Appendix G2. Traffic and Parking Technical Report

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Traffic and Parking Technical Report

West Lake Corridor Project

Federal Transit Administration
and
Northern Indiana Commuter Transportation District

March 2018

NORTHERN INDIANA COMMUTER TRANSPORTATION DISTRICT

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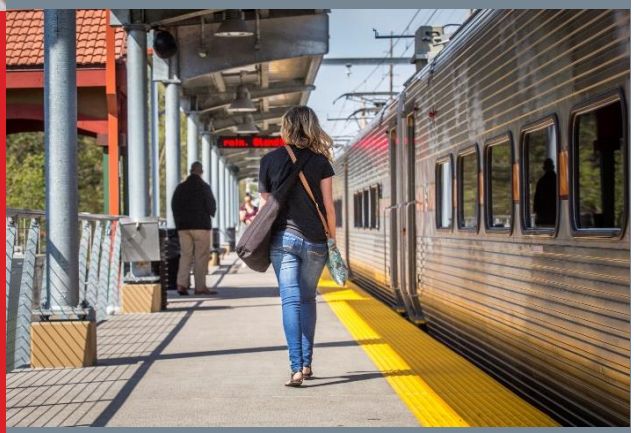

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Acronyms and Abbreviations

ADA	Americans with Disabilities Act
ADT	Average daily traffic
CMAP	Chicago Metropolitan Agency for Planning
CN	Canadian National Railway
CSX	CSX Transportation
DEIS	Draft Environmental Impact Statement
FEIS	Final Environmental Impact Statement
FHWA	Federal Highway Administration
FTA	Federal Transit Administration
INDOT	Indiana Department of Transportation
LOS	Level of service
MED	Metra Electra District (system)
MUTCD	Manual on Uniform Traffic Control Devices
NICTD	Northern Indiana Commuter Transportation District
NIRPC	Northwestern Indiana Regional Planning Commission
Project	West Lake Corridor Project
ROW	Right-of-way
SSL	South Shore Line
STOPS	Simplified Trips-on-Project Software
TPSS	Traction power substations

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Executive Summary

The West Lake Corridor Project (Project) is sponsored by the Northern Indiana Commuter Transportation District (NICTD) to expand its commuter rail service through an approximate nine-mile southern extension, creating a new passenger rail service to the municipalities of Dyer, Munster, and Hammond in Lake County, Indiana. This new service would provide rail access to downtown Chicago. The Project would also expand service coverage, improve mobility and accessibility, and stimulate local job creation and economic development opportunities for Lake County.

This Traffic and Parking Technical Report has been prepared in support of the Final Environmental Impact Statement (FEIS) for the Project. The objective of this technical report is to evaluate the Project's potential benefits and impacts on intersection operational performance associated with traffic generated from the Project's Build Alternative parking facilities, traffic operations at the Build Alternative proposed railroad-highway grade crossings, and street network connectivity.

With the addition of Project-related traffic, six intersections would operate at an unacceptable level of service (LOS) in the Build scenarios, three of which would also operate at an unacceptable LOS in the No Build. For these three intersections, the change in delay from the No Build scenario to the Build scenarios would be less than 20 percent and, therefore, the Project traffic would not further affect the roadway network. Roadway improvement needs at these three intersections are attributable to community traffic changes, not Project traffic, and generally require capacity improvements by others. At the other three intersections that would operate at an unacceptable LOS in the Build scenario, improvements to mitigate LOS to acceptable levels are recommended.

Ten railroad-highway grade crossings would be included in the Project. Given the varying geometry of each roadway (four lanes or greater versus two lanes) and varied average daily traffic (ADT), two scenarios were evaluated roads with an ADT higher than 10,000 vehicles per day and with two lanes or more in each direction and roads with an ADT lower than 10,000 vehicles per day and with one lane in each direction. Analyses determined that the ten railroad-highway grade crossings would not substantially affect traffic operations.

The FEIS Preferred Alternative would require permanent road closures where the alignment would cross the existing street network and sufficient vertical clearance to the guideway structure is not feasible or where it is necessary to avoid introducing a new railroad-highway grade crossing. Near the Russell Street and Hohman Avenue intersection, the FEIS Preferred Alternative would transition from an at-grade alignment north of Douglas Street in downtown Hammond to an elevated structure at Fayette Street. The track would be on retained fill or on an embankment throughout the vertical transition, and there would not be sufficient clearance over Russell Street. As a result, Russell Street between Lyman and Oakley Avenues would be closed. Russell Street is currently one-way in the eastbound direction. This closure would require modifying Russell Street to accommodate two-way traffic between Hohman and Lyman Avenues. In addition, the traffic signal at the intersection of Hohman Avenue and Russell Street would be modified to accommodate two-way traffic on the eastern leg of Russell Street. At Lyman Avenue, Russell Street would curve and align to Lyman Avenue. East of the Project, Russell Street would become a cul-de-sac to continue providing access to properties between the Project track and Oakley Avenue.

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1 Introduction

This report supports the Final Environmental Impact Statement (FEIS) for the West Lake Corridor Project (Project). It discusses the Project's role as part of a multimodal transportation system and analyzes potential benefits and impacts on:

- Intersection operational performance associated with traffic generated from the Project's Build Alternative parking facilities
- Traffic operations at the Build Alternative proposed railroad-highway grade crossings
- Street network connectivity

1.1 Project Setting

The Project Area is defined as a 0.5-mile radius around the Build Alternative and encompasses areas in the towns of Dyer and Munster and in the city of Hammond, all in Indiana. Land use in the Project Area generally transitions from rural and suburban in the community of Dyer in the south to increasingly dense suburban development around south Hammond to the urban environment of the city of Chicago.

The Project corridor in Dyer ranges from a medium-density suburban single-family residential, business, and light industrial development pattern to a predominantly single-family residential development pattern. Munster is characterized by medium-density suburban residential development, interspersed with an industrial park, some commercial, a golf course, vacant land with new streets in a planned subdivision that is mostly undeveloped, and a rail trail. The city of Hammond has medium- to high-density residential development with mostly single-family homes on small lots. Downtown Hammond is in the northern stretch of the Project Area. Hammond also has some vacant, undeveloped land and industrial uses. The Monon Rail Trail exists along this section of the corridor.

1.2 Project Description

The environmental review process builds upon NICTD's prior West Lake Corridor studies that examined a broad range of alignments, technologies, and transit modes. The studies concluded that a rail-based service between the Munster/Dyer area and Metra's Millennium Station in downtown Chicago would best meet the transportation needs of the northwest Indiana area. Thus, NICTD advanced a Preferred Build Alternative (referred to as the FEIS Preferred Alternative) for detailed analysis in the FEIS. NEPA also requires consideration of a No Build Alternative to provide a basis for comparison to the Build Alternative.

1.2.1 No Build Alternative

The No Build Alternative is defined as the existing transportation system, plus any committed transportation improvements included in the Northwestern Indiana Regional Planning Commission's (NIRPC) *2040 Comprehensive Regional Plan* (NIRPC 2011) and the Chicago Metropolitan Agency for Planning's (CMAP) *GO TO 2040 Comprehensive Regional Plan* (CMAP 2014) through the planning horizon year 2040. It also includes capacity improvements to the existing Metra Electric District's (MED) line and Millennium Station, documented in NICTD's *20-Year Strategic Business Plan* (NICTD and Regional Development Authority 2014).

1.2.2 Build Alternative

The Project is an approximate 9-mile southern extension of the existing NICTD SSL between the town of Dyer and city of Hammond, Indiana. Traveling north from the southern terminus near Main Street at the Munster–Dyer municipal boundary, the Project would include new track operating at grade on a separate right-of-way (ROW) to be acquired adjacent to the CSX Transportation (CSX) Monon Subdivision rail line in Dyer and Munster. The Project alignment would be elevated from 45th Street to the Canadian National Railway (CN) Elsdon Subdivision rail line at Maynard Junction. North of the CN line, the Project alignment would return to grade and join with the publicly owned former Monon Railroad corridor in Munster and Hammond, Indiana, and continue north. The Project would relocate the existing Monon Trail pedestrian bridge crossing over the Little Calumet River and build a new rail bridge at the location of the former Monon Railroad bridge. The Project alignment would cross under Interstate 80/94 (I-80/94) and continue north on the former Monon Railroad corridor to Sibley Street. From Douglas Street north, the Project would be elevated over all streets and rail lines using a combination of retaining walls, elevated structures, and bridges. The Project would terminate just east of the Indiana Harbor Belt at the state line, where it would connect with the SSL. Project trains would operate on the existing MED line for the final 14 miles, terminating at Millennium Station in downtown Chicago.

Four new stations would be constructed along the alignment; Munster/Dyer Main Street, Munster Ridge Road, South Hammond, and Hammond Gateway Stations. Each station would include station platforms, parking facilities, benches, trash receptacles, bicycle racks, and other site furnishings. Shelter buildings would only be located at the Munster/Dyer Main Street and Hammond Gateway Stations. The Project would include a vehicle maintenance and storage facility with a layover yard and traction power substation (TPSS) to power the overhead contact system, located just south of the Hammond Gateway Station, west of Sheffield Avenue. Additional TPSSs would be located at the South Hammond Station parking lot and Munster/Dyer Main Street Station. The TPSS would be enclosed to secure the electrical equipment and controls, with a footprint of about 20 feet by 40 feet.

2 Parking and Traffic Analysis

2.1 Legal/Regulatory Context and Methodology

The Indiana Department of Transportation (INDOT) *Indiana Design Manual*, Chapters 41 and 53, and relevant local city codes were used as the main source of reference for the traffic impact analysis, any proposed mitigation measures recommended, and parking lot layout design (INDOT 2013). All impact and capacity analyses followed the methodologies found in the *Highway Capacity Manual* (Transportation Research Board 2010).

Ridership forecasts for the West Lake Corridor and Double Track Projects were updated in June 2017, refreshing the forecasts developed in January 2016 for the NICTD Strategic Business Plan commuter alternatives. Ridership forecasts for the Opening Day and 2040 scenarios were obtained from Tables 6 and 7 of the ridership forecasts (HDR 2017a). The ridership forecasts were broken down by mode of access and included Park-and-Ride, Kiss-and-Ride, walk, and transfer. NICTD intends to put new parking lots into service in 2020. However, 2022 represents future parking and traffic conditions for the Opening Year (2022) – Build Alternative, since parking demand would not be realized on opening day.

The vehicle occupancy factor used for converting Park-and-Ride ridership to equivalent parking spaces was 1.19. Parking demand was derived by dividing projected Park-and-Ride ridership by the auto occupancy factor.

Four new stations are proposed along the West Lake Corridor commuter line (**Figure 2.1-1**). These stations include:

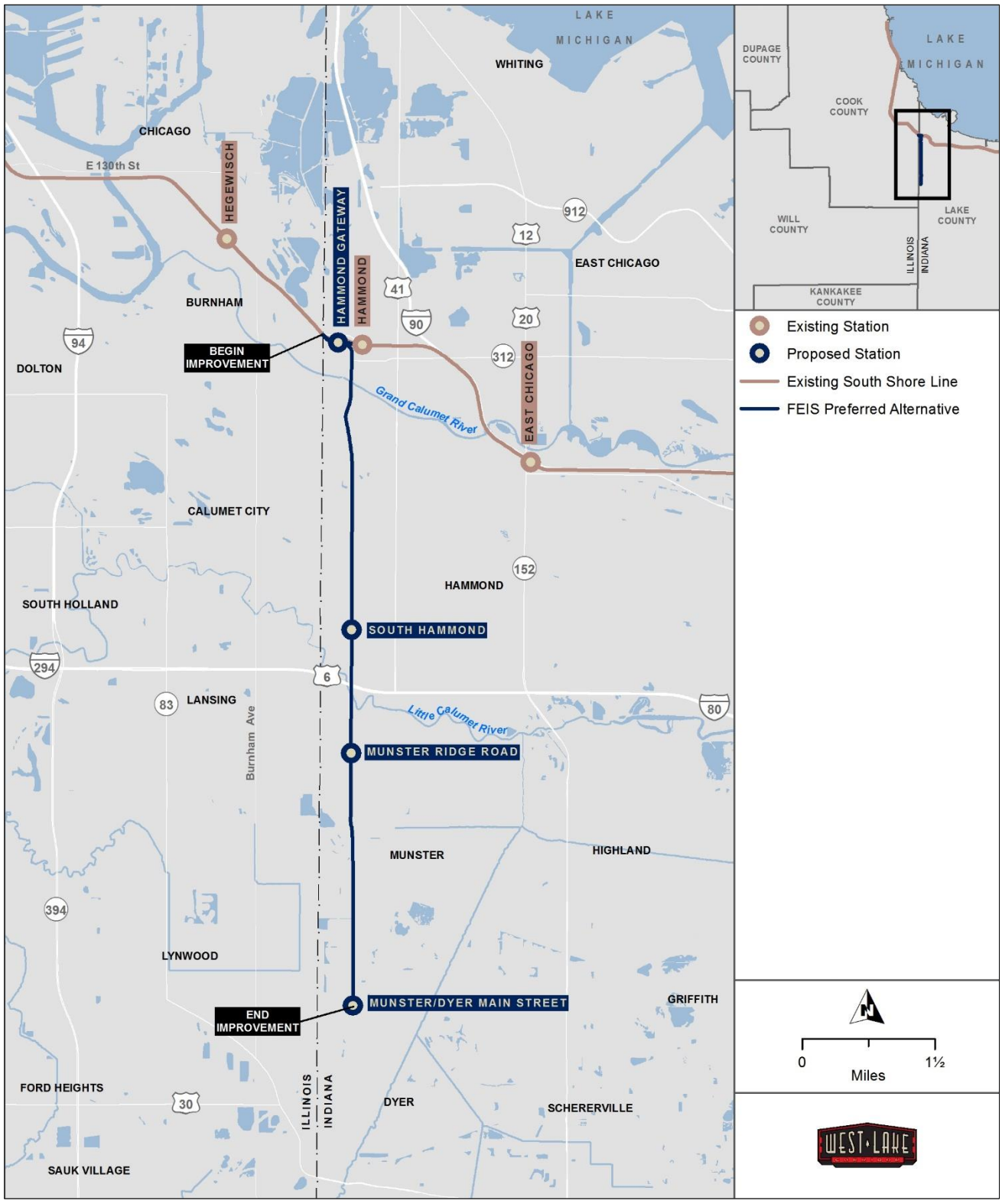
- Munster/Dyer Main Street Station
- Munster Ridge Road Station
- South Hammond Station
- Hammond Gateway Station

Traffic impact analyses were performed to determine whether the additional commuter traffic would affect adjacent roadways and/or site driveways. Four scenarios were analyzed:

- Opening Year (2022) – No Build Alternative
- Opening Year (2022) – Build Alternative
- 2040 – No Build Alternative
- 2040 – Build Alternative

Impacts were identified by the resultant level of service (LOS) of the intersections. LOS A is the most favorable (best traffic flow and least delay), LOS E represents saturated or at-capacity conditions, and LOS F is the worst (oversaturated conditions). The INDOT *Indiana Design Manual* (2013) describes acceptable LOS for intersections depending on the type of roadway: suburban arterials, collectors, and local roads. LOS A to D is considered acceptable for all roadways included in this analysis.

Figure 2.1-1: West Lake Corridor Proposed Station Locations



Source: HDR 2017b.

At any location where a large user population exits at once, such as at a commuter lot, a lower LOS is expected. The lower LOS generally would occur for a short period of time (15 minutes or less) and, thus, an LOS less than D for an access drive or stop-controlled local street would be acceptable.

Traffic analyses were conducted at 30 intersections in the Project Area, including 26 existing intersections and 4 new proposed Park-and-Ride access points. These intersections were selected for their proximity to the proposed stations and/or Park-and-Ride facilities and for their potential to be affected by the Project-generated traffic. The process for evaluating the intersection operations involved several steps:

1. **Existing Conditions**: Existing traffic volumes were collected on various dates between October 22 and November 18, 2014, in the morning (7 AM to 9 AM) and evening (4 PM to 6 PM) peak periods, as part of the *Traffic Technical Report* prepared by NICTD for the Draft Environmental Impact Statement (DEIS). The peak traffic hours were determined to be 7:15 AM to 8:15 AM (AM peak hour) and 4:30 PM to 5:30 PM (PM peak hour). Additional traffic volumes were collected for the FEIS on April 4 and May 9, 2017, in the identified AM (7:15 AM to 8:15 AM) and PM (4:30 PM to 5:30 PM) peak hours. Traffic control, lane geometry, and other roadway characteristics were also gathered in the field.
2. **Future No Build Traffic**: The existing traffic counts were used as the basis for the 2022 and 2040 No Build scenarios. Existing volumes were projected to 2022 and 2040 using growth percentages developed in the *Traffic Technical Report* prepared by NICTD for the DEIS. At the locations added in the FEIS analyses, similar growth percentages from the DEIS were applied where applicable. Where no applicable growth percentages were determined from historical average daily traffic (ADT), available data from INDOT's Traffic Count Database System were used.
3. **Future Build Traffic**: The Build scenario traffic volumes were based on the volumes projected for the No Build scenario combined with the Project-generated traffic for the proposed stations. The same methodology as used for the DEIS *Traffic Technical Report* was followed to determine the Project-generated traffic: using the Federal Transit Administration (FTA) Simplified Trips-on-Project Software (STOPS) model, the approximate number of riders at each station, along with their area of origin, was determined. The Project-generated traffic was derived from the projected riders assumed to drive to/from the stations during the AM and PM peak traffic hours. This includes riders who are parking and riding or who are using Kiss-and-Ride at a potential station. For Kiss-and-Ride users, both inbound and outbound movements were added to the relevant intersections, signifying the round trip of the vehicle returning to the point of origin rather than terminating or originating in the parking lot. The estimated traffic generated by the Build scenario was applied to the affected surrounding roadway network.
4. **Operational Analysis**: The projected traffic for each analysis scenario (Opening Year [2022] – No Build Alternative, Opening Year [2022] – Build Alternative, 2040 – No Build Alternative, and 2040 – Build Alternative) was entered in microsimulation software Synchro, version 8, to identify impacts that would result from proposed commuter traffic. The Synchro analysis included all NICTD parking lot access points and any major adjacent intersections within one-half mile or less.

5. **Mitigation Assessment**: Potential traffic operation impacts were identified by comparing the No Build and Build scenarios for Opening Year (2022) and design year 2040. The study isolated deficiencies that would be caused by normal traffic growth over time from deficiencies that would be caused by the proposed improvements as part of the Project. Two thresholds were established to define an impact as a result of the Project:
   a. If an intersection in the No Build scenario would operate at an acceptable LOS (A, B, C, or D) but would operate at an unacceptable LOS (E or F) in the Build scenario, the intersection would be considered as affected by the commuter traffic, or
   b. If an intersection in the No Build scenario would operate at an unacceptable LOS (E or F) and the change in delay between the No Build scenario and the Build scenario would be greater than 20 percent, the intersection would be considered as affected by commuter traffic. If the change in delay would be less than 20 percent, the intersection would not be considered as affected by commuter traffic.

If an intersection would be considered as affected by the Project, intersection improvements will be identified to minimize or mitigate the impact.

2.2 Munster/Dyer Main Street Station

The Munster/Dyer Main Street Station would serve as the Project's terminal station. The station site would be accessed from Sheffield Avenue, with the driveway forming the western leg of the Sheffield Avenue and Main Street intersection. The station building and platform would be east of the CSX railroad and north of the site driveway. Three parking lots would be constructed to accommodate parking demand, providing a total of 875 Park-and-Ride spaces in Opening Year (2022) and 1,333 Park-and-Ride spaces in 2040 plus Kiss-and-Ride parking. The driveway access to the parking area would require an underpass of the CSX railroad ROW.

2.2.1 Ridership

The ridership forecasts for the Munster/Dyer Main Street Station are categorized into trips by mode of access and are summarized in **Table 2.2-1** for both the Opening Year (2022) – Build Alternative and 2040 – Build Alternative scenarios. Existing ridership is not provided because a station does not exist at this location.

Table 2.2-1: Munster/Dyer Main Street Station Daily Ridership Forecasts

Mode of Access	Opening Year (2022) – Build[a]	2040 – Build
Walk	137	158
Kiss-and-Ride	198	278
Park-and-Ride	981	1,534
Transfer	0	12
All	**1,316**	**1,982**

Source: HDR 2017a.

[a] No existing station

2.2.2 Parking Facilities

2.2.2.1 Park-and-Ride

To determine Park-and-Ride parking demand, a vehicle occupancy ratio of 1.19 was applied to the estimated Park-and-Ride station ridership. The resultant Park-and-Ride demand for Opening Year (2022) – Build Alternative is 825 spaces and for 2040 – Build Alternative is 1,289 spaces.

Two parking lots would be constructed to accommodate the Opening Year (2022) – Build Alternative parking demand; see **Figure 2.2-1** for parking locations. Lot 1 would be designated an Americans with Disabilities Act (ADA) and Kiss-and-Ride (to be discussed later) lot and would provide 28 parking spaces, all of which would be ADA-compliant spaces, with a driveway off Sheffield Avenue south of Main Street. Lot 2 would provide 847 parking spaces west of the CSX railroad with a driveway off Sheffield Avenue—the western leg of the Sheffield Avenue and Main Street intersection. The driveway to Lot 2 would be grade separated under the CSX railroad. In total, 875 parking spaces would be provided in Lots 1 and 2 (**Table 2.2-2**), meeting the Opening Year (2022) – Build Alternative demand of 825 Park-and-Ride spaces.

To meet 2040 – Build Alternative demand, Lot 3 would be constructed as an extension of Lot 2 and would provide an additional 458 spaces (**Figure 2.2-1**). In total, 1,333 parking spaces would be provided in Lots 1, 2, and 3 (**Table 2.2-2**), meeting the 2040 – Build Alternative demand of 1,289 Park-and-Ride spaces.

Table 2.2-2: Proposed Park-and-Ride Lots and Supply at Munster/Dyer Main Street Station

Parking Lot	Opening Year (2022) – Build[a]	2040 – Build[b]
1	28	28
2	847	847
3	—	458
All	**875**	**1,333**

Source: HDR 2017b.

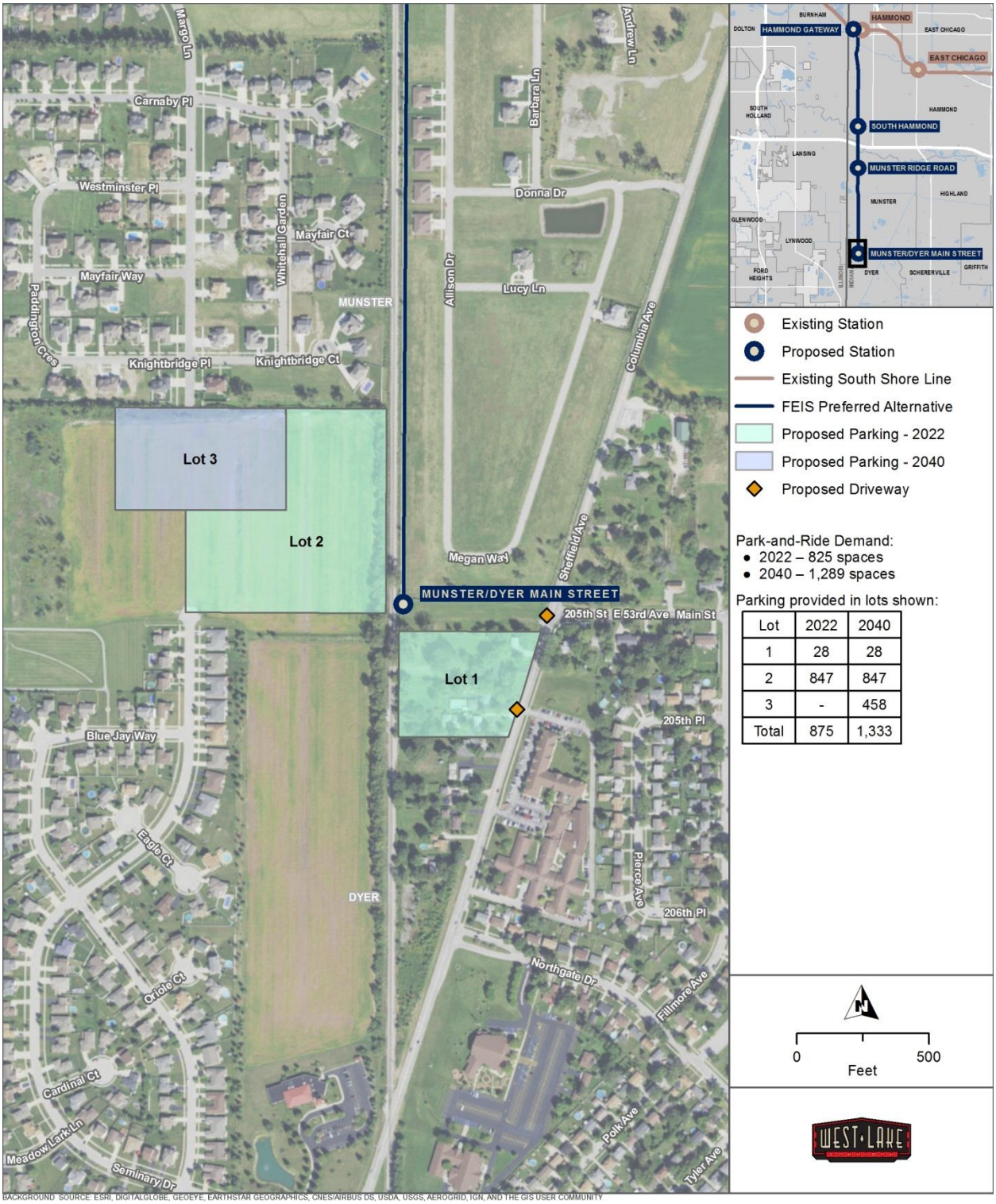
[a] Opening Year (2022) – Build Alternative demand = 825 spaces

[b] 2040 – Build Alternative demand = 1,289 spaces

2.2.2.2 Kiss-and-Ride

The Kiss-and-Ride ridership estimate for Opening Year (2022) – Build Alternative and 2040 – Build Alternative would be 198 and 278 riders, respectively. The highest estimated ridership on any one train would occur on an outbound train during the PM peak with an estimated 68 Kiss-and-Ride users for Opening Year (2022) – Build Alternative and 97 Kiss-and-Ride users for 2040 – Build Alternative. A total of 99 Kiss-and-Ride parking spaces would be provided in Lot 1 for Opening Year (2022) – Build Alternative and 2040 – Build Alternative.

Figure 2.2-1: Munster/Dyer Main Street Station Park-and-Ride Parking Areas



Source: HDR 2017b.

2.2.2.3 Pedestrian Access

Lot 1 would accommodate all ADA and Kiss-and-Ride parking. Lot 1 would be east of the Project tracks and south of the site driveway, which is grade separated. A pedestrian bridge would be provided over the site driveway to provide safe access between Lot 1 and the station. Lot 2 would be west of the CSX railroad with the proposed Project tracks and station platform east of the CSX railroad and north of the site driveway. A pedestrian underpass that would be ADA-accessible would be proposed to pass under the CSX railroad and the Project tracks to provide safe access between Lot 2 and the station.

Other facilities would include a sidewalk along the southern side of the site driveway with a multiuse path along the northern side of the site driveway. A sidewalk connection from the intersection of Sheffield Avenue and Main Street to the east side of the station would also be provided.

2.2.3 Traffic Analyses

Forecasting and analyses were performed at the two proposed driveway access points off Sheffield Avenue and at several intersections near the new station to determine the effects of future commuter traffic.

2.2.3.1 Existing Conditions

Existing traffic volumes were collected on October 30 and November 4, 2014, in the AM (7 AM to 9 AM) and PM (4 PM to 6 PM) peak periods, as part of the *Traffic Technical Report* prepared by NICTD for the DEIS. The peak traffic hours were determined to be 7:15 AM to 8:15 AM (AM peak hour) and 4:30 PM to 5:30 PM (PM peak hour). The following intersections near the Munster/Dyer Main Street Station were included in this data collection:

- Sheffield Avenue and Main Street
- Sheffield Avenue and Northgate Drive
- Sheffield Avenue and Seminary Drive
- Sheffield Avenue and 213rd Street

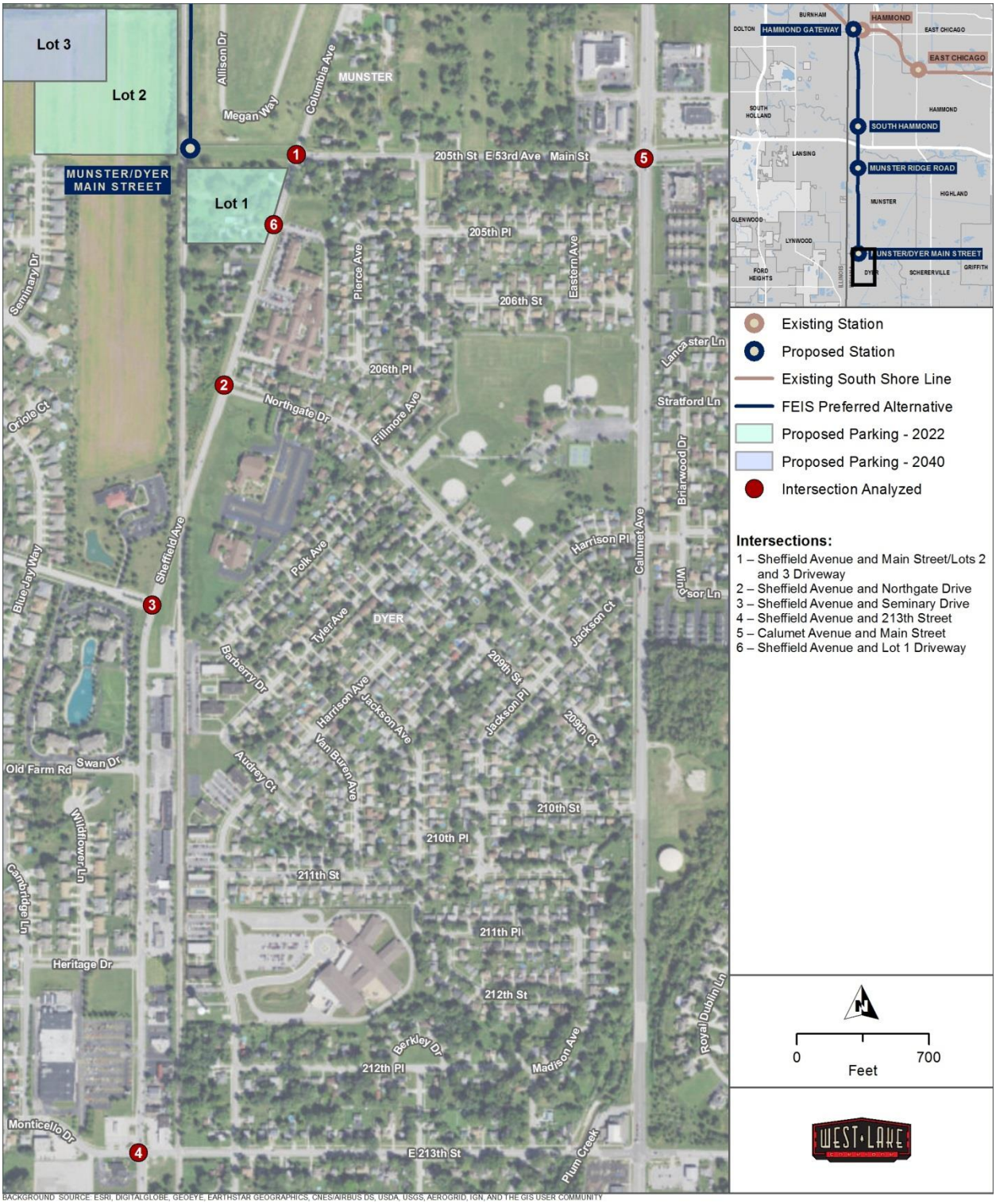
Additional traffic volumes were collected for the FEIS on April 4, 2017, during the identified AM (7:15 AM to 8:15 AM) and PM (4:30 PM to 5:30 PM) peak hours. The following intersection near the Munster/Dyer Main Street Station was included in this data collection:

- Calumet Avenue and Main Street

All existing traffic volumes are provided in **Appendix A**. Locations of existing study intersections, including any driveways proposed as part of the Project, are shown in **Figure 2.2-2**.

Intersection geometry, traffic control, and other roadway characteristics for the intersections, as gathered on site, are described in the following sections.

Figure 2.2-2: Munster/Dyer Main Street Station Traffic Study Intersections



Source: HDR 2017b.

Sheffield Avenue and Main Street

The Sheffield Avenue and Main Street intersection is a signalized T-intersection. Sheffield Avenue is one lane in each direction with a southbound left-turn lane to Main Street. Main Street is one lane in each direction with one left-turn lane and one right-turn lane at the intersection. North of Main Street, Sheffield Avenue is also known as Columbia Avenue. Main Street is also known as 53rd Avenue and 205th Street at this location. There are no pedestrian accommodations. The proposed Lot 2 driveway would become the western leg of the intersection.

Sheffield Avenue and Northgate Drive

The Sheffield Avenue and Northgate Drive intersection is an unsignalized T-intersection. Northgate Drive is under stop control. Sheffield Avenue is one lane in each direction with a southbound left-turn lane and a northbound right-turn lane to Northgate Drive. Northgate Drive is one lane in each direction and does not provide turn lanes at the intersection. There are no pedestrian accommodations.

Sheffield Avenue and Seminary Drive

The Sheffield Avenue and Seminary Drive intersection is an unsignalized T-intersection. Seminary Drive is under stop control. Sheffield Avenue is one lane in each direction with a northbound left-turn lane and a southbound right-turn lane to Seminary Drive. Seminary Drive is one lane in each direction and does not provide turn lanes at the intersection. There are no pedestrian accommodations.

Sheffield Avenue and 213rd Street

The Sheffield Avenue and 213rd Street intersection is a signalized intersection. Sheffield Avenue is one lane in each direction with a left-turn lane and a right-turn lane in both directions at the intersection. 213rd Street is one lane in each direction with a left-turn lane in both directions at the intersection. 213rd Street is also known as Monticello Drive west of Sheffield Avenue. Pedestrian crosswalks, ADA ramps, and pedestrian signals are on all approaches of the intersection.

Calumet Avenue and Main Street

The Calumet Avenue and Main Street intersection is a signalized intersection. Calumet Avenue is two lanes in each direction with a left-turn lane in both directions at the intersection. Main Street is one lane in each direction with a left-turn lane and a right-turn lane in both directions at the intersection. Main Street is also known as 53rd Avenue and 205th Street at this location. Pedestrian crosswalks, ADA ramps, and pedestrian signals are on all approaches of the intersection, except the eastbound approach.

2.2.3.2 Future No Build Traffic

Existing volumes were projected to 2022 and 2040 at the study intersections by applying a growth percentage. All projected 2022 and 2040 traffic volumes and the growth percentages are provided in **Appendix A**.

2.2.3.3 Future Build Traffic

Using the proposed train schedule, the train that operates during the AM and PM peak hours was identified. It was from this peak hour train that the projected ridership data were used to determine the peak hour vehicle trips to and from the station. The peak hour site-generated trips were then distributed to the surrounding roadway network using estimated origin/destination percentages from data mapping software. The total peak riders and origin/destination percentages used are summarized in **Table 2.2-3**. The site-generated and distributed volumes are provided in **Appendix A**.

Table 2.2-3: Munster/Dyer Main Street Station Site-generated Traffic Assumptions

	2022	2040
Total Riders	**1,316**	**2,025**
AM Peak Riders (38%)	500	770
AM Park-and-Ride Riders	375 (75%)	600 (78%)
AM Kiss-and-Ride Riders	75 (15%)	108 (14%)
PM Peak Riders (29.9%)	393	605
PM Park-and-Ride Riders	295 (75%)	472 (78%)
PM Kiss-and-Ride Riders	59 (15%)	85 (14%)
Origin/Destination Percentages (To/From)		
North	1%	
Southeast	48%	
Southwest	37%	
East	13%	

Source: HDR 2017b.

2.2.3.4 Operational Analysis

No Build Scenarios

The results of the Synchro 8 analysis for the Opening Year (2022) – No Build Alternative and 2040 – No Build Alternative scenarios are shown in **Table 2.2-4** and the output reports are in **Appendix B**. In the Opening Year (2022) – No Build Alternative scenario, all intersections operate acceptably at LOS D or better during both the AM and PM peak hours. In the 2040 – No Build Alternative scenario, two intersections, Sheffield Avenue and Northgate Drive and Calumet Avenue and Main Street, operate unacceptably at LOS E or F during the PM peak.

Table 2.2-4: Munster/Dyer Main Street Station – No Build Level of Service and Delay

Location	Opening Year (2022) – No Build		2040 – No Build	
	AM Peak Hour LOS (Delay in seconds/vehicle)	PM Peak Hour LOS (Delay in seconds/vehicle)	AM Peak Hour LOS (Delay in seconds/vehicle)	PM Peak Hour LOS (Delay in seconds/vehicle)
Sheffield Avenue and Main Street	B (17.4)	B (15.9)	B (19.5)	C (20.7)
Sheffield Avenue and Northgate Drive	B (14.0)	C (19.3)	C (18.0)	E (37.1)
Sheffield Avenue and Seminary Drive	B (13.0)	C (18.8)	C (15.9)	D (26.5)
Sheffield Avenue and 213rd Street	B (12.5)	B (14.9)	B (13.2)	B (16.3)
Calumet Avenue and Main Street	C (34.0)	D (42.9)	E (79.4)	F (123.8)

Source: HDR 2017b.

Build Scenarios

The Opening Year (2022) – Build Alternative scenario includes the Opening Year (2022) – No Build Alternative traffic plus the site-generated traffic resulting from the Opening Year station and parking improvements and associated ridership forecasts. Similarly, the 2040 – Build Alternative scenario includes the 2040 – No Build Alternative traffic plus the site-generated traffic resulting from the station and parking improvements associated with the 2040 ridership forecasts. The build scenarios also assume two new driveways proposed off Sheffield Avenue, which serve Lots 1 and 2 as previously described. These parking lot driveways (or intersections) include:

- Sheffield Avenue and Main Street/Lots 2 and 3 Driveway
- Sheffield Avenue and Lot 1 Driveway

Sheffield Avenue and Main Street/Lots 2 and 3 Driveway

The Sheffield Avenue and Main Street/Lots 2 and 3 Driveway would become the western leg of the Sheffield Avenue and Main Street intersection, as shown in **Figure 2.2-2**. In Opening Year (2022) – Build Alternative, the driveway would include one left-turn lane and one shared through and right-turn lane. In 2040, the driveway would be one left-turn lane, one through lane, and one right-turn lane to accommodate the projected increase in ridership.

Sheffield Avenue and Lot 1 Driveway

The Sheffield Avenue and Lot 1 Driveway would be approximately 375 feet south of the Sheffield Avenue and Main Street intersection across from the north access to Sheffield Manor, as shown in **Figure 2.2-2**. The driveway would provide one left-turn lane and one right-turn lane, and the two-way left-turn lane on Sheffield Avenue would be maintained.

The results of the Synchro 8 analysis for the Opening Year (2022) – Build Alternative and 2040 – Build Alternative scenarios are shown in **Table 2.2-5** and the output reports are in **Appendix**

B. In the Opening Year (2022) – Build Alternative scenario, all intersections would continue to operate acceptably at LOS D or better during both the AM and PM peak hours. In the 2040 – Build Alternative scenario, three intersections—Sheffield Avenue and Northgate Drive, Calumet Avenue and Main Street, and Sheffield Avenue and Lot 1 Driveway—would operate unacceptably at LOS E or F.

Table 2.2-5: Munster/Dyer Main Street Station – Build Level of Service and Delay

Location	Opening Year (2022) – Build		2040 – Build	
	AM Peak Hour LOS (Delay in seconds/vehicle)	PM Peak Hour LOS (Delay in seconds/vehicle)	AM Peak Hour LOS (Delay in seconds/vehicle)	PM Peak Hour LOS (Delay in seconds/vehicle)
Sheffield Avenue and Main Street/Lots 2 and 3 Driveway	C (20.2)	C (30.4)	C (30.0)	D (54.3)
Sheffield Avenue and Northgate Drive	C (16.6)	C (23.0)	D (25.5)	E (37.7)
Sheffield Avenue and Seminary Drive	B (14.6)	C (20.8)	C (18.6)	D (33.6)
Sheffield Avenue and 213rd Street	B (13.6)	B (18.0)	B (17.3)	C (30.4)
Calumet Avenue and Main Street	C (34.2)	D (54.7)	F (86.5)	F (145.0)
Sheffield Avenue and Lot 1 Driveway	B (14.7)	C (20.4)	C (20.8)	E (47.4)

Source: HDR 2017b.

2.2.3.5 Mitigation Assessment

In the Opening Year (2022) – Build Alternative scenario, all existing intersections and proposed driveways would operate at acceptable LOS D or better during both the AM and PM peak hours with the addition of commuter traffic. Since all intersections would operate at LOS D or better with the addition of the commuter traffic, no impacts would occur as a result of the Project in Opening Year (2022) (**Table 2.2-6**).

Two intersections operate at LOS E or F in the 2040 No Build scenarios: Sheffield Avenue and Northgate Drive and Calumet Avenue and Main Street, without commuter traffic. To determine whether an impact would occur as a result of the Project, the change in delay between the 2040 No Build and the 2040 Build scenarios were compared. The resulting increase in delay from the 2040 No Build to 2040 Build scenario was less than 20 percent (**Table 2.2-6**); therefore no impacts would occur as a result of the Project in the 2040 – Build Alternative scenario.

The Sheffield Avenue and Lot 1 Driveway intersection would operate at an unacceptable LOS E during the PM peak hour with the addition of the commuter traffic. Although the intersection would operate at slightly less than desirable LOS, it is expected and acceptable given the nature of the land use and short influx of traffic. No improvements are recommended for the Sheffield Avenue and Lot 1 Driveway intersection.

