 97.8\% | - | 0\% | 98.8\% | 0\% | 98.8\% |  | 98.4\% |
| Articulated Trucks | 0 | 0 | 0 | 0 | - | 1 | 0 | 0 | 1 |  | 0 | 0 | 0 | 0 |  | 1 |
| \% Articulated Trucks | 0\% | 0\% | 0\% | - |  | 0.4\% | 0\% | 0\% | 0.4\% | - | 0\% | 0\% | 0\% | 0\% |  | 0.1\% |
| Buses and Single-Unit Trucks | 0 | 0 | 0 | 0 | - | 5 | 0 | 0 | 5 | - | 0 | 5 | 0 | 5 |  | 10 |
| \% Buses and Single-Unit Trucks | 0\% | 0\% | 0\% | - | - | 1.9\% | 0\% | 0\% | 1.9\% |  | 0\% | 12\% | 0\% | 1.2\% | - | 14\% |
| Bicycles on Road | 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\% |
| Pedestrians | - | - | - | - | 0 | - | - | - | - | 0 | - | - | - | - | 0 |  |
| Q Pedestuans | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |  |
|  | - | - | - | - | 0 | - | - | - | - | 0 | - | - | - | - | 0 |  |
| \% Bicyrtes on Cinsswalk | - | - | - | $\checkmark$ | - | - | - | - | - |  | - | - | - | - |  |  |

[^40]Midday Peak (WKND) (12:30 PM - 1:30 PM) - Overall Peak Hour All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk) All Movements 625 Forest Edge Drive, Vernon Hills, IL, 60061, US


Sat Feb 25, 2023
PM Peak (WKND) (1 PM - 2 PM)
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

## All Movements

Provided by: Gewalt Hamilton Associates Inc. 625 Forest Edge Drive, Vernon Hills, IL, 60061, US

ID: 1042322, Location: 41.876185, -87.675499

| I.eg <br> Direction | Van Buren Eastbound |  |  |  |  | Van Buren Westbound |  |  |  |  | Ramp <br> Northbound |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Time | R | T | U | App | Ped+ | T | L | U | \pp | Ped* | R | L | U | Арp | Pedr | Int |
| 2023-02-25 1.00PM | 0 | 0 | 0 | 0 | 0 | 59 | 0 | 0 | 59 | 0 | 0 | 102 | 0 | 102 | 0 | 161 |
| 1 15PM | 0 | 0 | 0 | 0 | 0 | 72 | 0 | 0 | 72 | 11 | 0 | 100 | 0 | 100 | 0 | 172 |
| 1.30PM | 0 | 0 | 0 | 0 | 0 | 68. | 0 | 0 | 68 | 0 | 0 | 105 | 0 | 105 | 13 | 173 |
| 1.45PM | 0 | 0 | 0 | 0 | $1)$ | 86 | 0 | 0 | 86 | 0. | 0 | 97 | 0 | 97 | 0 | 183 |
| Total | 0 | 0 | 0 | 0 | 0 | 285 | 0 | 0 | 285 | 0 | 0 | 404 | 0 | 404 | $1)$ | 689 |
| \% Approach | 0\% | 0\% | 0\% | - | - | 100\% | 0\% | 0\% | - | - | 0\% | 100\% | 0\% | - | - | - |
| \% Total | 0\% | 0\% | 0\% | 0\% | - | 41.4\% | 0\% | 0\% | 41.4\% | - | 0\% | $586 \%$ | 0\% | 58.6\% | - | - |
| PHF | - | - | - | - |  | 0.828 | - | - | 0.828 |  | - | 0.962 | - | 0.962 | - | 0941 |
| Lights | 0 | 0 | 0 | 0 | - | 282 | 0 | 0 | 282 | - | 0 | 398 | 0 | 398 | - | 680 |
| \% Lights | 0\% | 0\% | 0\% | - | - | 98.9\% | 0\% | 0\% | 98.9\% | - | 0\% | 98.5\% | 0\% | 98.5\% | - | 987\% |
| Articulated Trucks | 0 | 0 | 0 | 0 |  | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | - | 0 |
| \% Articulated 'rrucks | 0\% | 0\% | 0\% | - |  | 0\% | 0\% | 0\% | 0\% | - | 0\% | 0\% | 0\% | 0\% | - | 0\% |
| Buses and Single-Unit Trucks | 0 | 0 | 0 | 0 |  | 3 | 0 | 0 | 3 | - | 0 | 6 | 0 | 6 | - | 9 |
| \% Buses and Single-Unit Trucks | 0\% | 0\% | 0\% | - | - | 1.1\% | 0\% | 0\% | 1.1\% | - | 0\% | 1.5\% | 0\% | 1.5\% | - | 1.3\% |
| Bicycles on Road | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | - | 0 |
| \% Bicycles on Road | 0\% | 0\% | 0\% | - | - | 0\% | 0\% | 0\% | O\% | - | 0\% | 0\% | 0\% | 0\% | - | 0\% |
| Pedentans | - | - | - | - | 0 | - | - | - | - | n | - | - | - | - | $1)$ |  |
| Mi, Pedestranis | - | $\cdot$ | - | - |  | - | - | - | - | - | - | - | - | - | - | - |
| Breveles man Comssualk | - | - | - | - | 0 | - | - | - | - | $n$ | - | - | - | - | 1 |  |
| \% Braches on Corssualk | - | $\bullet$ | $\checkmark$ | $\checkmark$ | - | - | - | - | $\cdot$ | - | - | - | - | - | - | - |

[^41]Van Buren Street at I-290 W exit ramp - TMC
Sat Feb 25, 2023
PM Peak (WKND) (1 PM - 2 PM)
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements


Driveway 2-2 lanes - ATR
Thu Feb 23, 2023
Full Length (4 PM-7:30 PM)
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Bicycles on Road)

Provided by: Gewalt Hamilton Associates Inc. 625 Forest Edge Drive, Vernon Hills, JL, 60061, US

All Channels
ID: 1042325, Location: 41.876335, -87.672996

| Leg <br> Direction |  | South <br> Northbound |  | North <br> Southbound |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Time |  | T | App | T | App | Int |
|  | 2023-02-23 4:00PM | 0 | 0 | 4 | 4 | 4 |
|  | 4:15PM | 0 | 0 | 1 | 1 | 1 |
|  | 4.30PM | 0 | 0 | 1 | 1 | 1 |
|  | 4 45PM | 0 | 0 | 0 | 0 | 0 |
|  | Hourly Total | 0 | 0 | 6 | 6 | 6 |
|  | 5:00PM | 0 | 0 | 0 | 0 | 0 |
|  | 5:15PM | 0 | 0 | 0 | 0 | 0 |
|  | 5:30PM | 0 | 0 | 0 | 0 | 0 |
|  | 5:45PM | 0 | 0 | 0 | 0 | 0 |
|  | Hourly Total | 0 | 0 | 0 | 0 | 0 |
|  | 6:00PM | 0 | 0 | 0 | 0 | 0 |
|  | 6.15 PM | 0 | 0 | 0 | 0 | 0 |
|  | 6 30PM | 0 | 0 | 1 | 1 | 1 |
|  | 6.45 PM | 0 | 0 | 0 | 0 | 0 |
|  | Huurly Total | 0 | 0 | 1 | 1 | 1 |
|  | 7:00PM | 0 | 0 | 1 | 1 | 1 |
|  | 7:15PM | 0 | 0 | 5 | 5 | 5 |
|  | Hourly Total | 0 | 0 | 6 | 6 | 6 |
|  | Total | 0 | 0 | 13 | 13 | 13 |
|  | \% Арргоас | $0 \%$ | - | 100\% | - | - |
|  | \% Total | 0\% | 0\% | 100\% | 100\% | - |
|  | Lights | 0 | 0 | 13 | 13 | 13 |
|  | \% Lights | 0\% | - | 100\% | 100\% | 100\% |
|  | Articulated Trucks | 0 | 0 | 0 | 0 | 0 |
|  | \% Articulated Trucks | 0\% | - | 0\% | 0\% | 0\% |
|  | Buses and Single-Unit Trucks | 0 | 0 | 0 | 0 | 0 |
|  | \% Buses and Single-Unit Trucks | 0\% | - | 0\% | 0\% | 0\% |
|  | Bicycles on Road | 0 | 0 | 0 | 0 | 0 |
|  | \% Bicycles on Road | (\%) | - | 0\% | 0\% | 0\% |

[^42]

Driveway 2-2 lanes - ATR
Thu Feb 23, 2023
PM Peak (6:30 PM - 7:30 PM) - Overall Peak Hour
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Bicycles on Road)

COMAGMALHAMON
Provided by: Gewalt Hamilton Associates Inc. 625 Forest Edge Drive; Vernon Hills, IL, 60061, US

All Channels
ID: 1042325, Location: 41.876335, -87.672996

| $\begin{aligned} & \text { I.eg } \\ & \text { Direction } \end{aligned}$ |  | South <br> Northbound |  | North <br> Southbound |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Time |  | T | App | T | App | Int |
|  | 2023-02-23 6:30PM | 0 | 0 | 1 | 1 | 1 |
|  | 6:45PM | 0 | 0 | 0 | 0 | 0 |
|  | 7:00PM | 0 | 0 | 1 | 1 | 1 |
|  | 7:15PM | 0 | 0 | 5 | 5 | 5 |
|  | Tota! | 0 | 0 | 7 | 7 | 7 |
|  | \% Approach | 0\% | - | 100\% | - | - |
|  | \% Total | 0\% | 0\% | 100\% | 100\% | - |
| , | PHF | - | - | 0.350 | 0.350 | 0.350 |
|  | Lights | 0 | 0 | 7 | 7 | 7 |
|  | \% Lights | 0\% | - | 100\% | 100\% | 100\% |
|  | Articulated Trucks | 0 | 0 | 0 | 0 | 0 |
|  | \% Ariculated Trucks | 0\% | - | 0\% | 0\% | 0\% |
|  | Buses and Single-Unit Trucks | 0 | 0 | 0 | 0 | 0 |
|  | \% Buscs and Single-Unit Trucks | 0\% | - | 0\% | 0\% | 0\% |
|  | Bicycles on Road | 0 | 0 | 0 | 0 | 0 |
|  | \% Bicycles on Road | 0\% | - | 0\% | 0\% | 0\% |