Table 2.2-6: Munster/Dyer Main Street Station Potential Impacts Assessment

Location	Opening Year (2022) – Build		2040 – Build	
	LOS Impact?[a]	Delay Impact?[b]	LOS Impact?[a]	Delay Impact?[b]
Sheffield Avenue and Main Street/Lots 2 and 3 Driveway	No	Not applicable	No	—
Sheffield Avenue and Northgate Drive	No	Not applicable	Not applicable	1.6%
Sheffield Avenue and Seminary Drive	No	Not applicable	No	—
Sheffield Avenue and 213rd Street	No	Not applicable	No	—
Calumet Avenue and Main Street	No	Not applicable	Not applicable	17.1%
Sheffield Avenue and Lot 1 Driveway	No	Not applicable	No	—

Source: HDR 2017b.

[a] If an intersection in the No Build scenario operates at an acceptable LOS (A, B, C, or D) but operates at an unacceptable LOS (E or F) in the Build scenario, the intersection would be considered as affected.

[b] If an intersection in the No Build scenario operates at an unacceptable LOS (E or F) and the change in delay between the No Build scenario and the Build scenario is greater than 20 percent, the intersection would be considered as affected.

Without LOS changes between the No Build and Build scenarios and without significant delay increases, improvements to the existing street network would not be needed in Opening Year (2022) or 2040 – Build Alternative.

2.3 Munster Ridge Road Station

The Munster Ridge Road Station would be west of the proposed alignment and north of Ridge Road. The primary station access would be from Manor Avenue, approximately 500 feet north of Ridge Road. One parking lot would be constructed to accommodate parking demand, providing a total of 100 Park-and-Ride spaces. Kiss-and-Ride parking would also be provided on Manor Avenue near the station.

2.3.1 Ridership

The ridership forecasts for the Munster Ridge Road Station are categorized into trips by mode of access and are summarized in **Table 2.3-1** for both the Opening Year (2022) – Build Alternative and 2040 – Build Alternative scenarios. Existing ridership is not provided because a station does not exist at this location.

Table 2.3-1: Munster Ridge Road Station Daily Ridership Forecasts

Mode of Access	Opening Year (2022) – Build[a]	2040 – Build
Walk	114	143
Kiss-and-Ride	49	60
Park-and-Ride	68	35
Transfer	0	0
All	**231**	**238**

Source: HDR 2017a.

[a] No existing station

2.3.2 Parking Facilities

2.3.2.1 Park-and-Ride

To determine Park-and-Ride parking demand, a vehicle occupancy ratio of 1.19 was applied to the estimated Park-and-Ride station ridership. The resultant Park-and-Ride demand for Opening Year (2022) – Build Alternative is 58 spaces and for 2040 – Build Alternative is 30 spaces.

One parking lot would be constructed, as shown in **Figure 2.3-1**. Lot 1 would provide 100 parking spaces, of which 4 are ADA-compliant, and would have a driveway off Manor Avenue. Lot 1 parking supply meets Opening Year (2022) – Build Alternative demand of 58 Park-and-Ride spaces and 2040 – Build Alternative demand of 30 Park-and-Ride spaces (**Table 2.3-2**).

Table 2.3-2: Proposed Park-and-Ride Lot and Supply at Munster Ridge Road Station

Parking Lot	Opening Year (2022) – Build[a]	2040 – Build
1	100	100
All	**100**	**100**

Source: HDR 2017b.

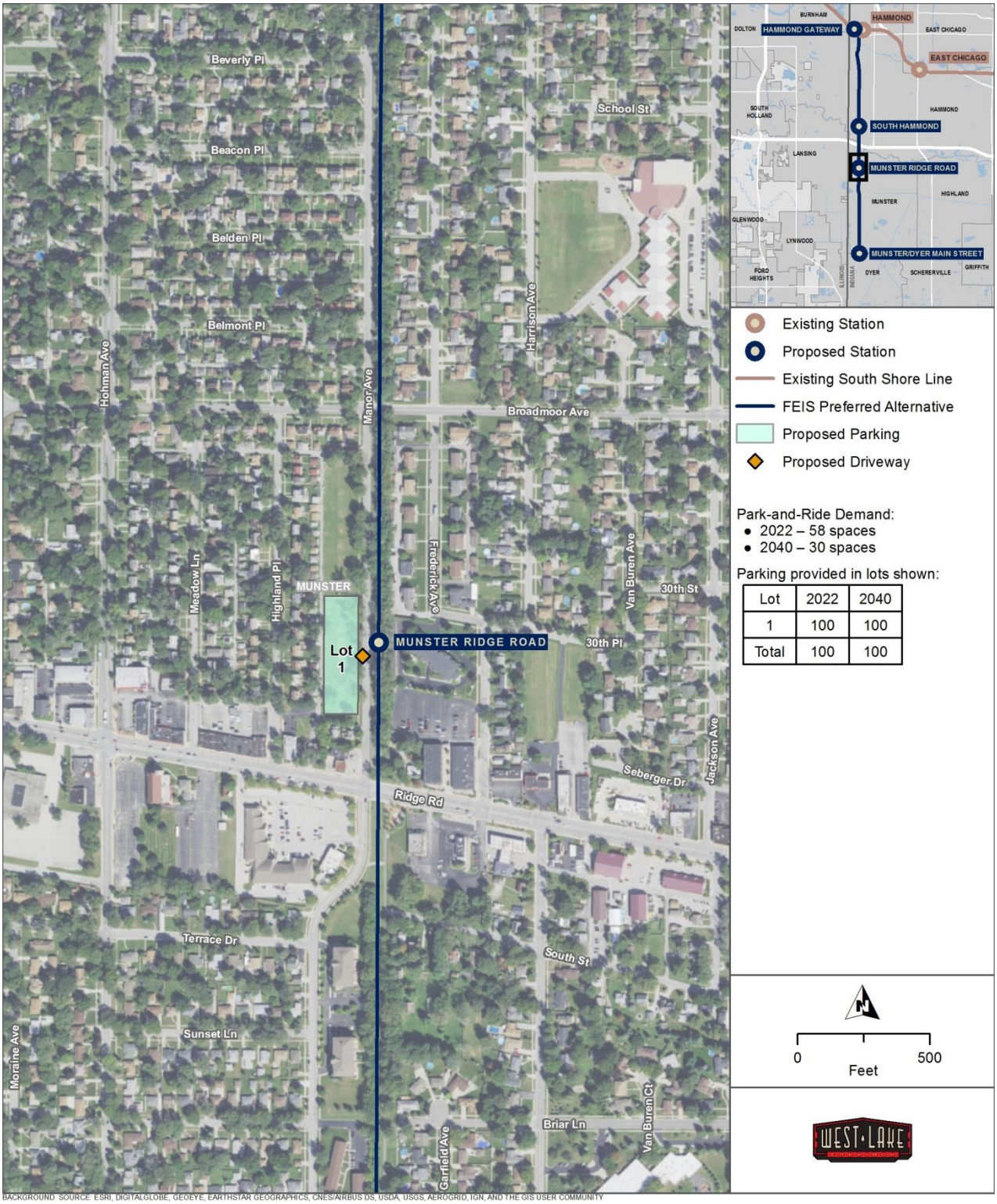
[a] Opening Year (2022) – Build Alternative demand = 58 spaces

[b] 2040 – Build Alternative demand = 30 spaces

2.3.2.2 Kiss-and-Ride

The Kiss-and-Ride ridership estimate for Opening Year (2022) – Build Alternative and 2040 – Build Alternative would be 49 and 60 riders, respectively. The highest estimated ridership on any one train would occur on an outbound train during the PM peak with an estimated 17 Kiss-and-Ride users for Opening Year (2022) – Build Alternative and 21 Kiss-and-Ride users for 2040 – Build Alternative. A total of 12 Kiss-and-Ride parking spaces would be provided along Manor Avenue adjacent to Lot 1 as on-street parallel parking for Opening Year (2022) – Build Alternative and 2040 – Build Alternative and as other spaces within the lot used to meet the Kiss-and-Ride demand.

Figure 2.3-1: Munster Ridge Road Station Park-and-Ride Parking Lot



Source: HDR 2017b.

2.3.2.3 Pedestrian Access

The proposed station platform would be east of Manor Avenue north of Ridge Road. The parking lot would be west of Manor Avenue north of Ridge Road. Access to the station would be via stairs and ADA ramps at each end of the platform. To travel between the parking lot and the station, pedestrians would use the proposed crosswalks for the primary station access or walk north to Broadmoor Avenue or south to Ridge Road. At these intersections, pedestrians would cross to the opposite side of road. A crosswalk exists at the Manor Avenue and Ridge Road intersection and at the Manor and Broadmoor Avenues intersection. A sidewalk would be installed west of Manor Avenue, and the Monon Trail would be reestablished east of Manor Avenue.

2.3.3 Traffic Analyses

Forecasting and analyses were performed at the proposed driveway access point for Lot 1 off Manor Avenue and two intersections near the new station to determine the effects of future commuter traffic.

2.3.3.1 Existing Conditions

Existing traffic volumes were collected on November 4, 2014, in the AM (7 AM to 9 AM) and PM (4 PM to 6 PM) peak periods, as part of the *Traffic Technical Report* prepared by NICTD for the DEIS. The peak traffic hours were determined to be 7:15 AM to 8:15 AM (AM peak hour) and 4:30 PM to 5:30 PM (PM peak hour). The following intersections near the Munster Ridge Road Station were included in this data collection:

- Manor Avenue and Ridge Road
- Manor Avenue and Broadmoor Avenue

All existing traffic volumes are provided in **Appendix A**.

Locations of existing study intersections, including any proposed driveways, are shown in **Figure 2.3-2**. Intersection geometry, traffic control, and other roadway characteristics for the intersections are described in the following sections.

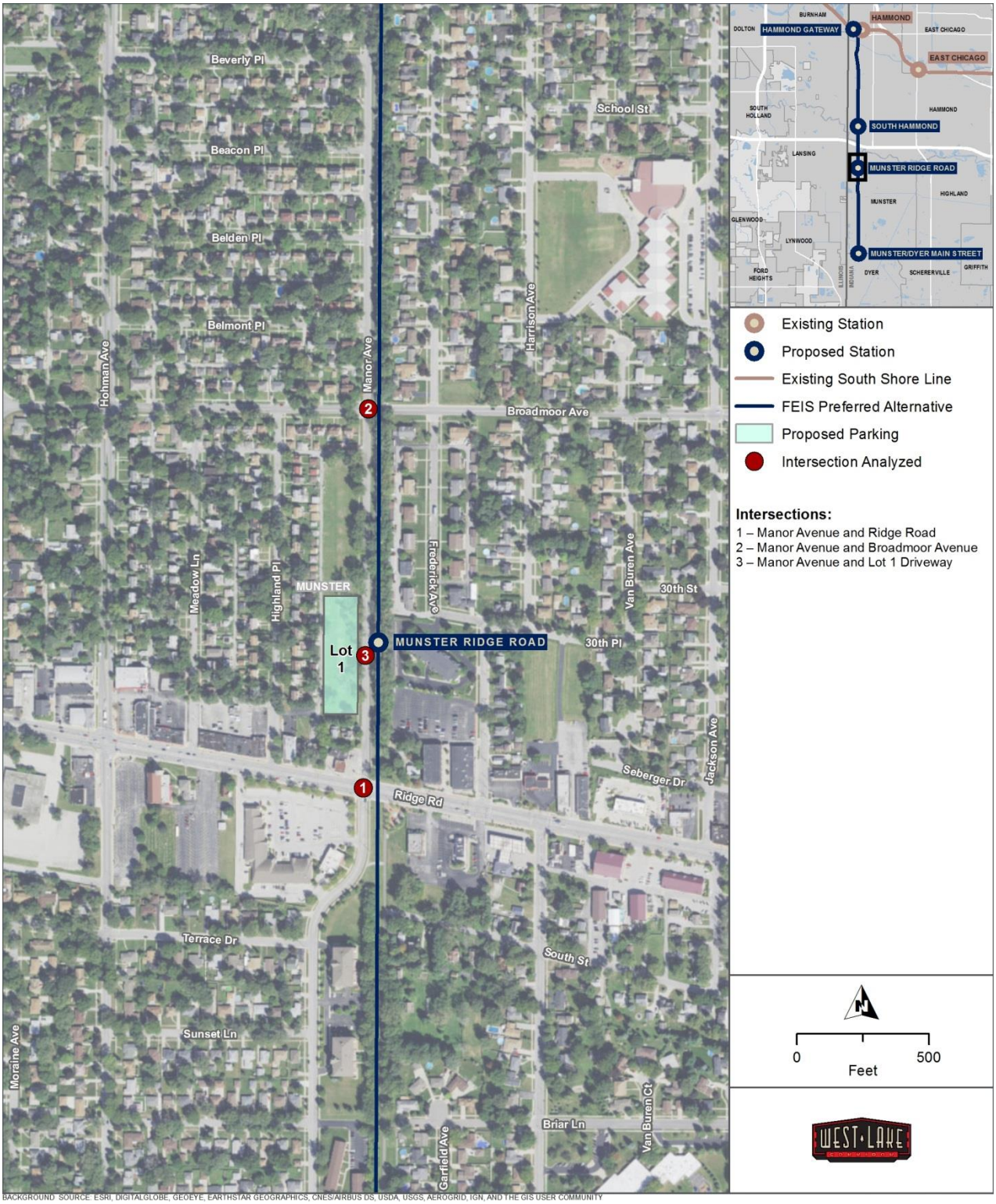
Manor Avenue and Ridge Road

The Manor Avenue and Ridge Road intersection is a signalized four-legged intersection. Manor Avenue is one lane in each direction with a left-turn lane to Ridge Road only in the northbound direction. Ridge Road is two lanes in each direction with a left-turn lane in both directions at the intersection. Pedestrian crosswalks, ADA ramps, and pedestrian signals are on all four approaches.

Manor Avenue and Broadmoor Avenue

The Manor Avenue and Broadmoor Avenue intersection is an all-way stop-controlled intersection. Both Manor and Broadmoor Avenues have one lane in each direction with no turning lanes at the intersection. Pedestrian accommodations—crosswalks and ADA ramps—are on all four approaches.

Figure 2.3-2: Munster Ridge Road Station Traffic Study Intersections



Source: HDR 2017b.

2.3.3.2 Future No Build Traffic

Existing volumes were projected to 2022 and 2040 at the study intersections by applying a growth percentage. All projected 2022 and 2040 traffic volumes and the growth percentages are provided in **Appendix A**.

2.3.3.3 Future Build Traffic

Using the proposed train schedule, the train that operates during the AM and PM peak hours was identified. It was from this peak hour train that the projected ridership data were used to determine the peak hour vehicle trips to and from the station. The peak hour site-generated trips were then distributed to the surrounding roadway network using estimated origin/destination percentages from data mapping software. The total peak riders and origin/destination percentages used are summarized in **Table 2.3-3**. The site-generated and distributed volumes are provided in **Appendix A**.

Table 2.3-3: Munster Ridge Road Station Site-generated Traffic Assumptions

	2022	2040
Total Riders	**231**	**247**
AM Peak Riders (38%)	88	94
AM Park-and-Ride Riders	26 (29%)	14 (15%)
AM Kiss-and-Ride Riders	19 (21%)	24 (25%)
PM Peak Riders (29.9%)	69	74
PM Park-and-Ride Riders	20 (29%)	11 (15%)
PM Kiss-and-Ride Riders	15 (21%)	19 (25%)
Origin/Destination Percentages (To/From)		
North	7%	
Southeast	56%	
Southwest	38%	

Source: HDR 2017b.

2.3.3.4 Operational Analysis

No Build Scenarios

The results of the Synchro 8 analysis for the Opening Year (2022) – No Build Alternative and 2040 – No Build Alternative scenarios are shown in **Table 2.3-4** and the output reports are in **Appendix B**. Both intersections would operate at acceptable LOS C or better during both the AM and PM peak hours in the Opening Year (2022) – No Build Alternative and 2040 – No Build Alternative scenarios.

Table 2.3-4: Munster Ridge Road Station – No Build Level of Service and Delay

Location	Opening Year (2022) – No Build		2040 – No Build	
	AM Peak Hour LOS (Delay in seconds/vehicle)	PM Peak Hour LOS (Delay in seconds/vehicle)	AM Peak Hour LOS (Delay in seconds/vehicle)	PM Peak Hour LOS (Delay in seconds/vehicle)
Manor Avenue and Ridge Road	A (9.1)	A (9.5)	B (11.1)	B (11.6)
Manor Avenue and Broadmoor Avenue	A (8.9)	B (12.9)	A (9.9)	C (19.9)

Source: HDR 2017b.

Build Scenarios

The Opening Year (2022) – Build Alternative scenario includes the Opening Year (2022) – No Build Alternative traffic plus the site-generated traffic resulting from the 2022 station and parking improvements and associated 2022 ridership forecasts. Similarly, the 2040 – Build Alternative scenario includes the 2040 – No Build Alternative traffic plus the site-generated traffic from the 2040 station and parking improvements and associated 2040 ridership forecasts. The build scenarios also assume one new driveway proposed off Manor Avenue, which serves the proposed Park-and-Ride parking lot. This analyzed driveway is:

- Manor Avenue and Lot 1 Driveway

Manor Avenue and Lot 1 Driveway

The Manor Avenue and Lot 1 Driveway would be 500 feet north of Ridge Road, as shown in **Figure 2.3-2**. The driveway would be one lane in each direction.

The results of the Synchro 8 analysis for the Opening Year (2022) – Build Alternative and 2040 – Build Alternative scenarios are shown in **Table 2.3-5** and the output reports are in **Appendix B**. All intersections, including the driveway to Lot 1, would operate at acceptable LOS C or better during both the AM and PM peak hours in the Opening Year (2022) – Build Alternative and 2040 – Build Alternative scenarios.

Table 2.3-5: Munster Ridge Road Station – Build Level of Service and Delay

Location	Opening Year (2022) – Build		2040 – Build	
	AM Peak Hour LOS (Delay in seconds/vehicle)	PM Peak Hour LOS (Delay in seconds/vehicle)	AM Peak Hour LOS (Delay in seconds/vehicle)	PM Peak Hour LOS (Delay in seconds/vehicle)
Manor Avenue and Ridge Road	B (10.3)	B (10.5)	B (12.9)	B (12.9)
Manor Avenue and Broadmoor Avenue	A (8.9)	B (13.3)	B (10.1)	C (21.2)
Manor Avenue and Lot 1 Driveway	A (9.2)	A (9.4)	A (9.2)	A (9.5)

Source: HDR 2017b.

2.3.3.5 Mitigation Assessment

With the addition of traffic generated by the Project to the street network, all existing intersections and the site driveway would operate at an acceptable LOS C or better during both the AM and PM peak hours in the Opening Year (2022) – Build Alternative and 2040 – Build Alternative scenarios. Since all intersections operate at LOS C or better, no impacts would occur as a result of the Project in Opening Year (2022) and in 2040 (**Table 2.3-6**). No improvements would be needed in the Opening Year (2022) or 2040 – Build Alternative scenarios with the addition of commuter traffic to the street network.

Table 2.3-6: Munster Ridge Road Station Potential Impacts Assessment

Location	Opening Year (2022) – Build		2040 – Build	
	LOS Impact?[a]	Delay Impact?[b]	LOS Impact?[a]	Delay Impact?[b]
Manor Avenue and Ridge Road	No	Not applicable	No	Not applicable
Manor Avenue and Broadmoor Avenue	No	Not applicable	No	Not applicable
Manor Avenue and Lot 1 Driveway	No	Not applicable	No	Not applicable

Source: HDR 2017b.

[a] If an intersection in the No Build scenario operates at an acceptable LOS (A, B, C, or D) but operates at an unacceptable LOS (E or F) in the Build scenario, the intersection would be considered as affected.

[b] If an intersection in the No Build scenario operates at an unacceptable LOS (E or F) and the change in delay between the No Build scenario and the Build scenario is greater than 20 percent, the intersection would be considered as affected.

2.4 South Hammond Station

The South Hammond Station would be east of the track and north of 173rd Street. Two parking lots would be constructed, north and south of 173rd Street, to accommodate parking demand, providing a total of 605 Park-and-Ride spaces in Opening Year (2022) and 761 Park-and-Ride spaces in 2040. Kiss-and-Ride parking would also be provided near the station.

2.4.1 Ridership

The ridership forecasts for the South Hammond Station are categorized into trips by mode of access and are summarized in **Table 2.4-1** for both the Opening Year (2022) – Build Alternative and 2040 – Build Alternative scenarios. Existing ridership is not provided because a station does not exist at this location.

Table 2.4-1: South Hammond Station Daily Ridership Forecasts

Mode of Access	Opening Year (2022) – Build[a]	2040 – Build
Walk	254	315
Kiss-and-Ride	74	98
Park-and-Ride	663	811
Transfer	0	0
All	**991**	**1,224**

Source: HDR 2017a.

[a] No existing station

2.4.2 Parking Facilities

2.4.2.1 Park-and-Ride

To determine Park-and-Ride parking demand, a vehicle occupancy ratio of 1.19 was applied to the estimated station ridership. The resultant Park-and-Ride demand for Opening Year (2022) – Build Alternative is 558 spaces and for 2040 – Build Alternative is 682 spaces.

Two parking lots would be constructed to accommodate the Opening Year (2022) – Build Alternative parking demand, as shown in **Table 2.4-1**. Lot 1 would provide 353 parking spaces, of which 14 would be ADA-compliant. One full access driveway would be provided to Lot 1 on 173rd Street approximately 165 feet east of the 173rd Street and Lyman Avenue intersection. Lot 2 would be constructed south of 173rd Street and would provide 252 spaces. Two driveways would provide access to Lot 2: one full-access driveway as the western leg of the 173rd Street and Harrison Avenue intersection and one right-in/right-out only access driveway on 173rd Street across from the full-access driveway to Lot 1. In total, the 605 parking spaces provided in Lots 1 and 2 (**Table 2.4-2**) would meet the Opening Year (2022) – Build Alternative demand of 558 Park-and-Ride spaces.

To meet 2040 – Build Alternative demand, Lot 3 would be constructed as an extension to the south of Lot 2 and would provide an additional 156 parking spaces. In total, 761 parking spaces would be provided in Lots 1, 2, and 3 (**Table 2.4-2**), meeting the 2040 – Build Alternative demand of 682 Park-and-Ride spaces.

Table 2.4-2: Proposed Park-and-Ride Lots and Supply at South Hammond Station

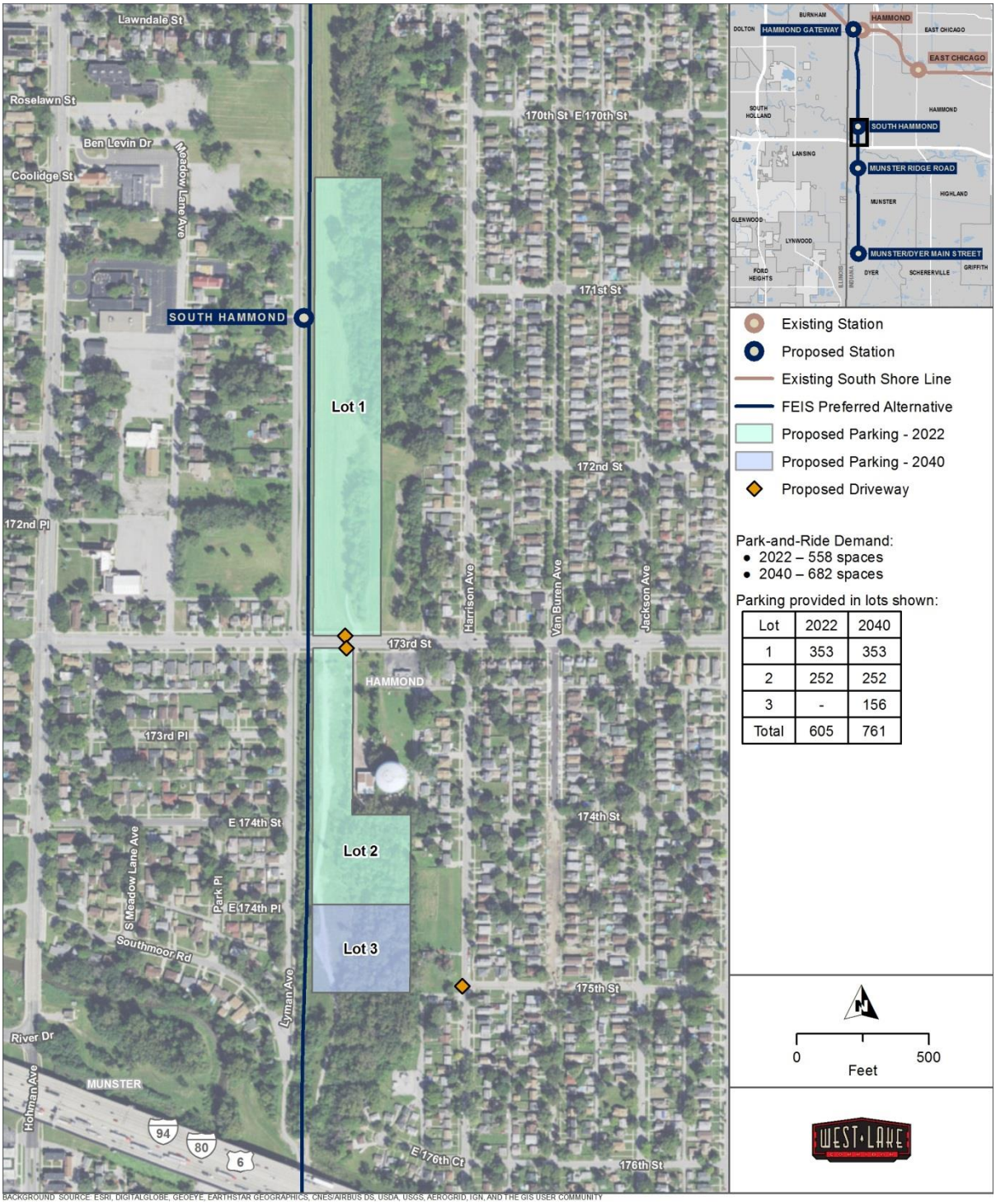
Parking Lot Number	Opening Year (2022) – Build[a]	2040 – Build[b]
1	353	353
2	252	252
3	—	156
All	**605**	**761**

Source: HDR 2017b.

[a] Opening Year (2022) – Build Alternative demand = 558 spaces

[b] 2040 – Build Alternative demand = 682 spaces

Figure 2.4-1: South Hammond Station Park-and-Ride Parking Areas



Source: HDR 2017b.

2.4.2.2 Kiss-and-Ride

The Kiss-and-Ride ridership estimate for Opening Year (2022) – Build Alternative and 2040 – Build Alternative would be 74 and 98 riders, respectively. The highest estimated ridership on any one train would occur on an outbound train during the PM peak with an estimated 25 Kiss-and-Ride users for Opening Year (2022) – Build Alternative and 34 Kiss-and-Ride users for 2040 – Build Alternative. A total of 34 Kiss-and-Ride parking spaces would be provided in Lot 1 for Opening Year (2022) – Build Alternative and 2040 – Build Alternative.

2.4.2.3 Pedestrian Access

The platform for the South Hammond Station would be on the eastern side of the West Lake Corridor commuter line, beginning approximately 100 feet north of the 173rd Street ROW. Parking for this station would be split between lots located east of the tracks, north and south of 173rd Street. All ADA and Kiss-and-Ride accommodations would be in the northern lot adjacent to the platform. A crosswalk would be provided across 173rd Street for pedestrians. The Monon Trail would be located on the west side of the West Lake Corridor commuter line.

2.4.3 Traffic Analyses

Forecasting and analyses were performed at the three proposed driveway access points and several intersections near the station to determine the impacts of future commuter traffic.

2.4.3.1 Existing Conditions

Existing traffic volumes were collected on November 4 and November 11, 2014, in the AM (7 AM to 9 AM) and PM (4 PM to 6 PM) peak periods, as part of the *Traffic Technical Report* prepared by NICTD for the DEIS. The peak traffic hours were determined to be 7:15 AM to 8:15 AM (AM peak hour) and 4:30 PM to 5:30 PM (PM peak hour). The following intersections at the South Hammond Station were included in this data collection:

- 169th Street and Harrison Avenue
- 173rd Street and Lyman Avenue
- 173rd Street and Harrison Avenue

Additional traffic volumes were collected for the FEIS on May 9, 2017, and April 4, 2017, in the identified AM (7:15 AM to 8:15 AM) and PM (4:30 PM to 5:30 PM) peak hours. The following intersections near the South Hammond Station were included in this data collection:

- 169th Street and Calumet Avenue
- 173rd Street and Hohman Avenue
- 173rd Street and Calumet Avenue
- 175th Street and Harrison Avenue
- 175th Street and Calumet Avenue
- Bernice Road and Wentworth Avenue
- Bernice Road and Hohman Avenue

All existing traffic volumes are provided in **Appendix A**.

Locations of existing study intersections, including any proposed driveways, are shown in **Figure 2.4-2**. Intersection geometry, traffic control, and other roadway characteristics for the intersections are described in the following sections.

169th Street and Harrison Avenue

The 169th Street and Harrison Avenue intersection is unsignalized, with all approaches under stop control. 169th Street and Harrison Avenue both have one lane in each direction without turn lanes at the intersection. On-street parking is permitted along both streets. A crosswalk exists only on the east approach; however, ADA ramps are on all approaches.

169th Street and Calumet Avenue

The 169th Street and Calumet Avenue intersection is signalized. 169th Street has one lane in each direction with a left-turn lane in both directions and a westbound right turn at the intersection. Calumet Avenue, also signed as U.S. 41, is two lanes in each direction with left-turn lanes provided in both directions at the intersection. Pedestrian crosswalks, ADA ramps, and pedestrian signals are on all approaches of the intersection.

173rd Street and Hohman Avenue

The 173rd Street and Hohman Avenue intersection is signalized. 173rd Street is one lane in each direction with a westbound left-turn and right-turn lane at the intersection. Hohman Avenue is a two-lane road with left-turn lanes in both directions at the intersection. Pedestrian crosswalks, ADA ramps, and pedestrian signals are on all approaches of the intersection.

173rd Street and Lyman Avenue

The 173rd Street and Lyman Avenue intersection is unsignalized. 173rd Street is one lane in each direction without turning lanes at the intersection. Lyman Avenue is stop controlled at 173rd Street with one lane in each direction without turning lanes at the intersection. Pedestrian crosswalks and ADA ramps are on all approaches of the intersection, except the western approach.

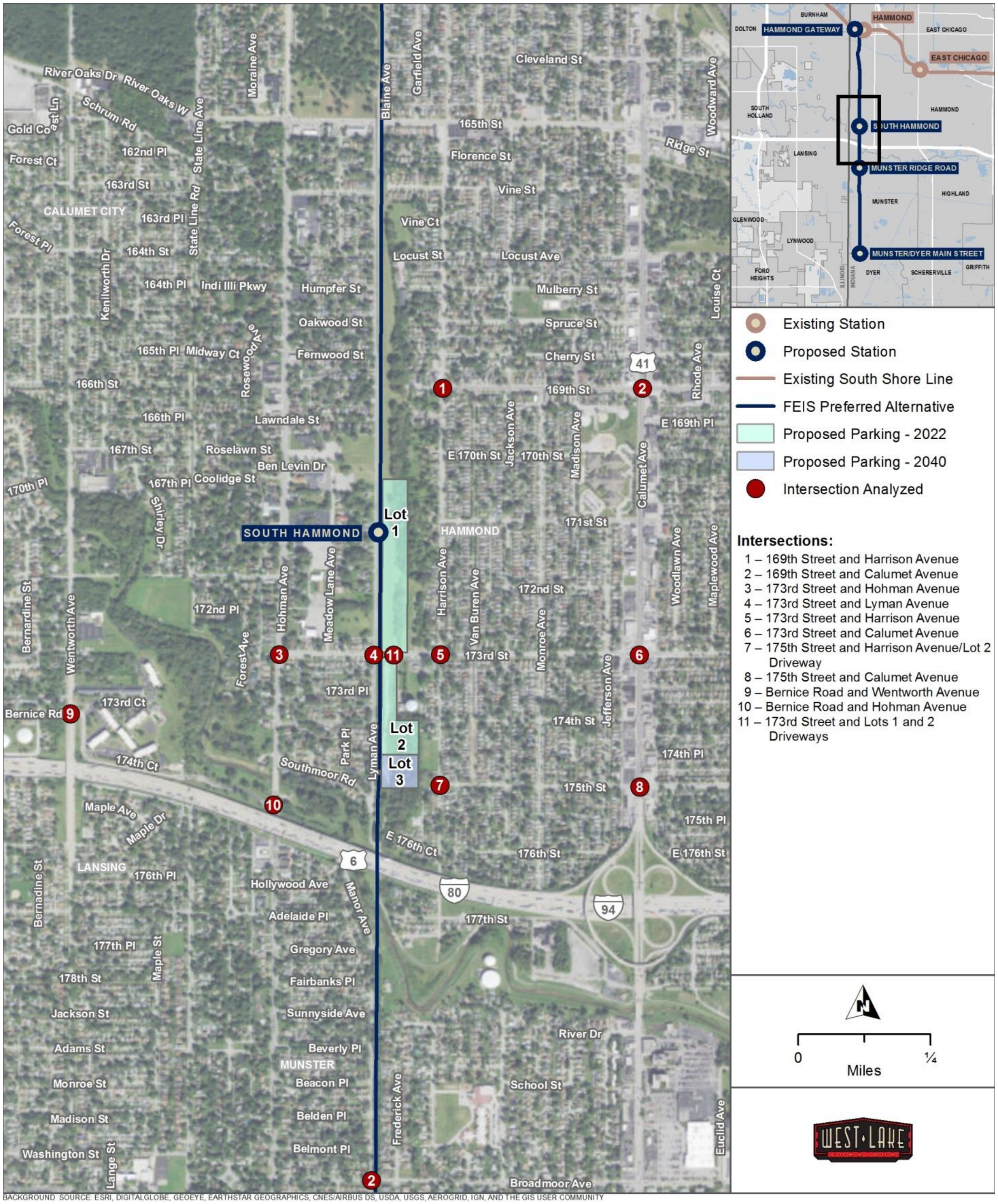
173rd Street and Harrison Avenue

The 173rd Street and Harrison Avenue intersection is an all-way stop-controlled intersection. Both 173rd Street and Harrison Avenue are one lane in each direction without turning lanes at the intersection. Pedestrian crosswalks and ADA ramps are on all approaches of the intersection.

173rd Street and Calumet Avenue

The 173rd Street and Calumet Avenue intersection is signalized. 173rd Street is one lane in each direction with left-turn lanes in both directions and a westbound right-turn lane at the intersection. Calumet Avenue, also signed as U.S. 41, is two lanes in each direction with left-turn lanes in both directions at the intersection. Pedestrian crosswalks, ADA ramps, and pedestrian signals are on all approaches of the intersection.

Figure 2.4-2: South Hammond Station Traffic Study Intersections



Source: HDR 2017b.

175th Street and Harrison Avenue

The 175th Street and Harrison Avenue intersection is an all-way stop-controlled, T-intersection. Both 175th Street and Harrison Avenue are one lane in each direction without turn lanes at the intersection. Pedestrian ADA ramps are on the eastern approach of the intersection. The proposed full-access driveway to Lot 2 would be the western leg of this intersection.

175th Street and Calumet Avenue

The 175th Street and Calumet Avenue intersection is signalized. 175th Street is one lane in each direction with left-turn lanes in both directions at the intersection. Calumet Avenue, also signed as U.S. 41, is two lanes in each direction with left-turn lanes in both directions at the intersection. Pedestrian crosswalks, ADA ramps, and pedestrian signals are on all approaches of the intersection.

Bernice Road and Wentworth Avenue

The Bernice Road and Wentworth Avenue intersection is signalized. Bernice Road is one lane in each direction with left-turn lanes in both directions at the intersection. Wentworth Avenue is two lanes in each direction with left-turn lanes in both directions at the intersection. Pedestrian crosswalks, ADA ramps, and pedestrian signals are on all approaches of the intersection.

Bernice Road and Hohman Avenue

The Bernice Road and Hohman Avenue intersection is a signalized T-intersection. Bernice Road is one lane in each direction with a left-turn lane and a right-turn lane at the intersection. Hohman Avenue has two lanes northbound with a left-turn lane at the intersection. In the southbound direction, the two lanes become one through lane and one right-turn lane at the intersection. Pedestrian crosswalks, ADA ramps, and pedestrian signals are on all approaches of the intersection.

2.4.3.2 Future No Build Traffic

Existing volumes were projected to 2022 and 2040 at the study intersections by applying a growth percentage. All projected 2022 and 2040 traffic volumes and the growth percentages are provided in **Appendix A**.

2.4.3.3 Future Build Traffic

Using the proposed train schedule, the train that operates during the AM and PM peak hours was identified. It was from this peak hour train that the projected ridership data were used to determine the peak hour vehicle trips to and from the station. The peak hour site-generated trips were then distributed to the surrounding roadway network using estimated origin/destination percentages from data mapping software. The total peak riders and origin/destination percentages used are summarized in **Table 2.4-3**. The site-generated and distributed volumes are provided in **Appendix A**.

Table 2.4-3: South Hammond Station Site-generated Traffic Assumptions

	2022	2040
Total Riders	**991**	**1,242**
AM Peak Riders (38%)	377	472
AM Park-and-Ride Riders	253 (67%)	316 (67%)
AM Kiss-and-Ride Riders	27 (7%)	38 (8%)
PM Peak Riders (29.9%)	296	371
PM Park-and-Ride Riders	198 (67%)	249 (67%)
PM Kiss-and-Ride Riders	21 (7%)	30 (8%)
Orgin/Destination Percentages (To/From)		
Northeast	4%	
Northwest	13%	
Southeast	43%	
Southwest	34%	
East	6%	

Source: HDR 2017b.

2.4.3.4 Operational Analysis

No Build Scenarios

The results of the Synchro 8 analysis for the Opening Year (2022) – No Build Alternative and 2040 – No Build Alternative scenarios are shown in **Table 2.4-4** and the output reports are in **Appendix B**. In the Opening Year (2022) – No Build Alternative scenario, all intersections would operate at acceptable LOS D or better during both the AM and PM peak hours. In the 2040 – No Build Alternative scenario, the 173rd Street and Calumet Avenue intersection would operate at an unacceptable LOS E during the PM peak.

Table 2.4-4: South Hammond Station – No Build Level of Service and Delay

Location	Opening Year (2022) – No Build		2040 – No Build	
	AM Peak Hour LOS (Delay in seconds/vehicle)	PM Peak Hour LOS (Delay in seconds/vehicle)	AM Peak Hour LOS (Delay in seconds/vehicle)	PM Peak Hour LOS (Delay in seconds/vehicle)
169th Street and Harrison Avenue	A (8.7)	A (9.7)	B (11.8)	C (17.2)
169th Street and Calumet Avenue	B (10.6)	B (11.1)	B (12.9)	B (13.3)
173rd Street and Hohman Avenue	B (16.4)	B (12.1)	B (19.1)	B (14.3)
173rd Street and Lyman Avenue	C (15.8)	C (16.8)	C (18.7)	C (21.1)
173rd Street and Harrison Avenue	B (10.2)	B (12.0)	B (12.0)	C (15.9)
173rd Street and Calumet Avenue	C (21.8)	D (35.2)	C (28.4)	E (60.0)
175th Street and Harrison Avenue	A (7.6)	A (7.9)	A (7.8)	A (8.2)
175th Street and Calumet Avenue	C (22.7)	C (26.5)	C (31.6)	D (39.8)
Bernice Road and Wentworth Avenue	B (14.3)	B (18.4)	B (15.4)	C (21.5)
Bernice Road and Hohman Avenue	A (7.1)	A (9.7)	A (7.6)	B (10.5)

Source: HDR 2017b.

Build Scenarios

The Opening Year (2022) – Build Alternative scenario includes the Opening Year (2022) – No Build Alternative traffic plus the site-generated traffic resulting from the station and parking improvements and associated 2022 ridership forecasts. Similarly, the 2040 – Build Alternative scenario includes 2040 – No Build Alternative traffic plus the site-generated traffic from the station and parking improvements and associated 2040 ridership forecasts. The build scenarios also assume three new driveways that serve the proposed parking lots. The additional locations included in the analysis as a result of the new driveways (or intersections) include:

- 175th Street and Harrison Avenue/Lot 2 Driveway
- 173rd Street and Lots 1 and 2 Driveways

175th Street and Harrison Avenue/Lot 2 Driveway

The 175th Street and Harrison Avenue/Lot 2 Driveway would become the west leg of the 175th Street and Harrison Avenue intersection (**Figure 2.4-2**). The driveway, western leg of the intersection, would be one shared left-turn, through, and right-turn lane.

173rd Street and Lots 1 and 2 Driveways

The 173rd Street and Lots 1 and 2 Driveways would be located approximately 250 feet east of the 173rd Street and Lyman Avenue intersection (**Figure 2.4-2**). The northern driveway, serving Lot 1, would have one left-turn lane and one right-turn lane at 173rd Street. The southern driveway, serving Lot 2, would be restricted to right-turn-in only and right-turn-out only.

The results of the analysis for the Opening Year (2022) – Build Alternative and 2040 – Build Alternative scenarios are shown in **Table 2.4-5** and the output reports are in **Appendix B**.

Table 2.4-5: South Hammond Station – Build Level of Service and Delay

Location	Opening Year (2022) – Build		2040 – Build	
	AM Peak Hour LOS (Delay in seconds/vehicle)	PM Peak Hour LOS (Delay in seconds/vehicle)	AM Peak Hour LOS (Delay in seconds/vehicle)	PM Peak Hour LOS (Delay in seconds/vehicle)
169th Street and Harrison Avenue	A (9.0)	A (10.0)	B (12.4)	C (19.0)
169th Street and Calumet Avenue	B (11.0)	B (11.5)	B (13.4)	B (13.7)
173rd Street and Hohman Avenue	B (16.9)	B (14.7)	C (20.1)	B (18.8)
173rd Street and Lyman Avenue	C (18.4)	C (18.9)	C (24.1)	D (25.8)
173rd Street and Harrison Avenue	B (13.0)	C (19.3)	B (15.3)	E (36.9)
173rd Street and Calumet Avenue	C (24.0)	D (46.1)	C (31.2)	E (68.7)
175th Street and Harrison Avenue/Lot 2 Driveway	A (8.0)	A (8.4)	A (8.9)	A (9.0)
175th Street and Calumet Avenue	C (23.9)	C (28.0)	C (33.0)	D (46.7)
Bernice Road and Wentworth Avenue	B (14.9)	B (19.2)	B (16.2)	C (22.7)
Bernice Road and Hohman Avenue	A (9.5)	A (9.7)	B (10.3)	B (10.5)
173rd Street and Lots 1 and 2 Driveways	C (17.7)	C (23.9)	C (18.8)	D (27.4)

Source: HDR 2017b.