${ }^{*}$ T: Thru


Out: $7 \quad \operatorname{In}: 0$
Total: 7
S

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Bicycles on Road)
All Channels
ID: 1042329, Location: 41.876335, -87.672996

| Leg <br> Directuon |  | South <br> Northbound |  | North <br> Southbound |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Time |  | T | App | T | App | Int |
|  | 2023-02-25 10:00AM | 0 | 0 | 0 | 0 | 0 |
|  | 10:15^M | 0 | 0 | 0 | 0 | 0 |
|  | 10.30AM | 0 | 0 | 0 | 0 | 0 |
|  | 10 45AM | 0 | 0 | 0 | 0 | 0 |
|  | Hourly Total | 0 | 0 | 0 | 0 | 0 |
|  | 11:00^M | 0 | 0 | 0 | 0 | 0 |
|  | 11:15AM | 0 | 0 | 0 | 0 | 0 |
|  | 11:30AM | 0 | 0 | 0 | 0 | 0 |
|  | 11:45AM | 0 | 0 | 0 | 0 | 0 |
|  | Hourly Total | 0 | 0 | 0 | 0 | 0 |
|  | 12:00PM | 0 | 0 | 0 | 0 | 0 |
|  | 12:15PM | 0 | 0 | 0 | 0 | 0 |
|  | 12:30PM | 0 | 0 | 0 | 0 | 0 |
|  | 12:45PM | 0 | 0 | 2 | 2 | 2 |
|  | Hourly Total | 0 | 0 | 2 | 2 | 2 |
|  | 1:00PM | 0 | 0 | 0 | 0 | 0 |
|  | 1:15PM | 0 | 0 | 1 | 1 | 1 |
|  | 1:30PM | 0 | 0 | 0 | 0 | 0 |
|  | 1:45PM | 0 | 0 | 0 | 0 | 0 |
|  | Hourly Total | 0 | 0 | 1 | 1 | 1 |
|  | 2:001'M | 0 | 0 | 1 | 1 | 1 |
|  | 2:15PM | 0 | 0 | 0 | 0 | 0 |
|  | 2.30 PM | 0 | 0 | 0 | 0 | 0 |
|  | 2.45 PM | 1 | 1 | 0 | 0 | 1 |
|  | Hourly Total | 1 | 1 | 1 | 1 | 2 |
|  | Total | 1 | 1 | 4 | 4 | 5 |
|  | \% Approach | 100\% | - | 100\% | - | - |
|  | \% Total | 20.0\% | 20.0\% | 80.0\% | 80.0\% | - |
|  | Lights | 1 | 1 | 4 | 4 | 5 |
|  | \% Lights | 100\% | 1.00\% | 100\% | 100\% | 100\% |
|  | Articulated Trucks | 0 | 0 | 0 | 0 | 0 |
|  | \% Articulated Trucks | 0\% | 0\% | 0\% | 0\% | 0\% |
|  | Buses and Single-Unit Trucks | 0 | 0 | 0 | 0 | 0 |
|  | \% Buses and Single-Unit Trucks | 0\% | 0\% | 0\% | 0\% | 0\% |
|  | Bicycles on Road | 0 | 0 | 0 | 0 | 0 |
|  | \% Bicycles on Road | 0\% | $0 \%$ | 0\% | 0\% | 0\% |

*T: Thru

Driveway 2 - 2 lanes - ATR
Sat Feb 25, 2023
Full Length (10 AM-3 PM)
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Bicycles on Road)
All Channels
ID: 1042329, Location: 41.876335, -87.672996

Provided by: Gewalt Hamilton Associates Inc. 625 Forest Edge Drive, Vernon Hills, IL, 60061, US

| Out: 4 | Total: 5 |
| :---: | :---: |
|  | S 1 |

Driveway 2-2 lanes - ATR
Sat Feb 25, 2023
Midday Peak (WKND) (12:45 PM - 1:45 PM) - Overall Peak Hour All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Bicycles on Road)
All Channels
Provided by: Gewalt Hamilton Associates Inc. 625 Forest Edge Drive, Vernon Hills, IL, 60061, US

ID: 1042329, Location: 41.876335, -87.672996

| Leg <br> Direction |  | South <br> Northbound |  | North <br> Southbound |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Time |  | T | App | T | Арp | Int |
|  | 2023-02-25 12.45PM | 0 | 0 | 2 | 2 | 2 |
|  | 1.00 PM | 0 | 0 | 0 | 0 | 0 |
|  | $1 \cdot 15 \mathrm{PM}$ | 0 | 0 | 1 | 1 | 1 |
|  | 130 PM | 0 | 0 | 0 | 0 | 0 |
|  | Total | 0 | 0 | 3 | 3 | 3 |
|  | \% Approach | 0\% | - | 100\% | - | - |
|  | \% Total | 0\% | 0\% | 100\% | 100\% | - |
|  | PHF | . - | - | 0.375 | 0.375 | 0.375 |
|  | I.ights | 0 | 0 | 3 | 3 | 3 |
|  | \% Lights | 0\% | - | 100\% | 100\% | 100\% |
|  | Arriculated Trucks | 0 | 0 | 0 | 0 | 0 |
|  | \% Articulated Trucks | 0\% | - | 0\% | 0\% | 0\% |
|  | Buses and Single-Unit Trucks | 0 | 0 | 0 | 0 | 0 |
|  | \% Buses and Single-Unit Trucks | 0\% | - | 0\% | 0\% | 0\% |
|  | Bicycles on Road | 0 | 0 | 0 | 0 | 0 |
|  | \% Bicycles on Road | 0\% | - | 0\% | 0\% | 0\% |

[^43]Midday Peak (WKND) (12:45 PM - 1:45 PM) - Overall Peak Hour All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Bicycles on Road)
All Channels
ID: 1042329, Location: 41.876335, -87.672996


Driveway 2-2 lanes - ATR
Sat Feb 25, 2023
PM Peak (WKND) (1:15 PM - 2:15 PM)
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Bicycles on Road)

Provided by: Gewalt Hamilton Associates Inc.
All Channels 625 Forest Edge Drive, Vernon Hills, IL, 60061, US

ID: 1042329, Location: 41.876335, -87.672996

| Leg <br> Direction |  | South <br> Northbound |  | North <br> Southbound |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Time |  | T | App | T | $\wedge p p$ | Int |
|  | 2023-02-25 1:15PM | 0 | 0 | 1 | 1 | 1 |
|  | 130 PM | 0 | 0 | 0 | 0 | 0 |
|  | 1:45PM | 0 | 0 | 0 | 0 | 0 |
|  | 2.00PM | 0 | 0 | 1 | 1 | 1 |
|  | Total | 0 | 0 | 2 | 2 | 2 |
|  | \% Approach | 0\% | - | 100\% | - | - |
|  | \% Total | 0\% | 0\% | 100\% | 100\% | - |
|  | PHF | - | - | 0.500 | 0.500 | 0.500 |
|  | Lights | 0 | 0 | 2 | 2 | 2 |
|  | \% Lights | 0\% | - | 100\% | 100\% | 100\% |
|  | Articulated Trucks | 0 | 0 | 0 | 0 | 0 |
|  | \% Articulated Trucks | 0\% | - | 0\% | 0\% | 0\% |
|  | Buses and Single-Unit Trucks | 0 | 0 | 0 | 0 | 0 |
|  | \% Buses and Single-Unit Trucks | 0\% | - | 0\% | 0\% | 0\% |
|  | Bicycles on Road | 0 | 0 | 0 | 0 | 0 |
|  | \% Bicycles on Road | 0\% | - | 0\% | 0\% | 0\% |

[^44]ID: 1.042329, L.ocation: 41.876335, -87.672996


Provided by: Gewalt Hamilton Associates Inc. 625 Forest Edge Drive, Vernon Hills, IL, 60061, US

| Out: 2 | Total: $2^{\text {In }} 0$ |
| :---: | :---: |
|  |  |

Thu Feb 23, 2023
Full Length (4 PM-7:30 PM)
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements

Provided by: Gewalt Hamilton Associates Inc. 625 Forest Edge Drive, Vernon Hills, IL, 6006.1, US

ID: 1042310, Location: 41.876245, -87.672309

| Leg <br> Drection | Van Buren Fastbound |  | Van Buren Westbound |  |  |  |  | Ogden <br> Northbound |  |  |  |  |  | Ogden <br> Southbound |  |  |  |  |  | Int |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Time | R T L U | App pedx | R | T | 1 U | App | $\mathrm{p}_{4} \cdot{ }^{+}$ | 8 | T | L | U | App | Ped* | R | ' | L | U | App | P $\mathrm{cd}^{\text {m }}$ |  |
| 2023-02-23 4.00PM | $\begin{array}{llll}0 & 0 & 0 & 0\end{array}$ | $0 \quad i$ | 11 | 144 | 420 | 197 |  | 0 | 170 | 5 | 0 | 175 | 11 | 58 | 240 | 0 | 0 | 298 | 3 | 670 |
| 4:15PM | $\begin{array}{llll}0 & 0 & 0 & 0\end{array}$ | 0 0 | 9 | 131 | 39 0 | 179 | 6 | 0 | 185 | 11 | 0 | 196 | 0 | 71 | 200 | 0 | 0 | 271 | 1 | 646 |
| 430 PM | 0 | 0 | 14 | 173 | 370 | 224 | 13 | 2 | 190 | 4 | 0 | 196 | 1 | 86 | 195 | 0 | 0 | 281 | 5 | 701 |
| 4 45PM | 0 0 0000 | 0 | 14 | 165 | 40 0 | 219 | 7 | 0 | 189 | 7 | 0 | 196 | 1 | 56 | 256 | 0 | 0 | 312 | 4 | 727 |
| Hourly Total | $0 \begin{array}{llll}0 & 0 & 0 & 0\end{array}$ | $0 \quad 12$ | 48 | 613 | 1580 | 819 | 33 | 2 | 734 | 27 | 0 | 763 | 2 | 271 | 891 | 0 | 0 | 1.162 | 13 | 2744 |
| 5:00PM | $\begin{array}{llll}0 & 0 & 0 & 0\end{array}$ | $0 \quad \mathrm{G}$ | 10 | 162 | 270 | 199 | 11 | 0 | 191 | 3 | 0 | 194 | 1 | 65 | 238 | 0 | 0 | 303 | 6 | 696 |
| 5:15PM | 100 | 2 | 8 | 119 | 270 | 154 | 4 | 0 | 189 | 3 | 0 | 192 | 0 | 59 | 197 | 0 | 0 | 256 | 1 | 603 |
| 5:30PM | $\begin{array}{llll}0 & 0 & 0 & 0\end{array}$ | 0 | 11 | 139 | 370 | 187 | 5 | 0 | 139 | 5 | 0 | 144 | 1 | 57 | 212 | 0 | 0 | 269 | 3 | 600 |
| 5:45PM | 10000 | 1 1 | 9 | 124 | $40 \quad 0$ | 173 | 3 | 0 | 150 | 6 | 0 | 156 | 0 | 5 | 234 | 0 | 0 | 289 | 2 | 619 |
| Hourly Total | $\begin{array}{llll}2 & 0 & 0 & 0\end{array}$ | 211 | 38 | 544 | 1310 | 713 | 23 | 0 | 669 | 17 | 0 | 686 | 2 | 236 | 881 | 0 | 0 | 1117 | 12 | 2518 |
| 600 PM | $\begin{array}{llll}0 & 0 & 0 & 0\end{array}$ | $0 \quad 2$ | 6 | 120 | 40 0 | 166 | 6 | 0 | 119 | 5 | 0 | 124 | 1 | 33 | 212 | 0 | 0 | 245 | 2 | 5.35 |
| 6 15PM | $\begin{array}{llll}0 & 0 & 0 & 0\end{array}$ | 0 | 6 | 50 | 250 | 81 | 4 | 0 | 118 | 4 | 0 | 122 | 0 | 50 | 173 | 0 | 0 | 223 | 1 | 426 |
| 630 PM | $0 \begin{array}{llll}0 & 0 & 0 & 0\end{array}$ | 0 | 3 | 25 | 260 | 54 | $1)$ | 0 | 102 | 3 | 0 | 105 | 0 | 44 | 130 | 0 | 0 | 174 | 1 | 333 |
| 6.45 PM | 0 0 0 0 0 | 0 | 2 | 14 | 17 0 | 33 | 3 | 0 | 72 | 3 | 0 | 75 | 0 | 44 | 115 | 0 | 0 | 159 | 0 | 267 |
| Hourly Total | 0 0-0 0 | 0 5 | 17 | 209 | 1080 | 334 | 13 | 0 | 411 | 15 | 0 | 426 | 1 | 171 | 630 | 0 | 0 |  | 4 | 1561 |
| 7:00PM | 0 0 0 0 0 0 0 | 0 | 2 | 16 | 70 | 2.5 | 4 | 0 | 62 | 4 | 0 | 66 | 11 | 46 | 76 | 0 | 0 | 122 | 1 | 213 |
| 7:15PM | $\begin{array}{llll}0 & 0 & 0 & 0\end{array}$ | 0 - | 2 | 16 | 70 | 25 | 4 | 0 | 66 | 6 | 0 | 72 | 11 | 38 | 69 | 0 | 0 | 107 | 1 | 204 |
| Hourly Total | $\begin{array}{llll}0 & 0 & 0 & 0\end{array}$ | 0 3 | 4 | 32 | 140 | 50 | 8 | 0 | 128 |  | 0 | 138 | 0 | 84 | 145 | 0 | 0 | 229 | 2 | 417 |
| Total | 20000 | 231 | 107 | 1398 | 4110 | 1916 | 7 | 2 | 1942 | 69 | 0 | 2013 | 5 | 762 | 2547 | 0 | 0 | 3309 | 31 | 7240 |
| \% Approach | 101\% 0\% 0\% 0\% | - - | $56 \%$ | $730 \% 2$ | 21.5\% 0\% | - |  | 0.1\% | 96.5\% | 3.4\% 0 |  | - |  | 23.0\% | $770 \% 0$ | \% 0\% |  |  |  |  |
| \% Total | 0\% 0\% 0\% 0\% | 0\% | 15\% | 19.3\% | 5.7\% 0\% | 26.5\% | - | 0\% | 26.8\% | 1.0\% 0 | \% 2 | 27.8\% |  | 10.5\% | 35.2\% 0 | \% 0 | \% | 45.7\% |  |  |
| Lights | $\begin{array}{lllll}0 & 0 & 0 & 0\end{array}$ | 0 | 103 | 1370 | 4060 | 1879 |  | 0 | 1910 | 69 | 0 | 1979 |  | 757 | 2487 | 0 | 0 | 3244 |  | 7102 |
| \% Lights | 0\% 0\% 0\% 0\% | 0\% | 96.3\% 9 | 98.0\% | 98 8\% 0\% | 98.1\% |  | ()\%. 9 | 984\% | 100\% 0 | 0\% 9 | 98.3\% |  | $993 \%$ | 97.6\% 0 | \% 0\% | \% | 98.0\% |  | 481\% |
| Articulated Trucks | 0 0 0 0 0 | 0 | 0 | 1 | $0 \quad 0$ | 1 |  | 0 | 2 | 0 | 0 | 2 |  | 2 | 4 | 0 | 0 | 6 |  | 9 |
| \% Articulated Trucks | 0\% 0\% 0\% 0\% | 0\% | 0\% | 0.1\% | 0\% 0\% | 0.1\% |  | 0\% | 01\% | $0 \% 0$ | \% | 0.1\% |  | 0.3\% | 0.2\% 0 | \% 0\% | \% | 0.2\% |  | 0.1\% |
| Buses and Single-Unit Trucks | $\begin{array}{lllll}0 & 0 & 0 & 0\end{array}$ | 0 | 3 | 27 | 50 | 35 | - | 0 | 19 | 0 | 0 | 19 |  | 3 | 45 | 0 | 0 | 48 | - | 102 |
| \% Buses and Single-Unit Trucks | 0\% 0\% 0\% 0\% | 0\% | $28 \%$ | 1.9\% | 1.2\% 0\% | 1.8\% | - | 0\% | 1.0\% | 0\% 0 |  | 0.9\% |  | 0.4\% | 1.8\% 0 | \% 0\% |  | 1.5\% | - | 1.4\% |
| Bicycles on Road | 20000 | 2 | 1 | 0 | $0 \quad 0$ | 1 | - | 2 | 11 | 0 | 0 | 13 |  | 0 | 11 | 0 | 0 | 11 |  | 27 |
| \% Bicycles on Road | 100\% 0\% 0\% 0\% | 100\% | 0.9\% | 0\% | 0\% 0\% | 0.1\% |  | 100\% | 0.6\% | 0\% 0 |  | 0.6\% |  | 0\% | 04\% 0 | \% 0 |  | 0.3\% |  | 0.4\% |
| Pedestuias | . - - - - | 9 | - | - | - - | - | . 4 | - | - | - | - | - | . | - | - | - | - | - | 31 |  |
| \% Predestinas | - - - - | - 8.710 | - | - | - - |  | 4610 | - | - | - | - | - | 1010\% | - | - | - | - |  | 109\% |  |
| Bucycles un Crosswalk | - - - - | 4 | - | - | - | - | 3 | - | - | - | - | - | 0 | - | - | - | - | - | 0 |  |
|  | - - - | $-1290$ | - | - | - - | - | $39^{4}$ | - | - | - | - | - | $0)^{0}$ | - | - | - | $\cdot$ | - | 1 m |  |

*Pedestrians and Bicycles on Ciosswalk. L.: Left, R: Right, T: Thru, U: U-Turn

Thu Feb 23, 2023
Full Length (4 PM-7:30 PM)
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
Provided by: Gewalt Hamilton Associates Inc. 625 Forest Edge Drive, Vernon Hills, IL, 60061, US

ID: 1042310, Location: 41.876245, -87.672309


Thu Feb 23, 2023
PM Peak (4:15 PM - 5:15 PM) - Overall Peak Hour
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
'CH|A MEMAL HAMLILON
Provided by: Gewalt Hamilton Associates Inc. 625 Forest Edge Drive, Vernon Hills, IL, 60061, US