All intersections and new driveways would operate at an acceptable LOS D or better during both the AM and PM peak hours in the Opening Year (2022) – Build Alternative and 2040 – Build Alternative scenarios, except the 173rd Street and Harrison Avenue intersection and 173rd Street and Calumet Avenue intersection, which would operate at LOS E in the PM peak hour. Additionally, the 173rd Street and Harrison Avenue intersection would deteriorate to LOS E in the PM peak hour in 2040.

2.4.3.5 Mitigation Assessment

In the Opening Year (2022) – Build Alternative scenario, all intersections and proposed driveways would operate at an acceptable LOS D or better during both the AM and PM peak hours. Since all intersections would operate at LOS D or better, no impacts would occur as a result of the Project and improvements are not needed in Opening Year (2022) (**Table 2.4-6**).

In the 2040 – Build Alternative scenario, two intersections would operate at LOS E in the 2040 Build scenario: 173rd Street at Harrison Avenue and 173rd Street and Calumet Avenue. At the 173rd Street and Calumet Avenue intersection, the change in delay between the No Build and the Build scenarios was compared to determine whether an impact would occur as a result of the Project. The resulting increase in delay from the No Build to Build scenario would be less than 20 percent; therefore, no impact would occur as a result of the Project in 2040 – Build Alternative scenario at this location (**Table 2.4-6**).

Table 2.4-6: South Hammond Station Potential Impacts Assessment

Location	Opening Year (2022) – Build		2040 – Build	
	LOS Impact?[a]	Delay Impact?[b]	LOS Impact?[a]	Delay Impact?[b]
169th Street and Harrison Avenue	No	Not applicable	No	Not applicable
169th Street and Calumet Avenue	No	Not applicable	No	Not applicable
173rd Street and Hohman Avenue	No	Not applicable	No	Not applicable
173rd Street and Lyman Avenue	No	Not applicable	No	Not applicable
173rd Street and Harrison Avenue	No	Not applicable	Yes	Not applicable
173rd Street and Calumet Avenue	No	Not applicable	Not applicable	14.5%
175th Street and Harrison Avenue/Lot 2 Driveway	No	Not applicable	No	Not applicable
175th Street and Calumet Avenue	No	Not applicable	No	Not applicable
Bernice Road and Wentworth Avenue	No	Not applicable	No	Not applicable
Bernice Road and Hohman Avenue	No	Not applicable	No	Not applicable
173rd Street and Lots 1 and 2 Driveways	No	Not applicable	No	Not applicable

Source: HDR 2017b.

[a] If an intersection in the No Build scenario operates at an acceptable LOS (A, B, C, or D) but operates at an unacceptable LOS (E or F) in the Build scenario, the intersection would be considered as affected.

[b] If an intersection in the No Build scenario operates at an unacceptable LOS (E or F) and the change in delay between the No Build scenario and the Build scenario is greater than 20 percent, the intersection would be considered as affected.

At the 173rd Street and Harrison Avenue intersection, the added Project traffic would degrade from LOS C to an unacceptable LOS E in the PM peak hour; thus, an impact would occur at this location as a result of the Project. Improvements are recommended to mitigate the unacceptable operations. It is recommended to restripe the pavement on 173rd Street at the intersection to provide one eastbound shared through/left-turn lane and one eastbound right-turn lane. With the recommended improvements in 2040, the LOS E in the PM peak hour would be improved to LOS C, as shown in **Table 2.4-7**.

Table 2.4-7: South Hammond Station 2040 – Build Alternative with Mitigation Level of Service and Delay

Location	2040 – Build and Mitigation	
	AM Peak Hour LOS (Delay in seconds/vehicle)	PM Peak Hour LOS (Delay in seconds/vehicle)
173rd Street and Harrison Avenue	B (12.7)	C (17.1)

Source: HDR 2017b.

2.5 Hammond Gateway Station

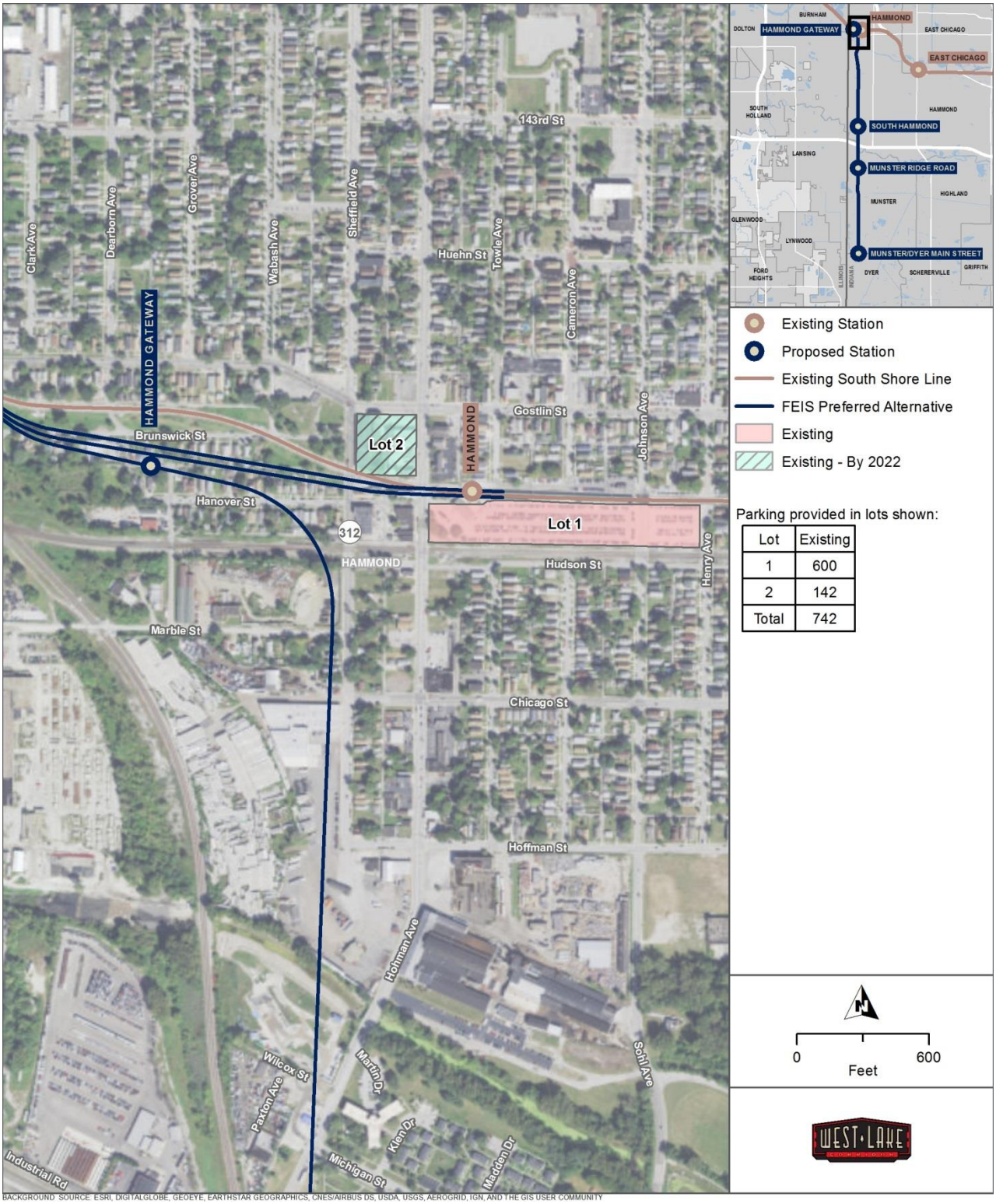
The Hammond Gateway Station would be located in north Hammond, adjacent to the relocated SSL Hammond Station (**Figure 2.5-1**), which would be moved approximately 0.15 mile west. The combined SSL/Project Station would be designed to serve passengers transferring between the two services.

The existing SSL Hammond Station is served by Lot 1, providing 600 parking spaces. To accommodate existing parking demand, NICTD is constructing another parking lot (Lot 2) that would provide additional parking, 142 spaces, for the existing station and would remain in place when the existing station is moved. This lot would be in the southeastern quadrant of the Hohman Avenue and Gostlin Street intersection. With the SSL Hammond Station relocation, Lot 1 would be removed.

Near the Hammond Gateway Station, the City of Hammond is implementing a project to realign Chicago Street (Chicago Street Widening and Reconstruction Project) (INDOT 2016). In addition to realigning and widening the roadways, this project changes typical four-way intersections to roundabouts. The Chicago Street improvement was considered existing conditions for the analysis.

For the Hammond Gateway Station, the main station parking lot (Lot 3) would be constructed to provide a total of 489 Park-and-Ride spaces. Kiss-and-Ride parking would also be provided near the station. This lot would be south of the proposed Hammond Gateway Station. Two access driveways would be connected to the Chicago Street improvement.

Figure 2.5-1: Hammond Gateway Station Existing Station and Parking



Source: HDR 2017b.

2.5.1 Ridership

The ridership forecasts for the Hammond Gateway Station are categorized into trips by mode of access and are summarized in **Table 2.5-1** for the existing SSL/South Hammond Station and for the proposed combined SSL/West Lake Corridor Hammond Gateway Station Opening Year (2022) – Build Alternative and 2040 – Build Alternative scenarios.

Table 2.5-1: Hammond Gateway Station Daily Ridership Forecasts

Mode of Access	Existing	Opening Year (2022) – Build	2040 – Build
Walk	299	318	480
Kiss-and-Ride	156	136	123
Park-and-Ride	735	616	703
Transfer	0	500	859
All	**1,190**	**1,571**	**2,165**

Source: HDR 2017a.

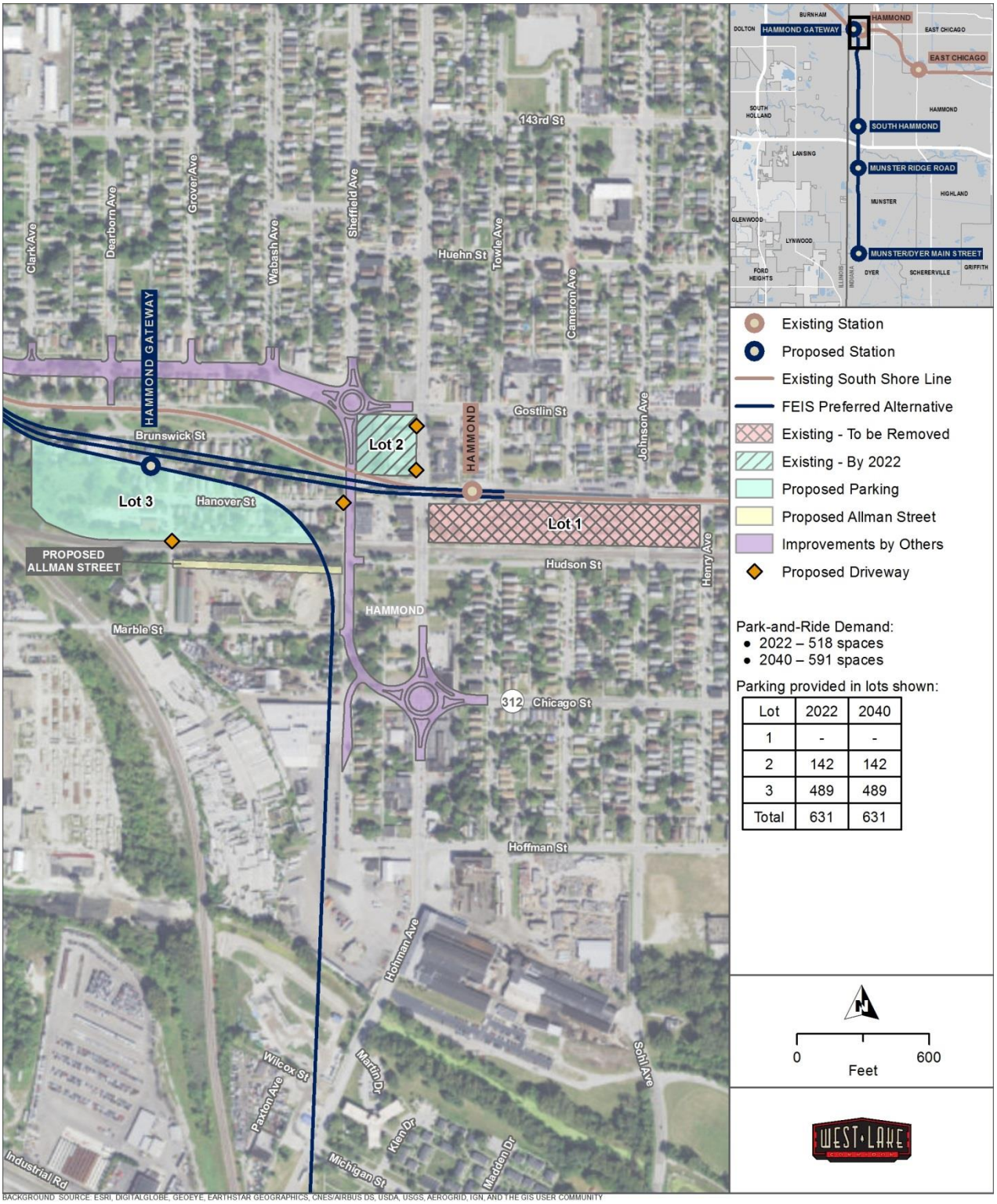
2.5.2 Parking Facilities

2.5.2.1 Park-and-Ride

To determine Park-and-Ride parking demand, a vehicle occupancy ratio of 1.19 was applied to the estimated Park-and-Ride ridership. The resultant demand for Opening Year (2022) – Build Alternative is 518 spaces and for 2040 – Build Alternative is 591 spaces.

One parking lot, Lot 3, would be constructed to accommodate the Opening Year (2022) – Build Alternative and 2040 – Build Alternative parking demand, as shown in **Figure 2.5-2**. Lot 3 would provide 489 parking spaces, of which 13 would be ADA-compliant. Two driveways, both full accesses, would be provided. One driveway would be on Sheffield Avenue across from Hanover Street, creating a four-legged intersection. The second driveway would be on Wabash Avenue just north of the new proposed roadway, Allman Street. Allman Street would run east-to-west between Wabash and Sheffield Avenues approximately 50 feet south of the existing Hudson Street and Sheffield Avenue intersection.

Figure 2.5-2: Hammond Gateway Station Park-and-Ride Parking Areas



Source: HDR 2017b.

In total, 631 parking spaces in Lots 2 and 3 (**Table 2.5-2**), would meet the Opening Year (2022) – Build Alternative demand of 518 Park-and-Ride spaces and the 2040 – Build Alternative demand of 591 Park-and-Ride spaces.

Table 2.5-2: Proposed Park-and-Ride Lots and Supply at Hammond Gateway Station

Parking Lot Number	Opening Year (2022) – Build[a]	2040 – Build[b]
1	—	—
2	142	142
3	489	489
All	**631**	**631**

Source: HDR 2017b.

[a] Opening Year (2022) – Build Alternative demand = 518 spaces

[b] 2040 – Build Alternative demand = 591 spaces

2.5.2.2 Kiss-and-Ride

The Kiss-and-Ride ridership estimate for Opening Year (2022) – Build Alternative and 2040 – Build Alternative would be 136 and 123 riders, respectively. The highest estimated ridership on any one train occurs on an outbound train during the PM peak, with an estimated 46 Kiss-and-Ride users for Opening Year (2022) – Build Alternative and 43 Kiss-and-Ride users for 2040 – Build Alternative. A total of 45 Kiss-and-Ride parking spaces would be provided in Lot 3 for Opening Year (2022) – Build Alternative and 2040 – Build Alternative.

2.5.2.3 Pedestrian Access

The station platform and tracks would be elevated, with access provided by stairs and an elevator. The parking and station building would be south of the West Lake Corridor tracks. Access to the SSL platform (north of the West Lake Corridor tracks) from the parking would be accommodated by a paved plaza area under the elevated West Lake Corridor tracks above. Sidewalks and crosswalks would be provided along Chicago Street to provide access from Lot 2 to the stations.

2.5.3 Traffic Analyses

Forecasting and analyses were performed at the proposed driveway access points and several intersections near the station to determine the impacts of future commuter traffic.

2.5.3.1 Traffic Data Collection

American StructurePoint, Inc. completed the traffic analysis for the City of Hammond's Chicago Street Widen and Reconstruction Project. The existing and projected traffic and proposed geometric improvements, which are roundabouts, were obtained from the traffic analysis for the following intersections:

- Sheffield Avenue and Gostlin Street
- Hohman Avenue and Chicago Street

Additional traffic volumes were collected for the FEIS on May 9, 2017, and April 4, 2017, in the identified AM (7:15 AM to 8:15 AM) and PM (4:30 PM to 5:30 PM) peak hours. The following intersection at the Munster/Dyer Main Street Station was included in this data collection:

- Sheffield Avenue and Hudson Street
- Sheffield Avenue and Marble Avenue
- Hohman Avenue and Gostlin Street
- Hohman Avenue and Hudson Street

Based on similarity of street characteristics to adjacent roadways and the surrounding land use, volumes were estimated and balanced with adjacent intersections for the following locations:

- Sheffield Avenue and Hanover Street
- Sheffield Avenue and Chicago Street
- Hohman Avenue and Hanover Street

All existing traffic volumes are provided in **Appendix A**.

Locations of existing study intersections, including proposed driveways, are shown in **Figure 2.5-3**. Intersection geometry, traffic control, and other roadway characteristics for the intersections are described in the following sections.

Sheffield Avenue and Gostlin Street

The Chicago Street Reconstruction Project to be implemented at this location before Opening Year (2022) includes upgrading the existing signalized intersection to a one-lane roundabout with a right-turn bypass lane in the eastbound direction (**Figure 2.5-4**).

Sheffield Avenue and Hanover Street

The Sheffield Avenue and Hanover Street intersection is unsignalized, with Hanover Street stop-controlled at Sheffield Avenue. Both Sheffield Avenue and Hanover Street have one lane in each direction without turning lanes at the intersection. On-street parking is allowed along Hanover Street.

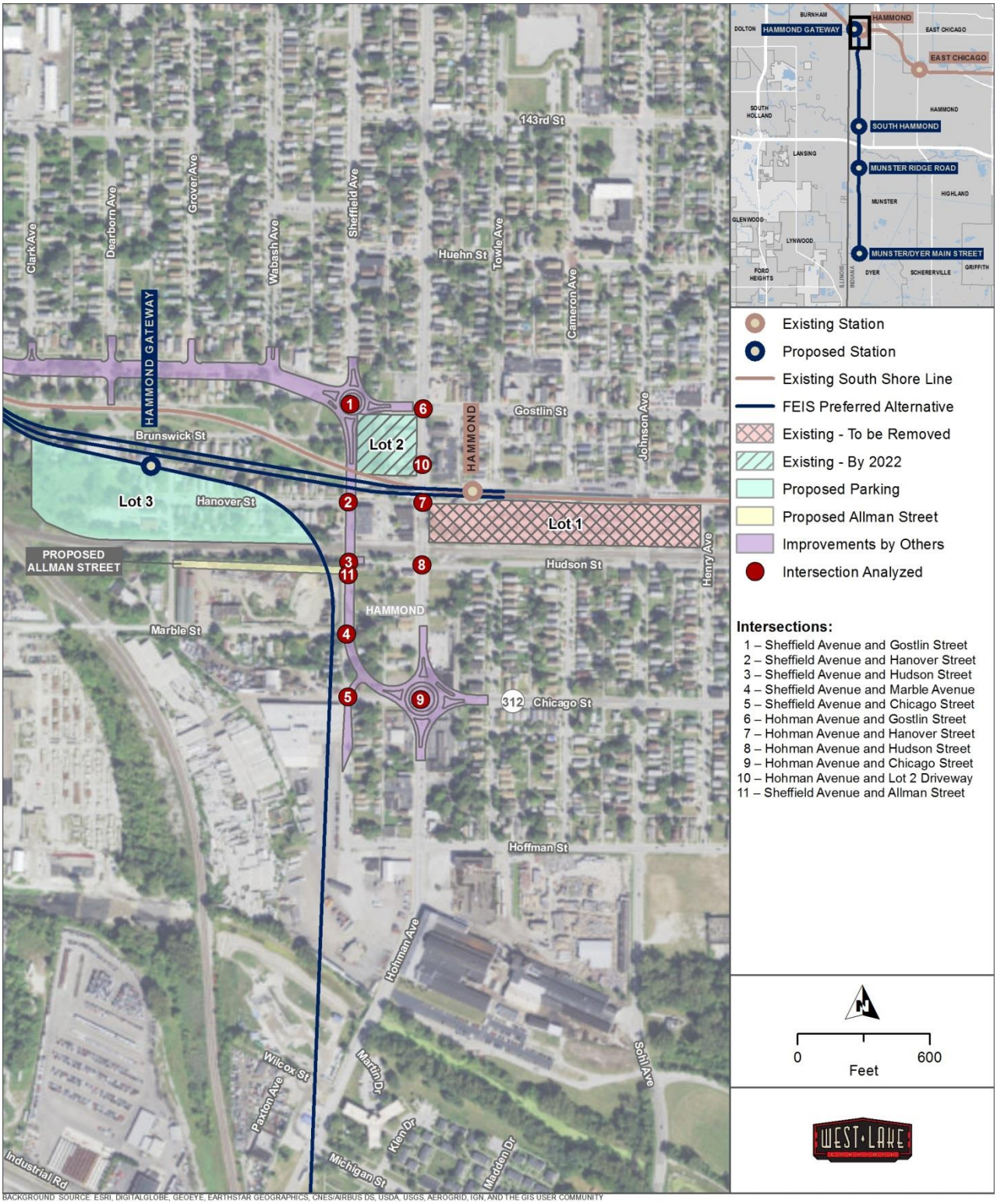
Sheffield Avenue and Hudson Street

The Sheffield Avenue and Hudson Street intersection is an unsignalized T-intersection with Hudson Street stop-controlled at Sheffield Avenue. Both Sheffield Avenue and Hudson Street have one lane in each direction without turning lanes at the intersection.

Sheffield Avenue and Marble Avenue

The Sheffield Avenue and Marble Avenue intersection is an unsignalized T-intersection with Marble Avenue stop-controlled at Sheffield Avenue. Both Sheffield and Marble Avenues have one lane in each direction without turning lanes at the intersection. In the Hammond Gateway Station Build scenarios, Marble Avenue would be removed because of the location of the proposed maintenance facility west of Sheffield Avenue.

Figure 2.5-3: Hammond Gateway Station Traffic Study Intersections



Source: HDR 2017b.

Figure 2.5-4: Hammond Gateway Station Roadway Improvements by Others

Source: HDR 2017b.

Sheffield Avenue and Chicago Street

The Chicago Street Reconstruction Project to be implemented at this location before Opening Year (2022) includes realigning Sheffield Avenue with the western leg of the Hohman Avenue and Chicago Street intersection. The southern leg of Sheffield Avenue would then be stop-controlled at the new realigned Chicago Street/Sheffield Avenue (**Figure 2.5-4**).

Hohman Avenue and Gostlin Street

The Hohman Avenue and Gostlin Street intersection is signalized. Both Hohman Avenue and Gostlin Street have one lane in each direction with left-turn lanes on all approaches. A northbound right-turn lane is also on Hohman Avenue at the intersection. Pedestrian accommodations are on all approaches of the intersection. Lot 2 is in the southwestern quadrant of the intersection. Lot 2 would have two driveways located approximately 60 feet and 285 feet south of Gostlin Street on Hohman Avenue.

Hohman Avenue and Hanover Street

The Hohman Avenue and Hanover Street intersection is unsignalized, with Hanover Street stop-controlled at Hohman Avenue. Both Hohman Avenue and Hanover Street have one lane in each direction without turning lanes at the intersection. The eastern leg of the intersection is a right-in/right-out only driveway to the existing Hammond station parking lot (Lot 1). On-street parking is allowed along Hanover Street.

Hohman Avenue and Hudson Street

The Hohman Avenue and Hudson Street intersection is unsignalized, with Hudson Street stop-controlled at Hohman Avenue. Both Hohman Avenue and Hanover Street have one lane in each direction without turning lanes at the intersection.

Hohman Avenue and Chicago Street

The Chicago Street Reconstruction Project improvements to be implemented at this location before Opening Year (2022) includes upgrading the signalized intersection to a one-lane roundabout with a westbound right-turn bypass lane (**Figure 2.5-4**).

2.5.3.2 Future No Build Traffic

Existing volumes were projected to 2022 and 2040 at the study intersections by applying a growth percentage. All projected 2022 and 2040 traffic volumes and the growth percentages are provided in **Appendix A**.

2.5.3.3 Future Build Traffic

Using the proposed train schedule, the train that operates during the AM and PM peak hours was identified. It was from this peak hour train that the projected ridership data were used to determine the peak hour vehicle trips to and from the station. The peak hour site-generated trips were then distributed to the surrounding roadway network using estimated origin/destination percentages from data mapping software. The total peak riders and origin/destination percentages used are summarized in **Table 2.5-3**. The site-generated and distributed volumes are provided in **Appendix A**.

Table 2.5-3: Hammond Gateway Station Site-generated Traffic Assumptions

	2022	2040
Total Riders	**1,070**	**1,350**
AM Peak Riders (38%)	407	513
AM Park-and-Ride Riders	236 (58%)	272 (53%)
AM Kiss-and-Ride Riders	53 (13%)	46 (9%)
PM Peak Riders (29.9%)	320	404
PM Park-and-Ride Riders	186 (58%)	214 (53%)
PM Kiss-and-Ride Riders	42 (13%)	36 (9%)
Origin/Destination Percentages (To/From)		
North	2%	
Northwest	2%	
South	16%	
Southeast	74%	
West	6%	

Source: HDR 2017b.

2.5.3.4 Operational Analysis

No Build Scenarios

The results of the Synchro analysis for the Opening Year (2022) – No Build Alternative and 2040 – No Build Alternative scenarios are shown in **Table 2.5-4** and the output reports are in **Appendix B**. All intersections would operate at an acceptable LOS D or better during both the AM and PM peak hours in the Opening Year (2022) and 2040 No Build scenarios.

Build Scenarios

The Opening Year (2022) – Build Alternative scenario includes the Opening Year (2022) – No Build Alternative traffic plus the site-generated traffic from the 2022 station and parking improvements and associated 2022 ridership forecasts. Similarly, the 2040 – Build Alternative scenario includes the 2040 – No Build Alternative traffic plus the site-generated traffic from the 2040 station and parking improvements and associated 2040 ridership forecasts. The build scenarios also assume new driveways, which serve the proposed parking lots as previously described, two driveways proposed on Hohman Avenue serving Lot 2, one driveway on Sheffield Avenue at the Sheffield Avenue and Hanover Street intersection serving Lot 3, and one driveway on Wabash Avenue serving Lot 3. For this analysis, the two driveways proposed at Lot 2 were combined into one driveway to obtain worst-case scenario results. The additional locations included in the analysis as a result of the new driveways (or intersections) include:

- Hohman Avenue and Lot 2 Driveway
- Sheffield Avenue and Allman Street

Table 2.5-4: Hammond Gateway Station – No Build Level of Service and Delay

Location	Opening Year (2022) – No Build		2040 – No Build	
	AM Peak Hour LOS (Delay in seconds/ vehicle)	PM Peak Hour LOS (Delay in seconds/ vehicle)	AM Peak Hour LOS (Delay in seconds/ vehicle)	PM Peak Hour LOS (Delay in seconds/ vehicle)
Sheffield Avenue and Gostlin Street	A (5.2)	A (6.4)	A (5.8)	A (7.4)
Sheffield Avenue and Hanover Street	B (12.8)	B (12.5)	B (13.8)	B (13.3)
Sheffield Avenue and Hudson Street	A (10.7)	B (11.4)	B (11.1)	B (11.9)
Sheffield Avenue and Marble Avenue	B (12.1)	B (11.3)	B (12.9)	B (11.9)
Sheffield Avenue and Chicago Street	B (11.6)	B (12.3)	B (12.4)	B (13.0)
Hohman Avenue and Gostlin Street	B (15.2)	B (18.8)	B (15.5)	B (19.7)
Hohman Avenue and Hanover Street	B (12.9)	B (14.6)	B (13.6)	C (15.7)
Hohman Avenue and Hudson Street	C (16.6)	C (19.1)	C (17.7)	C (22.0)
Hohman Avenue and Chicago Street	A (6.5)	C (15.6)	A (7.4)	D (28.2)

Source: HDR 2017b.

Sheffield Avenue and Hanover Street/Lot 3 North Driveway

The Sheffield Avenue and Hanover Street/Lot 3 North Driveway would become the western leg of the Sheffield Avenue and Hanover Street intersection (**Figure 2.5-3**). The driveway would be full access, providing one lane entering and one lane exiting.

Hohman Avenue and Lot 2 Driveway

Two driveways, 225 feet apart, on Hohman Avenue would serve Lot 2. Both driveways would be full access with one lane in each direction. For this traffic analysis, the two driveways were combined into one driveway to obtain worst-case scenario results.

Sheffield Avenue and Allman Street

Allman Street would run east-to-west between Wabash Avenue and Sheffield Avenue approximately 50 feet south of the existing Hudson Street and Sheffield Avenue intersection. Allman Street would be stop-controlled at Sheffield Avenue with one lane entering and one lane exiting.

The results of the analysis for the Opening Year (2022) – Build Alternative and 2040 – Build Alternative scenarios are shown in **Table 2.5-5** and the output reports are in **Appendix B**. In the

Opening Year (2022) – Build Alternative and 2040 – Build Alternative scenarios, all intersections would continue to operate at LOS C or better, except the Hohman Avenue and Chicago Street intersection, which would degrade to an unacceptable LOS in the PM peak hours.

Table 2.5-5: Hammond Gateway Station – Build Level of Service and Delay

Location	Opening Year (2022) – Build		2040 – Build	
	AM Peak Hour LOS (Delay in seconds/ vehicle)	PM Peak Hour LOS (Delay in seconds/ vehicle)	AM Peak Hour LOS (Delay in seconds/ vehicle)	PM Peak Hour LOS (Delay in seconds/ vehicle)
Sheffield Avenue and Gostlin Street	A (5.3)	A (6.6)	A (5.9)	B (7.7)
Sheffield Avenue and Hanover Street	C (16.5)	B (13.6)	C (17.9)	B (14.6)
Sheffield Avenue and Hudson Street	C (15.3)	B (13.8)	C (16.3)	B (14.7)
Sheffield Avenue and Marble Avenue[a]	—	—	—	—
Sheffield Avenue and Chicago Street	B (14.0)	C (15.9)	C (16.1)	C (17.6)
Hohman Avenue and Gostlin Street	B (15.3)	B (18.8)	B (15.6)	B (19.8)
Hohman Avenue and Hanover Street	B (13.3)	B (13.6)	B (14.0)	B (14.4)
Hohman Avenue and Hudson Street	C (23.6)	C (23.4)	C (24.2)	C (24.8)
Hohman Avenue and Chicago Street	A (9.2)	E (41.0)	B (12.5)	F (98.9)
Hohman Avenue and Lot 2 Driveway	C (15.7)	B (13.0)	C (17.0)	B (13.8)
Sheffield Avenue and Allman Street	B (13.5)	B (14.6)	B (14.9)	C (15.8)

Source: HDR 2017b.

[a] Marble Avenue is closed west of Sheffield Avenue in the Build scenarios.

2.5.3.5 Mitigation Assessment

In the Opening Year (2022) – Build Alternative and 2040 – Build Alternative scenarios, the Hohman Avenue and Chicago Street intersection would degrade to an unacceptable LOS in the PM peak hours. In 2022, the intersection would degrade from LOS C to LOS E with the added commuter traffic. In 2040, the intersection would degrade from LOS D to LOS F with the added commuter traffic. The resulting decrease in LOS from the No Build to Build scenario would be defined as an impact by the Project (**Table 2.5-6**).

Table 2.5-6: Hammond Gateway Station Potential Impacts Assessment

Location	Opening Year (2022) – Build		2040 – Build	
	LOS Impact?[a]	Delay Impact?[b]	LOS Impact?[a]	Delay Impact?[b]
Sheffield Avenue and Gostlin Street	No	Not applicable	No	Not applicable
Sheffield Avenue and Hanover Street	No	Not applicable	No	Not applicable
Sheffield Avenue and Hudson Street	No	Not applicable	No	Not applicable
Sheffield Avenue and Marble Avenue[c]	Not applicable	Not applicable	Not applicable	Not applicable
Sheffield Avenue and Chicago Street	No	Not applicable	No	Not applicable
Hohman Avenue and Gostlin Street	No	Not applicable	No	Not applicable
Hohman Avenue and Hanover Street	No	Not applicable	No	Not applicable
Hohman Avenue and Hudson Street	No	Not applicable	No	Not applicable
Hohman Avenue and Chicago Street	Yes	Not applicable	Yes	Not applicable
Hohman Avenue and Lot 2 Driveway	No	Not applicable	No	Not applicable
Sheffield Avenue and Allman Street	No	Not applicable	No	Not applicable

Source: HDR 2017b.

[a] If an intersection in the No Build scenario operates at an acceptable LOS (A, B, C, or D) but operates at an unacceptable LOS (E or F) in the Build scenario, the intersection would be considered as affected.

[b] If an intersection in the No Build scenario operates at an unacceptable LOS (E or F) and the change in delay between the No Build scenario and the Build scenario is greater than 20 percent, the intersection would be considered as affected.

[c] Marble Avenue is closed west of Sheffield Avenue in the Build scenarios.

The LOS E in 2022 is only 5 seconds less than the acceptable delay for LOS D. It is suggested to request a design variance for Opening Year 2022 and not provide any improvements.

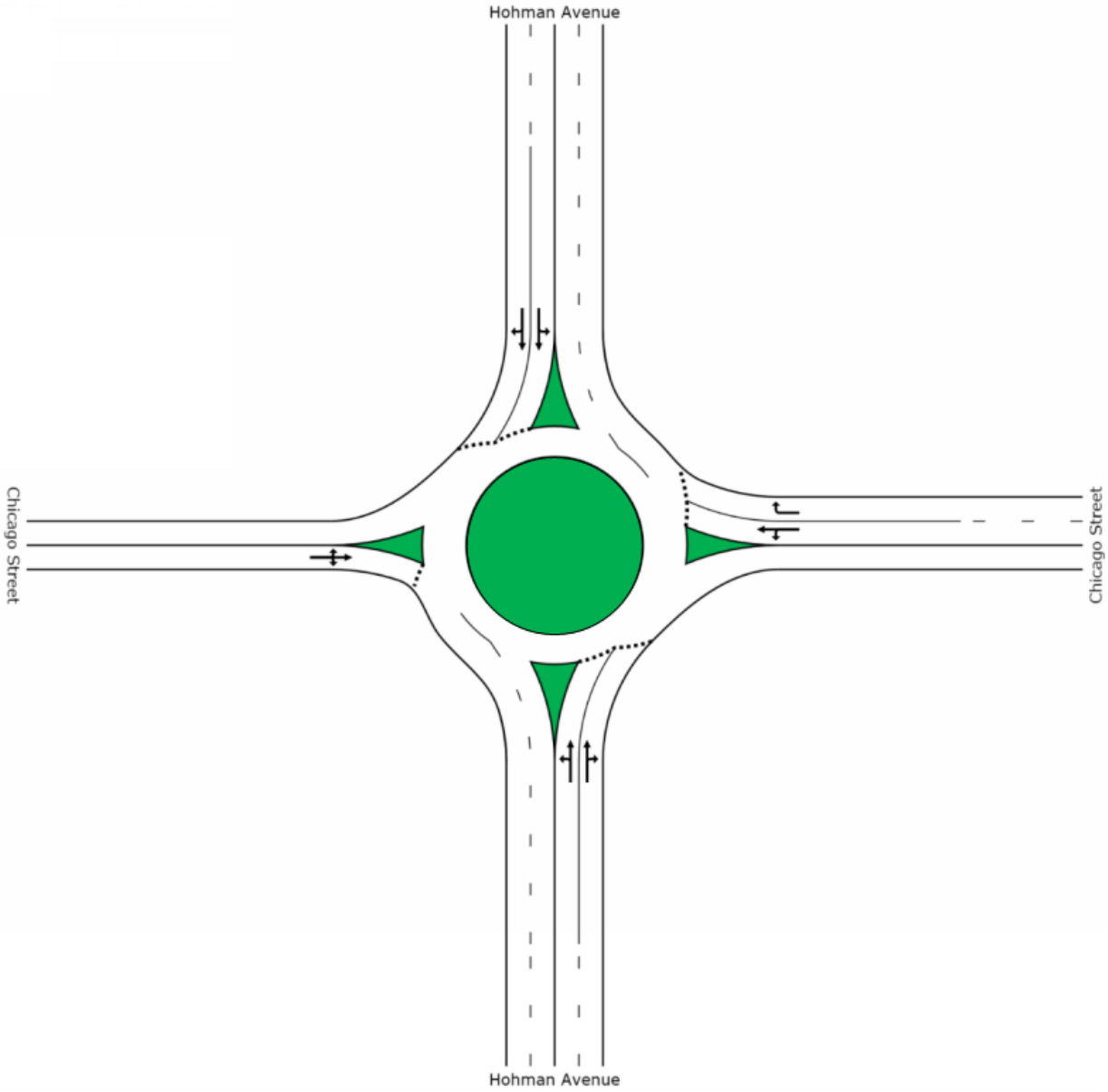
To address the LOS F in the 2040 – Build Alternative, it is recommended to monitor traffic every 5 years to determine whether community traffic is growing as projected and whether the commuter traffic volume is as projected. Should both volumes grow as projected, it is recommended to widen Hohman Avenue to two lanes through the roundabout. Recommended mitigation is conceptually shown in **Figure 2.5-5** and the output reports are in **Appendix B**. With the recommended improvements, the unacceptable LOS in the PM peak hour would be improved to an acceptable LOS B or better, as summarized in **Table 2.5-7**.

Table 2.5-7: Hammond Gateway Station 2040 – Build Alternative with Mitigation Level of Service and Delay

Location	2040 – Build with Mitigation	
	AM Peak Hour LOS (Delay in seconds/ vehicle)	PM Peak Hour LOS (Delay in seconds/ vehicle)
Hohman Avenue and Chicago Street	A (6.2)	B (15.0)

Source: HDR 2017b.

Figure 2.5-5: Hammond Gateway Station – Hohman Avenue and Chicago Street 2040 Build Recommended Mitigation

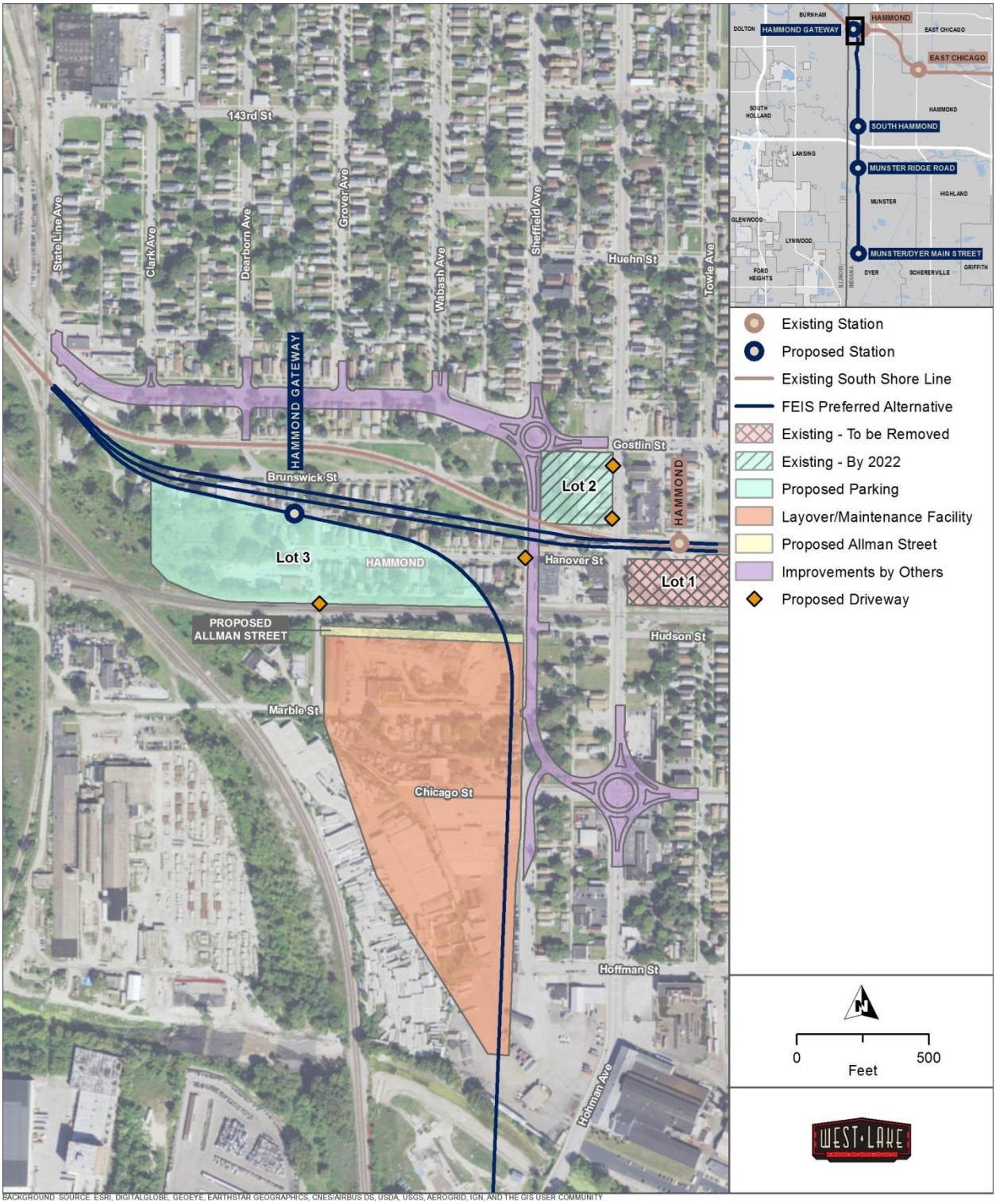


Source: HDR 2017b.