ID: 1.042310, Location: 41.876245, -87.672309

| Leg Direction | Van Buren Eastbound |  | Van Buren Westbound |  |  |  |  | Ogden <br> Northbound |  |  |  |  |  | Ogden <br> Southbound |  |  |  |  |  | Int |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Time | R T T I. U | App 「ers ${ }^{\text {a }}$ | R | T | T. U | App | Ferl | R | T | I. | U | App | red ${ }^{\text {a }}$ | R | T | L | U | Аpp | Pet ${ }^{-}$ |  |
| 2023-02-23 4:15PM | $\begin{array}{llll}0 & 0 & 0 & 0\end{array}$ | $0 \quad 0$ | 9 | 131 | 390 | 179 | 6 | 0 | 185 | 11 | 0 | 196 | 0 | 71 | 200 | 0 | 0 | 271 | 1 | 646 |
| 4:30PM | $\begin{array}{llll}0 & 0 & 0 & 0\end{array}$ | 0 | 14 | 173 | 370 | 224 | 13 | 2 | 190 | 4 | 0 | 196 | 1 | 86 | 195 | 0 | 0 | 281 | 5 | 701 |
| 4:4.5PM | 0 0 000 | 08 | 14 | 165 | $40 \quad 0$ | 219 | 7 | 0 | 189 | 7 | 0 | 196 | 1 | 56 | 256 | 0 | , | 312 | 4 | 727 |
| 5:00PM | 0 | $0 \quad 6$ | 10 | 162 | 270 | 199 | 11 | 0 | 191 | 3 | 0 | 194 | 1 | 65 | 238 | 0 | 0 | 303 | 6 | 696 |
| Total | $\begin{array}{lllll}0 & 0 & 0 & 0\end{array}$ | $0 \quad 15$ | 47 | 631 | 1430 | 821 | 37 | 2 | 755 | 25 | 0 | 782 | 3 | 278 | 889 | 0 | 0 | 1167 | 16 | 2770 |
| \% Approach | 0\% 0\% 0\% 0\% | - - | 5.7\% | 76.9\% 1 | 17.4\% 0\% | - |  | 0.3\% | 96.5\% | 32\% 0\% |  | - |  | 23.8\% | 76.2\% 0 | \% 0\% |  | - |  |  |
| \% Total | 0\% 0\% 0\% 0\% | 0\% | 1.7\% | 22.8\% | 5.2\% 0\% | 29.6\% |  | 0.1\% | 27.3\% | 0.9\% 0\% | \% 2 | 28.2\% |  | 10.0\% | 32.1\% 0 | \% 0\% | \% 4 | 42.1\% |  |  |
| PHF | - - - - | - - | 0.821 | 0.912 | 0.894 | 0.919 |  | - | 0.9840 | 0568 |  | 0.991 |  | 0.808 | 0.871 | - | - 0 | 0.937 |  | 0.951 |
| Lights | $\begin{array}{llll}0 & 0 & 0 & 0\end{array}$ | 0 | 44 | 621 | 1420 | 807 | - | 0 | 740 | 25 | 0 | 765 |  | 277 | 866 | 0 | 0 | 1143 |  | 2715 |
| \% Lights | 0\% 0\% 0\% 0\% | - - | 936\% | 98.4\% 9 | 99.3\% 0\% | 98.3\% |  | 0\% | 98.0\% | 100\% 0\% | \% 9 | 97.8\% |  | 99.6\% | 974\% 0 | \% 0\% | \% 9 | 97.9\% |  | 98.0\% |
| Articulated Trucks | $\begin{array}{lllll}0 & 0 & 0 & 0\end{array}$ | 0 | 0 | 0 | $0 \quad 0$ | 0 |  | 0 | 1 | 0 | 0 | 1 |  | 0 | 1 | 0 | 0 | 1 |  | 2 |
| \% Articulated Trucks | 0\% 0\% 0\% 0\% | - - | 0\% | 0\% | 0\% 0\% | 0\% | - | 0\% | 0.1\% | 0\% 0\% | \% | 0.1\% |  | 0\% | 0.1\% 0 | \% 0\% | \% | 0.1\% |  | 01\% |
| Buses and Single-Unit Trucks | $0 \quad 0 \quad 0 \quad 0$ | 0 | 2 | 10 | 10 | 13 | - | 0 | 7 | 0 | 0 | 7 | - | 1 | 21 | 0 | 0 | 22 |  | 42 |
| \% Buses and Single-Unit Trucks | 0\% 0\% 0\% 0\% | - - | 4.3\% | 1.6\% | 0.7\% 0\% | 1.6\% | - | 0\% | 09\% | 0\% 0\% |  | 0.9\% | - | 0.4\% | 2 4\% 0 | \% 0\% |  | 1.9\% |  | 15\% |
| Bicycles on Road | 0 0 0 0 0 | 0 | 1 | 0 | 0 | 1 | - | 2 | 7 | 0 | 0 | 9 | - | 0 | 1 | 0 | 0 | 1 |  | 11 |
| \% Bicycles on Road | 0\% 0\% 0\% 0\% | - | 2.1\% | 0\% | 0\% 0\% | 0.1\% |  | 100\% | 0.9\% | 0\% 0\% |  | 1.2\% |  | 0\% | 0.1\% 0 | \% 0\% | \% | 0.1\% |  | 0.4\% |
| Pedestricmis | - - - - | 13 | - | - | - - | - | 35 | - | - | - - | - | - | 3 | - | - | - | - | - | 16 |  |
| \%o Perdestrians | - - - | - $86.7 \%$ | - | - | - - | - | $94.6 \%$ | - | - | $\cdot$ | - |  | $100 \%$ | - | - | - | - | - | 100\% | - |
| Bacydem on Cousswalk | - | 2 | - | - | - - | - | 2 | - | - | - | - | - | $1)$ | - | - | - | - | - | 0 |  |
| Whaydes un Croswat | - - - | $-13.3{ }^{10}$ | - | - | - - | - | $5 \cdot 4^{14}$ | - | - | - | - | - | $1 \mathrm{H}^{\prime \prime}$ | - | - | - | - | - | $0{ }^{1010}$ | - |

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Ogden Avenue at Van Buren Street - TMC
Thu Feb 23, 2023
PM Peak (4:15 PM - 5:15 PM) - Overall Peak Hour
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
Provided by: Gewalt Hamilton Associates Inc. 625 Forest Edge Drive, Vernon Hills, IL, 60061, US

ID: 1042310, Location: 41.876245, -87.672309
[ N ] Ogden
Total: 1969
In: 1167 Out: 802
Out: $1032 \ln : 782$
Total: 1814
[S] Ogden

Sat Feb 25, 2023
Full Length (11 AM-2 PM)
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements

Provided by: Gewalt Hamilton Associates Inc. 625 Forest Edge Drive, Vernon Hills, IL, 60061, US

ID: 1042321, Location: 41.876245, -87.672309

*Pedestrians and Bicycles on Crosswalk. L.: Left, R: Right. T: Thru, U: U-Turn

Ogden Avenue at Van Buren Street - TMC
Sat Feb 25, 2023
Full Length (1.1 AM-2 PM)
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

## All Movements

ID: 1.042321, Location: 41.876245, -87.672309
[N] Ogden
Total: 2781
In: $1619 \quad$ Out: 1162


Out: $1128 \quad$ In: 1172
Total: 2300
[S] Ogden

Sat Feb 25, 2023
Midday Peak (WKND), PM Peak (WKND) (1 PM - 2 PM) - Overall Peak Hour
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

Provided by: Gewalt Hamilton Associates Inc. 625 Forest Edge Drive, Vernon Hills, IL, 60061, US

All Movements
ID: 1042321, Location: 41..876245, -87.672309

*Pedestrians and Bicycles on Crosswalk. I.: I.eft, R: Right. T: Thru, U: U-Turn

## [N] Ogden

Total: 1047
In: 604 Out: 443


Thu Feb 23, 2023

Provided by: Gewalt Hamilton Associates Inc.

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements

ID: 1042303, Location: 41.875003, -87.676513

| Leg <br> Direction | Congress Easthound |  |  |  |  |  | Congress Westbound |  |  |  |  |  | Damen <br> Northbound |  |  |  |  |  | Damen <br> Southbound |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Time | R | T | L |  | App | Ped ${ }^{-}$ | R | T | I. | U | App | Ped* | R | T | L U |  | App | T'ed* | R | T | 1. | U | App | Ped* | Int |
| 2023-02-23 4:00PM | 73 | 51 | 81 | 0 | 205 | 1 | 0 | 0 | 0 | 0 | 0 | 23 | 120 | 219 | 0 | 0 | 339 | 2 | 0 | 147 | 52 | 0 | 199 | 0 | 743 |
| 4:15PM | 83 | 44 | 65 | 0 | 192 | 111 | 0 | 0 | 0 | 0 | 0 | 3 | 122 | 220 | 0 | 0 | 342 | 13 | 0 | 135 | 54 | 0 | 189 | 1 | 723 |
| 4:30PM | 64 | 33 | 98 | 0 | 195 | 2 | 0 | 0 | 0 | 0 | 0 | 20 | 97 | 227 | 0 | 0 | 324 | 2 | 0 | 136 | 49 | 0 | 185 | 1 | 704 |
| 4:45PM | 86 | 31 | 91 | 0 | 208 | 6 | 0 | 0 | 0 | 0 | 0 | 7 | 92 | 225 | 0 | 0 | 317 | 2 | 0 | 143 | 41 | 0 | 184 | 2 | 709 |
| Hourly Total | 306 | 159 | 335 | 0 | 800 | 19 | 0 | 0 | 0 | 0 | 0 | 73 | 431 | 891 | 0 | 0 | 1322 | 19 | 0 | 561 | 196 | 0 | 757 | 3 | 2879 |
| 5.00PM | 58 | 33 | 65 | 0 | 156 | 3 | 0 | 0 | 0 | 0 | 0 | 17 | 123 | 235 | 0 | 0 | 358 | G | 0 | 126 | 4.9 | 0 | 175 | 1 | 689 |
| 5:15PM | 72 | 25 | 76 | 0 | 173 | 4 | 0 | 0 | 0 | 0 | 0 | 13 | 107 | 214 | 0 | 0 | 321 | 2 | 0 | 108 | 54 | 0 | 162 | 0 | 656 |
| 530 PM | 59 | 29 | 6.1 | 0 | 149 | 10 | 0 | 0 | 0 | 0 | 0 | 5 | 95 | 210 | 0 | 0 | 305 | 0 | 0 | 112 | 31 | 0 | 143 | 1 | 597 |
| 5.45PM | 42 | 37 | 64 | 0 | 143 | 2 | 0 | 0 | 0 | 0 | 0 | 8 | 89 | 175 | 0 | 0 | 264 | 4 | 0 | 117 | 31 | 0 | 148 | 1 | 555 |
| Hourly Total | 231 | 124 | 266 | 0 | 621 | 19 | 0 | 0 | 0 | 0 | 0 | 4.3 | 41.4 | 834 | 0 | 0 | 1248 | 12 | 0 | 463 | 165 | 0 | 628 | 3 | 2497 |
| 6:00PM | 45 | 17 | 58 | 0 | 120 | 1 | 0 | 0 | 0 | 0 | 0 | 4 | 87 | 146 | 0 | 0 | 233 | 1 | 0 | 85 | 35 | 0 | 120 | 0 | 473 |
| 6:15PM | 53 | 30 | 49 | 0 | 132 | 2 | 0 | 0 | 0 | 0 | 0 | 8 | 77 | 143 | 0 | 0 | 220 | 0 | 0 | 113 | 34 | 1 | 148 | 1 | 500 |
| 6:30PM | 80 | 24 | 41 | 0 | 145 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 68 | 123 | 0 | 0 | 191 | 0 | 0 | 101 | 47 | 1 | 149 | 0 | 485 |
| 6:45PM | 45 | 28 | 50 | 0 | 123 | $1)$ | 0 | 0 | 0 | 0 | 0 | 4 | 5.5 | 124 | 0 | 0 | 179 | 2 | 0 | 98 | 35 | 0 | 13.3 | 0 | 435 |
| Hourly Total | 223 | 99 | 198 | 0 | 520 | 3 | 0 | 0 | 0 | 0 | 0 | 23 | 287 | 536 | 0 | 0 | 823 | 3 | 0 | 397 | 151 | 2 | 550 | 1 | 1893 |
| 7 00PM | 47 | 21 | 51 | 0 | 119 | 7 | 0 | 0 | 0 | 0 | 0 | 7 | 61 | 100 | 0 | 0 | 161 | 4 | 0 | 66 | 29 | 0 | 95 | ก | 375 |
| 7.15 PM | 49 | 17. | 45 | 0 | 111 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 64 | 108 | 0 | 0 | 172 | 0 | 0 | 60 | 24 | 0 | 84 | - | 367 |
| Hourly Total | 96 | 38 | 96 | 0 | 230 | 7 | 0 | 0 | 0 | 0 | 0 | 11 | 125 | 208 | 0 | 0 | 333 | 4 | 0 | 126 | 53 | 0 | 179 | 7 | 742 |
| Total | 856 | 420 | 8.95 | 0 | 21.71 | 45 | 0 | 0 | 0 | 0 | 0 | 150 | 1.257 | 2469 | 0 | 0 | 3726 | 38 | 0 | 1547 | 565 | 2 | 2114 | 14 | 8011 |
| \% Approach | 39.4\% | 19.3\% | 41.2\% 0 |  | - |  | 0\% | 0\% 0 | 0\% 0 |  | - |  | 33.7\% 6 | 66.3\% 0 | 0\% 0\% |  | - | - | 0\% | 73.2\% 2 | 26.7\% | 0.1\% | - |  |  |
| \% Total | 10.7\% | 5.2\% | $112 \% 0$ | 0\% | 27.1\% |  | 0\% | 0\% 0 | 0\% 0 | 0\% | 0\% |  | 15.7\% | 30.8\% 0 | 0\% 0\% | \% 4 | 46.5\% |  | 0\% | 193\% | 7.1\% | 0\% | 26.4\% |  |  |
| Lights | 838 | 418 | 889 | 0 | 2145 |  | 0 | 0 | 0 | 0 | 0 |  | 1240 | 2402 | 0 | 0 | 3642 |  | 0 | 1499 | 560 | 2 | 2061 |  | 7848 |
| \% Lights | 979\% | 99.5\% | 493\% | 0\% | 98.8\% |  | 0\% | 0\% 0 | 0\% 0 |  | - |  | 98.6\% 9 | 97 3\% 0 | 0\% 0\% | \% 9 | 97.7\% |  | 0\% | 96 9\% 9 | 99.1\% | 100\% | 97.5\% |  | 98.0\% |
| Articulated Trucks | 1 | 0 | 0 | 0 | 1 |  | 0 | 0 | 0 | 0 | 0 | - | 1 | 1 | 0 | 0 | 2 |  | 0 | 3 | 0 | 0 | 3 |  | 6 |
| \% Articulated Trucks | 0.1\% | 0\% | 0\% 0 |  | 0\% |  | 0\% | 0\% 0 | 0\% 0 |  | - |  | 0.1\% | 0\% 0 | 0\% 0\% |  | 0.1\% |  | 0\% | 0.2\% | 0\% | 0\% | 0.1\% |  | 0.1\% |
| Buses and Single-Unit Trucks | 17 | 2 | 6 | 0 | 25 |  | 0 | 0 | 0 | 0 | 0 | - | 16 | 37. | 0 | 0 | 53 |  | 0 | 40 | 5 | 0 | 45 | - | 123 |
| \% Buses and Single-Unit Trucks | 2.0\% | 0.5\% | 0.7\% 0 |  | 1.2\% |  | 0\% | 0\% 0 | 0\% 0 |  | - | - | 13\% | 1.5\% 0 | 0\% 0\% |  | 1.4\% | - | 0\% | 2.6\% | 0.9\% | 0\% | 2.1\% | - | 1.5\% |
| Bicycles on Road | 0 | 0 | 0 | 0 | 0 |  | 0 | 0 | 0 | 0 | 0 |  | 0 | 29 | 0 | 0 | 29 |  | 0 | 5 | 0 | 0 | 5 |  | 34 |
| \% Bicycles on Road | 0\% | 0\% | 0\% 0 |  | 0\% |  | 0\% | 0\% 0 | 0\% 0 |  | - |  | 0\% | 1.2\% 0 | 0\% 0\% |  | 0.8\% |  | 0\% | 0.3\% | 0\% | 0\% | 0.2\% |  | 0.4\% |
| Pedestilans | - | - | - | - | - | 47 | - | - | - | - | - | 150 | - | - | - | - | - | 38 | - | - | - | - | - | 14 |  |
| Ot, Pedestrians | - | - | - | - | - | 979\% | - | - | - | - | - | 100\% | - | - | - | - | - | $100 \%$ | - | - | - | - |  | 100\% | - |
| Brycles on Cinsswalk | - | - | - | - | - | 1 | - | - | - | - | - |  | - | - | - | - | - | 0 | - | - | - | - | $\cdot$ | 0 |  |
| U, Bicycles on Ciosswalk | - | - | - | - | - | 210 | - | - | - | - | - | $0{ }^{10}$ | - | - | - | - | - | $0{ }^{10}$ | - | - | - | - | - | $0{ }^{\prime \prime}$ | - |

[^45]
## Damen Avenue at Congress Parkway - TMC

Thu Feb 23, 2023
Full Length (4 PM-7:30 PM)
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

Provided by: Gewalt Hamilton Associates Inc. 625 Forest Edge Drive, Vernon Hills, IL, 60061, US All Movements
ID: 1042303, Location: 41.875003, -87.676513


Out: 2403 In: 3726
Total: 6129
[S] Damen

Thu Feb 23, 2023
PM Peak (4 PM - 5 PM) - Overall Peak Hour
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Perlestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements

Provided by: Gewalt Hamilton Associates Inc. 625 Forest Edge Drive, Vernon Hills, IL, 60061, US

ID: 1042303, Location: 41.875003, -87.676513

| Leg <br> Direction | Congress Eastbound |  |  |  | Congress Westbound |  |  |  |  |  | Damen <br> Vorthbound |  |  |  |  |  | Damen Southbound |  |  |  |  |  | Int |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Time | R T | L U | App | Ped* | R | T |  | U A |  | Ped* | R | T | I. U | U | App | F'ed* | R | T | L. | U | App | Pcı* |  |
| 2023-02-23 4.00PM | 7351 | 810 | 205 | 1 | 0 | 0 | 0 | 0 | 0 |  | 120 | 2.19 | 0 | 0 | 339 | 2 | 0 | 147 | 52 | 0 | 199 | 0 | 743 |
| 415 PM | 8344 | 650 | 192 | 10 | 0 | 0 | 0 | 0 | 0 | 3 | 122 | 220 | 0 | 0 | 342 | 13 | 0 | 135 | 54 | 0 | 189 | 10 | 723 |
| 4.30 PM | 64 33 | 980 | 195 | 2 | 0 | 0 |  | 0 | 0 |  | 97 | 227 | 0 | 0 | 324 | 2 | 0 | 136 | 49 | 0 | 185 | 1 | 704 |
| 4:45PM | $86 \quad 31$ | 910 | 208 | (i) | 0 | 0 | 0 | 0 | 0 | 7 | 92 | 225 | 0 | 0 | 317 | 2 | 0 | 143 | 41 | 0 | 184 | 2 | 709 |
| Total | 306159 | 3350 | 800 | $1!1$ | 0 | 0 | 0 | 0 | 0 | 3 | 431 | 891 | 0 | 0 | 1322 | 19 | 0 | 561 | 196 | 0 | 757 | 3 | 2879 |
| \% Approach | 38.3\% 19 9\% | 41.9\% 0\% | - |  | 0\% | 0\% 0 | 0\% 0\% |  | - |  | 32.6\% | 67.4\% 0 | 0\% 0\% |  | - |  | 0\% | 74.1\% 2 | 25.9\% 0\% |  | - |  |  |
| \% Total | 106\% 5.5\% | 11.6\% 0\% | 27.8\% | - | 0\% | 0\% 0 | 0\% 0\% | \% | 0\% |  | 15.0\% | 30.9\% 0 | 0\% 0\% | \% 45 | 45.9\% |  | 0\% | 19 5\% | 6.8\% 0\% | \% 2 | 26.3\% |  |  |
| PHF | $0.890 \quad 0.779$ | 0.855 | 0.962 |  | - | - | - | - | - |  | 0.883 | 0.988 | - | - 0 | 0.962 |  |  | 0.949 | 0.907 | -0 | 0.947 |  | 0.968 |
| I.ights | 298157 | 3340 | 789 |  | 0 | 0 | 0 | 0 | 0 |  | 424 | 870 | 0 | 0 | 1294 |  | 0 | 540 | 195 | 0 | 735 |  | 2818 |
| \% Lights | 97.4\% 98.7\% | 99.7\% 0\% | 98.6\% |  | 0\% | 0\% 0 | 0\% 0\% |  | - |  | 98.4\% | 97.6\% 0 | 0\% 0\% | \% 97 | 97.9\% |  | 0\% | 96.3\% 9 | 99.5\% 0\% | \% 9 | 77.1\% |  | 97.9\% |
| Ariculated Trucks | $0 \quad 0$ | $0 \quad 0$ | 0 |  | 0 | 0 | 0 | 0 | 0 |  | 0 | 1 | 0 | 0 | 1 |  | 0 | 1 | 0 | 0 | 1 |  | 2 |
| \% Articulated Trucks | 0\% 0\% | 0\% 0\% | 0\% |  | 0\% | 0\% 0 | 0\% 0\% |  | - | - | 0\% | 0.1\% 0 | 0\% 0\% | \% | 0.1\% |  | 0\% | 02\% | 0\% 0\% | \% | 0.1\% |  | 0.1\% |
| Buses and Single-Unit Trucks | $8 \quad 2$ | 10 | 11 | - | 0 | 0 | 0 | 0 | 0 | - | 7 | 14 | 0 | 0 | 2.1 |  | 0 | 17 | 1 | 0 | 18 | - | 50 |
| \% Buses and Single-Unit Trucks | 2.6\% 13\% | 03\% 0\% | 1.4\% | - |  | 0\% 0 | 0\% 0\% |  | - |  | 1.6\% | 1.6\% 0 | 0\% 0\% |  | 1.6\% |  | 0\% | 3.0\% | 0.5\% 0\% |  | 2.4\% |  | 1.7\% |
| Bicycles on Road | $0 \quad 0$ | $0 \quad 0$ | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 6 | 0 | 0 | 6 |  | 0 | 3 | 0 | 0 | 3 |  | 9 |
| \% Bicycles on Road | 0\% 0\% | 0\% 0\% | 0\% | - | 0\% | 0\% 0 | \% 0\% | \% | - | - | 0\% | 0.7\% 0 | 0\% 0\% | \% | 0.5\% |  | 0\% | 0.5\% | 0\% 0\% |  | 0.4\% |  | 0.3\% |
| Pedestrans | - - | - - | - | 19 | - | - | - | - | - | 73 | - | - | - | - | - | 19 | - | - | - | - | - | 3 |  |
| "o Pedesirtans | - - | - - | - | $100{ }^{\circ}$ | - | - | - | - | - | 100\% | - | - | - | - | - | 100\% | - | - | - | - | - | 100\% |  |
| Bie retes on Ciosswalk | - - | - - | - |  | - | - | - | - | - | 0 | - | - | - | - | - | 0 | - | - | - | - | - | 0 |  |
| \%i, Bicyctes on Crushalk | - - | - - | - | $0 \%$ | - | - | - | - | - |  | - | - | - | - | - | 0 | - | - | - | - | - | 0 |  |