2.6 Layover/Maintenance Facility

The Project includes a proposed North Hammond Layover/Maintenance Facility near the Hammond Gateway Station (**Figure 2.6-1**). The parking lots associated with the maintenance facility are sized for approximately 100 vehicles. Maintenance facility-generated traffic volumes would be minimal and would occur outside of the roadway peak hours. As a result, the proposed layover/maintenance facility would not result in substantial traffic impacts.

Figure 2.6-1: Hammond Gateway Station – Layover/Maintenance Facility



Source: HDR 2017b.

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3 Railroad-highway Grade Crossings

3.1 Legal/Regulatory Context and Methodology

The following methodology, as detailed in the *Traffic Technical Report* prepared by NICTD for the DEIS, was followed to determine any potential effects the proposed railroad-highway grade crossings would have on traffic operations:

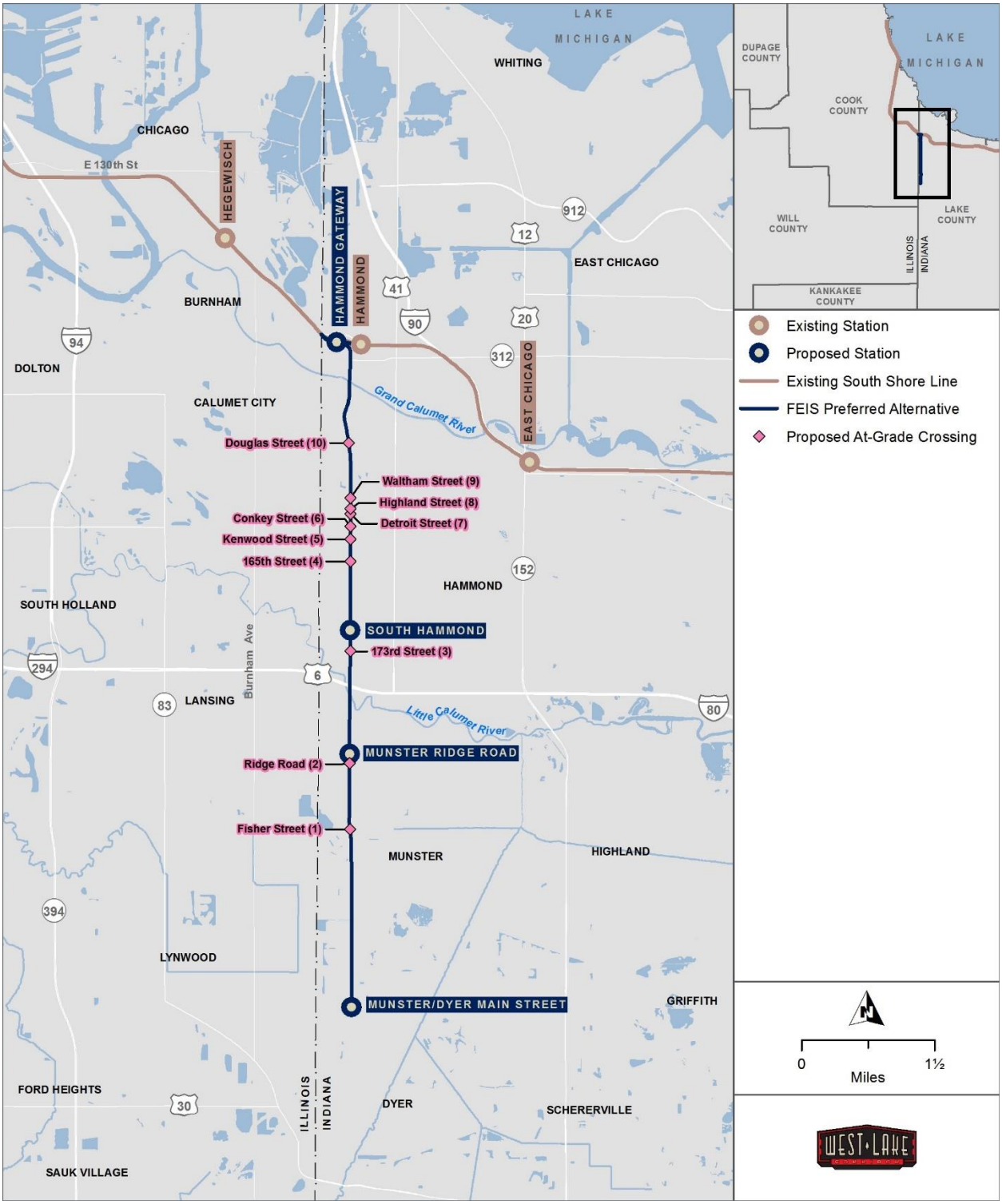
1. Existing Conditions: Existing traffic volumes were collected at intersections near proposed railroad-highway grade crossings between October 22 and November 18, 2014, in the AM (7 AM to 9 AM) and PM (4 PM to 6 PM) peak periods, as part of the original *Traffic Technical Report* prepared by NICTD for the DEIS. The peak traffic hours were determined to be 7:15 AM to 8:15 AM (AM peak hour) and 4:30 PM to 5:30 PM (PM peak hour). In addition, existing train counts were collected along segments of the currently used tracks that would be shared by the Project.
2. Future Traffic: The process for projecting the existing traffic data to 2040 was the same as described in **Section 2.1**.
3. Time the Crossing is Blocked: The time needed for a train to pass the crossing depends on its speed at that location and the length of the train. Using guidelines from the Manual on Uniform Traffic Control Devices (MUTCD), the time a gate would be closed for a train was calculate for each proposed grade crossing. The maximum calculated time, or worst-case scenario, was used for the impact assessment.
4. Impact Assessment: The railroad-highway grade crossing with the highest traffic volume per lane in the peak hours was modeled to represent the worst-case scenario—the location where the greatest number of vehicles would be delayed. SimTraffic 8, a microsimulation software within the Synchro 8 software, was used to perform the analysis. 2040 was used for the basis of the analysis.
    a. Grade Crossing Queue and Delay Analysis: The maximum queue that may occur at any crossing and the time it would take to clear that queue was defined. An impact was determined if queues would extend into adjacent signalized intersections, potentially affecting that signal's traffic operations and safety.
    b. Railroad Crossings Preemption: The maximum queue and time to clear the queue were also determined at signalized intersections less than 600 feet from a grade crossing. At these locations, there is the potential for traffic queued at the signal to queue onto or past the grade crossing, resulting in an impact on the grade crossing.

3.2 Railroad-highway Grade Crossing Analyses

3.2.1 Traffic Data Collection

Roadway characteristics—such as the functional classification, existing ADT, and name of and distance to the nearest signalized cross street—were gathered. The railroad-highway grade crossing locations in the Project Area are shown in **Figure 3.2-1** and their characteristics are summarized in **Table 3.2-1**.

Figure 3.2-1: Railroad-highway Grade Crossing Locations



Source: HDR 2017b.

Table 3.2-1: Railroad-highway Grade Crossing Locations and Characteristics

Location	Functional Classification	Number of Lanes	Existing ADT	Nearest Signalized Intersection Cross Street[a]	Distance (feet)
Fisher Street	Major collector	2	9,400	Calumet Avenue	2,560
Ridge Road	Minor arterial	5	21,400	Manor Avenue Harrison Avenue (North) Harrison Avenue (South)	50 460 685
173rd Street	Minor arterial	2	6,800	Hohman Avenue Calumet Avenue	1,000 2,600
165th Street	Minor arterial	4	16,400	Hohman Avenue Harrison Avenue	940 660
Kenwood Street	Local	2	<2,500	—	—
Conkey Street	Major collector	2	2,700	Hohman Avenue Calumet Avenue	930 2,640
Detroit Street	Local	2	<2,500	—	—
Highland Street	Major collector	2	4,200	Hohman Avenue	930
Waltham Street	Local	2	<2,500	—	—
Douglas Street	Major collector	2	4,300	Hohman Avenue	800

Source: HDR 2017b.

[a] All signalized intersections within 0.5 mile were identified.

3.2.2 Future Traffic

Existing traffic volumes were escalated to 2040. Where applicable, future traffic resulting from the proposed stations were included in the 2040 traffic volumes. Existing and projected 2040 traffic volumes for each proposed at-grade location are included in **Appendix A**.

3.2.3 Time Crossing is Blocked

The time it takes for a gate to descend and ascend was determined using recommended timings according to the MUTCD. A gate would descend in 12 seconds, plus an additional 5 second buffer, and would take 12 seconds to return to the upright position. The time the gate is actually closed for the train was measured at each existing grade crossing in the field. These times ranged from 15 to 54 seconds (15 seconds for higher train speeds and 54 for lower train speeds) and depended on train speeds at the crossing and train length (See **Appendix C** for field timings and total time for train crossing for all locations measured in the field). For this analysis, only the worst-case scenario was analyzed to represent impacts at all the grade crossings; therefore, the gate closed duration of 54 seconds was used at all grade crossings. This time was added to the calculated descend, ascend, and additional buffer time to conclude the total time a grade crossing is blocked per train crossing is 83 seconds (**Table 3.2-2**).

Table 3.2-2: Time Grade Crossing is Blocked per Train

Event	Duration (seconds)
Time gate is closed for train	54
Time for gate to descend	12
Time for gate to ascend	12
Buffer interval	5
Total time	**83**

Source: HDR 2017b.

Note: See **Appendix C** for all field measurements and calculations.

3.2.4 Impact Assessment

Potential impacts were assessed at the railroad-highway grade crossings along the Project alignment. Impacts were assessed by considering the potential maximum time vehicles would be stopped at the crossing, the maximum queue length that would form as a result of the duration of the crossing being blocked, and the time it would take to clear the queue once the crossing is no longer blocked. Additionally, analyses were conducted to determine whether any queues from the adjacent signalized intersections as identified in **Table 3.2-1** would extend to or pass the grade crossing.

3.2.4.1 Queue and Delay Analysis

Given the varying geometry (four-lane or greater versus two-lane) and ADTs of each roadway, two scenarios were evaluated:

1. Roadways that have an ADT higher than 10,000 vehicles per day and have two lanes or more in each direction, and
2. Roadways that have an ADT lower than 10,000 vehicles per day and have one lane in each direction.

Ridge Road is the representative street for scenario 1 and Fisher Street is the representative street for scenario 2. If an impact is not realized with these two representative streets, then it would be assumed there would be no impact to the remaining streets. If an impact were identified at either of these two representative streets, it would be assumed that the similar streets would have an impact also.

As shown in **Table 3.2-3**, the total time a railroad-highway grade crossing is blocked per train crossing is 83 seconds. The maximum calculated queues for each representative street may reach 425 feet under scenario 1 and 315 feet under scenario 2. The queues would clear in 40 and 30 seconds, respectively (**Table 3.2-3**). Based on the anticipated train schedule, the gates would close twice in the AM peak hour and once in the PM peak hour.

Table 3.2-3: Railroad-highway Grade Crossing Traffic Operations Results

Scenario	Location	Traffic Volume (vehicles/hour)		Total Gate Time in Down Position (seconds)	Number of Vehicles Queues (Queue Length, feet)		Time to Clear Queue (seconds)
		EB[a]	WB[b]		EB[a]	WB[b]	
1	ADT >10,000	1,400	1,200	83	17 (425')	16 (380')	39
2	ADT <10,000	490	480	83	13 (315')	11 (270')	31

Source: HDR 2017b.

[a] eastbound

[b] westbound

The maximum queue lengths (425 and 315 feet) were applied to each of the grade crossings to determine whether this queue would extend to the nearest signalized intersection, as identified in **Table 3.2-2**. For scenario 1, the Ridge Road and Manor Avenue intersection is within 50 feet of the railroad-highway grade crossing. It is expected, at peak times, that the gate down position may result in a queue on Ridge Road that would reach the Manor Avenue intersection. At all other railroad-highway grade crossings, the nearest signalized intersections are located outside the expected queue lengths. In general, the other grade street crossings would have lower traffic volumes and would experience shorter queue lengths and quicker times to clear the queue through the crossing than the representative roadways.

3.2.4.2 Railroad Crossing Preemption

According to INDOT's 2013 Indiana Design Manual, "The purpose of the preemption is to clear vehicles from the railroad crossing before the arrival of a train. Where a signalized intersection is within 200 feet of a railroad-highway grade crossing with active warning devices, preemption is required. Where this distance is between 200 feet and 600 feet, a queue analysis should be performed to determine if a highway-traffic queue has the potential for extending across a nearby rail crossing. If the analysis indicates that this potential exists, the traffic signal should be interconnected with active warning devices at the railroad crossing. The Federal MUTCD, the Indiana MUTCD, and the FHWA Railroad-Highway Grade Crossing Handbook describe preemption strategies and define the requirements for grade crossing preemption."

The following signalized intersections are located within 200 feet of a railroad-highway grade crossing; therefore, active warning devices and railroad crossing preemption would be used at the signal:

- Ridge Road and Manor Avenue

The following signalized intersections are located between 200 and 600 feet of a railroad-highway grade crossing with active warning devices:

- Ridge Road and Harrison Avenue
- Fayette Street and Hohman Avenue
- Sibley Street and Hohman Avenue

Analyses were completed to determine whether there is potential for the queues at the intersections to extend into the grade crossing. SimTraffic 8 software was used to determine the

maximum queue with projected 2040 traffic volumes and existing intersection geometry and signal phasing. **Table 3.2-4** summarizes the maximum queue experienced on the leg of the intersection with the railroad-highway grade crossing. All maximum queues are shorter than the distance from the signalized intersection to the railroad-highway grade crossing, as detailed previously in **Table 3.2-1**; therefore, signal railroad crossing preemption would not be required at these locations.

Table 3.2-4: Railroad Crossing Preemption Maximum Queue Lengths

Location/Approach	Maximum Queue (feet)
Ridge Road and Harrison Avenue/Eastbound	345
Fayette Street and Hohman Avenue/Westbound	130
Sibley Street and Hohman Avenue/Westbound	140

Source: HDR 2017b.

4 Street Network Connectivity

4.1 Legal/Regulatory Context and Methodology

The locations, nature, and effects of Project changes to the existing street network were evaluated. Potential Project changes include roadway closing at railroad crossing and changes in traffic routing.

At locations where roadways were closed or changes in traffic routing patterns were identified as a result of the Project, traffic operations analyses were conducted on any nearby signalized intersections. The following methodology was followed to determine any potential effects the roadway closure or traffic routing changes would have on traffic operations.

1. **Existing Conditions**: Existing traffic volumes were collected at intersections near proposed railroad-highway grade crossings between October 22 and November 18, 2014, in the AM (7 AM to 9 AM) and PM (4 PM to 6 PM) peak periods, as part of the original *Traffic Technical Report* prepared by NICTD for the DEIS. Traffic control, lane geometry, and other roadway characteristics were also gathered in the field.
2. **Future No Build Traffic**: The process for projecting the existing traffic data to 2040 was the same as described in **Section 2.1**.
3. **Future Build Traffic**: Site-generated traffic is the redistributed traffic of the network change.
4. **Operational Analysis**: The nearest signalized intersections that would be affected by the network change were identified. The analysis scenarios (Opening Year – No Build [2022], Opening Year – Build [2022], 2040 – No Build Alternative and 2040 – Build Alternative) were entered in microsimulation software Synchro, version 8, to identify projected operations that would result from the network change.
5. **Mitigation Assessment**: Potential traffic operational impacts were identified by comparing the differences between the No Build scenario and Build scenarios for Opening Year (2022) and design year 2040. The study isolated deficiencies that are caused by normal traffic growth over time from deficiencies that are caused by the proposed improvements as a result of the Project. Two thresholds were established to define an impact as a result of the Project:
    a. If an intersection in the No Build scenario operates at an acceptable LOS (A, B, C, or D) but operates at an unacceptable LOS (E or F) in the Build scenario, the intersection would be considered as affected.
    b. If an intersection in the No Build scenario operates at an unacceptable LOS (E or F) and the change in delay between the No Build scenario and the Build scenario is greater than 20 percent, the intersection would be considered as affected.

If an intersection would be considered as affected by the Project, potential intersection improvements will be proposed to minimize or mitigate the impact.

4.2 Russell Street

The Project alignment would transition from an at-grade alignment north of Douglas Street in downtown Hammond to an elevated structure at Fayette Street. The track would be on retained fill or on embankment throughout the vertical transition and there would not be sufficient vertical

clearance over Russell Street. As a result, Russell Street between Lyman Avenue and Oakley Avenue at the Project would be closed (**Figure 4.2-1**).

Russell Street is currently one-way eastbound. With the closure of Russell Street at the Project, just east of Lyman Avenue, Russell Street would need to be changed from one-way to two-way from Hohman Avenue to Lyman Avenue, as shown in **Figure 4.2-2**. This change to two-way traffic would require modifications to the existing traffic signal at the Hohman Avenue and Russell Street intersection.

4.2.1 Traffic Analyses

Forecasting and analyses were performed at the Hohman Avenue and Russell Street intersection to determine the impacts of closing Russell Street at the proposed track alignment and converting Russell Street between Hohman Avenue and Lyman Avenue to a two-way roadway.

4.2.1.1 Existing Conditions

Existing traffic volumes were collected on November 11, 2014, in the AM (7 AM to 9 AM) and PM (4 PM to 6 PM) peak periods as part of the original *Traffic Technical Report* prepared by NICTD for the DEIS. The peak traffic hours were determined to be 7 AM to 8 AM or 7:15 AM to 8:15 AM (AM peak hour) and 4:15 PM to 5:15 PM or 4:30 PM to 5:30 PM (PM peak hour). Existing traffic volumes are provided in **Appendix A**. The following intersection was included in this data collection:

- Hohman Avenue and Russell Street

Intersection geometry, traffic control, and other roadway characteristics for the intersections are described in the following section.

Hohman Avenue and Russell Street

The Hohman Avenue and Russell Street intersection is signalized. Hohman Avenue is two lanes in each direction without turning lanes at the intersection. Russell Street is a two-lane one-way, eastbound-only street without turning lanes at the intersection. Pedestrian accommodations are on all four approaches. Both Hohman Avenue and Russell Street allow on-street parking. As part of the Project, Russell Street between Hohman and Lyman Avenues would be converted to two-way traffic—requiring traffic signal modifications at the Hohman Avenue and Russell Street intersection. In addition, the western leg of the intersection would need to be restriped from one eastbound shared left/through and one eastbound shared through/right-turn lane to an exclusive eastbound left turn with an eastbound shared through/right-turn lane. The eastern leg would change from two eastbound lanes to be one eastbound lane and one westbound shared left/right-turn lane.

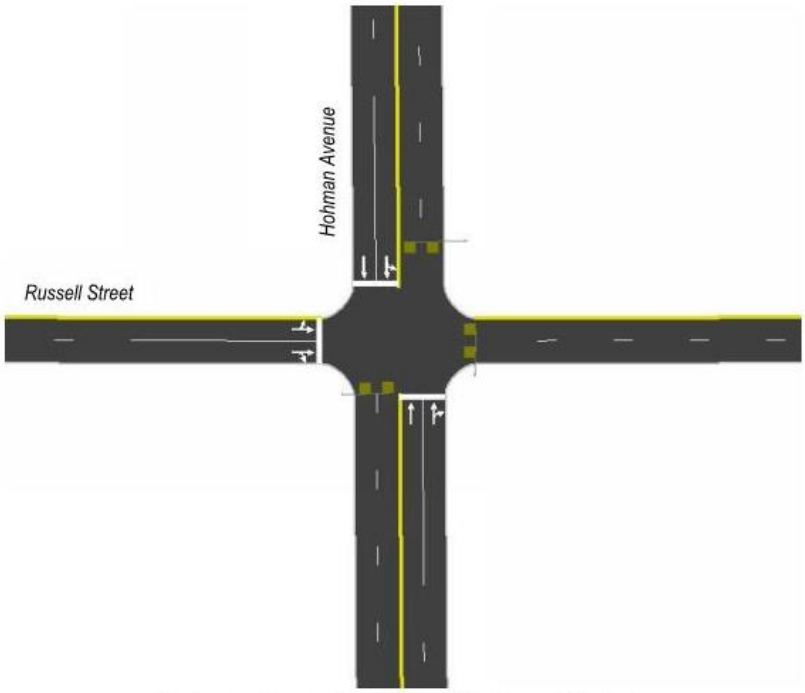
4.2.1.2 Future No Build Traffic

The existing traffic counts were used as the basis for the No Build scenarios. Using historical traffic count data obtained through INDOT's Traffic Count Database System website, a traffic growth rate of 1 percent per year was estimated. This growth rate was applied to the intersection to determine 2022 and 2040 projected No Build peak hour traffic volumes. The Opening Year (2022) and 2040 – No Build Alternative peak hour traffic volumes are provided in **Appendix A**.

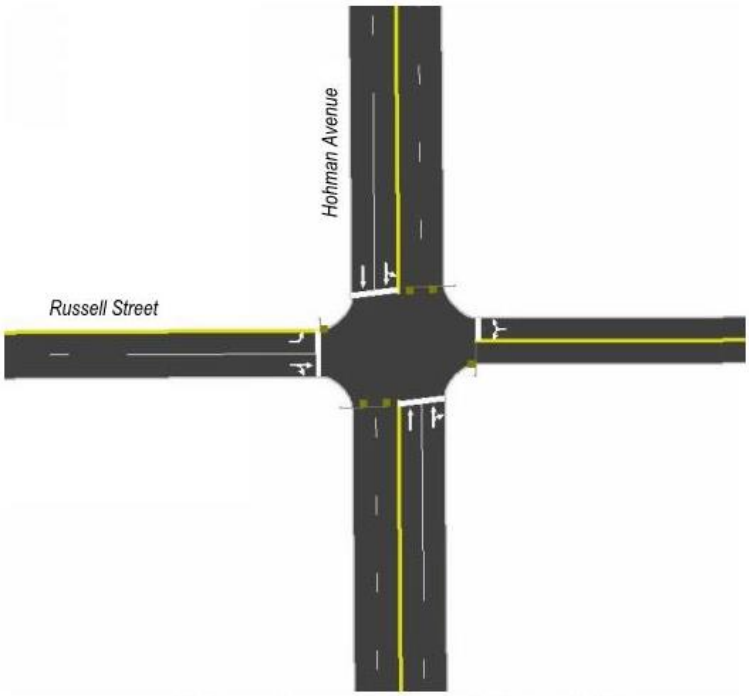
Figure 4.2-1: Proposed Roadway Closure on Russell Street

Source: HDR 2017b.

Figure 4.2-2: Proposed Roadway Closure on Russell Street – Hohman Avenue and Russell Street Intersection



Hohman Avenue and Russell Street - Existing



Hohman Avenue and Russell Street - Build

Source: HDR 2017b.

4.2.1.3 Future Build Traffic

To estimate the exiting traffic on Russell Street, the analysis assumed that any traffic eastbound on the eastern leg of the Hohman Avenue and Russell Street intersection would proceed back westbound through the intersection. This methodology provided the most conservative analysis at the Hohman Avenue and Russell Street intersection. The site-generated traffic, or redistribution as a result of the road closure, is provided in **Appendix A**.

4.2.1.4 Intersection Operations Analysis

No Build Scenarios

The results of the Synchro analyses for the Opening Year (2022) – No Build Alternative and 2040 – No Build Alternative scenarios are shown in **Table 4.2-1** and the output reports are in **Appendix B**. The intersection in its current one-way configuration is projected to operate at LOS A in both the AM and PM peak hours in the Opening Year (2022) – No Build Alternative and 2040 – No Build Alternative scenarios.

Table 4.2-1: Russell Street Road Closure – No Build Level of Service and Delay

Location	Opening Year (2022) – No Build		2040 – No Build	
	AM Peak Hour LOS (Delay in seconds/ vehicle)	PM Peak Hour LOS (Delay in seconds/ vehicle)	AM Peak Hour LOS (Delay in seconds/ vehicle)	PM Peak Hour LOS (Delay in seconds/ vehicle)
Hohman Avenue and Russell Street	A (9.4)	A (5.4)	A (9.8)	A (5.6)

Source: HDR 2017b.

Build Scenarios

The Opening Year (2022) – Build Alternative scenario includes the Opening Year (2022) – No Build Alternative traffic plus the site-generated traffic and roadway improvements attributable to the road closure on Russell Street at Lyman Avenue. Similarly, the 2040 – Build Alternative scenario includes the 2040 – No Build Alternative scenario plus the site-generated traffic and roadway improvements attributable to the road closure on Russell Street at Lyman Avenue. The build scenarios also include signal retiming to provide for westbound movements.

The results of the analysis for the Opening Year (2022) – Build Alternative and 2040 – Build Alternative scenarios are shown in **Table 4.2-2** and the output reports are in **Appendix B**. In the future build scenarios, with the rerouted traffic, new pavement markings, and re-timed traffic signals, the intersection would operate at LOS B or better in both the AM and PM peak hours.

Table 4.2-2: Russell Street Road Closure – Build Level of Service and Delay

Location	Opening Year (2022) – Build		2040 – Build	
	AM Peak Hour LOS (Delay in seconds/ vehicle)	PM Peak Hour LOS (Delay in seconds/ vehicle)	AM Peak Hour LOS (Delay in seconds/ vehicle)	PM Peak Hour LOS (Delay in seconds/ vehicle)
Hohman Avenue and Russell Street	B (11.1)	A (6.4)	B (11.5)	A (6.4)

Source: HDR 2017b.

4.2.1.5 Mitigation Assessment

In both the Opening Year (2022) – Build Alternative and 2040 – Build Alternative scenarios, the intersection of Hohman Avenue and Russell Street would operate acceptably with minimal increases in delay over the No Build scenarios. The conversion of the eastern leg of the Hohman Avenue and Russell Street intersection to a two-way street between Hohman and Lyman Avenues and the pavement markings of both the eastbound and westbound approaches at the intersection to accommodate the conversion would have no impact from the Project (**Table 4.2-3**) and, therefore, mitigation is not necessary.

Table 4.2-3: Russell Street Road Closure Potential Impacts Assessment

Location	Opening Year (2022) – Build		2040 – Build	
	LOS Impact?[a]	Delay Impact?[b]	LOS Impact?[a]	Delay Impact?[b]
Hohman Avenue and Russell Street	No	—	No	—

Source: HDR 2017b.

[a] If an intersection in the No Build scenario operates at an acceptable LOS (A, B, C, or D) but operates at an unacceptable LOS (E or F) in the Build scenario, the intersection would be considered as affected.

[b] If an intersection in the No Build scenario operates at an unacceptable LOS (E or F) and the change in delay between the No Build scenario and the Build scenario is greater than 20 percent, the intersection would be considered as affected.

5 References

CMAP. 2014. *GO TO 2040 Comprehensive Regional Plan*.

HDR. 2017a. *Ridership Forecasts for NICTD Double Track-NWI Core Capacity Project and West Lake Corridor New Starts Project*. June 28, 2017.

HDR. 2017b. Data and analysis prepared for the West Lake Corridor FEIS.

INDOT. 2013. Indiana Design Manual. http://www.in.gov/indot/design_manual/design_manual_2013.htm.

INDOT. 2016. Chicago Street Widening and Reconstruction – Part 1 Design Plans, December 2016.

NICTD. 2016. *Traffic Technical Report*. November.

NICTD and Regional Development Authority. 2014. *20-Year Strategic Business Plan.* June 2014.

NIRPC. 2011. *2040 Comprehensive Regional Plan, A Vision for Northwest Indiana.* http://www.nirpc.org/2040-plan.aspx.

Transportation Research Board. 2010. Highway Capacity Manual. http://hcm.trb.org/?qr=1.

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Appendix A. Traffic Volumes

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West Lake Corridor Project - 2022 Build Trip Assignment

Inbound (AM) - Train 6

Station Site (Baseline Stations)	MP	Total Peak Ridership	Mode of Access (% of total) KNR	Mode of Access (% of total) PNR	Number of Riders KNR	Number of Riders PNR	Total Peak Trips	Inbound Trips by Direction (Numerical) North	North East	North West	South	South East	South West	East	West	Outbound Trips by Direction (Numerical) North	North East	North West	South	South East	South West	East	West
Dyer/Munster Main St.	28.1	500	15%	75%	75	373	448	4	0	0	0	216	168	60	0	1	0	0	0	36	28	10	0
Munster Ridge Road	25.3	88	21%	29%	19	26	45	3	0	0	0	25	17	0	0	1	0	0	0	10	7	0	0
South Hammond	23.9	377	7%	67%	28	252	280	0	11	37	0	120	95	17	0	0	1	4	0	12	10	2	0
Hammond Gateway	20.5	407	13%	58%	52	234	286	5	0	7	45	211	0	0	18	1	0	1	8	38	0	0	3

Outbound (PM) - Train 3

Station Site (Baseline Stations)	MP	Total Peak Ridership	Mode of Access (% of total) KNR	Mode of Access (% of total) PNR	Number of Riders KNR	Number of Riders PNR	Total Peak Trips	Outbound Trips by Direction (Numerical) North	North East	North West	South	South East	South West	East	West	Inbound Trips by Direction (Numerical) North	North East	North West	South	South East	South West	East	West
Dyer/Munster Main St.	28.1	393	15%	75%	59	293	352	3	0	0	0	170	132	47	0	1	0	0	0	29	22	8	0
Munster Ridge Road	25.3	69	21%	29%	15	20	35	2	0	0	0	19	13	0	0	1	0	0	0	8	6	0	0
South Hammond	23.9	296	7%	67%	22	198	220	0	8	29	0	94	74	14	0	0	1	3	0	9	7	1	0
Hammond Gateway	20.5	319	13%	58%	41	184	224	4	0	5	36	165	0	0	14	1	0	1	6	30	0	0	2

Origin Driving Trips (Percentage)

	North	North East	North West	South	South East	South West	East	West	**Total - Check**
Dyer/Munster Main St.	1%				48%	37%	13%		**100%**
Munster Ridge Road	7%				56%	38%			**100%**
South Hammond		4%	13%		43%	34%	6%		**100%**
Hammond Gateway	2%		2%	16%	74%			6%	**100%**

West Lake Corridor Project - 2040 Build Trip Assignment

Inbound (AM) - Train 6

Station Site (Baseline Stations)	MP	Total Peak Ridership	Mode of Access (% of total) KNR	Mode of Access (% of total) PNR	Number of Riders KNR	Number of Riders PNR	Total Peak Trips	Inbound Trips by Direction (Numerical) North	North East	North West	South	South East	South West	East	West	Outbound Trips by Direction (Numerical) North	North East	North West	South	South East	South West	East	West
Dyer/Munster Main St.	28.1	770	14%	78%	108	600	708	6	0	0	0	342	265	95	0	1	0	0	0	52	41	15	0
Munster Ridge Road	25.3	94	25%	15%	24	14	37	2	0	0	0	21	14	0	0	2	0	0	0	13	9	0	0
South Hammond	23.9	472	8%	67%	38	314	352	0	14	47	0	151	119	22	0	0	1	5	0	16	13	2	0
Hammond Gateway	20.5	514	9%	53%	48	271	319	6	0	7	51	235	0	0	20	1	0	1	8	35	0	0	3

Outbound (PM) - Train 3

Station Site (Baseline Stations)	MP	Total Peak Ridership	Mode of Access (% of total) KNR	Mode of Access (% of total) PNR	Number of Riders KNR	Number of Riders PNR	Total Peak Trips	Outbound Trips by Direction (Numerical) North	North East	North West	South	South East	South West	East	West	Inbound Trips by Direction (Numerical) North	North East	North West	South	South East	South West	East	West
Dyer/Munster Main St.	28.1	604	14%	78%	85	471	556	5	0	0	0	268	208	74	0	1	0	0	0	41	32	11	0
Munster Ridge Road	25.3	74	25%	15%	19	11	29	2	0	0	0	16	11	0	0	1	0	0	0	10	7	0	0
South Hammond	23.9	371	8%	67%	30	247	277	0	11	37	0	119	94	17	0	0	1	4	0	13	10	2	0
Hammond Gateway	20.5	403	9%	53%	37	213	250	5	0	6	40	185	0	0	15	1	0	1	6	28	0	0	2

Origin Driving Trips (Percentage)

	North	North East	North West	South	South East	South West	East	West	**Total - Check**
Dyer/Munster Main St.	1%				48%	37%	13%		**100%**
Munster Ridge Road	7%				56%	38%			**100%**
South Hammond		4%	13%		43%	34%	6%		**100%**
Hammond Gateway	2%		2%	16%	74%			6%	**100%**

Build Alternative

assumes current South Shore service for connecting shuttle trains

INBOUND TRAIN SCHEDULE

	2	4	6	8	10	20	22	24	26	12	28	30
Munster/Dyer	5:35 AM	6:20 AM	7:00 AM	7:25 AM	8:10 AM	9:16 AM	10:11 AM	12:19 PM	3:21 PM	5:10 PM	9:05 PM	11:19 PM
Ridge Rd.	5:39 AM	6:24 AM	7:04 AM	7:29 AM	8:14 AM	9:20 AM	10:15 AM	12:23 PM	3:25 PM	5:14 PM	9:09 PM	11:23 PM
South Hammond	5:43 AM	6:28 AM	7:08 AM	7:33 AM	8:18 AM	9:24 AM	10:19 AM	12:27 PM	3:29 PM	5:18 PM	9:13 PM	11:27 PM
Hammond Gateway						9:30 AM	10:25 AM	12:33 PM	3:35 PM		9:19 PM	11:33 PM

OUTBOUND TRAIN SCHEDULE

	1	21	23	25	27	3	5	7	9	11	29	31
Hammond Gateway		9:40 AM	11:33 AM	1:20 PM	4:02 PM						9:27 PM	11:47 PM
South Hammond	7:44 AM	9:45 AM	11:38 AM	1:25 PM	4:07 PM	4:52 PM	5:47 PM	6:10 PM	6:45 PM	7:42 PM	9:32 PM	11:52 PM
Ridge Rd.	7:47 AM	9:48 AM	11:41 AM	1:28 PM	4:10 PM	4:55 PM	5:50 PM	6:13 PM	6:48 PM	7:45 PM	9:35 PM	11:55 PM
Munster/Dyer	7:53 AM	9:54 AM	11:47 AM	1:34 PM	4:16 PM	5:01 PM	5:56 PM	6:19 PM	6:54 PM	7:51 PM	9:41 PM	12:01 AM

2022 Ridership by Station & Train

INBOUND	*5.0%*	*26.4%*	*30.5%*	*27.4%*	*10.7%*	
	2	**4**	**6**	**8**	**10**	Total Boardings
Munster/Dyer	66	348	402	360	140	1316
Munster Ridge Rd.	12	61	71	63	25	232
South Hammond	49	262	303	271	106	991
Hammond Gateway	53	283	327	293	114	1070

OUTBOUND	*29.9%*	*34.1%*	*19.5%*	*9.9%*	*6.7%*	
	3	5	7	9	11	Total Boardings
Hammond Gateway	319	365	209	105	72	1070
South Hammond	296	338	193	98	66	991
Munster Ridge Rd.	69	79	45	23	15	231
Munster/Dyer	393	449	256	130	88	1316

Build Alternative

assumes current South Shore service for connecting shuttle trains

INBOUND TRAIN SCHEDULE

	2	4	6	8	10	20	22	24	26	12	28	30
Munster/Dyer	5:35 AM	6:20 AM	7:00 AM	7:25 AM	8:10 AM	9:16 AM	10:11 AM	12:19 PM	3:21 PM	5:10 PM	9:05 PM	11:19 PM
Ridge Rd.	5:39 AM	6:24 AM	7:04 AM	7:29 AM	8:14 AM	9:20 AM	10:15 AM	12:23 PM	3:25 PM	5:14 PM	9:09 PM	11:23 PM
South Hammond	5:43 AM	6:28 AM	7:08 AM	7:33 AM	8:18 AM	9:24 AM	10:19 AM	12:27 PM	3:29 PM	5:18 PM	9:13 PM	11:27 PM
Hammond Gateway						9:30 AM	10:25 AM	12:33 PM	3:35 PM		9:19 PM	11:33 PM

OUTBOUND TRAIN SCHEDULE

	1	21	23	25	27	3	5	7	9	11	29	31
Hammond Gateway		9:40 AM	11:33 AM	1:20 PM	4:02 PM						9:27 PM	11:47 PM
South Hammond	7:44 AM	9:45 AM	11:38 AM	1:25 PM	4:07 PM	4:52 PM	5:47 PM	6:10 PM	6:45 PM	7:42 PM	9:32 PM	11:52 PM
Ridge Rd.	7:47 AM	9:48 AM	11:41 AM	1:28 PM	4:10 PM	4:55 PM	5:50 PM	6:13 PM	6:48 PM	7:45 PM	9:35 PM	11:55 PM
Munster/Dyer	7:53 AM	9:54 AM	11:47 AM	1:34 PM	4:16 PM	5:01 PM	5:56 PM	6:19 PM	6:54 PM	7:51 PM	9:41 PM	12:01 AM

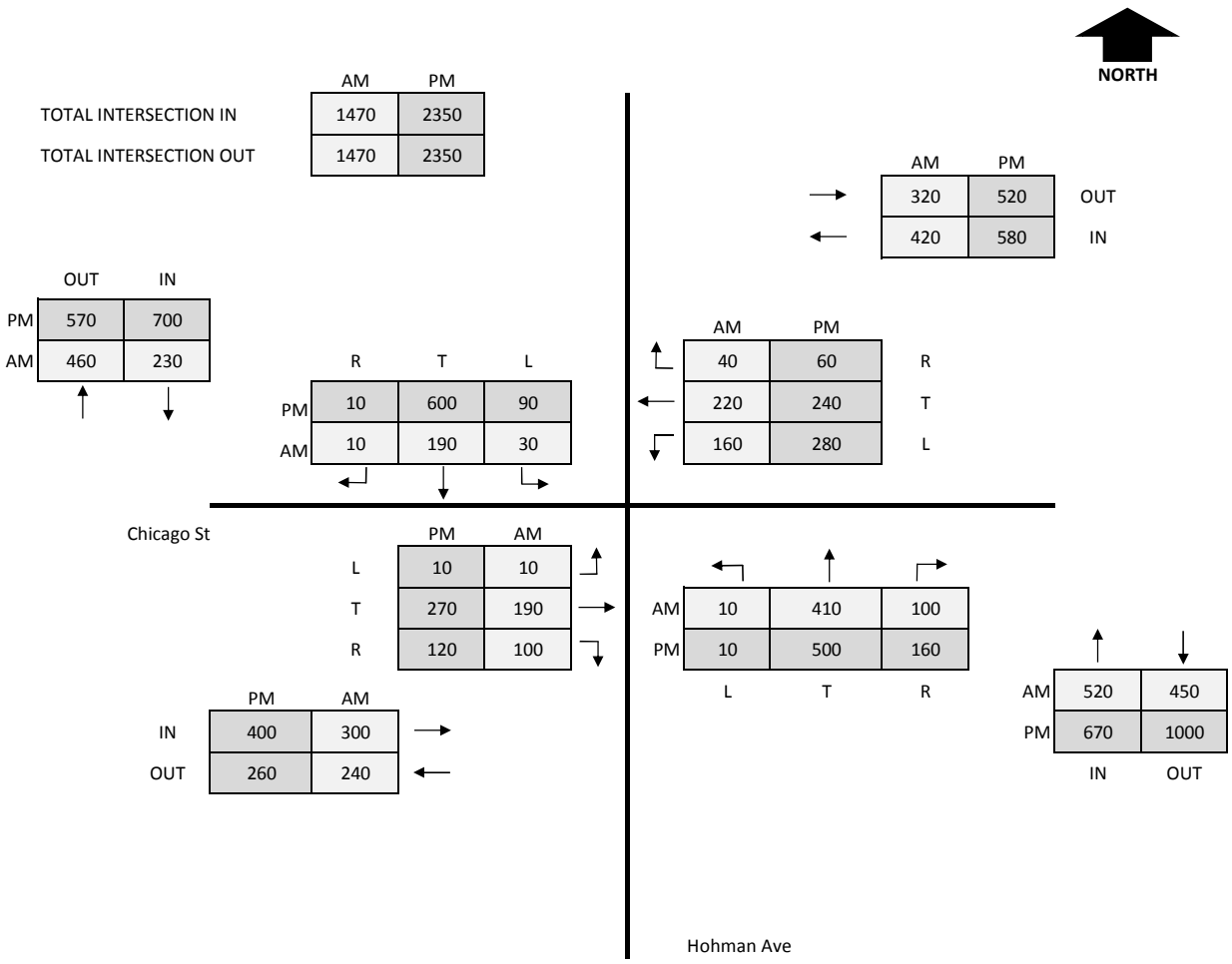
2040 Ridership by Station & Train

INBOUND

	5.0%	*26.4%*	*30.5%*	*27.4%*	*10.7%*	
	2	4	6	8	10	Total Boardings
Munster/Dyer	101	536	618	554	216	2025
Munster Ridge Rd.	12	65	75	68	26	246
South Hammond	62	328	379	340	132	1241
Hammond Gateway	67	357	412	370	144	1350

OUTBOUND

	29.9%	*34.1%*	*19.5%*	*9.9%*	*6.7%*	
	3	5	7	9	11	Total Boardings
Hammond Gateway	403	460	263	133	91	1350
South Hammond	371	424	242	122	83	1242
Munster Ridge Rd.	74	84	48	24	17	247
Munster/Dyer	604	691	395	199	136	2025



CLASSIFICATION: ALL VEHICLES

Traffic Counts from Quality Counts	
AM	to
PM	to

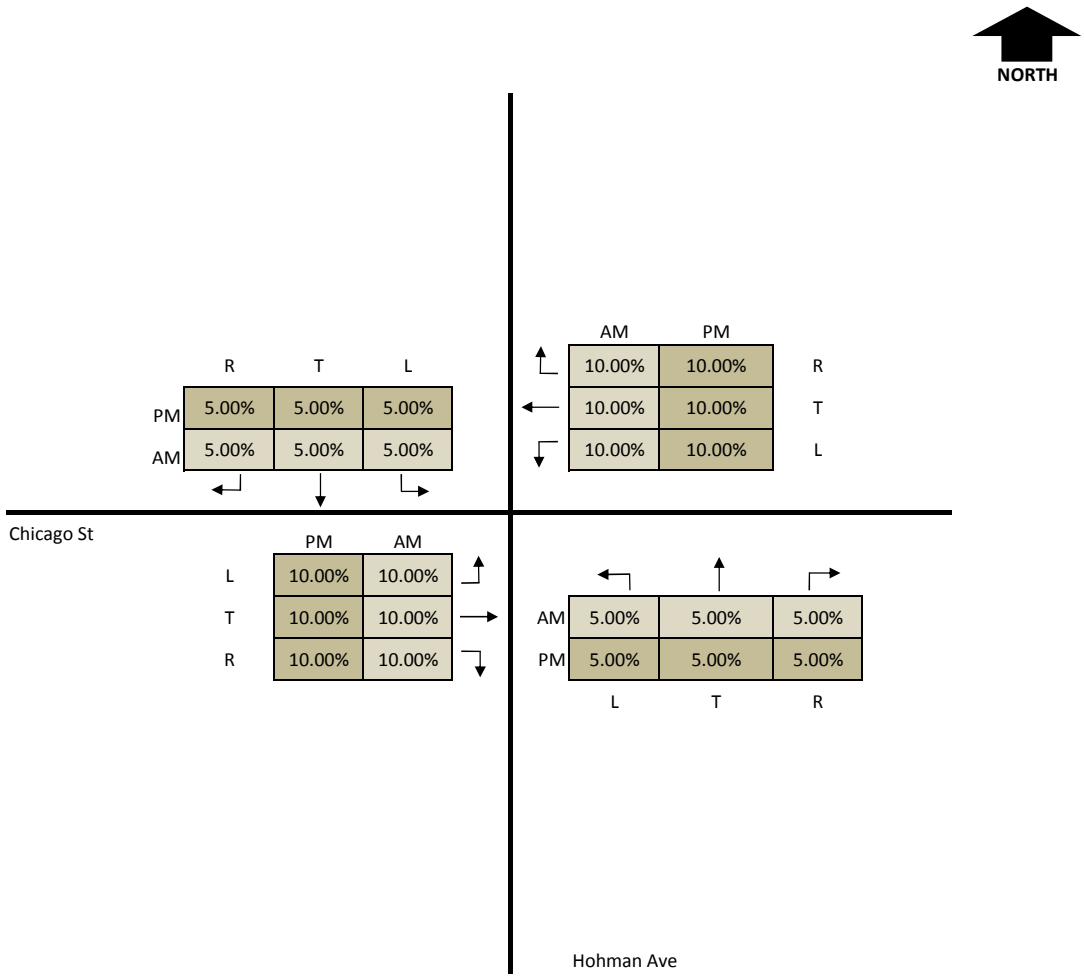
*Counts were obtained from StructurePoint as part of a previously conducted study.

HOHMAN AVE & CHICAGO ST

FUTURE TRAFFIC VOLUMES (2034)

HAMMOND GATEWAY STATION

October 2017



CLASSIFICATION: TRUCKS

Traffic Counts from Quality Counts	
AM	to
PM	to

*Counts were obtained from StructurePoint as part of a previously conducted study.

HOHMAN AVE & CHICAGO ST

FUTURE TRAFFIC VOLUMES (2034)

HAMMOND GATEWAY STATION

October 2017

TOTAL INTERSECTION

	2034	2022
IN	1470	1420
OUT	1470	1420

NORTH

	2034	2022	
→	320	310	OUT
←	420	410	IN

	OUT	IN
2022	440	220
2034	460	230

	R	T	L
2022	10	180	30
2034	10	190	30

	2034	2022	
↰	40	40	R
←	220	210	T
↙	160	160	L

Chicago St

	2022	2034	
L	10	10	↰
T	180	190	→
R	100	100	↘

	2034	2022
IN	290	300 →
OUT	230	240 ←

	L	T	R
2034	10	410	100
2022	10	390	100

	2034	2022
	520	450
	500	440
	IN	OUT

Hohman Ave

CLASSIFICATION: ALL VEHICLES

ANNUAL GROWTH RATE	
Northbound	0.5%
Southbound	0.5%
Eastbound	0.5%
Westbound	0.5%
Years to Escalate: 2022	-12

HOHMAN AVE & CHICAGO ST

2022 PROJECTED TRAFFIC VOLUMES (AM)

HAMMOND GATEWAY STATION

October 2017

TOTAL INTERSECTION

	2034	2022
IN	2350	2260
OUT	2350	2260

NORTH

	2034	2022	
→	520	510	OUT
←	580	560	IN

	OUT	IN
2022	540	670
2034	570	700

	R	T	L
2022	10	570	90
2034	10	600	90

	2034	2022	
↰	60	60	R
←	240	230	T
↙	280	270	L

Chicago St

	2022	2034	
L	10	10	↰
T	260	270	→
R	120	120	↘

	L	T	R
2034	10	500	160
2022	10	470	160

	2022	2034	
IN	390	400	→
OUT	250	260	←

	2034	2022
↑	670	1000
↓	640	960
	IN	OUT

Hohman Ave

CLASSIFICATION: ALL VEHICLES

ANNUAL GROWTH RATE	
Northbound	0.5%
Southbound	0.5%
Eastbound	0.5%
Westbound	0.5%
Years to Escalate: 2022	-12

HOHMAN AVE & CHICAGO ST

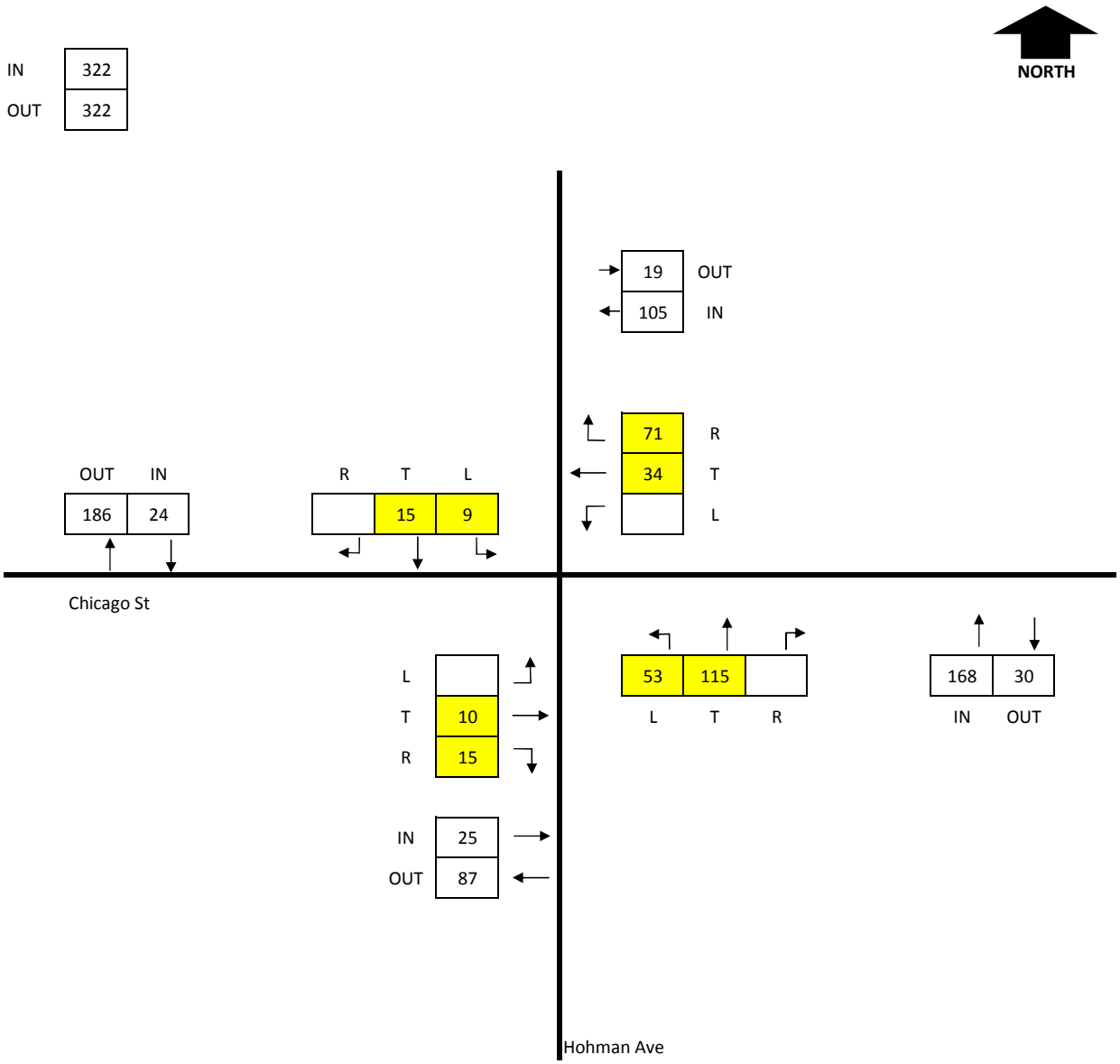
2022 PROJECTED TRAFFIC VOLUMES (PM)

HAMMOND GATEWAY STATION

October 2017

TOTAL INTERSECTION

IN	322
OUT	322



CLASSIFICATION: ALL VEHICLES

HOHMAN AVE & CHICAGO ST

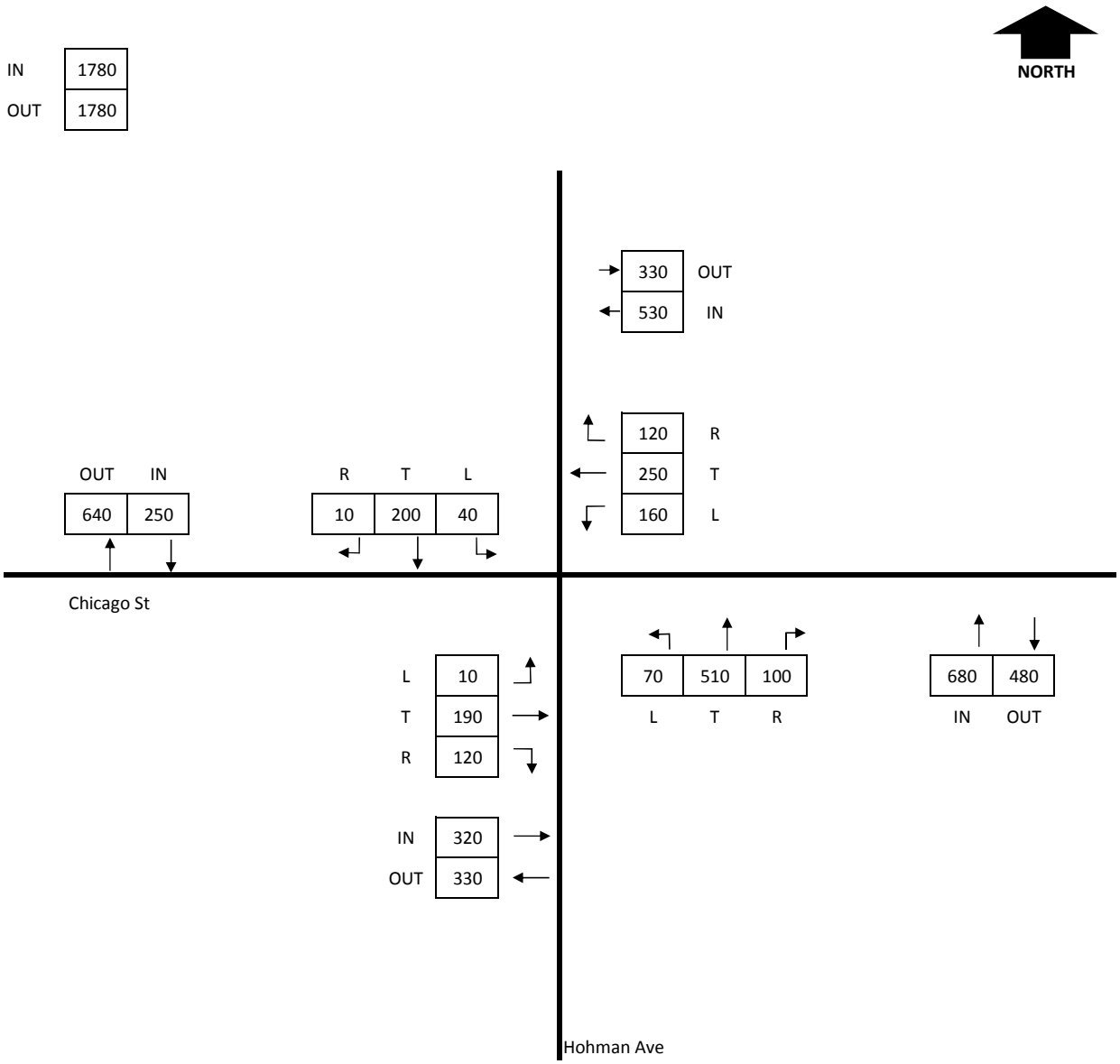
2022 SITE GENERATED TRIPS (AM)

HAMMOND GATEWAY STATION

October 2017

TOTAL INTERSECTION

IN	1780
OUT	1780



CLASSIFICATION: ALL VEHICLES

HOHMAN AVE & CHICAGO ST

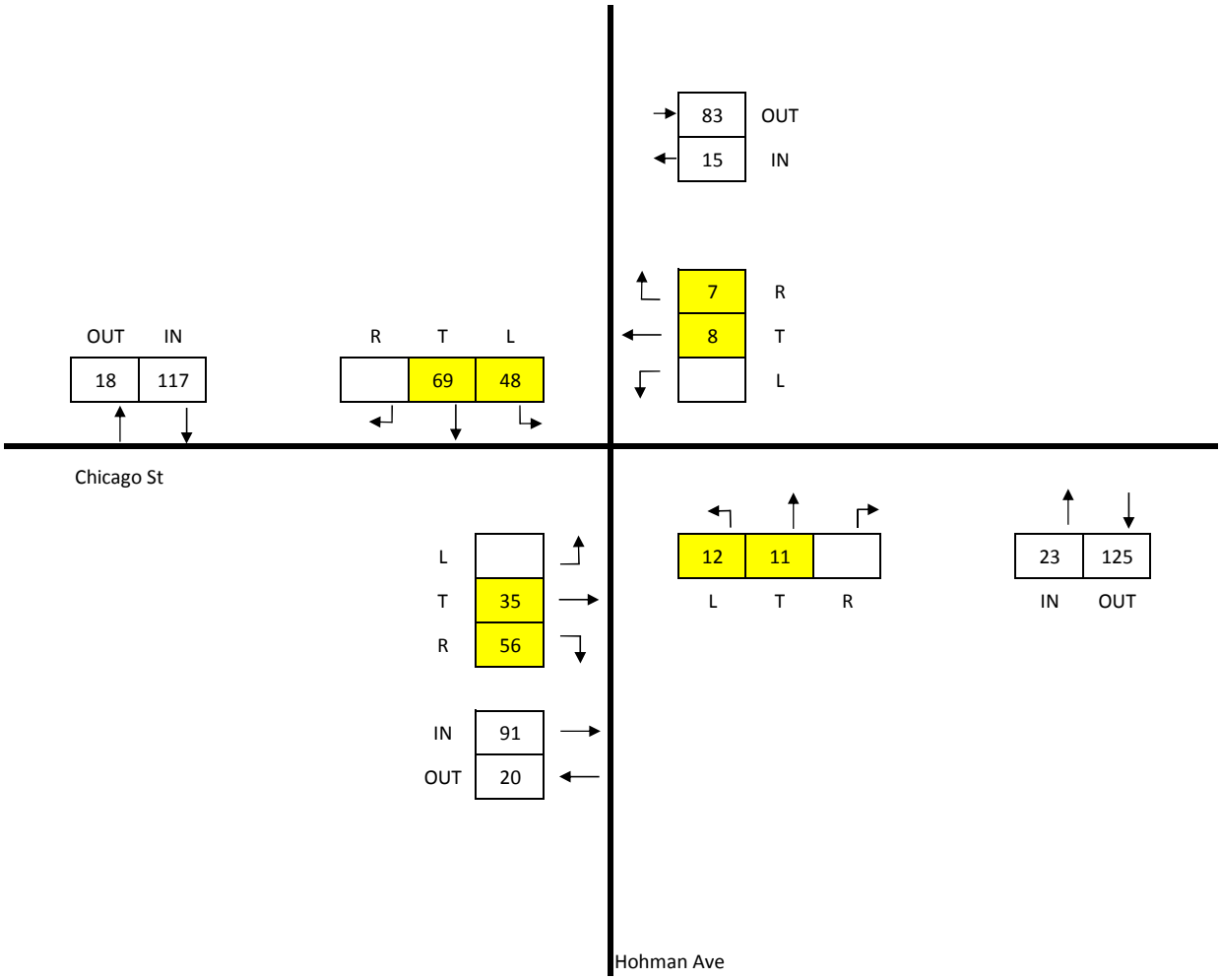
2022 BUILD TRAFFIC VOLUMES (AM)

HAMMOND GATEWAY STATION

October 2017

TOTAL INTERSECTION

IN	246
OUT	246



CLASSIFICATION: ALL VEHICLES

HOHMAN AVE & CHICAGO ST

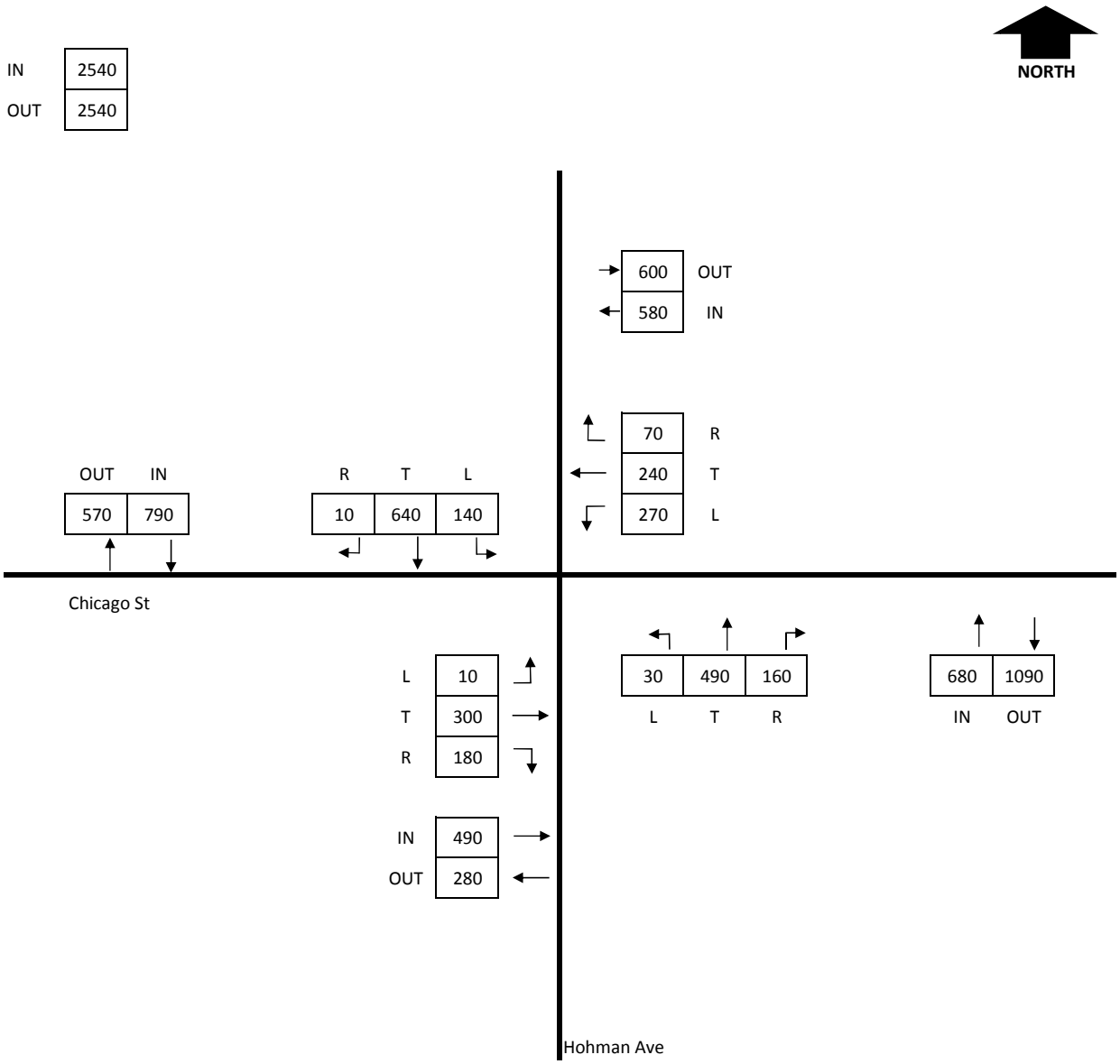
2022 SITE GENERATED TRIPS (PM)

HAMMOND GATEWAY STATION

October 2017

TOTAL INTERSECTION

IN	2540
OUT	2540



CLASSIFICATION: ALL VEHICLES

HOHMAN AVE & CHICAGO ST

2022 BUILD TRAFFIC VOLUMES (PM)

HAMMOND GATEWAY STATION

October 2017

TOTAL INTERSECTION

	2034	2040
IN	1470	1600
OUT	1470	1600

	2034	2040	
→	320	350	OUT
←	420	450	IN

	OUT	IN
2040	500	260
2034	460	230

	R	T	L
2040	20	200	40
2034	10	190	30

	2034	2040	
↰	40	50	R
←	220	230	T
↙	160	170	L

Chicago St

	2040	2034	
L	20	10	↑
T	200	190	→
R	110	100	↓

	2040	2034
IN	330	300 →
OUT	270	240 ←

	↰	↑	↱
2034	10	410	100
2040	20	430	110
	L	T	R

	↑	↓
2034	520	450
2040	560	480
	IN	OUT

Hohman Ave

CLASSIFICATION: ALL VEHICLES

ANNUAL GROWTH RATE	
Northbound	0.5%
Southbound	0.5%
Eastbound	0.5%
Westbound	0.5%
Years to Escalate: 2040	6

HOHMAN AVE & CHICAGO ST

2040 PROJECTED TRAFFIC VOLUMES (AM)

HAMMOND GATEWAY STATION

October 2017

TOTAL INTERSECTION

	2034	2040
IN	2350	2490
OUT	2350	2490

NORTH

	2034	2040	
→	520	550	OUT
←	580	610	IN

	OUT	IN
2040	610	740
2034	570	700

	R	T	L
2040	20	620	100
2034	10	600	90

	2034	2040	
↰	60	70	R
←	240	250	T
↙	280	290	L

Chicago St

	2040	2034	
L	20	10	↰
T	280	270	→
R	130	120	↘

	2040	2034	
IN	430	400	→
OUT	290	260	←

	L	T	R
2034	10	500	160
2040	20	520	170

	2034	2040
	670	1000
	710	1040
	IN	OUT

Hohman Ave

CLASSIFICATION: ALL VEHICLES

ANNUAL GROWTH RATE	
Northbound	0.5%
Southbound	0.5%
Eastbound	0.5%
Westbound	0.5%
Years to Escalate: 2040	6

HOHMAN AVE & CHICAGO ST

2040 PROJECTED TRAFFIC VOLUMES (PM)

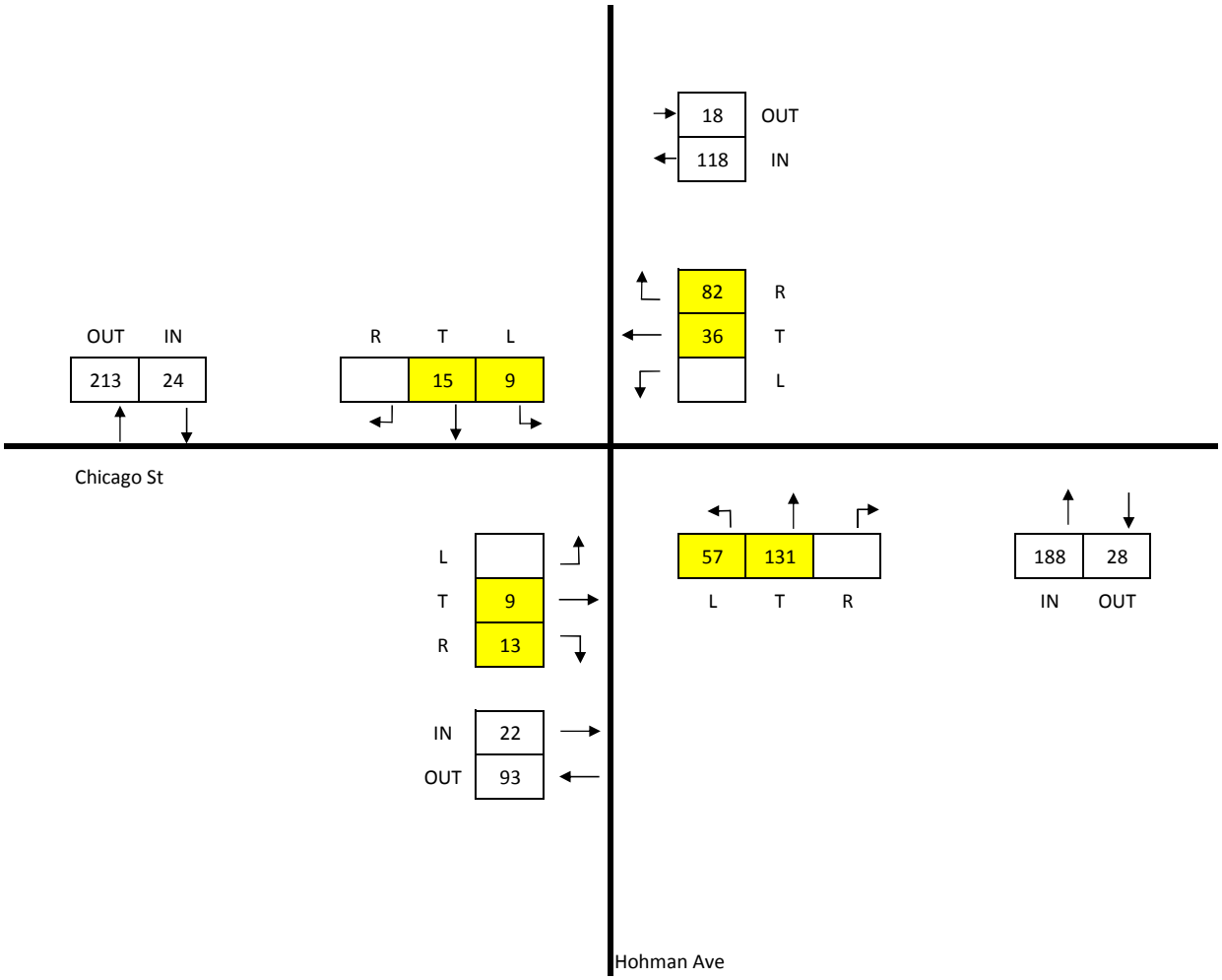
HAMMOND GATEWAY STATION

October 2017

TOTAL INTERSECTION

IN	352
OUT	352

NORTH



CLASSIFICATION: ALL VEHICLES

HOHMAN AVE & CHICAGO ST

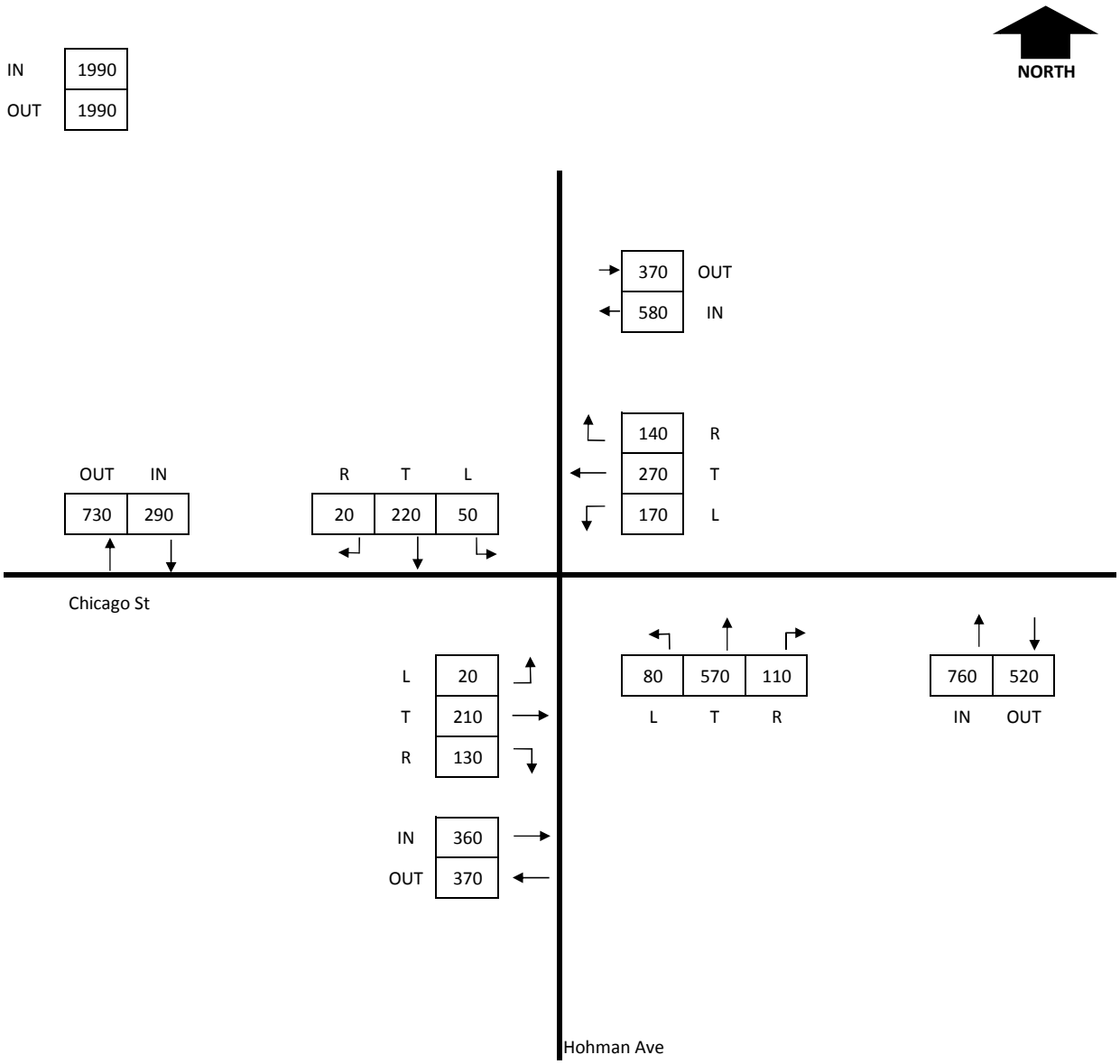
2040 SITE GENERATED TRIPS (AM)

HAMMOND GATEWAY STATION

October 2017

TOTAL INTERSECTION

IN	1990
OUT	1990



CLASSIFICATION: ALL VEHICLES

HOHMAN AVE & CHICAGO ST

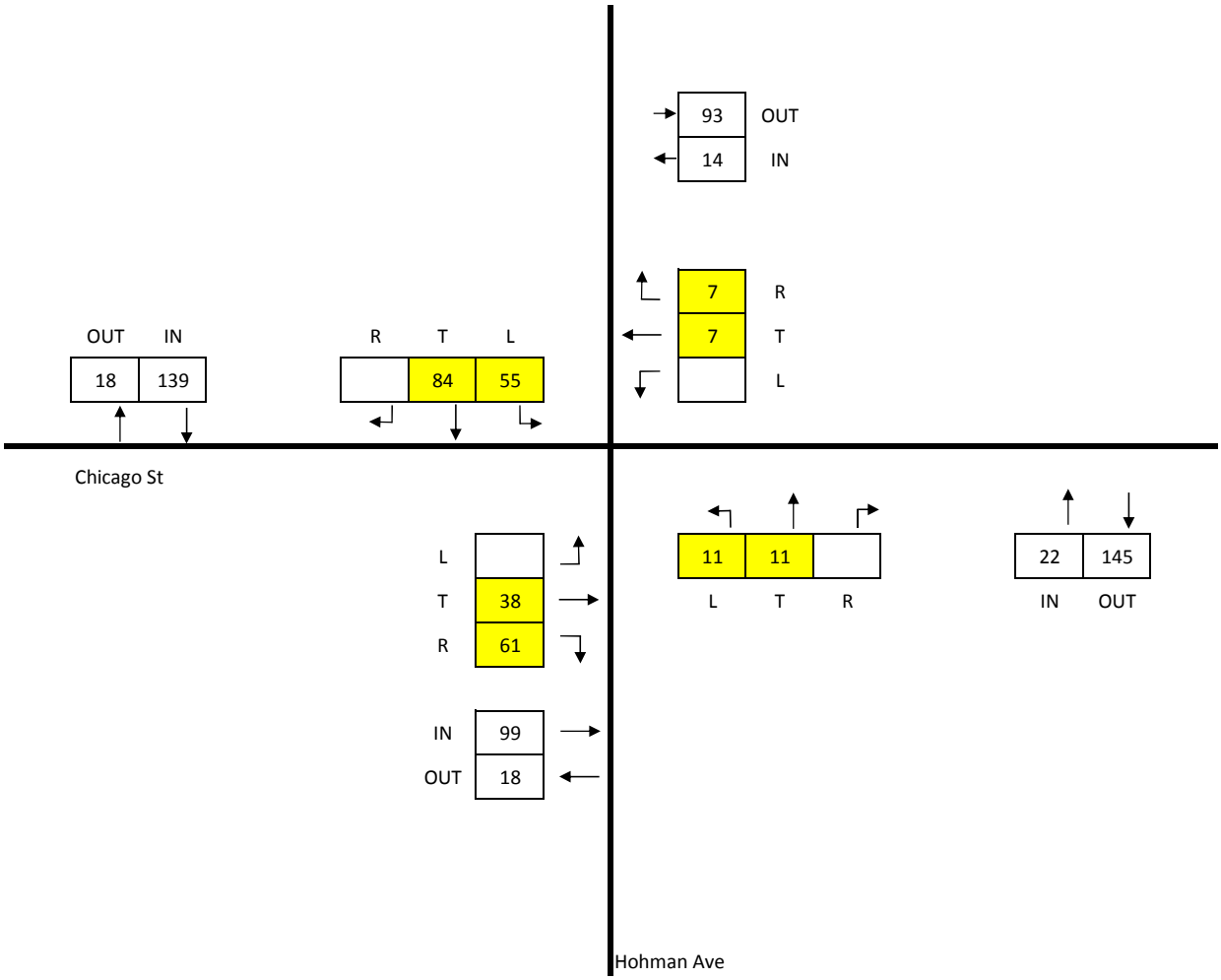
2040 BUILD TRAFFIC VOLUMES (AM)

HAMMOND GATEWAY STATION

October 2017

TOTAL INTERSECTION

IN	274
OUT	274



CLASSIFICATION: ALL VEHICLES

HOHMAN AVE & CHICAGO ST

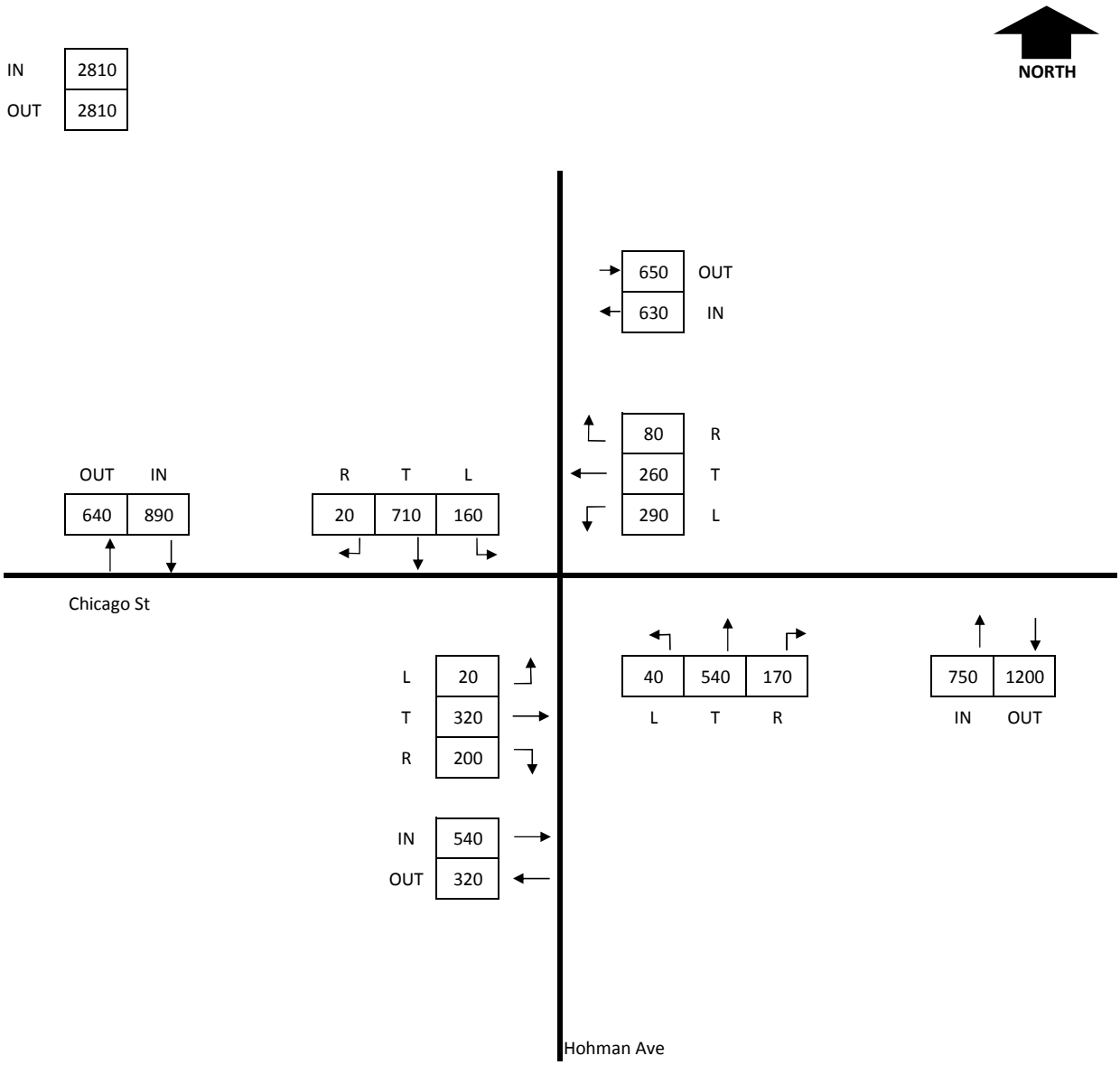
2040 SITE GENERATED TRIPS (PM)