[^46]
## Damen Avenue at Congress Parkway - TMC

Thu Feb 23, 2023
PM Peak (4 PM - 5 PM) - Overall Peak Hour
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US
ID: 1042303, Location: 41.875003, -87.676513


Out: 867
In: 1322
Total: 2189
[S] Damen

## Damen Avenue at Congress Parkway - TMC

Sat Feb 25, 2023
Full Length (11 AM-2 PM)
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements

Provided by: Gewalt Hamilton Associates Inc. 625 Forest Edge Drive, Vernon Hills, IL, 60061, US

ID: 1042314, Location: 41.875003, -87.676513

| l.eg <br> Direction | Congress <br> Eastbound |  |  |  |  |  | Congress Westbound |  |  |  |  |  | Damen <br> Northbound |  |  |  |  |  | Damen <br> Soubbound |  |  |  |  | Int |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Tıme | R | T | L. U | U | App | Pert* | R | T | L |  | App | Perd ${ }^{\text {a }}$ | R | T | I. | U | App | Porl* | R | T | L U |  | I'ed* |  |
| 2023-02-25 11:00AM | 59 | 16 | 32 | 0 | 107 | 2 | 0 | 0 | 0 | 0 | 0 | 3 | 40 | 96 | 0 | 0 | 136 | 0 | 0 | 91 | 290 | 120 | 0 | 363 |
| 11:15AM | 46 | 25 | 57 | 0 | 128 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 29 | 101 | 0 | 0 | 130 | 1 | 0 | 66 | 480 | 114 | 1 | 372 |
| 11:30AM | 32 | 21 | 47 | 0 | 100 | 1 | 0 | 0 | 0 | 0 | 0 | 3 | 40 | 114 | 0 | 0 | 1.54 | 1 | 0 | 100 | 390 | 139 | 0 | 393 |
| 11:45AM | 62 | 24 | 69 | 0 | 155 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 45 | 126 | 0 | 0 | 171 | $(1)$ | 0 | 106 | 340 | 140 | 0 | 466 |
| Hourly Total | 199 | 86 | 205 | 0 | 490 | 6 | 0 | 0 | 0 | 0 | 0 | 9 | 154 | 437 | 0 | 0 | 591 | 2 | 0 | 36.3 | $150 \quad 0$ | 51.3 | 1 | 15.94 |
| 12.00PM | 41 | 20 | 60 | D | 121 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 52 | 112 | 0 | 0 | 164 | $1)$ | 0 | 79 | 430 | 122 | 0 | 407 |
| 12 15PM | 45 | 26 | 58 | 0 | 129 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 43 | 100 | 0 | 0 | 143 | 2 | 0 | 85 | 320 | 117 | 0 | 389 |
| 12:30PM | 57 | 31 | 53 | 0 | 141 | 11 | 0 | ) | 0 | 0 | 0 | 2 | 33 | 123 | 0 | 0 | 156 | 0 | 0 | 82 | 320 | 114 | 0 | 411 |
| 12:45PM | 50 | 10 | 54 | 0 | 114 | 2 | 0 | 0 | 0 | 0 | 0 | 3 | 33 | 1.47 | 0 | 0 | 180 | 0 | 0 | 93 | 370 | 130 | 0 | 424 |
| Hourly Total | 193 | 87 | 225 | 0 | 505 | G | 0 | 0 | 0 | 0 | 0 | 5 | 161 | 482 | 0 | 0 | 643 | 2 | 0 | 339 | 1440 | 483 | 0 | 1631 |
| 1:00PM | 59 | 17 | 63 | 0 | 139 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 54 | 131 | 0 | 0 | 185 | 1 | 0 | 82 | 490 | 131 | 0 | 455 |
| 1.15 PM | 52 | 21 | 31 | 0 | 104 | $\stackrel{-}{2}$ | 0 | 0 | 0 | 0 | 0 | 5 | 49 | 130 | 0 | 0 | 179 | 1 | 0 | 85 | 450 | 130 | 1 | 4.13 |
| 130 PM | 31 | 19 | 61 | 0 | 111 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 43 | 119 | 0 | 0 | 162 | 0 | 0 | 88 | 360 | 124 | 0 | 397 |
| 1:45PM | 46 | 15 | 52 | 0 | 113 | 2 | 0 | 0 | 0 | 0 | 0 | 6 | 45 | 135 | 0 | 0 | 180 | 0 | 0 | 71 | 540 | 125 | 0 | 418 |
| Hourly Total | 188 | 72 | 207 | 0 | 467 | 6 | 0 | 0 | 0 | 0 | 0 | 14 | 191 | 515 | 0 | 0 | 706 | 2 | 0 | 326 | 1840 | 510 | 1 | 1683 |
| Total | 580 | 245 | 637 | 0 | 1462 | 18 | 0 | 0 | 0 | 0 | 0 | 28 | 506 | 1434 | 0 | 0 | 1940 | 6 | 0 | 1028 | 4780 | 1506 | $\stackrel{1}{ }$ | 4908 |
| \% Approach | 39.7\% | 16.8\% | 436\% 0\% |  | - |  | 0\% | 0\% | 0\% 0 |  | - |  | 26.1\% | 73.9\% 0 | 0\% 0 |  | - |  | 0\% | 68.3\% 3 | 31.7\% 0\% | - |  |  |
| \% Total | 11.8\% | 5.0\% | 13.0\% 0\% | \% 2 | 29.8\% |  | 0\% | 0\% | 0\% 0 | 0\% | 0\% |  | $103 \%$ | 29 2\% 0 | 0\% 0 | \% | 39.5\% |  | 0\% | 20 9\% | 9.7\% 0\% | 30.7\% |  |  |
| Lights | 565 | 241 | 62.9 | 0 | 1435 |  | 0 | 0 | 0 | 0 | 0 |  | 496 | 1383 | 0 | 0 | 1879 |  | 0 | 987 | 4740 | 1461 |  | 4775 |
| \% Lights | 97.4\% | 98.4\% 9 | 98.7\% 0\% | \% 9 | 98.2\% | - | 0\% | 0\% | 0\% 0 |  | - |  | 98.0\% | $964 \% 0$ | 0\% 0 | \% | 96.9\% |  | 0\% | 960\% | 99.2\% 0\% | 97.0\% |  | 97.3\% |
| Ariculated Trucks | 0 | 0 | 10 | 0 | 1 |  | 0 | 0 | 0 | 0 | 0 | - | 0 | 4 | 0 | 0 | 4 |  | 0 | 1 | $0 \quad 0$ | 1 |  | 6 |
| \% Articulated Trucks | 0\% | 0\% | 0.2\% 0\% | \% | 0.1\% |  | 0\% | 0\% | 0\% 0 |  | - | - | 0\% | 0.3\% | 0\% 0 |  | 0.2\% |  | 0\% | 0.1\% | 0\% 0\% | 0.1\% |  | $01 \%$ |
| Buses and Single-Unit Trucks | 15 | 4 | 7 | 0 | 26 | - | 0 | 0 | 0 | 0 | 0 | - | 10 | 44 | 0 | 0 | 54 | - | 0 | 38 | 40 | 42 |  | 122 |
| \% Buses and Single-Unit Trucks | 2.6\% | 1.6\% | 1.1\% 0\% |  | 1.8\% |  |  | 0\% | 0\% 0\% |  | - | - | 2.0\% | 3.1\% | $0 \% 0$ |  | 2.8\% |  | 0\% | 37\% | 08\% 0\% | 2.8\% |  | 2.5\% |
| Bicycles on Road | 0 | 0 | 0 | 0 | 0 |  | 0 | 0 | 0 | 0 | 0 | - | 0 | 3 | 0 | 0 | 3 |  | 0 | 2 | 0 | 2 |  | 5 |
| \% Bicycles on Road | 0\% | 0\% | 0\% 0\% |  | 0\% |  | 0\% | 0\% | 0\% 0 |  | - | - | 0\% | 0.2\% | 0\% 0 |  | 0.2\% |  | 0\% | 0.2\% | 0\% 0\% | 0.1\% |  | $01 \%$ |
| Pedestrians | - | - | - | - | - | 18 | - | - | - | - | - | $\underline{76}$ | - | - | - | - | - | 5 | - | - | - - |  | 2 |  |
| Yis Pedestriams | - | - | - | - | - | $100{ }^{\circ}$ | - | - | - | - | - | 92.140 | - | - | $\bullet$ | - |  | 83.340 | - | - | - |  | 1010 |  |
| Bucycles on Crosswalk | - | - | - | - | - | 0 | - | - | - | - | - | 2 | - | - | - | - | - | 1 | - | - | - - | - | 0 |  |
| $\because$ Bryythe on Crosewalk | - | - | - |  | - | $0^{4}$ | - | - | - | - | - | - 1\% | - | - | - | - |  | 16.0.in | - | - | - | - | 19:19 |  |