HAMMOND GATEWAY STATION

October 2017

TOTAL INTERSECTION

IN	2810
OUT	2810



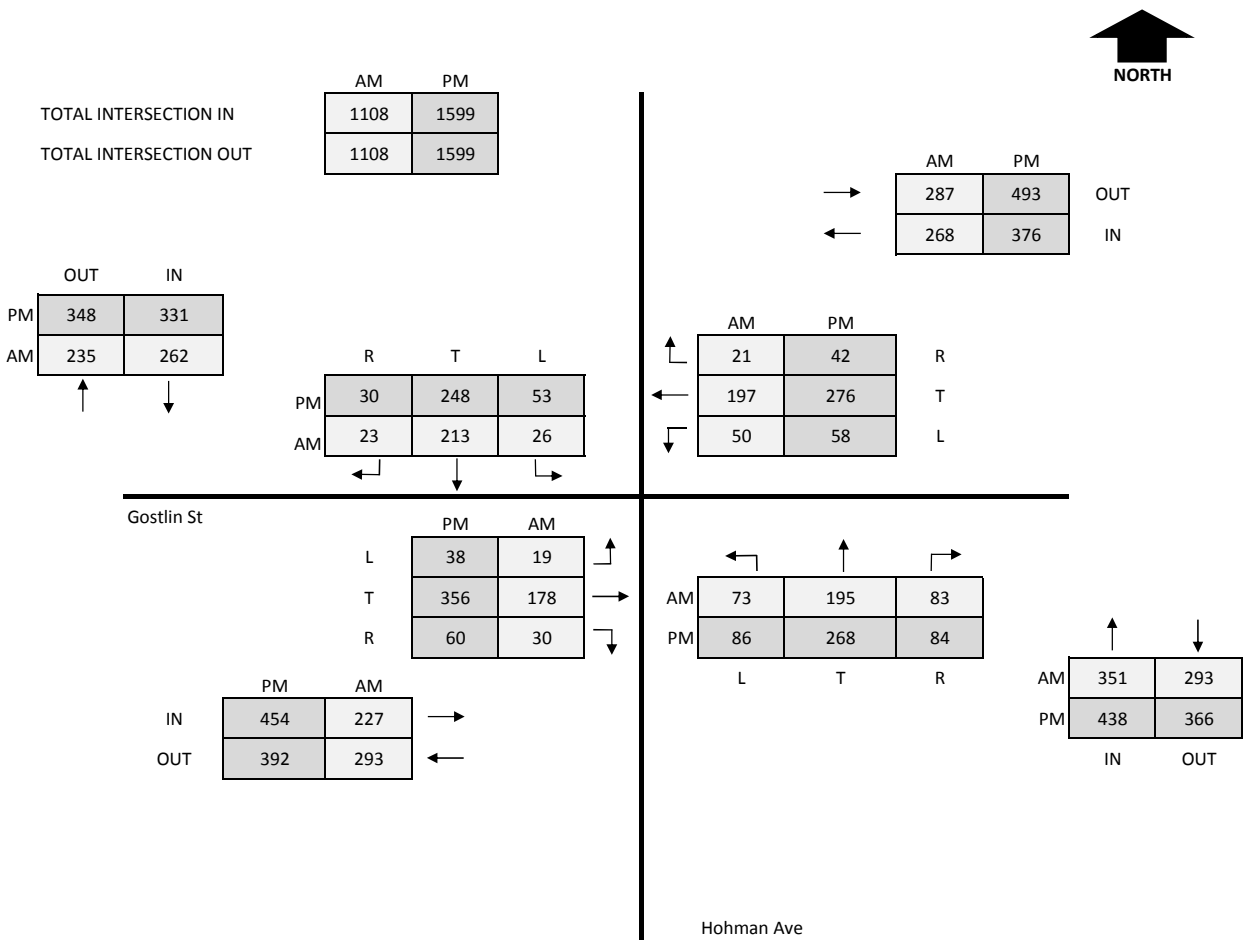
CLASSIFICATION: ALL VEHICLES

HOHMAN AVE & CHICAGO ST

2040 BUILD TRAFFIC VOLUMES (PM)

HAMMOND GATEWAY STATION

October 2017



CLASSIFICATION: ALL VEHICLES

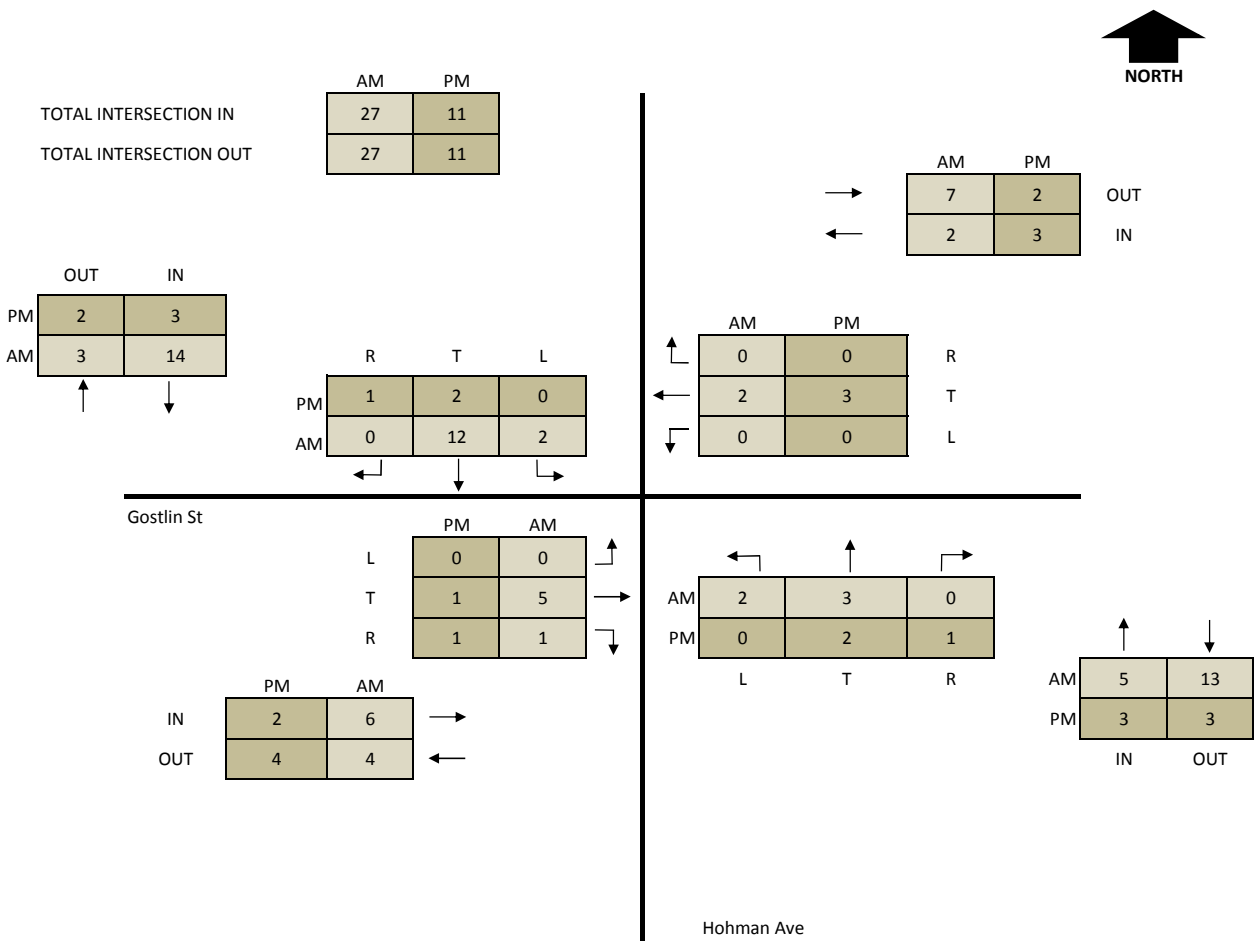
Traffic Counts from Quality Counts				
AM	5/9/2017	7:15 AM	to	8:15 AM
PM	5/9/2017	4:30 PM	to	5:30 PM

HOHMAN AVE & GOSTLIN ST

EXISTING TRAFFIC VOLUMES (2017)

HAMMOND GATEWAY STATION

October 2017



CLASSIFICATION: TRUCKS

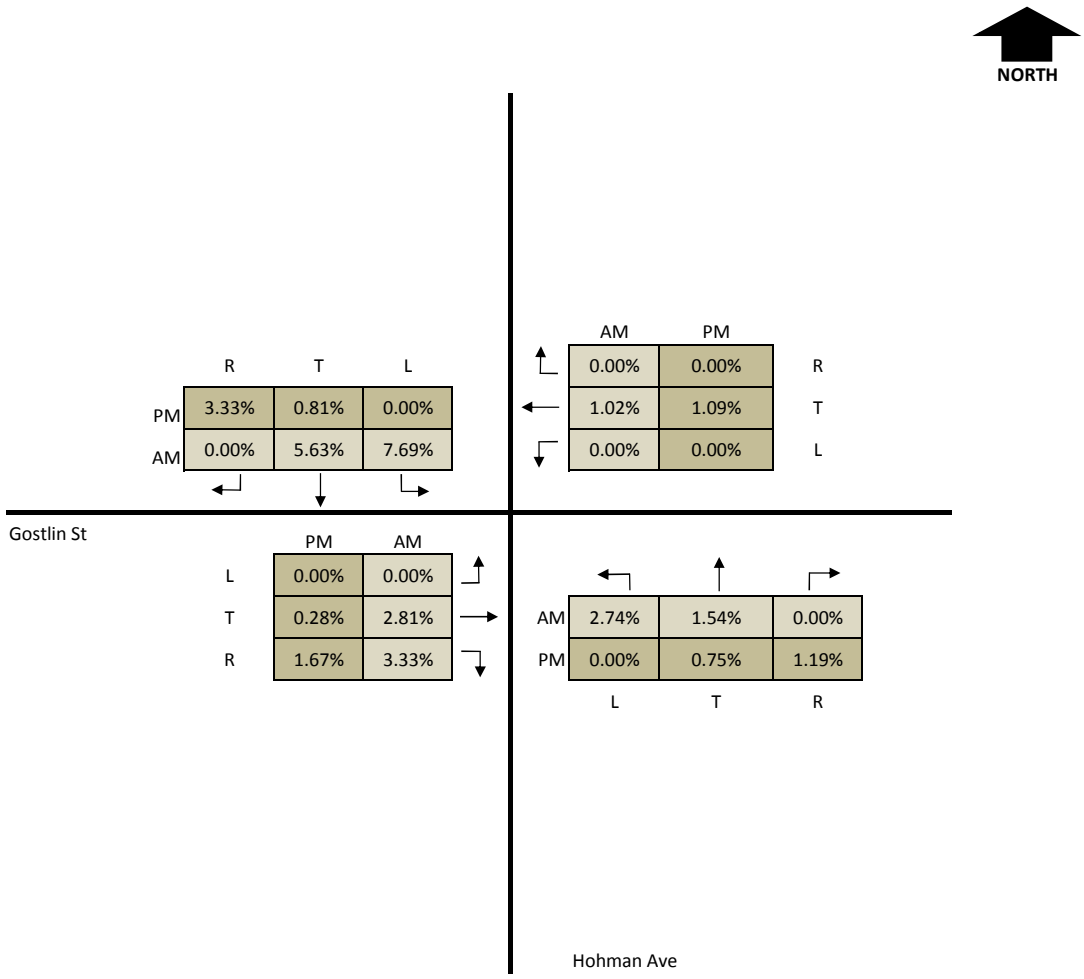
Traffic Counts from Quality Counts				
AM	5/9/2017	7:15 AM	to	8:15 AM
PM	5/9/2017	4:30 PM	to	5:30 PM

HOHMAN AVE & GOSTLIN ST

EXISTING TRUCK VOLUMES (2017)

HAMMOND GATEWAY STATION

October 2017



CLASSIFICATION: TRUCKS

Traffic Counts from Quality Counts				
AM	5/9/2017	7:15 AM	to	8:15 AM
PM	5/9/2017	4:30 PM	to	5:30 PM

HOHMAN AVE & GOSTLIN ST

EXISTING TRUCK VOLUMES (2017)

HAMMOND GATEWAY STATION

October 2017

TOTAL INTERSECTION

	2017	2022
IN	1108	1200
OUT	1108	1200

	2017	2022	
→	287	310	OUT
←	268	300	IN

	OUT	IN
2022	250	280
2017	235	262

	R	T	L
2022	30	220	30
2017	23	213	26

	2017	2022	
↰	21	30	R
←	197	210	T
↙	50	60	L

Gostlin St

	2022	2017	
L	20	19	↰
T	190	178	→
R	40	30	↘

	2022	2017	
IN	250	227	→
OUT	320	293	←

	L	T	R
2017	73	195	83
2022	80	200	90

	2017	2022
2017	351	293
2022	370	320
	IN	OUT

Hohman Ave

CLASSIFICATION: ALL VEHICLES

ANNUAL GROWTH RATE	
Northbound	0.5%
Southbound	0.5%
Eastbound	0.5%
Westbound	0.5%
Years to Escalate: 2022	5

HOHMAN AVE & GOSTLIN ST

2022 PROJECTED TRAFFIC VOLUMES (AM)

HAMMOND GATEWAY STATION

October 2017

TOTAL INTERSECTION

	2017	2022
IN	1599	1700
OUT	1599	1700

	2017	2022	
→	493	520	OUT
←	376	400	IN

	OUT	IN
2022	370	360
2017	348	331

	R	T	L
2022	40	260	60
2017	30	248	53

	2017	2022	
↰	42	50	R
←	276	290	T
↙	58	60	L

Gostlin St

	2022	2017	
L	40	38	↑
T	370	356	→
R	70	60	↓

	2017	2022
↰	86	90
↑	268	280
↱	84	90
	L	T	R

	2022	2017	
IN	480	454	→
OUT	420	392	←

	↑	↓
2017	438	366
2022	460	390
	IN	OUT

Hohman Ave

CLASSIFICATION: ALL VEHICLES

ANNUAL GROWTH RATE	
Northbound	0.5%
Southbound	0.5%
Eastbound	0.5%
Westbound	0.5%
Years to Escalate: 2022	5

HOHMAN AVE & GOSTLIN ST

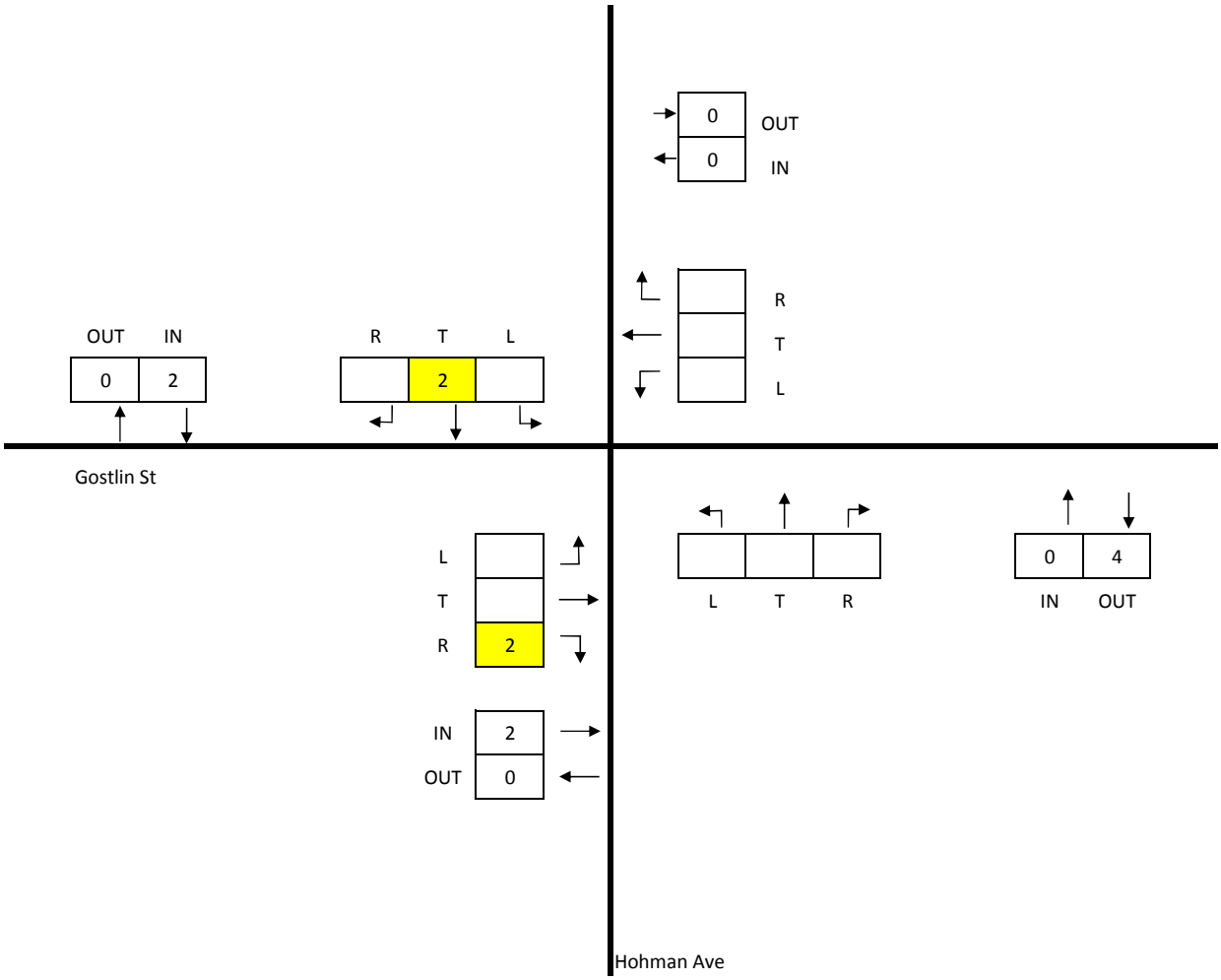
2022 PROJECTED TRAFFIC VOLUMES (PM)

HAMMOND GATEWAY STATION

October 2017

TOTAL INTERSECTION

IN	4
OUT	4



CLASSIFICATION: ALL VEHICLES

HOHMAN AVE & GOSTLIN ST

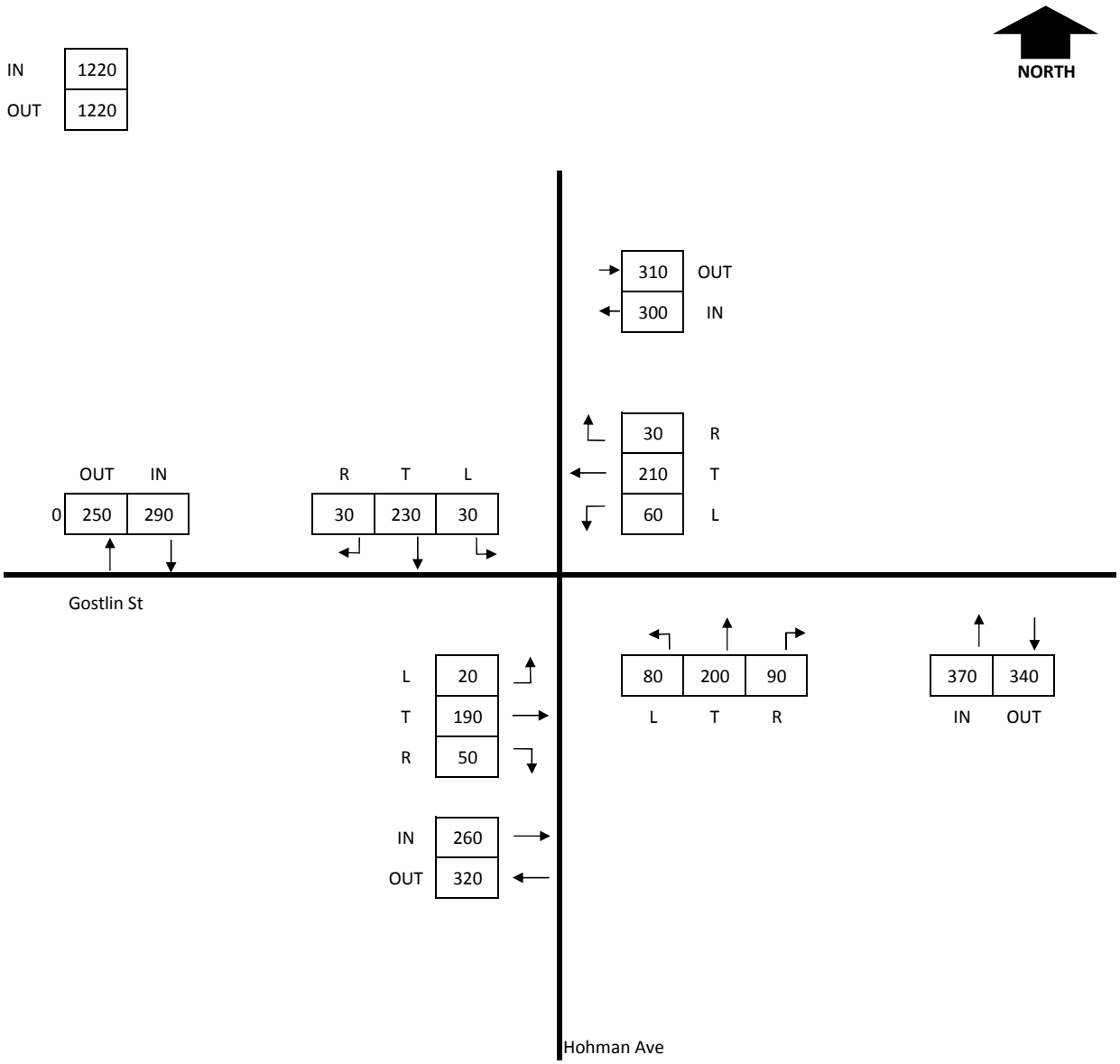
2022 SITE GENERATED TRIPS (AM)

HAMMOND GATEWAY STATION

October 2017

TOTAL INTERSECTION

IN	1220
OUT	1220



CLASSIFICATION: ALL VEHICLES

HOHMAN AVE & GOSTLIN ST

2022 BUILD TRAFFIC VOLUMES (AM)

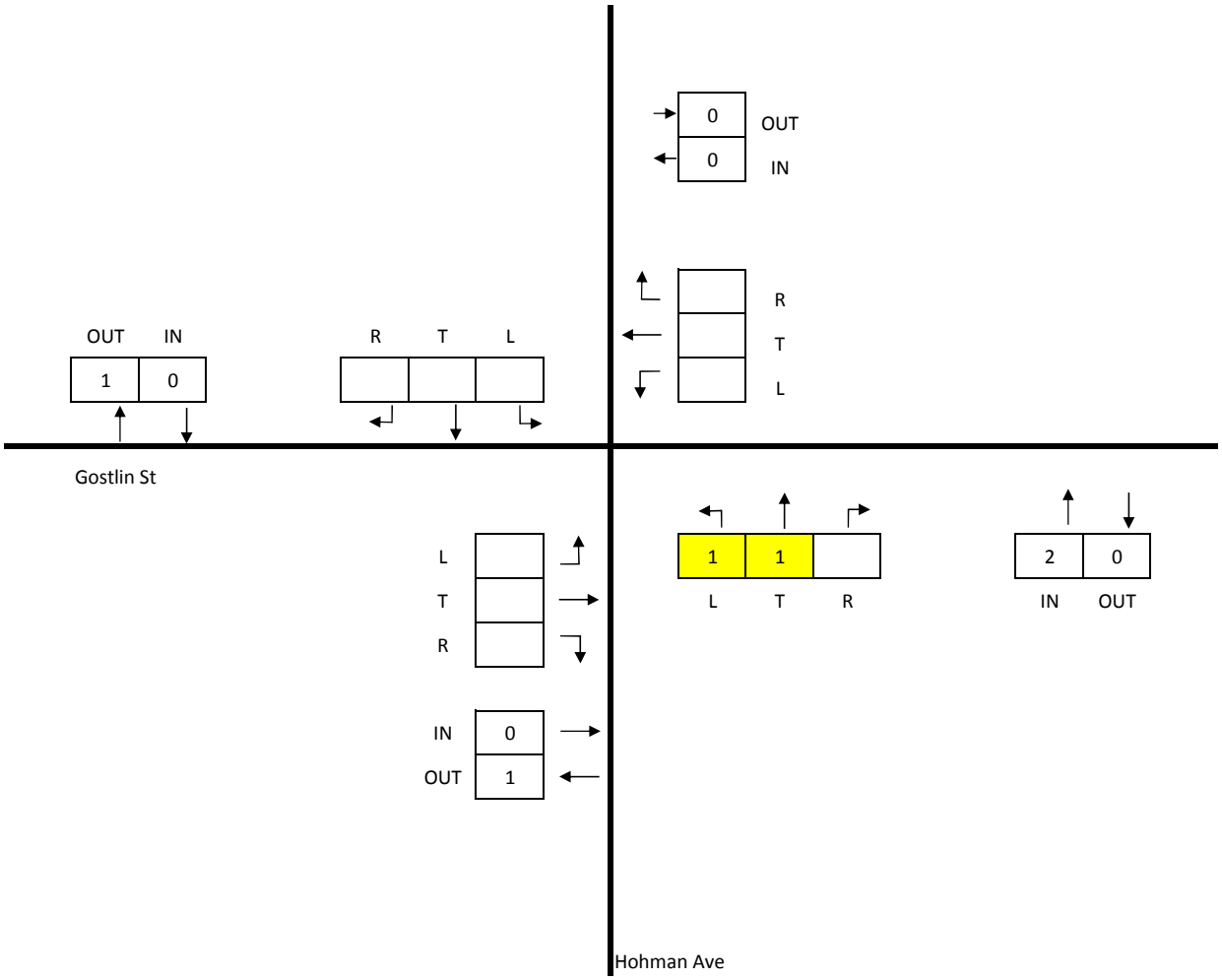
HAMMOND GATEWAY STATION

October 2017

TOTAL INTERSECTION

IN	2
OUT	2

NORTH



CLASSIFICATION: ALL VEHICLES

HOHMAN AVE & GOSTLIN ST

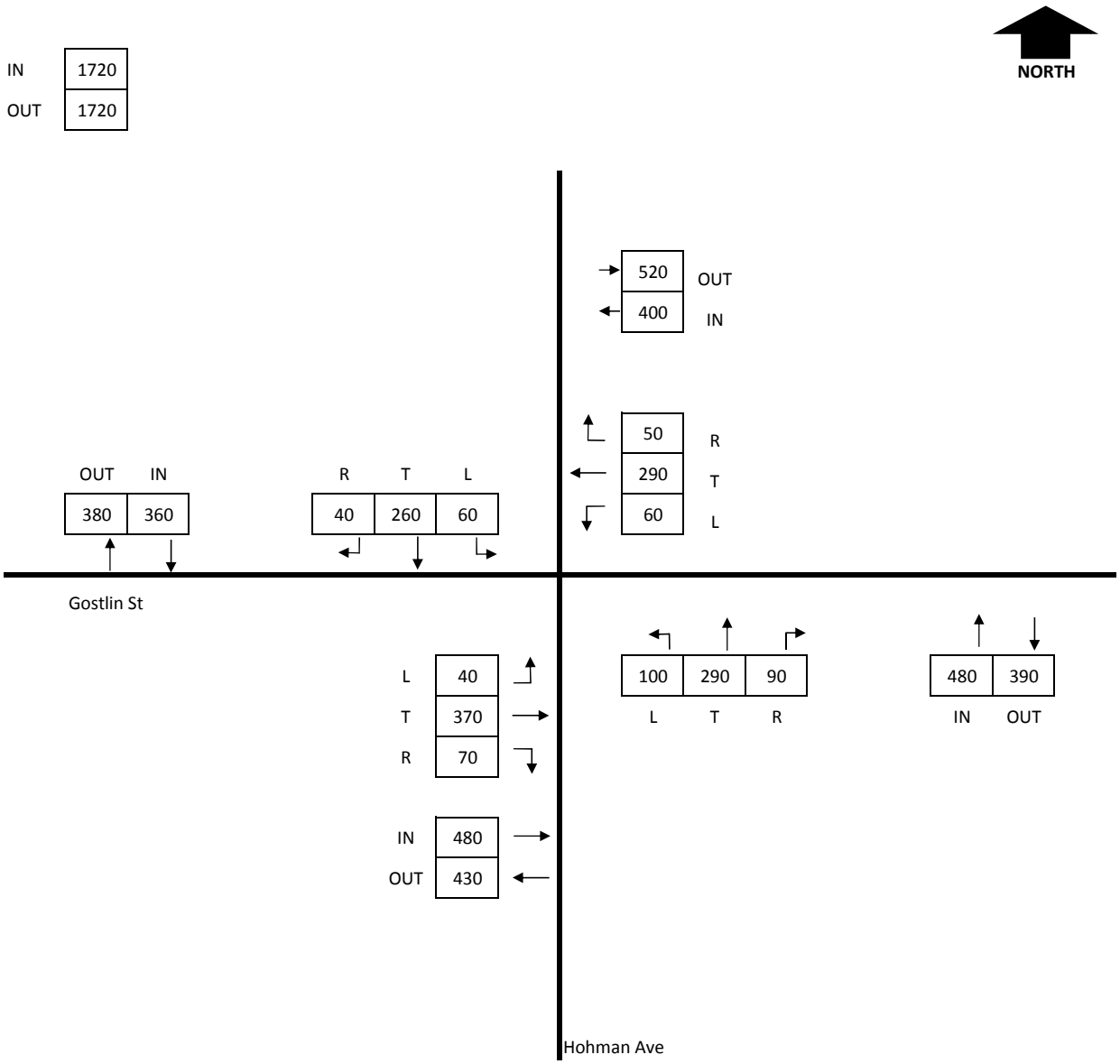
2022 SITE GENERATED TRIPS (PM)

HAMMOND GATEWAY STATION

October 2017

TOTAL INTERSECTION

IN	1720
OUT	1720



CLASSIFICATION: ALL VEHICLES

HOHMAN AVE & GOSTLIN ST

2022 BUILD TRAFFIC VOLUMES (PM)

HAMMOND GATEWAY STATION

October 2017

TOTAL INTERSECTION

	2017	2040
IN	1108	1300
OUT	1108	1300

	2017	2040	
→	287	330	OUT
←	268	320	IN

	OUT	IN
2040	280	300
2017	235	262

	R	T	L
2040	30	240	30
2017	23	213	26

	2017	2040	
↰	21	30	R
←	197	230	T
↙	50	60	L

Gostlin St

	2040	2017
L	30	19
T	200	178
R	40	30

	2040	2017
IN	270	227
OUT	350	293

	L	T	R
2017	73	195	83
2040	90	220	100

	2017	2040
IN	351	410
OUT	293	340

Hohman Ave

CLASSIFICATION: ALL VEHICLES

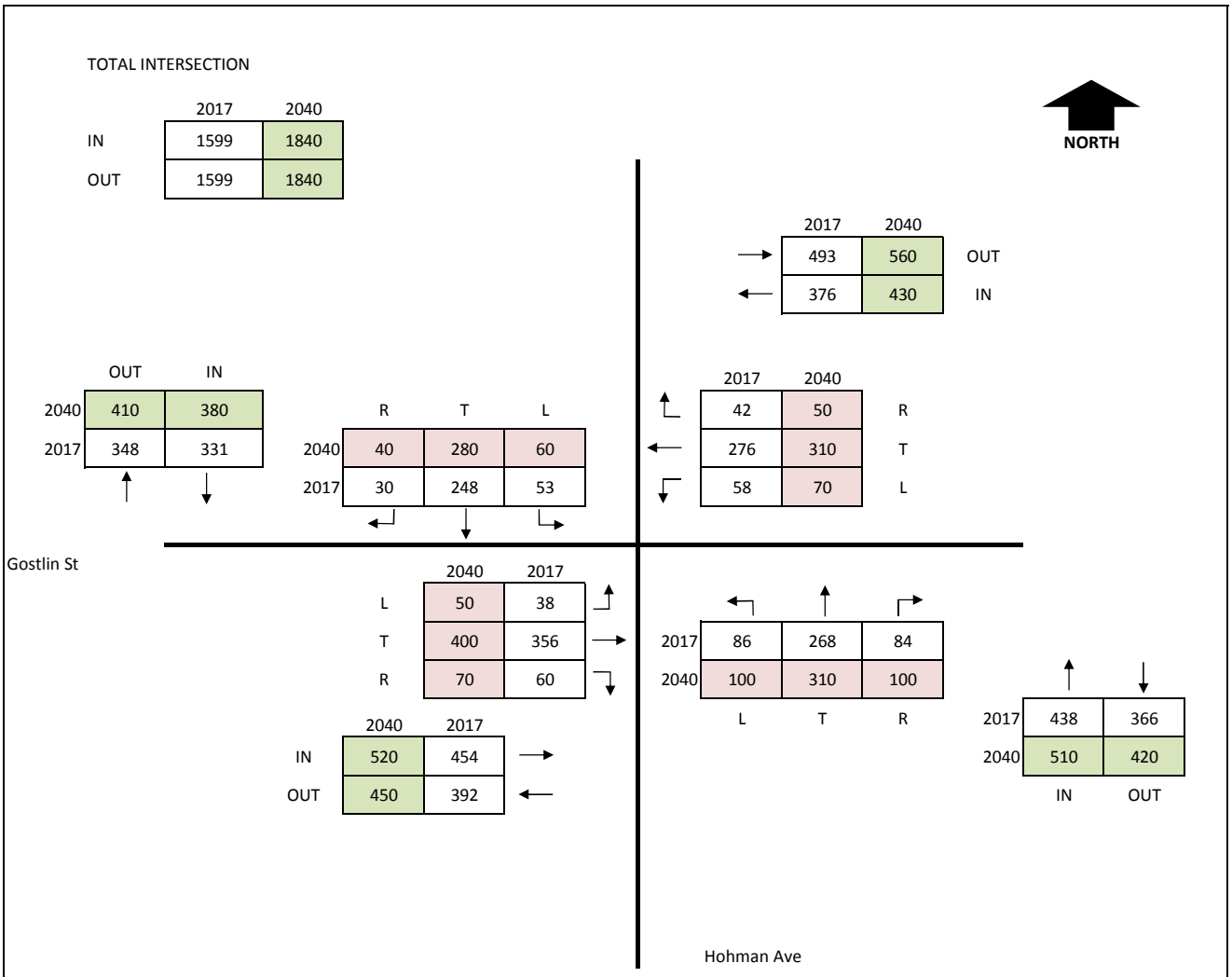
ANNUAL GROWTH RATE	
Northbound	0.5%
Southbound	0.5%
Eastbound	0.5%
Westbound	0.5%
Years to Escalate: 2040	23

HOHMAN AVE & GOSTLIN ST

2040 PROJECTED TRAFFIC VOLUMES (AM)

HAMMOND GATEWAY STATION

October 2017



CLASSIFICATION: ALL VEHICLES

ANNUAL GROWTH RATE	
Northbound	0.5%
Southbound	0.5%
Eastbound	0.5%
Westbound	0.5%
Years to Escalate: 2040	23

HOHMAN AVE & GOSTLIN ST

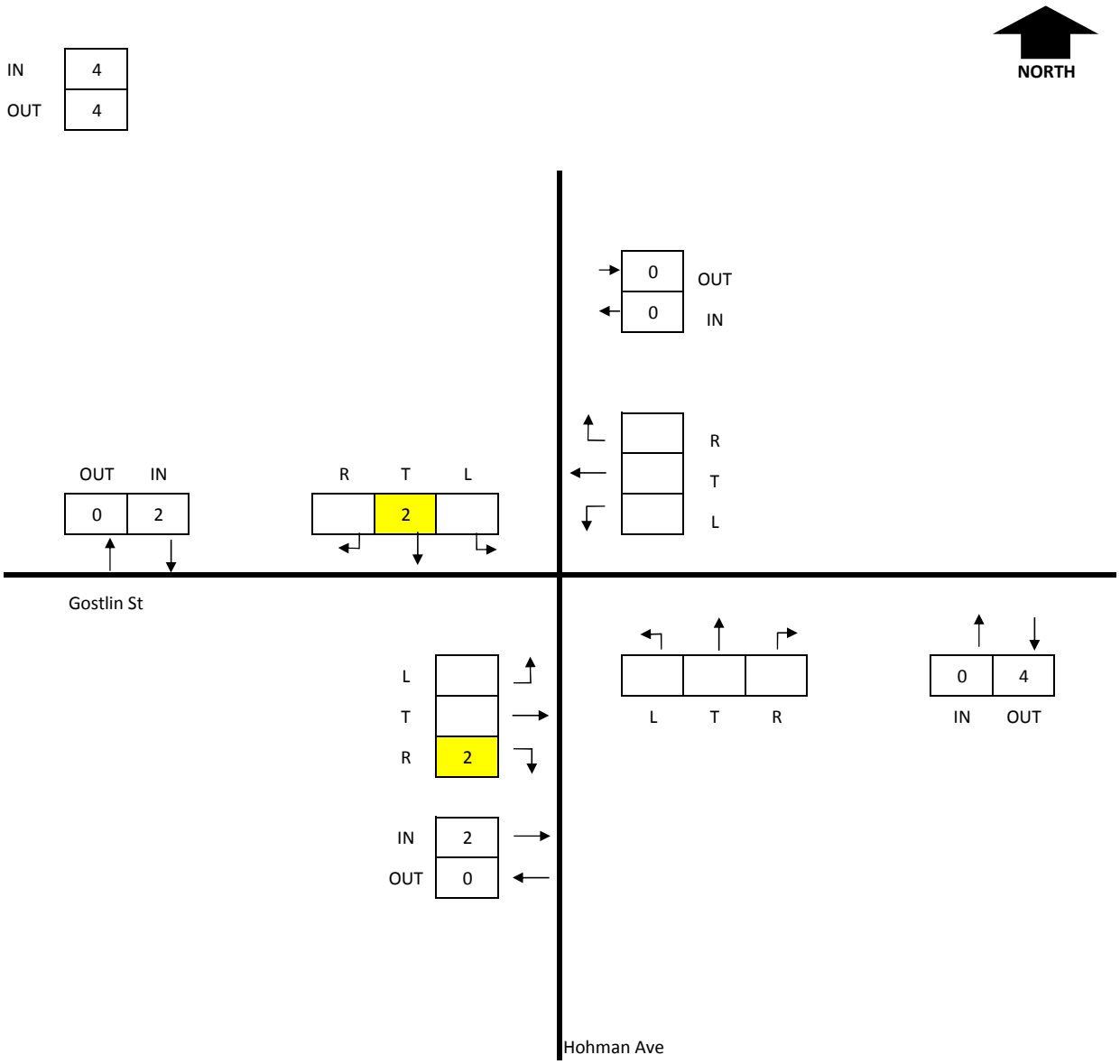
2040 PROJECTED TRAFFIC VOLUMES (PM)

HAMMOND GATEWAY STATION

October 2017

TOTAL INTERSECTION

IN	4
OUT	4



CLASSIFICATION: ALL VEHICLES

HOHMAN AVE & GOSTLIN ST

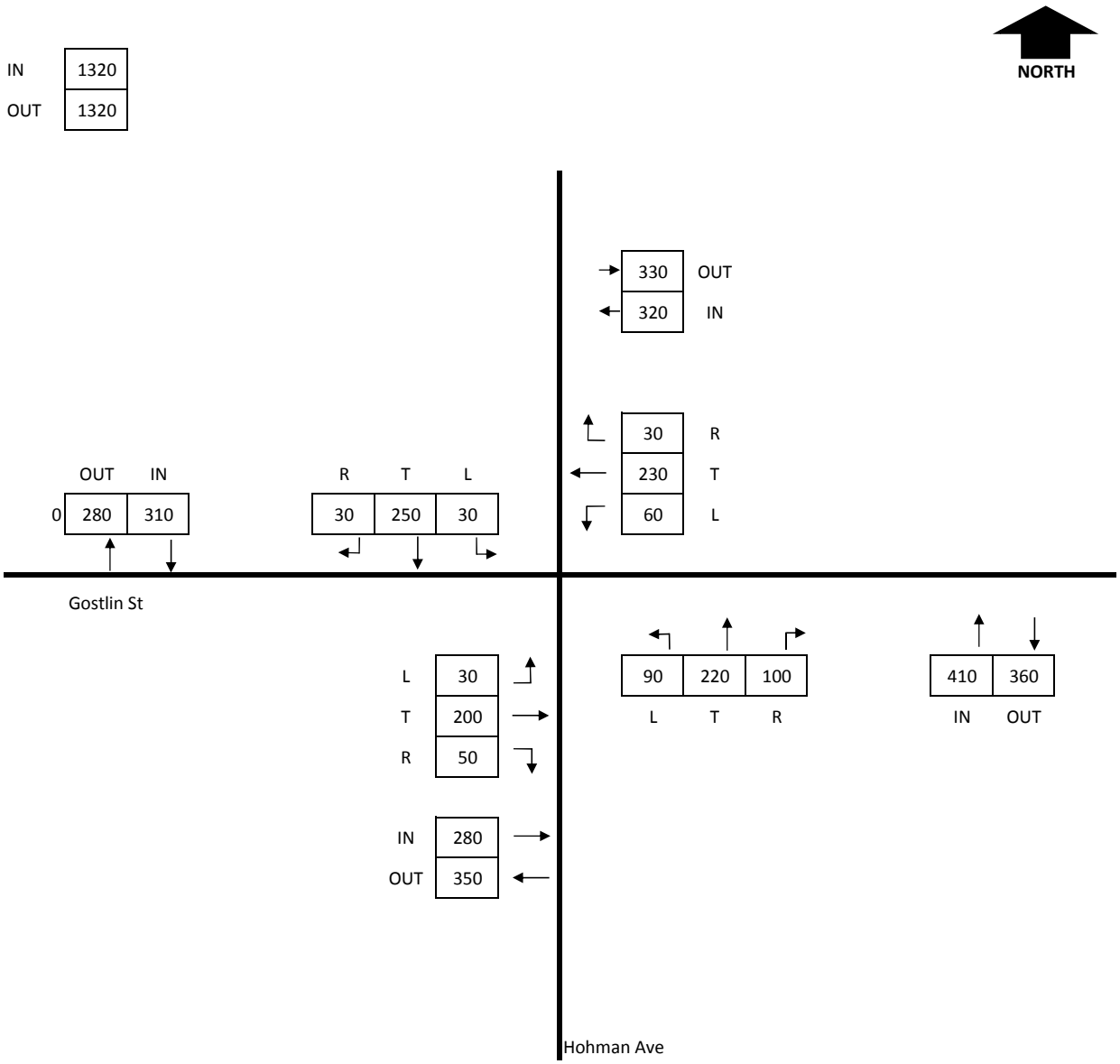
2040 SITE GENERATED TRIPS (AM)

HAMMOND GATEWAY STATION

October 2017

TOTAL INTERSECTION

IN	1320
OUT	1320



CLASSIFICATION: ALL VEHICLES

HOHMAN AVE & GOSTLIN ST

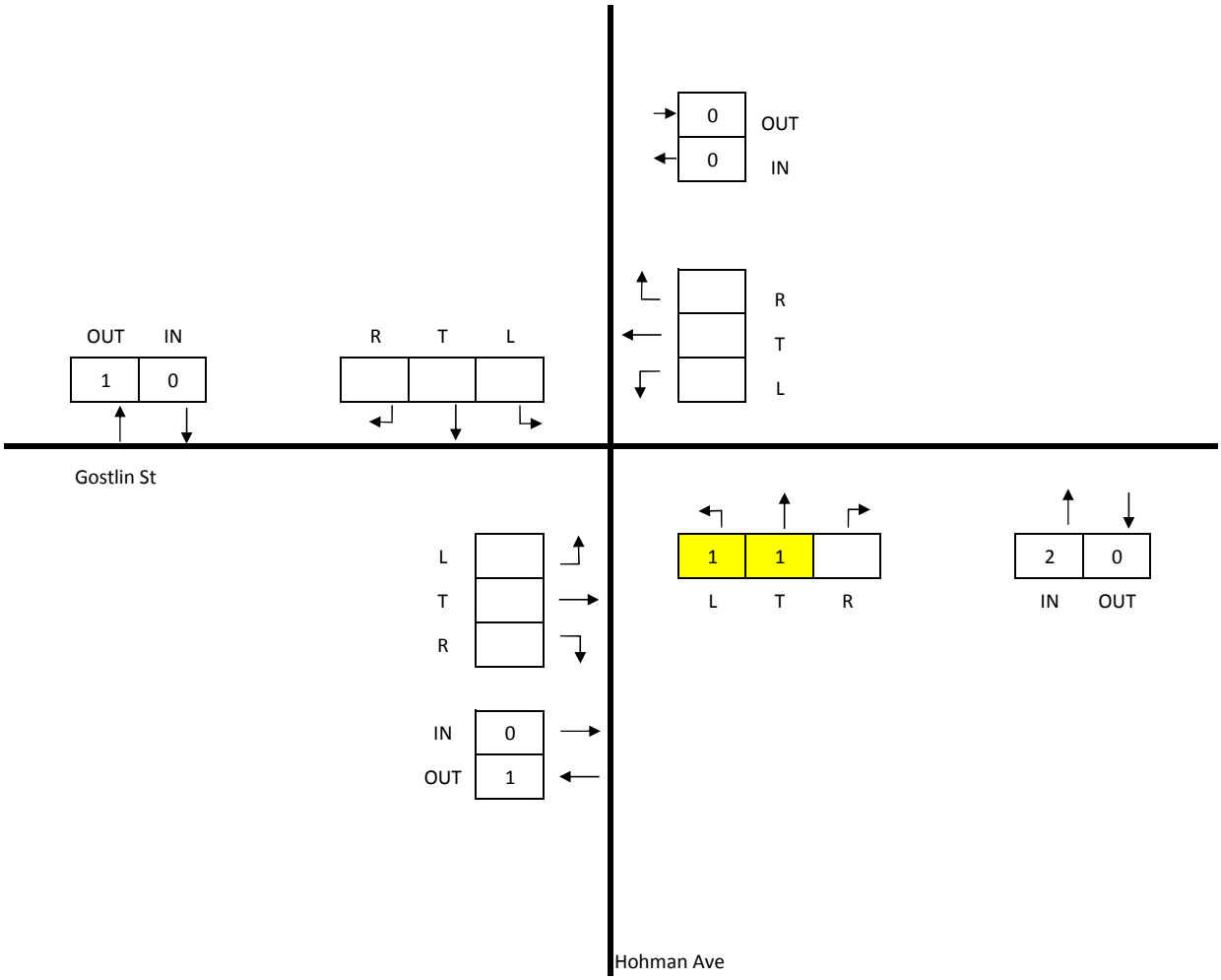
2040 BUILD TRAFFIC VOLUMES (AM)