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right. T: Thru, U: U-Turn

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk) All Movements
ID: 1042314, Location: 41.875003, -87.676513

Provided by: Gewalt Hamilton Associates Inc. 625 Forest Edge Drive, Vernon Hills, IL, 60061, US


Out: 1608 In: 1940
Total: 3548
[S] Damen

## Damen Avenue at Congress Parkway - TMC

Sat Feb 25, 2023
Midday Peak (WKND) (12:30 PM - 1:30 PM) - Overall Peak Hour
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements

CH|AGMALHALION
Provided by: Gewalt Hamilton Associates Inc. 625 Forest Edge Drive, Vernon Hills, IL, 60061, US

ID: 1042314, Location: 41.875003, -87.676513

| Leg <br> Direction | Congress <br> Easthound |  |  |  | Congress <br> Westhound |  |  |  |  |  | Damen <br> Northbound |  |  |  |  |  | Damen <br> Southbound |  |  |  |  |  | Int |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Time | R T | L. U | App | Ped* |  | T | I. U |  |  | Pete ${ }^{-}$ | R | T | I. U |  | App | rod* | R | 7 |  | U | App | Ped* |  |
| 2023-02-25.12:30PM | 57.31 | 530 | 141 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 33 | 123 | 0 | 0 | 156 | 0 | 0 | 82 | 32 | 0 | 114 | 0 | 411 |
| 12.45PM | $50 \quad 10$ | 540 | 114 | 2 | 0 | 0 | 0 | 0 | 0 | 3 | 33 | 147 | 0 | 0 |  | 0 | 0 | 93 | 37 | 0 | 130 | 0 | 424 |
| 1:00PM | 5.917 | 630 | 139 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 54 | 131 | 0 | 0 | 185 | 1 | 0 | 82 | 49 | 0 | 131 | 0 | 4.55 |
| 1:15PM | 5221 | 310 | 104 | 2 | 0 | 0 | 0 | 0 | 0 | 5 | 49 | 130 | 0 | 0 | 179 | 1 | 0 | 85 | 45 | 0 | 130 | 1 | 413 |
| Total | $218 \quad 79$ | 2010 | 498 | $-$ | 0 | 0 | 0 | 0 | 0 | 1-1 | 169 | 531 | 0 | 0 | 700 | $?$ | 0 | 342 | 163 | 0 | 505 | 1 | 1703 |
| \% Approach | 43.8\% 15.9\% | 40.4\% 0\% | - | $-1$ | 0\% 0 | 0\% 0 | 0\% 0\% |  | - |  | 24.1\% | 75.9\% 0 | 0\% 0\% |  |  |  | 0\% | 67.7\% 3 | 32.3\% 0 |  | - |  |  |
| \% Total | 12.8\% 4.6\% | 11.8\% 0\% | 29.2\% |  | 0\% 0 | 0\% 0 | 0\% 0\% | \% | 0\% |  | 9.9\% | 31.2\% 0 | 0\% 0\% | \% 4 | 41.1\% |  | 0\% | 201\% | $96 \% 0$ | \% | 29.7\% |  |  |
| PHF | $0.924 \quad 0.637$ | 0.798 | 0.883 |  | - | - | - |  | - |  | 0.782 | 0.908 | - |  | 0.945 |  |  | 0919 | 0832 | - | 0.964 |  | 0.935 |
| I.ights | 21.378 | 2010 | 492 | - | 0 | 0 | 0 | 0 | 0 |  | 167 | 5.17 | 0 | 0 | 684 |  | 0 | 328 | 162 | 0 | 490 |  | 1666 |
| \% Lights | 97.7\% 98.7\% | 100\% 0\% | 98.8\% |  | 0\% 0 | 0\% 0 | 0\% 0\% |  | - |  | 98.8\% | 97.4\% 0 | 0\% 0\% | \% 9 | 97.7\% |  | 0\% 9 | 95.9\% 9 | 99 4\% 0 | \% | 7.0\% |  | 97.8\% |
| Articulated Trucks | 0 | $0 \quad 0$ | 0 |  | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 |  | 0 | 0 | 0 | 0 | 0 |  | 0 |
| \% Ariculated Trucks | 0\% 0\% | 0\% 0\% | 0\% |  | 0\% 0 | 0\% 0 | 0\% 0\% |  | - |  | 0\% | 0\% 0 | 0\% 0\% |  | 0\% |  | 0\% | 0\% | 0\% 0 |  | 0\% |  | 0\% |
| Buses and Single-Unit Trucks | $5 \quad 1$ | $0 \quad 0$ | 6 |  | 0 | 0 | 0 | 0 | 0 | - | 2 | 13 | 0 | 0 | 15 |  | 0 | 14 | 1 | 0 | 15 | - | 36 |
| \% Buses and Single-Unit Trucks | 2.3\% 1.3\% | 0\% 0\% | 1.2\% |  | $0 \% 0$ | 0\% 0 | 0\% 0\% |  | - | - | 1.2\% | 2.4\% 0 | 0\% 0\% |  | 2.1\% |  | 0\% | 41\% | $06 \% 0$ |  | 3.0\% | - | 2.1\% |
| Bicycles on Road | 0 | $0 \quad 0$ | 0 |  | 0 | 0 | 0 | 0 | 0 | - | 0 | 1 | 0 | 0 | 1 |  | 0 | 0 | 0 | 0 | 0 |  | 1 |
| \% Bicycles on Road | 0\% 0\% | 0\% 0\% | 0\% |  | 0\% 0 | 0\% 0 | 0\% 0\% |  | - | - | 0\% | 0.2\% 0 | 0\% 0\% |  | 0.1\% |  | 0\% | 0\% | 0\% 0 |  | 0\% |  | $01 \%$ |
| Pedesmans | - - | - - |  | 5 | - | - | - | - | - | 11 | - | - | - | - | - | 2 | - | - | - | - | - | 1 |  |
| \%io Fedestians | - - | - - | - | 100\% | - | - | - | - | - | 41.74 | - | - | - | - |  | 100\% | - | - | - | - |  | $100 \%$ |  |
| Ricycles on Conswialk | - - | - | - |  |  | - | - | - | - | 1 | - | - | - | - | - | 1 | - | - | - | - | - | 0 |  |
| "í Bracles on Crosswalk | - - | - - | - | 0\% |  | - | - | - | - | $8.3 \%$ | - | - | - | - | - | 0 | - | - | - | - | - | 0\%\% |  |

[^47]Damen Avenue at Congress Parkway - TMC
Sat Feb 25, 2023
Midday Peak (WKND) (12:30 PM - 1:30 PM) - Overall Peak Hour All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

Provided by: Gewalt Hamilton Associates Inc. 625 Forest Edge Drive, Vernon Hills, IL, 60061, US All Movements
ID: 1042314, Location: 41.875003, -87.676513
[N] Damen
Total: 1237
In: 505
Out: 732


Out: 560
In: 700
Total: 1260
[S] Damen

Sat Feb 25, 2023
PM Peak (WKND) (1 PM - 2 PM)
All Classes (Lights. Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements

CHMAMAMAL HAMLIDN
Provided by: Gewalt Hamilton Associates Inc. 625 Forest Edge Drive, Vernon Hills, IL, 60061, US