HAMMOND GATEWAY STATION

October 2017

TOTAL INTERSECTION

IN	2
OUT	2



CLASSIFICATION: ALL VEHICLES

HOHMAN AVE & GOSTLIN ST

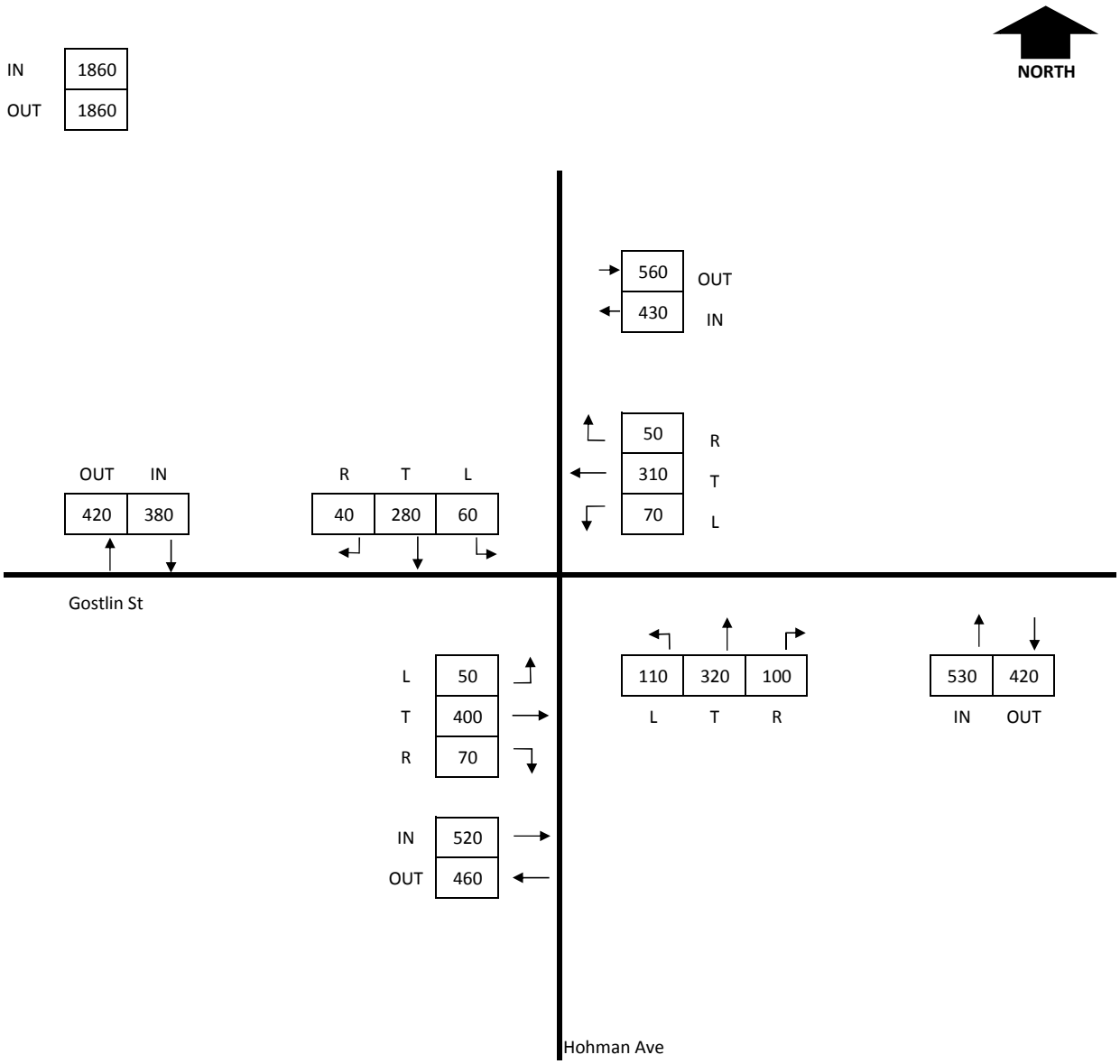
2040 SITE GENERATED TRIPS (PM)

HAMMOND GATEWAY STATION

October 2017

TOTAL INTERSECTION

IN	1860
OUT	1860



CLASSIFICATION: ALL VEHICLES

HOHMAN AVE & GOSTLIN ST

2040 BUILD TRAFFIC VOLUMES (PM)

HAMMOND GATEWAY STATION

October 2017

TOTAL INTERSECTION

	2017	2022
IN	-	725
OUT	-	725

NORTH

	2017	2022	
→	-	0	OUT
←	-	0	IN

	OUT	IN
2022	380	325
2017	-	-

	R	T	L
2022	10	315	
2017	-	-	

	2017	2022	
R			
T			
L			

Hanover St

	2022	2017
L	10	-
T		
R	10	-

	2017	2022
IN	20	-
OUT	20	-

	2017	2022	
	-	-	
	10	370	
	L	T	R

	2017	2022
	-	-
	380	325
	IN	OUT

Hohman Ave

CLASSIFICATION: ALL VEHICLES

ANNUAL GROWTH RATE	
Northbound	n/a
Southbound	n/a
Eastbound	n/a
Westbound	n/a
Years to Escalate: 2040	n/a

*No exisitng counts. Volumes estimated from adjacent intersections.

HOHMAN AVE & HANOVER ST

2022 PROJECTED TRAFFIC VOLUMES (AM)

HAMMOND GATEWAY STATION

October 2017

TOTAL INTERSECTION

	2017	2022
IN	-	900
OUT	-	900

NORTH

	2017	2022	
→	-	0	OUT
←	-	0	IN

	OUT	IN
2022	455	425
2017	-	-

	R	T	L
2022	10	415	
2017	-	-	

2017	2022	
		R
		T
		L

Hanover St

	2022	2017
L	10	-
T		
R	10	-

	2017	2022
2017	-	-
2022	10	445
	L	T

	2017	2022
2017	-	-
2022	455	425
	IN	OUT

	2022	2017
IN	20	-
OUT	20	-

Hohman Ave

CLASSIFICATION: ALL VEHICLES

ANNUAL GROWTH RATE	
Northbound	n/a
Southbound	n/a
Eastbound	n/a
Westbound	n/a
Years to Escalate: 2040	n/a

*No exisitng counts. Volumes estimated from adjacent intersections.

HOHMAN AVE & HANOVER ST

2022 PROJECTED TRAFFIC VOLUMES (PM)

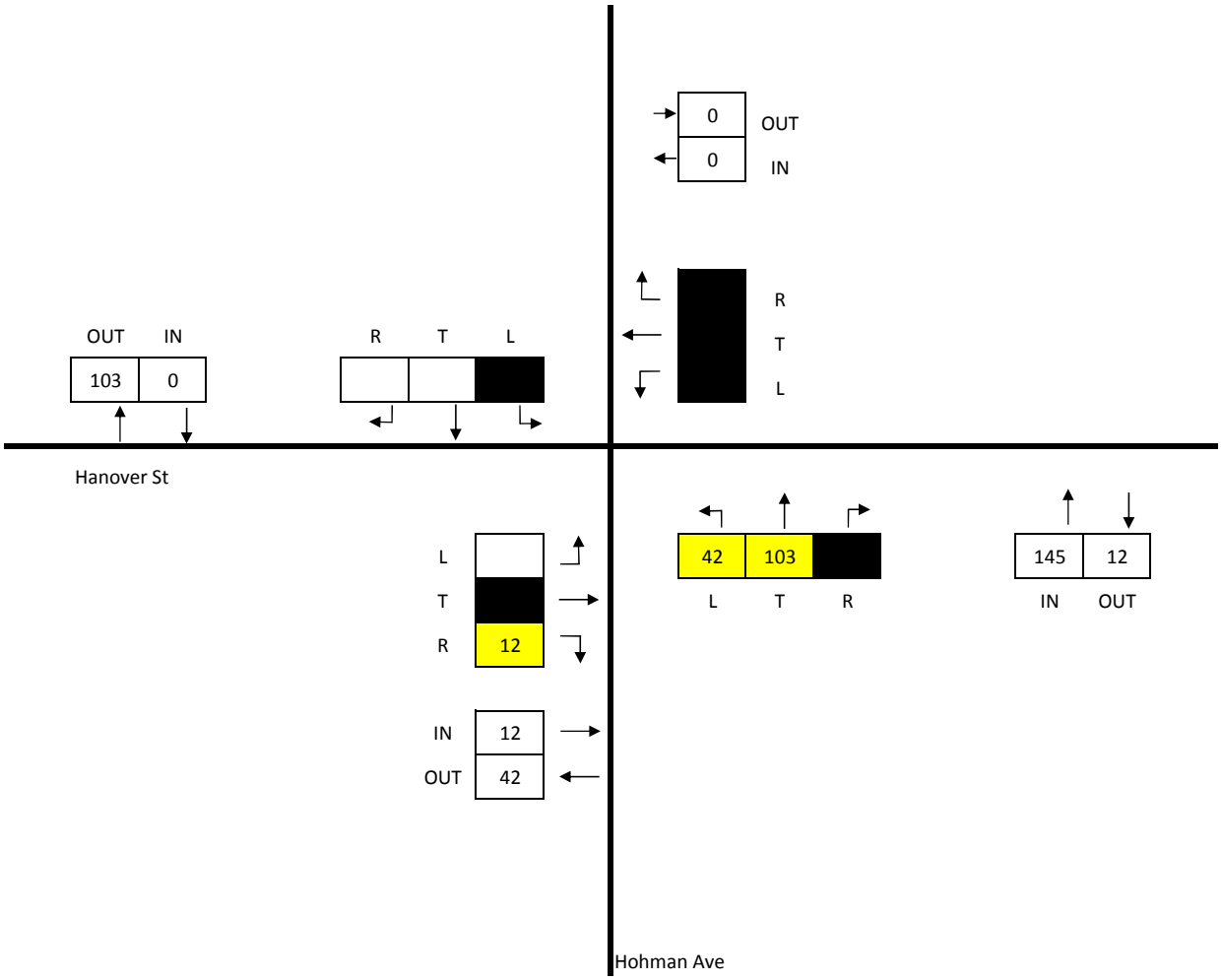
HAMMOND GATEWAY STATION

October 2017

TOTAL INTERSECTION

IN	157
OUT	157

NORTH



CLASSIFICATION: ALL VEHICLES

HOHMAN AVE & HANOVER ST

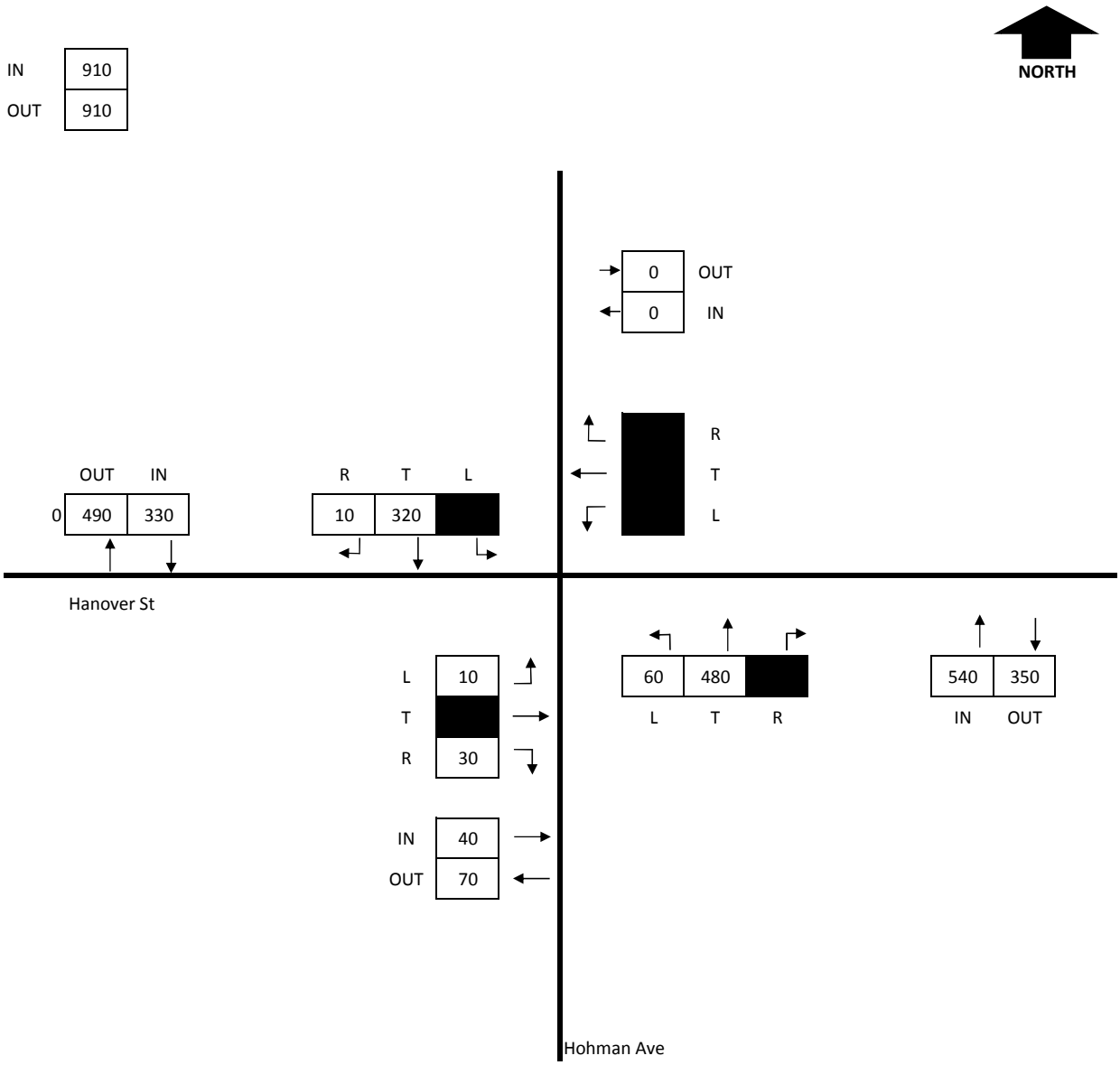
2022 SITE GENERATED TRIPS (AM)

HAMMOND GATEWAY STATION

October 2017

TOTAL INTERSECTION

IN	910
OUT	910



CLASSIFICATION: ALL VEHICLES

HOHMAN AVE & HANOVER ST

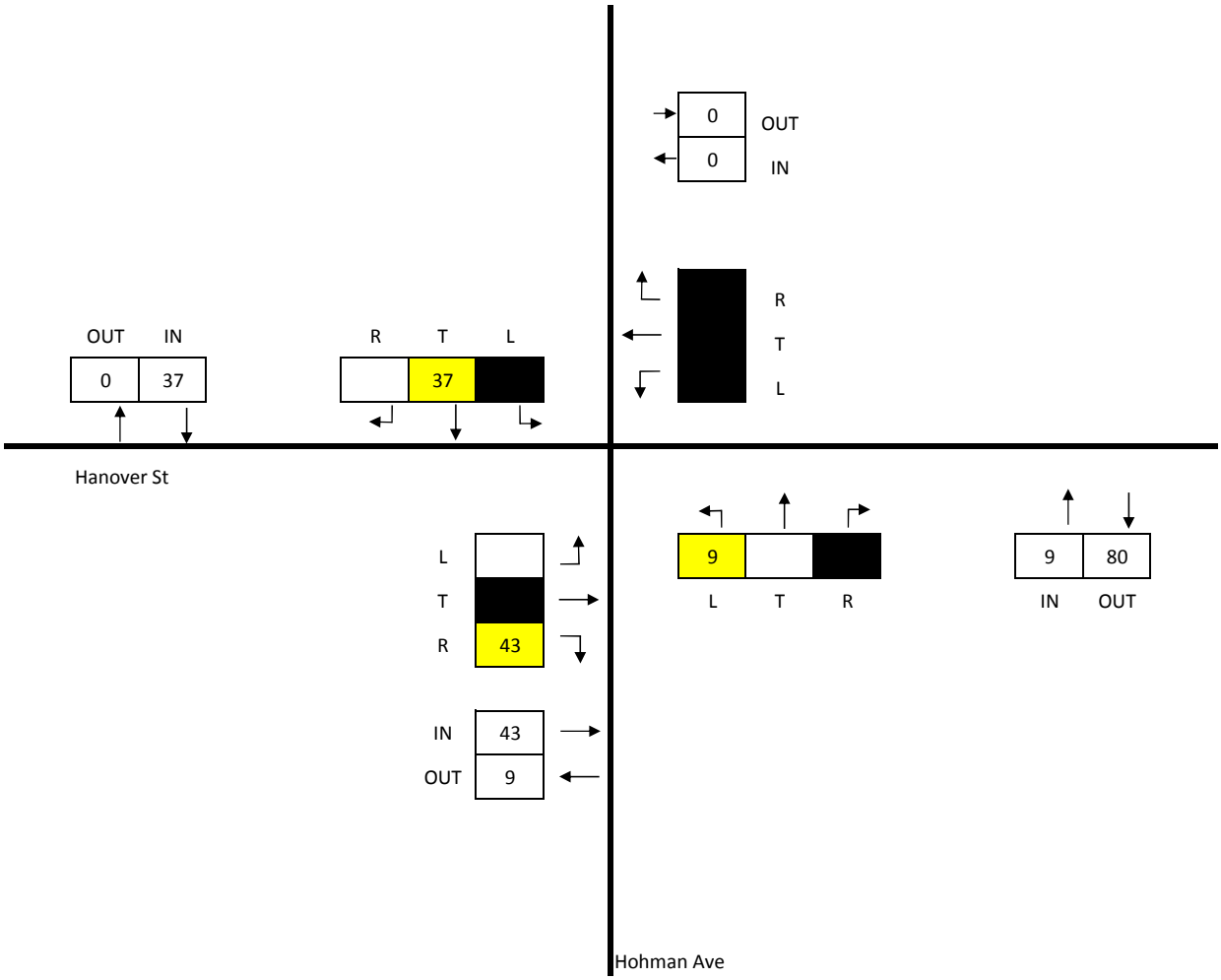
2022 BUILD TRAFFIC VOLUMES (AM)

HAMMOND GATEWAY STATION

October 2017

TOTAL INTERSECTION

IN	89
OUT	89



CLASSIFICATION: ALL VEHICLES

HOHMAN AVE & HANOVER ST

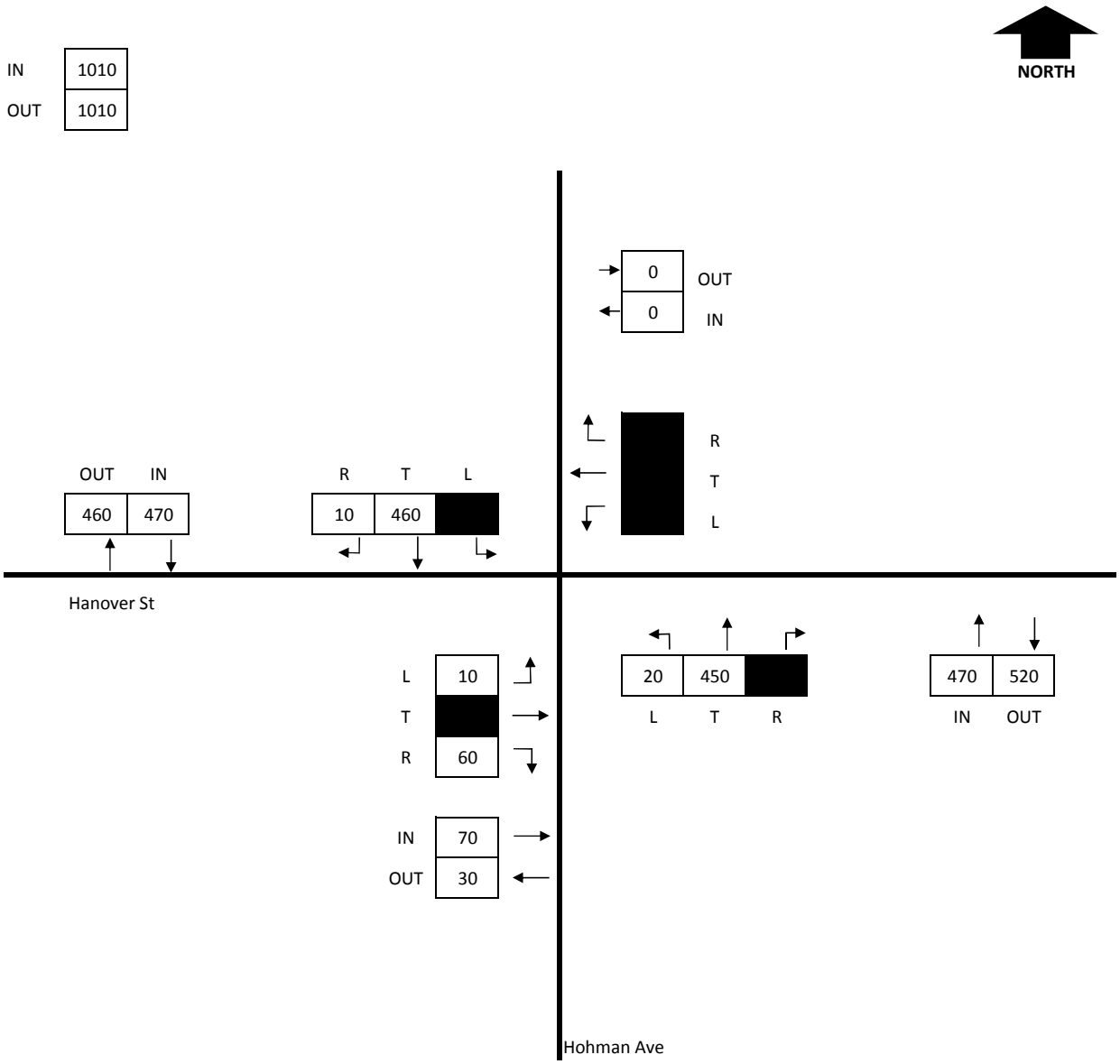
2022 SITE GENERATED TRIPS (PM)

HAMMOND GATEWAY STATION

October 2017

TOTAL INTERSECTION

IN	1010
OUT	1010



CLASSIFICATION: ALL VEHICLES

HOHMAN AVE & HANOVER ST

2022 BUILD TRAFFIC VOLUMES (PM)

HAMMOND GATEWAY STATION

October 2017

TOTAL INTERSECTION

	2017	2040
IN	-	790
OUT	-	790

NORTH

	2017	2040	
→	-	0	OUT
←	-	0	IN

	OUT	IN
2040	420	350
2017	-	-

	R	T	L
2040	10	340	
2017	-	-	

	2017	2040	
↰			R
←			T
↲			L

Hanover St

	2040	2017	
L	10	-	↰
T			→
R	10	-	↳

	2017	2040	
↰	-	10	L
↑	-	410	T
↱			R

	2040	2017	
IN	20	-	→
OUT	20	-	←

	2017	2040	
↑	-	420	IN
↓	-	350	OUT

Hohman Ave

CLASSIFICATION: ALL VEHICLES

ANNUAL GROWTH RATE	
Northbound	n/a
Southbound	n/a
Eastbound	n/a
Westbound	n/a
Years to Escalate: 2040	n/a

*No exisitng counts. Volumes estimated from adjacent intersections.

HOHMAN AVE & HANOVER ST

2040 PROJECTED TRAFFIC VOLUMES (AM)

HAMMOND GATEWAY STATION

October 2017

TOTAL INTERSECTION

	2017	2040
IN	-	990
OUT	-	990

	2017	2040	
→	-	0	OUT
←	-	0	IN

	OUT	IN
2040	510	460
2017	-	-

	R	T	L
2040	10	450	
2017	-	-	

2017	2040	
		R
		T
		L

Hanover St

	2040	2017
L	10	-
T		
R	10	-

	2017	2040
IN	20	-
OUT	20	-

	L	T	R
2017	-	-	
2040	10	500	

	2017	2040
IN	-	510
OUT	-	460

Hohman Ave

CLASSIFICATION: ALL VEHICLES

ANNUAL GROWTH RATE	
Northbound	n/a
Southbound	n/a
Eastbound	n/a
Westbound	n/a
Years to Escalate: 2040	n/a

HOHMAN AVE & HANOVER ST

2040 PROJECTED TRAFFIC VOLUMES (PM)

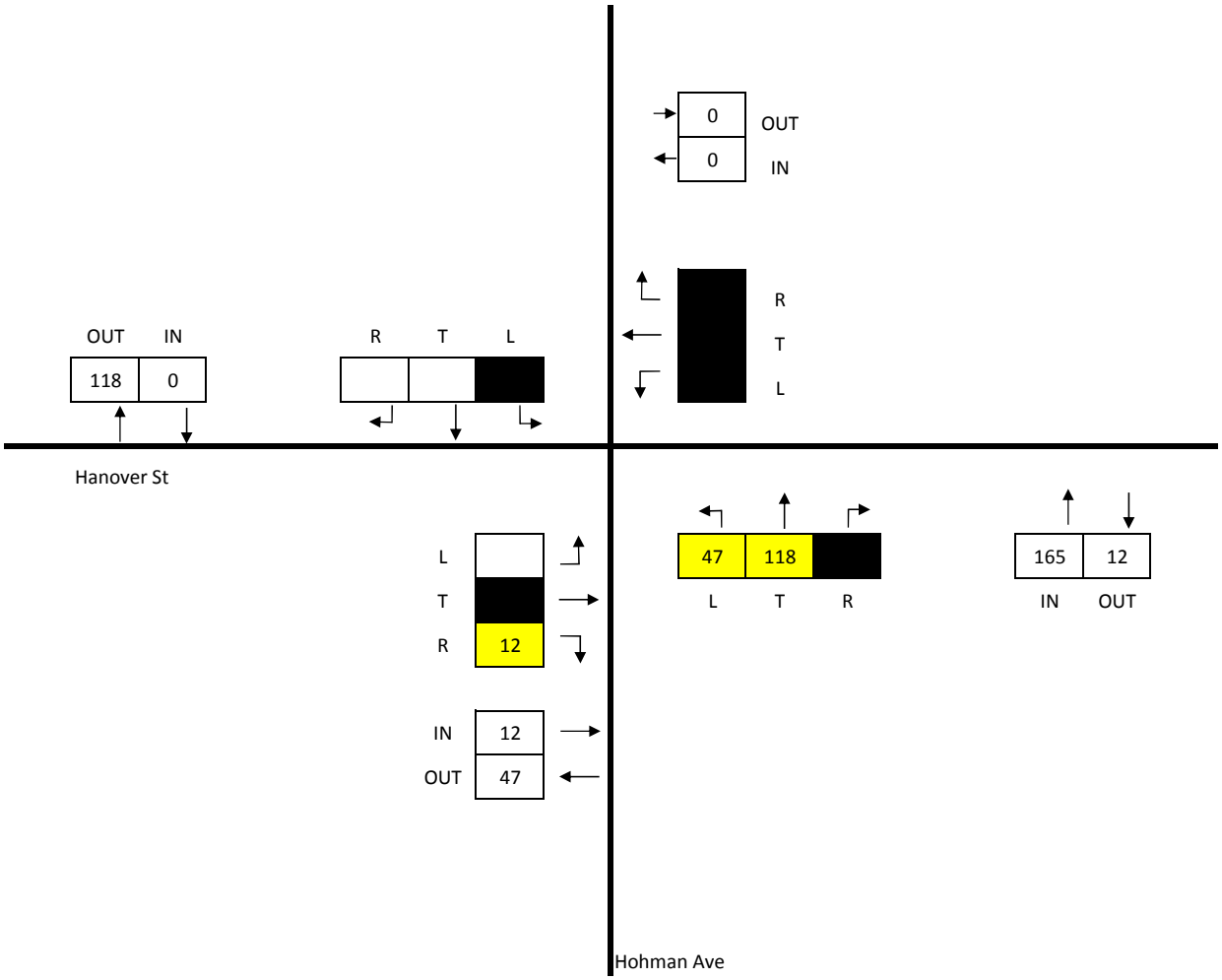
HAMMOND GATEWAY STATION

October 2017

TOTAL INTERSECTION

IN	177
OUT	177

NORTH



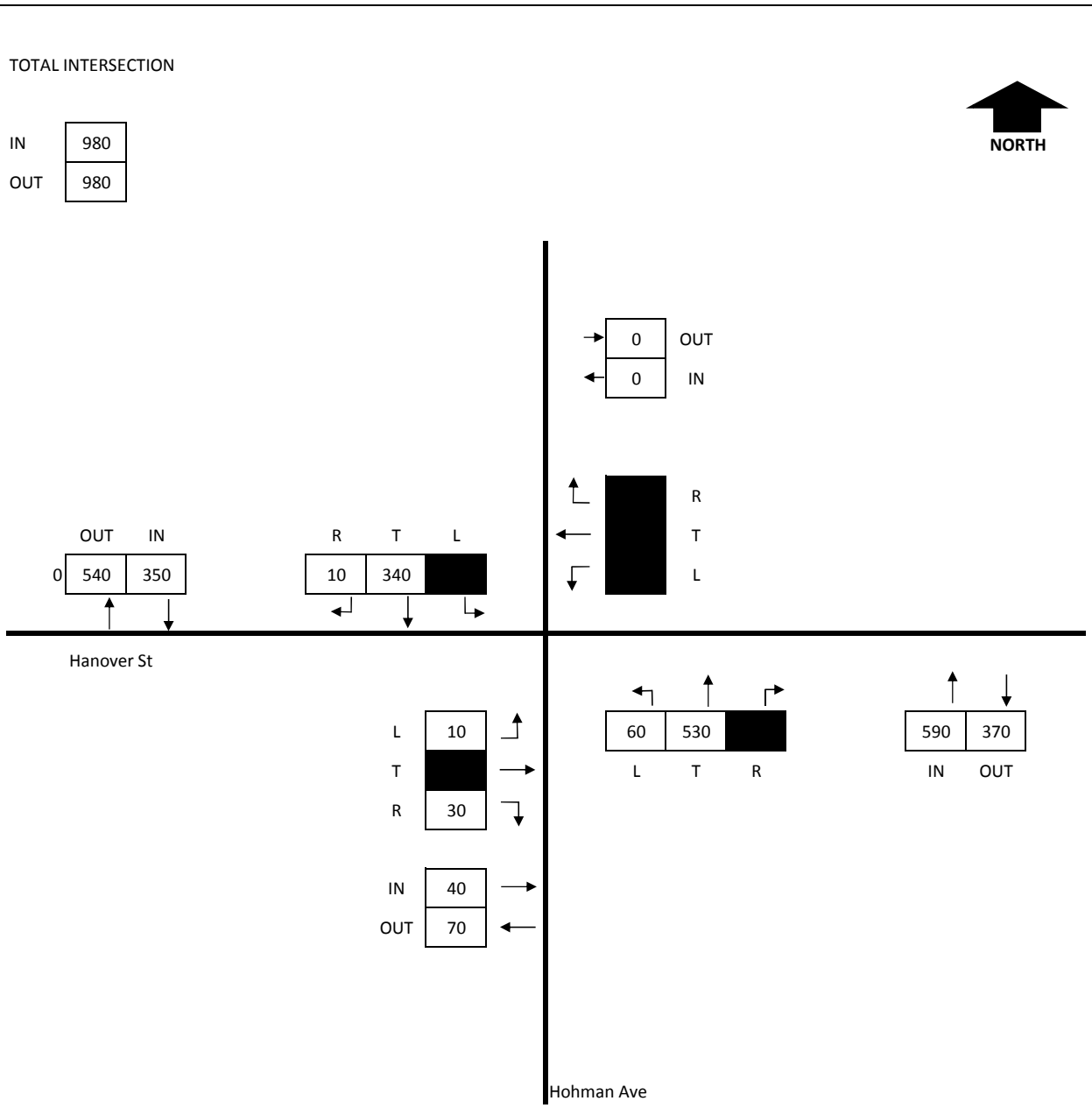
CLASSIFICATION: ALL VEHICLES

HOHMAN AVE & HANOVER ST

2040 SITE GENERATED TRIPS (AM)

HAMMOND GATEWAY STATION

October 2017



CLASSIFICATION: ALL VEHICLES

HOHMAN AVE & HANOVER ST

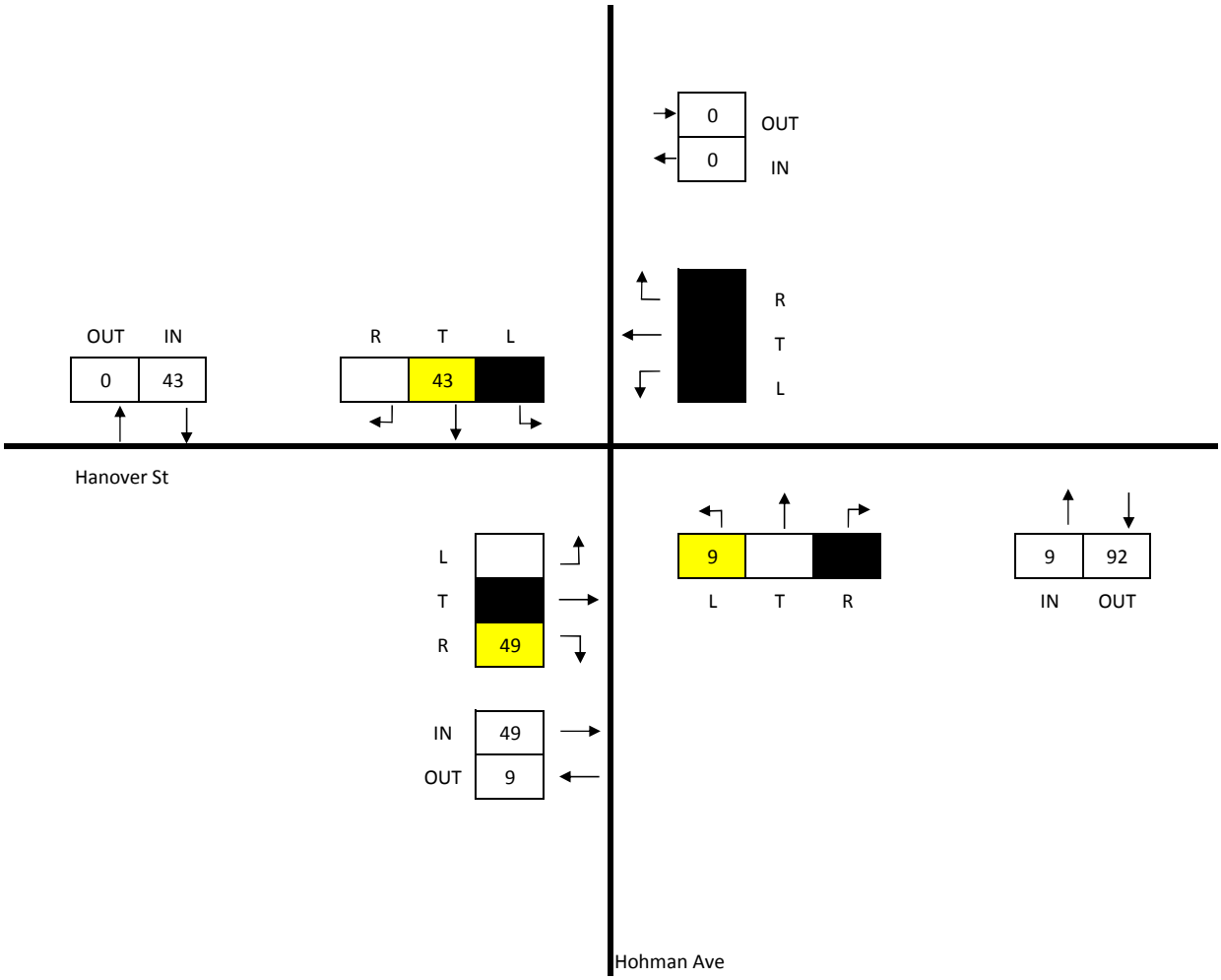
2040 BUILD TRAFFIC VOLUMES (AM)

HAMMOND GATEWAY STATION

October 2017

TOTAL INTERSECTION

IN	101
OUT	101



CLASSIFICATION: ALL VEHICLES

HOHMAN AVE & HANOVER ST

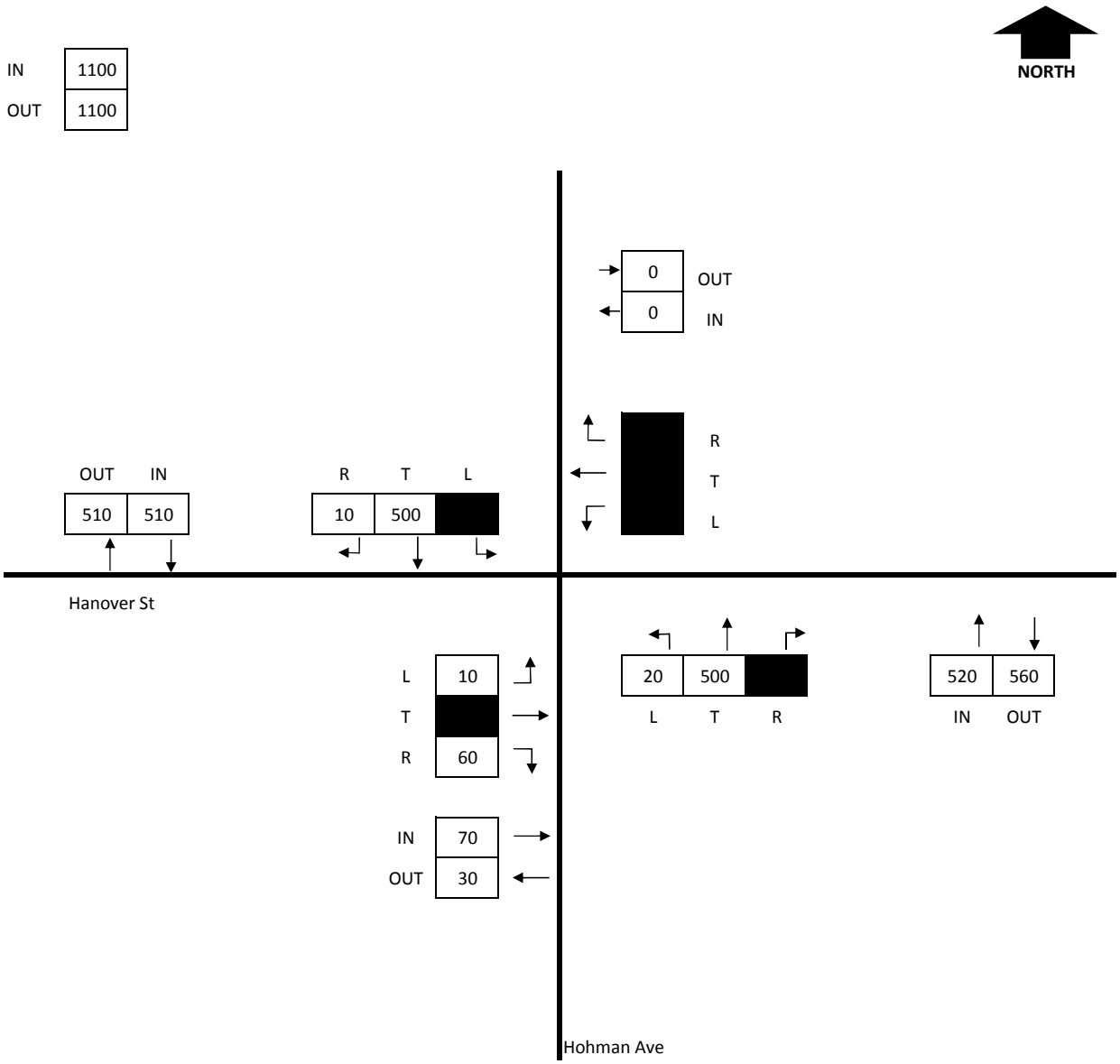
2040 SITE GENERATED TRIPS (PM)