ID: 104231.4, Location: 41.875003, -87.676513

| Leg <br> Direction | Congress <br> Easibound |  |  |  |  |  | Congress Westbound |  |  |  |  |  | Damen <br> Northbound |  |  |  |  |  | Damen <br> Southbound |  |  |  |  |  | Int |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Time | R | T | L. U | U | App | Ped* | R | T | 1. |  | App | Ped* | R | 7 | L | U | App | Pod- | R | T | L | U | App | Pral |  |
| 2023-02-25 1:00PM | 59 | 17 | 6.3 | 0 | 139 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 54 | 131 | 0 | 0 | 185 | 1 | 0 | 82 | 49 | 0 | 131 | 0 | 455 |
| 1:15PM | 52 | 21 | 31 | 0 | 104 | 2 | 0 | 0 | 0 | 0 | 0 | 5 | 49 | 130 | 0 | 0 | 179 | 1 | 0 | 85 | 45 | 0 | 130 | 1 | 413 |
| 1.30 PM | 31 | 19 | 61 | 0 | 111 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 43 | 119 | 0 | 0 | 162 | 0 | 0 | 88 | 36 | 0 | 124 | 0 | 397 |
| 1:45PM | 46 | 15 | 52 | 0 | 113 | 2 | 0 | 0 | 0 | 0 | 0 | 6 | 45 | 135 | 0 | 0 | 180 | 0 | 0 | 71 | 54 | 0 | 125 | 0 | 418 |
| Total | 188 | 72 | 207 | 0 | 467 | 6 | 0 | 0 | 0 | 0 | 0 | 14 | 191 | 515 | 0 | 0 | 706 | 2 | 0 | 326 | 184 | 0 | 510 | 1 | 1683 |
| \% Approach | 40.3\% | 15.4\% | 44.3\% 0\% |  | - |  | 0\% 0 | 0\% 0 | 0\% 0\% |  | - |  | 27.1\% | 72.9\% 0 | 0\% 0 |  | - | - | 0\% | 6.3.9\% 3 | 36.1\% 0 |  | - |  |  |
| \% Total | 11.2\% | 4.3\% | $12.3 \% 0 \%$ | \% 2 | 27.7\% |  | 0\% 0 | 0\% 0 | 0\% 0\% | \% | 0\% |  | 11.3\% | 30.6\% | 0\% 0 | \% | 41.9\% | - | 0\% | 19.4\% 1 | $109 \% 0$ | \% 3 | 30.3\% |  |  |
| PHF | 0.797 | 0.857 | 0.821 | 0 | 0.840 |  | - | - | - | - | - |  | 0.884 | 0.959 | - | - | 0.953 |  | - | 0.923 | 0852 | - | 0.971 |  | 0.924 |
| Lights | 184 | 70 | 206 | 0 | 460 | - | 0 | 0 | 0 | 0 | 0 |  | 187 | 503 | 0 | 0 | 690 | - | 0 | 315 | 184 | 0 | 499 |  | 1649 |
| \% Lights | 97.9\% | 97.2\% | 99.5\% 0\% | \% 98 | 98.5\% |  | 0\% 0 | 0\% 0 | 0\% 0\% |  | - |  | 97.9\% | 97.7\% | $0 \% 0$ | \% | 97.7\% |  | 0\% | 96.6\% | $100 \% 0$ | \% 9 | 97.8\% |  | 98.0\% |
| Articulated Trucks | 0 | 0 | 0 | 0 | 0 |  | 0 | 0 | 0 | 0 | 0 |  | 0 | 0 | 0 | 0 | 0 |  | 0 | 1 | 0 | 0 | 1 |  | 1 |
| \% Articulated Trucks | 0\% | 0\% | 0\% 0\% |  | 0\% |  | 0\% 0 | 0\% 0 | 0\% 0 |  | - | - | 0\% | 0\% 0 | 0\% 0 |  | 0\% | - | 0\% | 0.3\% | 0\% 0 |  | 0.2\% |  | 0.1\% |
| Buses and Single-Unit Trucks | 4 | 2 | 1 |  | 7 |  | 0 | 0 | 0 | 0 | 0 | - | 4 | 11 | 0 | 0 | 15 | - | 0 | 9 | 0 | 0 | 9 | - | 31 |
| \% Buses and Single-Unit Trucks | 2. $1 \%$ | 2.8\% | 0.5\% 0\% |  | 1.5\% |  | 0\% 0 | 0\% 0 | 0\% 0 |  | - |  | 2.1\% | 2.1\% | 0\% 0 |  | 2.1\% | - | 0\% | 2.8\% | 0\% 0 |  | 1.8\% |  | 18\% |
| Bicycles on Road | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 |  | 0 | 1 | 0 | 0 | 1 | - | 0 | 1 | 0 | 0 | 1 |  | 2 |
| \% Bicycles on Road | 0\% | 0\% | 0\% 0\% |  | 0\% |  | 0\% 0 | 0\% 0 | 0\% 0\% |  | - |  | 0\% | 0.2\% | 0\% 0 | \% | 0.1\% | - | 0\% | 0.3\% | 0\% 0 |  | 0.2\% |  | 0.1\% |
| Pedesuians | - | - | - | - | - | 6 | - | - | - | - | - | 12 | - | - | - | - | - | 2 | - | - | - | - | - | 1 |  |
| $\because$ Pedestuans | - | - | - | - |  | 1(1) 4 | - | - | - | - | - | 95.740, | - | $\cdot$ | - | - | - | $10(14)$ | - | - | - | - |  | 1009 |  |
| Bucyere on Corssoulk | - | - | - | - | - | 11 | - | - | - | - | - | 2 | - | - | - | - | - | 0 | - | - | - | - | - | ) |  |
| \% Bracles on Coosswalk | - | - | - | - | - | 0\% | - | - | - | - | $\bullet$ | 14.3\% | - | $\cdot$ | - | - | - | (1) | - | - | - | - | - | (1\% |  |

[^48]PM Peak (WKND) (1 PM - 2 PM)
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 1042314, Location: 41.875003, -87.676513

Provided by: Gewalt Hamilton Associates Inc. 625 Forest Edge Drive, Vernon Hills, IL, 60061, US


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[^0]:    Estimated percent use by Arena patrons is applied to the baseline parking demand on each facility as presented in Table 1 to arrive at Arena-

[^1]:    ${ }^{1}$ Average attendance projected for the $400-500 \mathrm{PM}$ hour

[^2]:    $\mathrm{L}=$ Left Tum, $\mathrm{T}=$ Through, $\mathrm{R}=$ Right Turn
    LOS = Level of Service
    \# = 95th percentile volume exceeds capacity, queue may be longer

[^3]:    L = Left Turn, $T=$ Through, $R=$ Right Turn
    LOS $=$ Level of Service
    \# = 95th percentile volume exceeds capacity, queue may be longer

[^4]:    Note: Replica data references an "Auto Passenger" mode, which represents non-driver passengers traveling to and from that specific land use in a private vehicle. Since these passenger trips would not be represented in ITE vehicle trip generation data, they were excluded when calculating the total non-auto mode share for the commercial land uses.

[^5]:    ${ }^{1}$ Vehicle-trips computed using the mode splt and vehicle occupancy values provided in Table 2-P
    ${ }^{2}$ Person-Trips
    ${ }^{3}$ Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator
    *Indicates computation that has been rounded to the nearest whole number

[^6]:    ${ }^{1}$ Vehicle-tnps computed using the mode split and vehicle occupancy values provided in Table 2-P
    ${ }^{2}$ Person-Trups
    ${ }^{3}$ Total estimate for all other land uses at mixed-use development site is not subject to internat tnp capture computations in this estimator

    - Indicates computation that has been rounded to the nearest whole number

[^7]:    01 EX PM Fifth Third Arena Existing (2023) Traffic Volumes 4:00 pm 02/23/2023 PM Peak Hour SSE

[^8]:    01 EX PM Fifth Third Arena Existing (2023) Traffic Volumes 4:00 pm 02/23/2023 PM Peak Hour
    SSE

[^9]:    01 EX SAT Fifth Third Arena Existing (2023) Traffic Volumes 1:00 pm 02/25/2023 SMD Peak Hour

[^10]:    01 EX SAT Fifth Third Arena Existing (2023) Traffic Volumes 1:00 pm 02/25/2023 SMD Peak Hour

[^11]:    01 EX SAT Fith Third Arena Existing (2023) Traffic Volumes 1:00 pm 02/25/2023 SMD Peak Hour
    SSE

[^12]:    01 EX SAT Fifth Third Arena Existing (2023) Traffic Volumes $1: 00$ pm 02/25/2023 SMD Peak Hour
    Synchro 11 Report
    SSE

[^13]:    01 EX SAT Fifth Third Arena Existing (2023) Traffic Volumes $1: 00$ pm 02/25/2023 SMD Peak Hour
    Synchro 11 Report
    SSE

[^14]:    01 BUILD SMD Fifth Third Arena Future (2029) - Mitigated 1:00 pm 02/25/2029 SMD Peak Hour

[^15]:    *Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, LI: U-Turn

[^16]:    *Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Tıru, U: U-Turn

[^17]:    *T: Thru

[^18]:    *T: Thru

[^19]:    *T: Thru

[^20]:    *'T: Thru

[^21]:    *Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

[^22]:    *Pedestrians and Bicycles on Crosswalk. L: Lefi, R: Right. T: Thru, U: U-Turn

[^23]:    *Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

[^24]:    "Pedestrians and Bicycles on Grosswalh. I.: Left, R: Right, T: Thru, U: U-Turn

[^25]:    "Pedestrians and Bicycles on Crosswalk. L.: Left, R: Right, T: Thru, U: U-Turn

[^26]:    *Pedestrians and Bicycles on Crosswalk. J.: Left, R: Right. T: Thru, U: U-Turn

[^27]:    *Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

[^28]:    *Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

[^29]:    *Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

[^30]:    *Pedestrians and Bicycles on Crosswalh. L.: I.eft, R: Right. T: Thru. U: U-Turn

[^31]:    *Pedestrians and Bicycles on Crosswalk. L.: I.efi, R: Righı, T: Thru, U: U-Turn

[^32]:    *T: Thru

[^33]:    ${ }^{*}$ T: Thru

[^34]:    *T: Thru

[^35]:    *Pedestrians and Bicycles on Crosswalk. L: Left, R: Right. T: Thru, U: U-Tum

[^36]:    *Pedestrians and Bicycles on Crosswalk. 1.: Left, R: Right, T: Thru. U: U-Turn

[^37]:    ＊Pedestrians and Bicycles on Crosswalk．L：I．eft，R：Right，T：Thru，U：U－Turn

[^38]:    *Pedeswians and Bicycles on Crosswalk. L: Lefr, R: Right, T: Thru, U: U-Turn

[^39]:    : Pedestrians and Bicycles on Crosswalk. I.: Left, R: Right, T: Thru, U: U-Turn

[^40]:    *Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru. U: U-Turn

[^41]:    *Pedestrians and Bicycles on Crosswalh. L: Left, R: Righı, T: Thru, U: U-Turn

[^42]:    *T: Thou

[^43]:    "T: Thru

[^44]:    *T: Thru

[^45]:    *Pedestrians and Bicycles on`Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

[^46]:    *Pedestrians and Bicycles on Crosswalk. L: Left. R: Right, T: Thru, U: U-Turn

[^47]:    *Pedestrians and Ricycles on Crosswalk. I. I eft, R: Right, T: Thru, U: L-Turn

[^48]:    *Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