HAMMOND GATEWAY STATION

October 2017

TOTAL INTERSECTION

IN	1100
OUT	1100



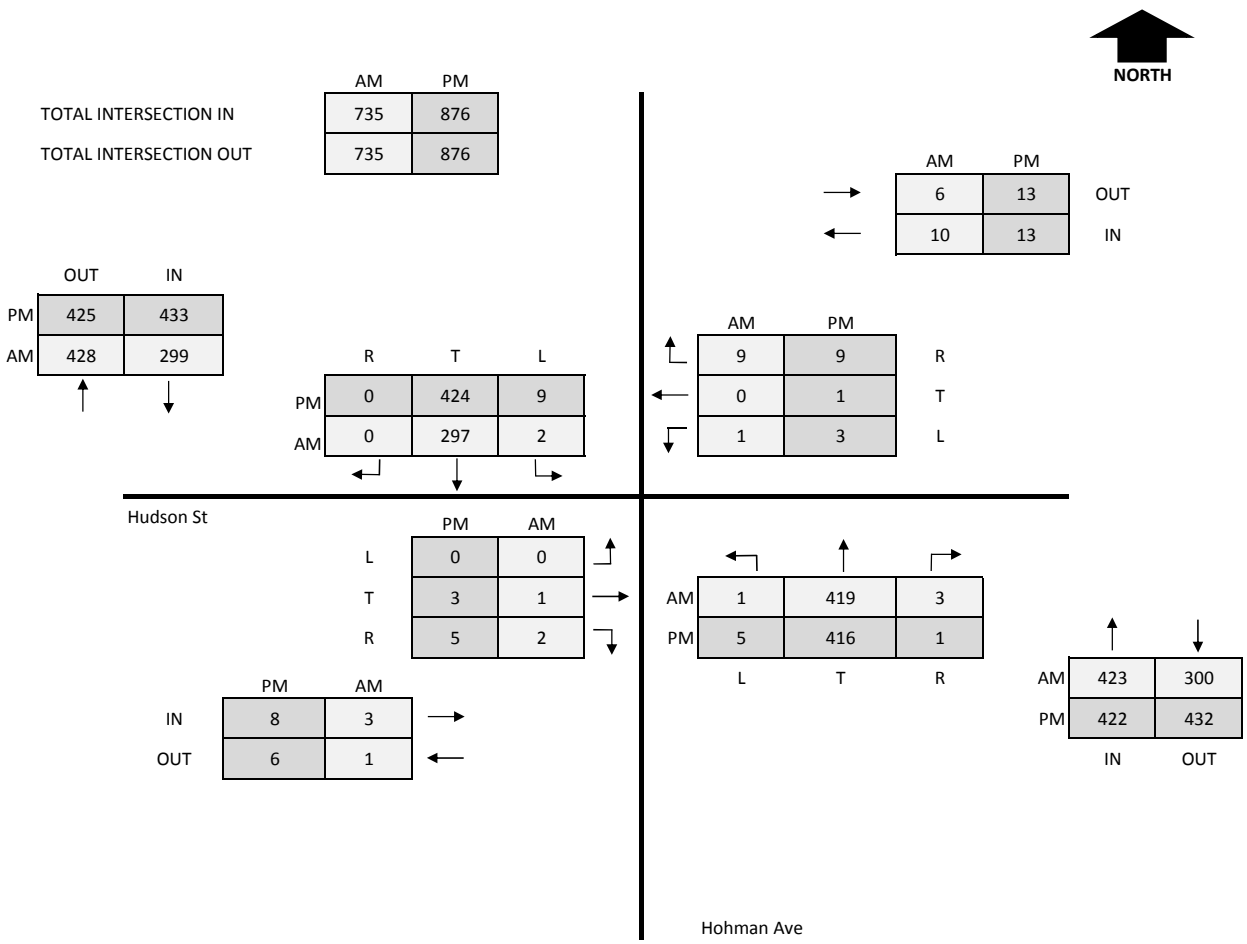
CLASSIFICATION: ALL VEHICLES

HOHMAN AVE & HANOVER ST

2040 BUILD TRAFFIC VOLUMES (PM)

HAMMOND GATEWAY STATION

October 2017



CLASSIFICATION: ALL VEHICLES

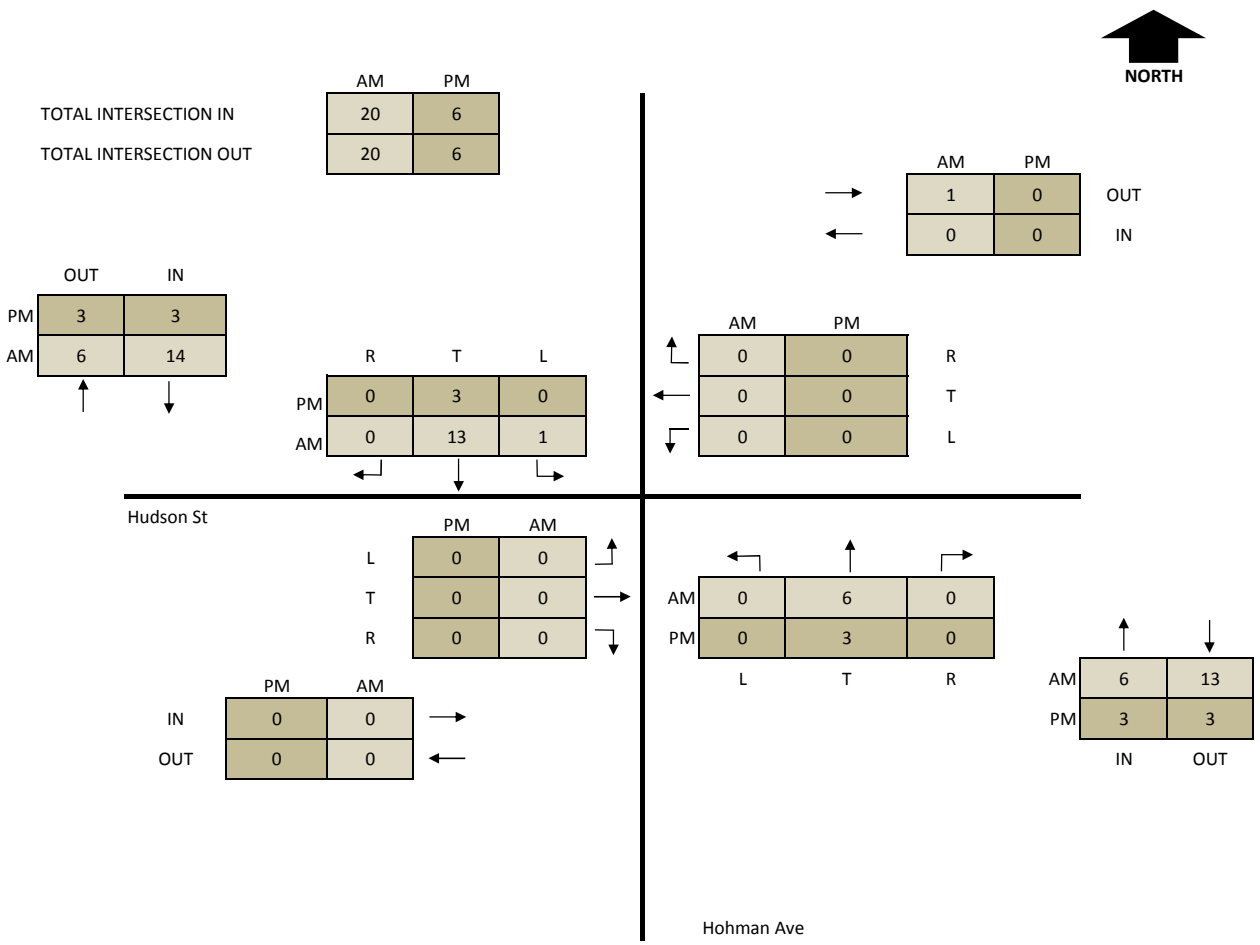
Traffic Counts from Quality Counts				
AM	5/9/2017	7:15 AM	to	8:15 AM
PM	5/9/2017	4:30 PM	to	5:30 PM

HOHMAN AVE & HUDSON ST

EXISTING TRAFFIC VOLUMES (2017)

HAMMOND GATEWAY STATION

October 2017



CLASSIFICATION: TRUCKS

Traffic Counts from Quality Counts				
AM	5/9/2017	7:15 AM	to	8:15 AM
PM	5/9/2017	4:30 PM	to	5:30 PM

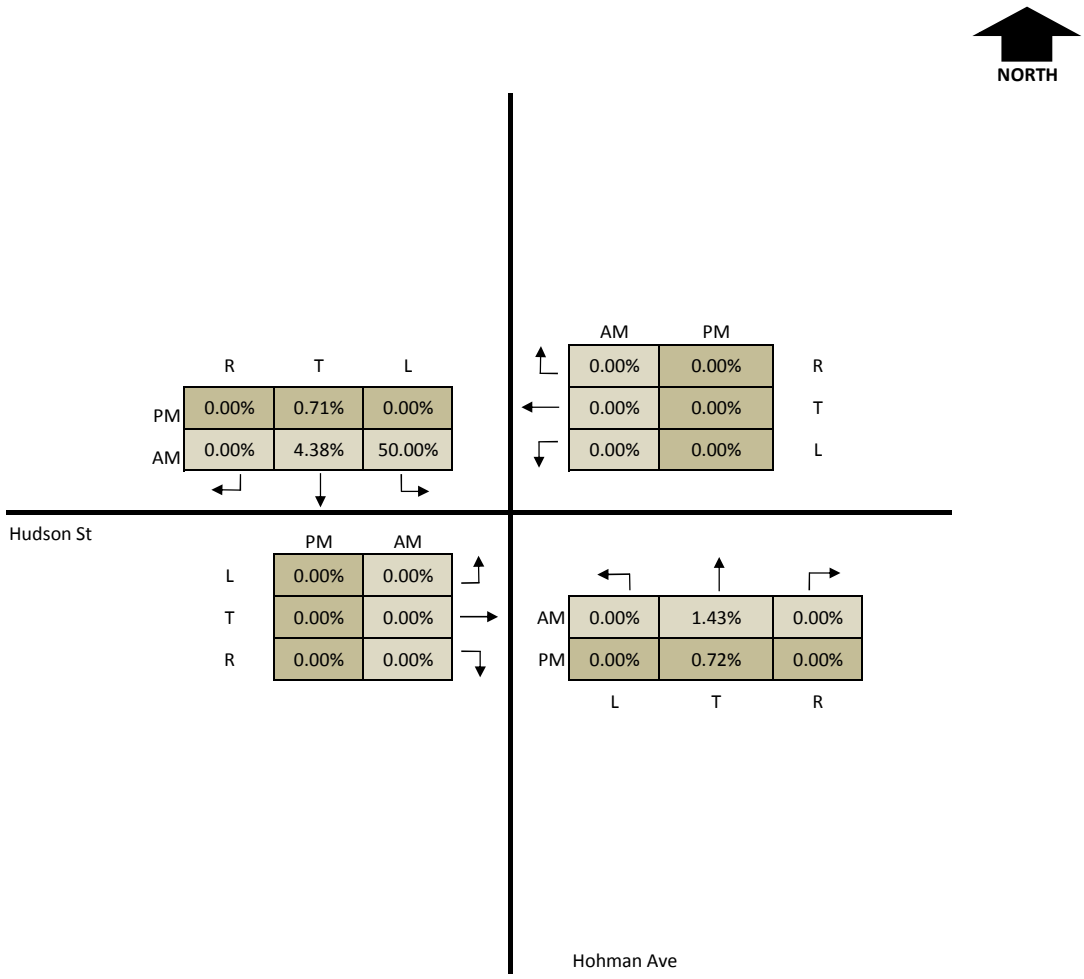
NICTD

HOHMAN AVE & HUDSON ST

EXISTING TRUCK VOLUMES (2017)

HAMMOND GATEWAY STATION

October 2017



CLASSIFICATION: TRUCKS

Traffic Counts from Quality Counts				
AM	5/9/2017	7:15 AM	to	8:15 AM
PM	5/9/2017	4:30 PM	to	5:30 PM

HOHMAN AVE & HUDSON ST

EXISTING TRUCK PERCENTAGE (2017)

HAMMOND GATEWAY STATION

October 2017

TOTAL INTERSECTION

	2017	2022
IN	735	810
OUT	735	810

	2017	2022	
→	6	30	OUT
←	10	20	IN

	OUT	IN
2022	440	320
2017	428	299

	R	T	L
2022	0	310	10
2017	0	297	2

	2017	2022	
↰	9	10	R
←	0	0	T
↙	1	10	L

Hudson St

	2022	2017	
L	0	0	↑
T	10	1	→
R	10	2	↓

	2017	2022
IN	20	3
OUT	10	1

	L	T	R
2017	1	419	3
2022	10	430	10

	2017	2022
IN	423	450
OUT	300	330

Hohman Ave

CLASSIFICATION: ALL VEHICLES

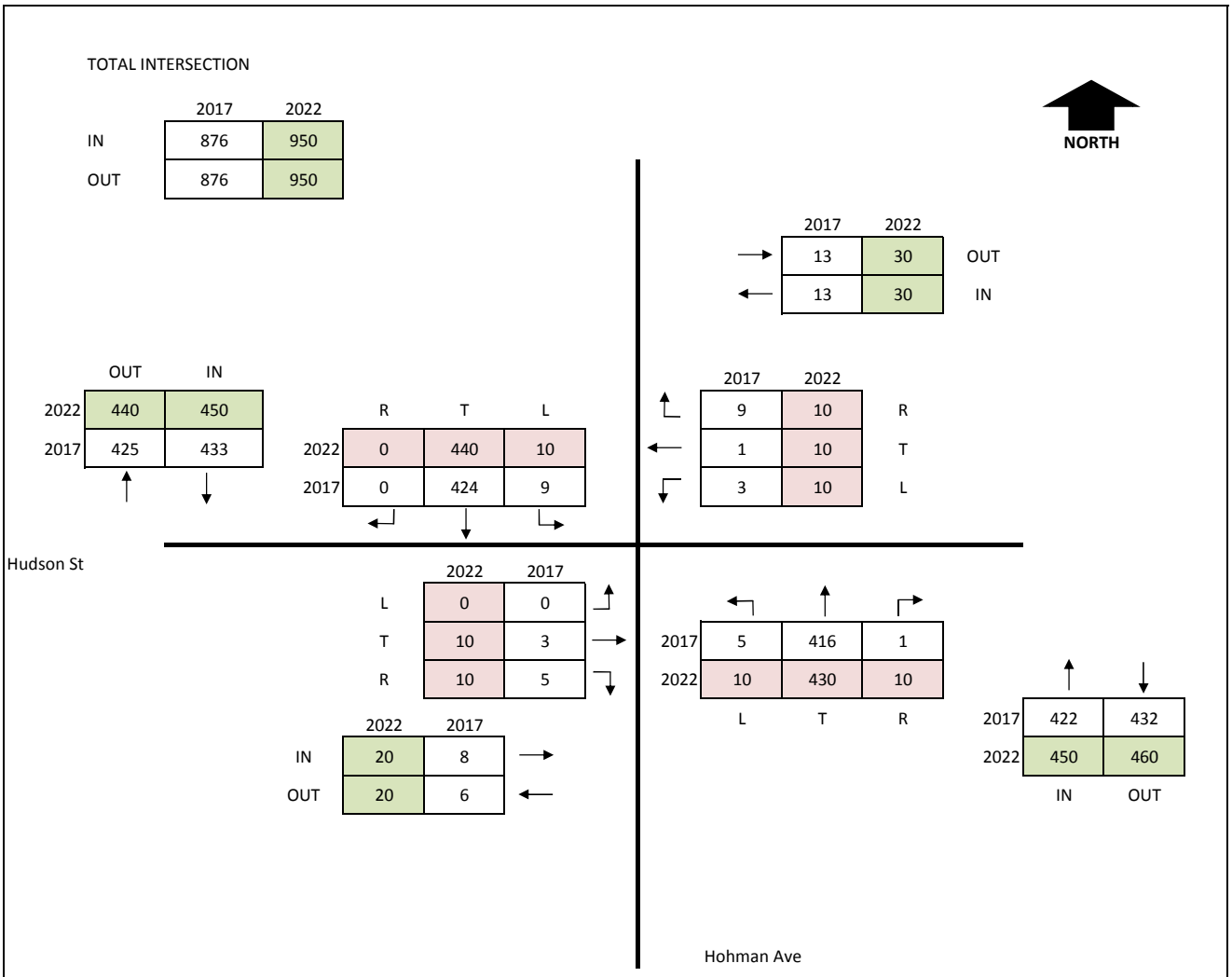
ANNUAL GROWTH RATE	
Northbound	0.5%
Southbound	0.5%
Eastbound	0.5%
Westbound	0.5%
Years to Escalate: 2022	5

HOHMAN AVE & HUDSON ST

2022 PROJECTED TRAFFIC VOLUMES (AM)

HAMMOND GATEWAY STATION

October 2017



CLASSIFICATION: ALL VEHICLES

ANNUAL GROWTH RATE	
Northbound	0.5%
Southbound	0.5%
Eastbound	0.5%
Westbound	0.5%
Years to Escalate: 2022	5

HOHMAN AVE & HUDSON ST

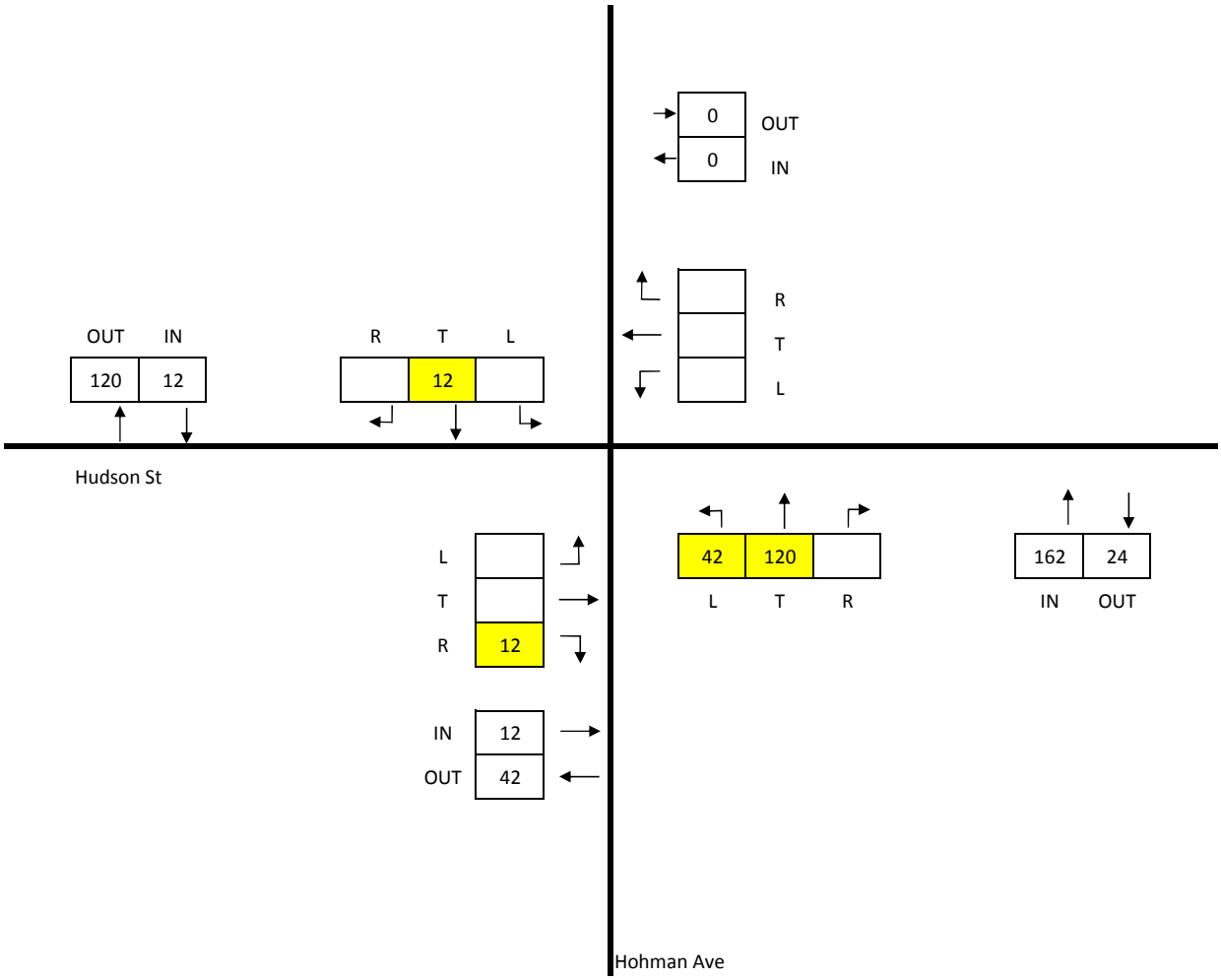
2022 PROJECTED TRAFFIC VOLUMES (PM)

HAMMOND GATEWAY STATION

October 2017

TOTAL INTERSECTION

IN	186
OUT	186



CLASSIFICATION: ALL VEHICLES

HOHMAN AVE & HUDSON ST

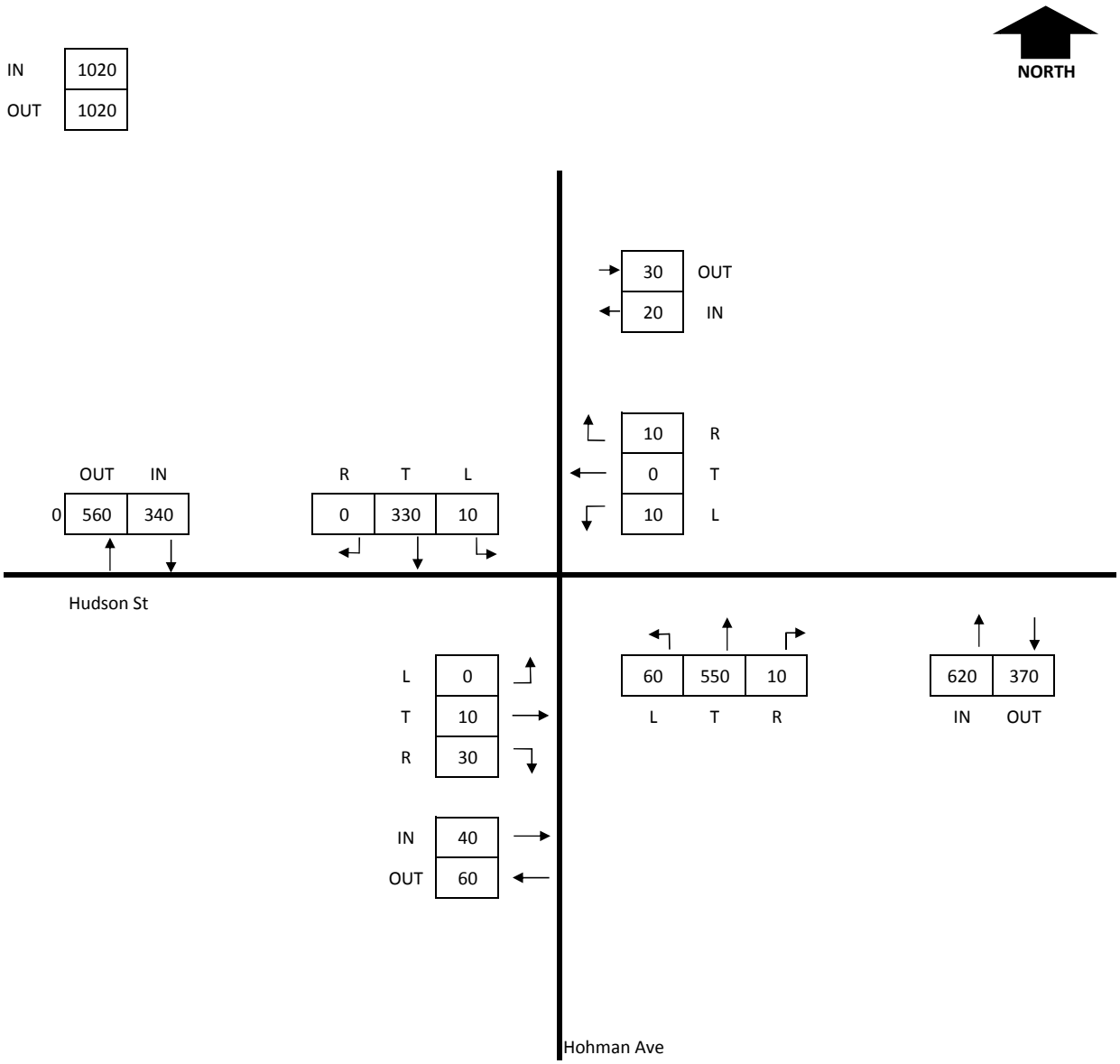
2022 SITE GENERATED TRIPS (AM)

HAMMOND GATEWAY STATION

October 2017

TOTAL INTERSECTION

IN	1020
OUT	1020



CLASSIFICATION: ALL VEHICLES

HOHMAN AVE & HUDSON ST

2022 BUILD TRAFFIC VOLUMES (AM)

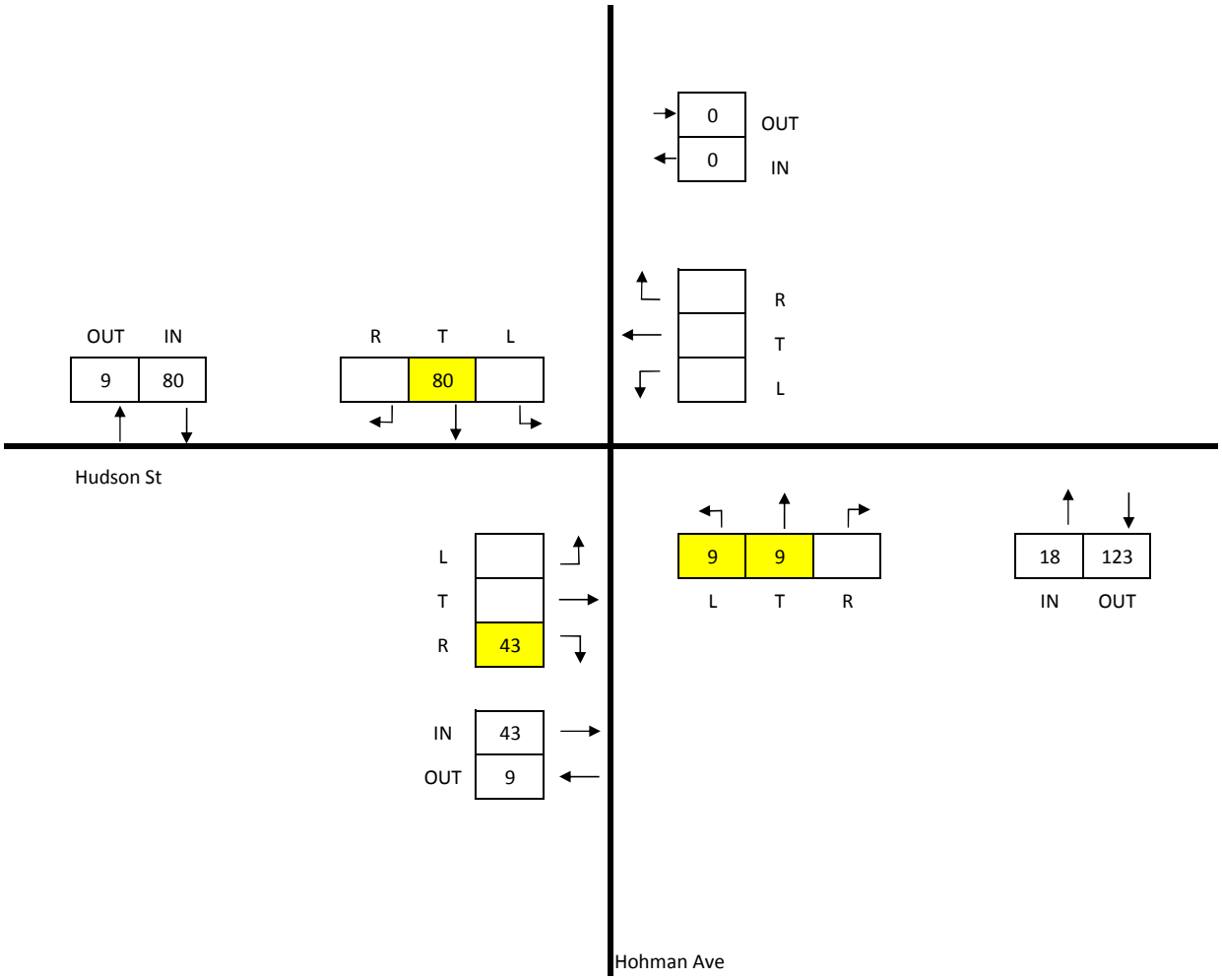
HAMMOND GATEWAY STATION

October 2017

TOTAL INTERSECTION

IN	141
OUT	141

NORTH



CLASSIFICATION: ALL VEHICLES

HOHMAN AVE & HUDSON ST

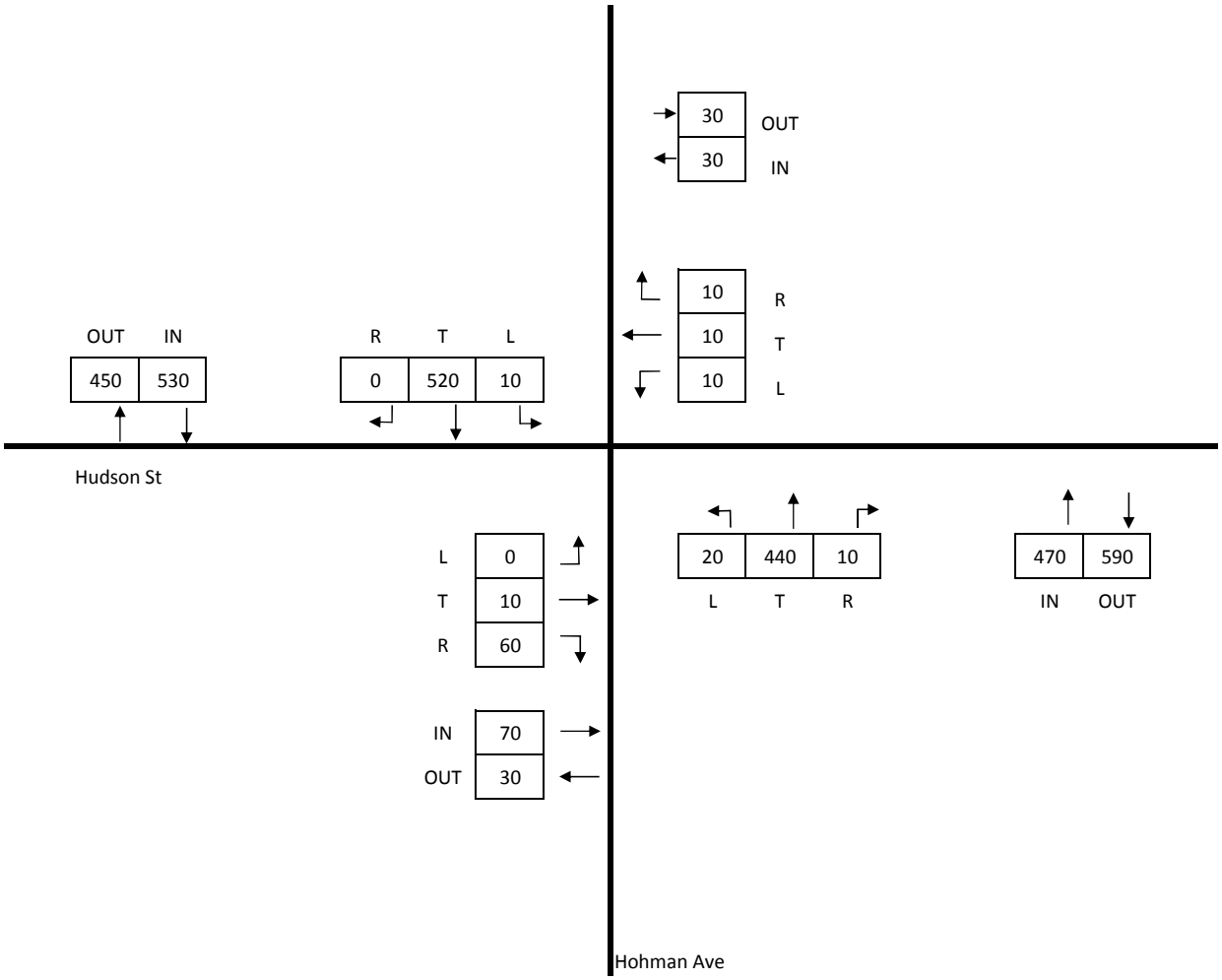
2022 SITE GENERATED TRIPS (PM)

HAMMOND GATEWAY STATION

October 2017

TOTAL INTERSECTION

IN	1100
OUT	1100



CLASSIFICATION: ALL VEHICLES

HOHMAN AVE & HUDSON ST

2022 BUILD TRAFFIC VOLUMES (PM)

HAMMOND GATEWAY STATION

October 2017

TOTAL INTERSECTION

	2017	2040
IN	735	890
OUT	735	890

NORTH

	2017	2040	
→	6	30	OUT
←	10	30	IN

	OUT	IN
2040	490	350
2017	428	299

	R	T	L
2040	0	340	10
2017	0	297	2

	2017	2040	
↰	9	20	R
←	0	0	T
↙	1	10	L

Hudson St

	2040	2017
L	0	0
T	10	1
R	10	2

	2040	2017
IN	20	3
OUT	10	1

	L	T	R
2017	1	419	3
2040	10	470	10

	IN	OUT
2017	423	300
2040	490	360

Hohman Ave

CLASSIFICATION: ALL VEHICLES

ANNUAL GROWTH RATE	
Northbound	0.5%
Southbound	0.5%
Eastbound	0.5%
Westbound	0.5%
Years to Escalate: 2040	23

HOHMAN AVE & HUDSON ST

2040 PROJECTED TRAFFIC VOLUMES (AM)

HAMMOND GATEWAY STATION

October 2017

TOTAL INTERSECTION

	2017	2040
IN	876	1050
OUT	876	1050

	2017	2040	
→	13	40	OUT
←	13	40	IN

	OUT	IN
2040	490	500
2017	425	433

	R	T	L
2040	0	480	20
2017	0	424	9

	2017	2040	
↰	9	20	R
←	1	10	T
↙	3	10	L

Hudson St

	2040	2017	
L	0	0	↑
T	10	3	→
R	10	5	↘

	2040	2017	
IN	20	8	→
OUT	20	6	←

	L	T	R
2017	5	416	1
2040	10	470	10

	IN	OUT
2017	422	432
2040	490	500

Hohman Ave

CLASSIFICATION: ALL VEHICLES

ANNUAL GROWTH RATE	
Northbound	0.5%
Southbound	0.5%
Eastbound	0.5%
Westbound	0.5%
Years to Escalate: 2040	23

HOHMAN AVE & HUDSON ST

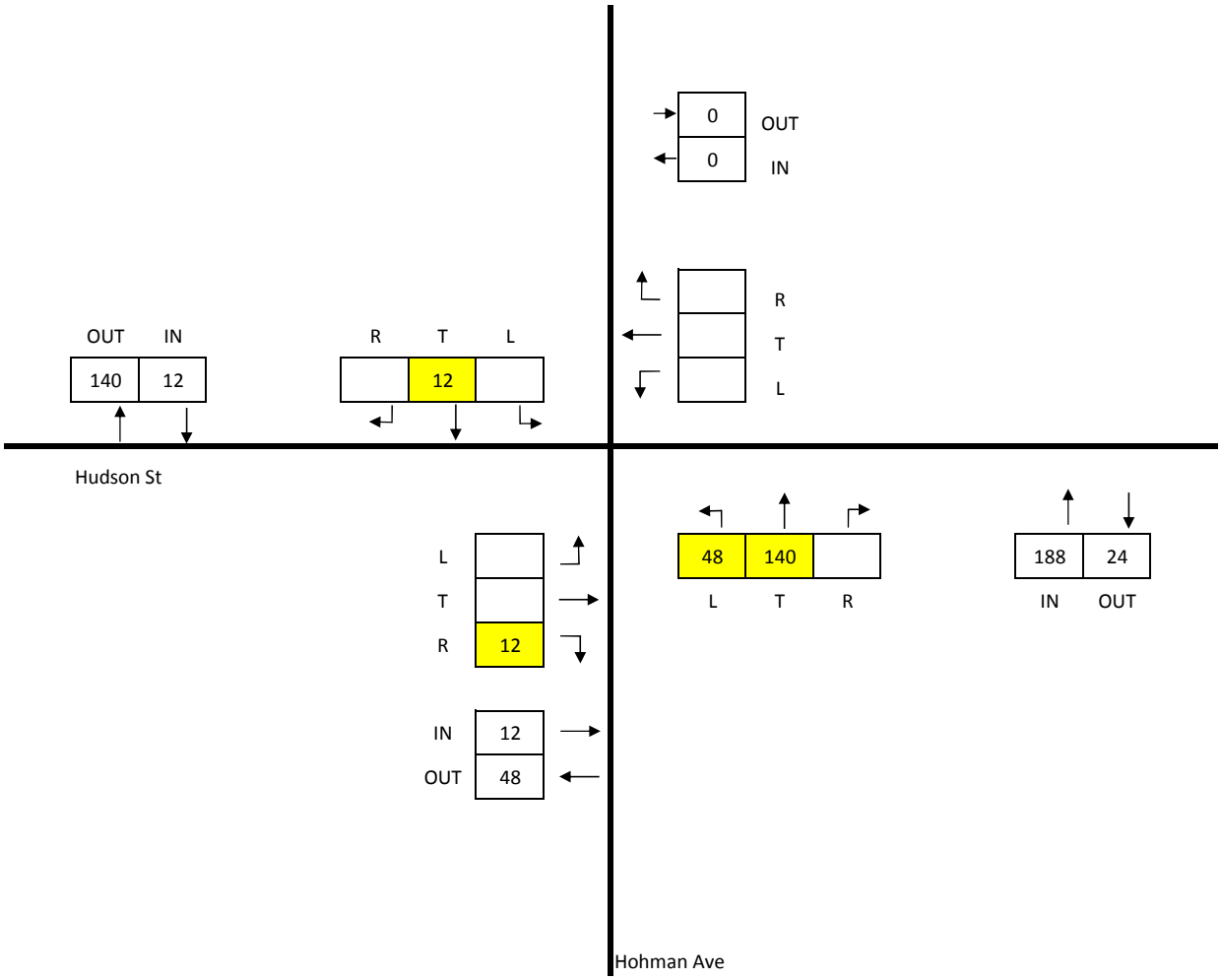
2040 PROJECTED TRAFFIC VOLUMES (PM)

HAMMOND GATEWAY STATION

October 2017

TOTAL INTERSECTION

IN	212
OUT	212



CLASSIFICATION: ALL VEHICLES

HOHMAN AVE & HUDSON ST

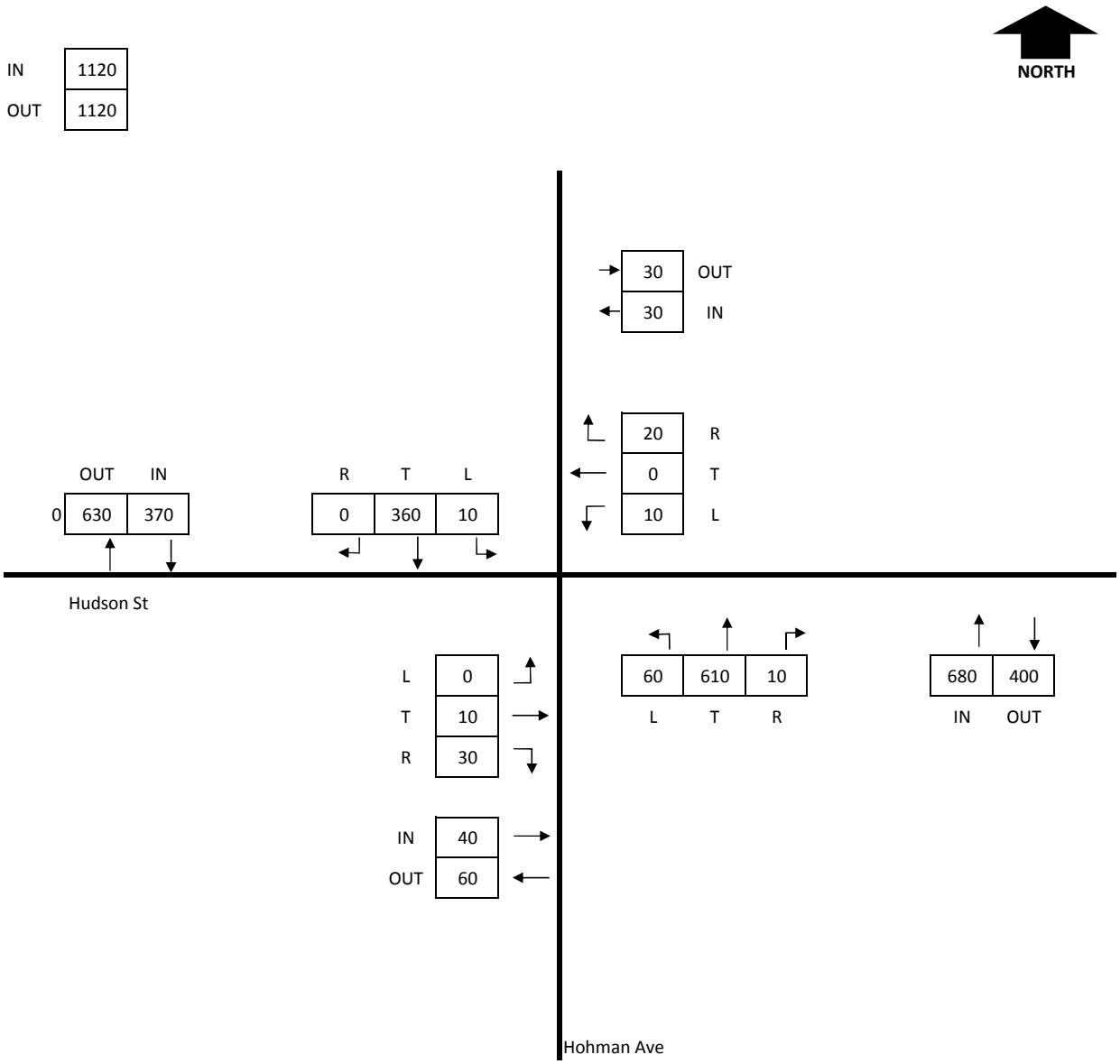
2040 SITE GENERATED TRIPS (AM)

HAMMOND GATEWAY STATION

October 2017

TOTAL INTERSECTION

IN	1120
OUT	1120



CLASSIFICATION: ALL VEHICLES

HOHMAN AVE & HUDSON ST

2040 BUILD TRAFFIC VOLUMES (AM)

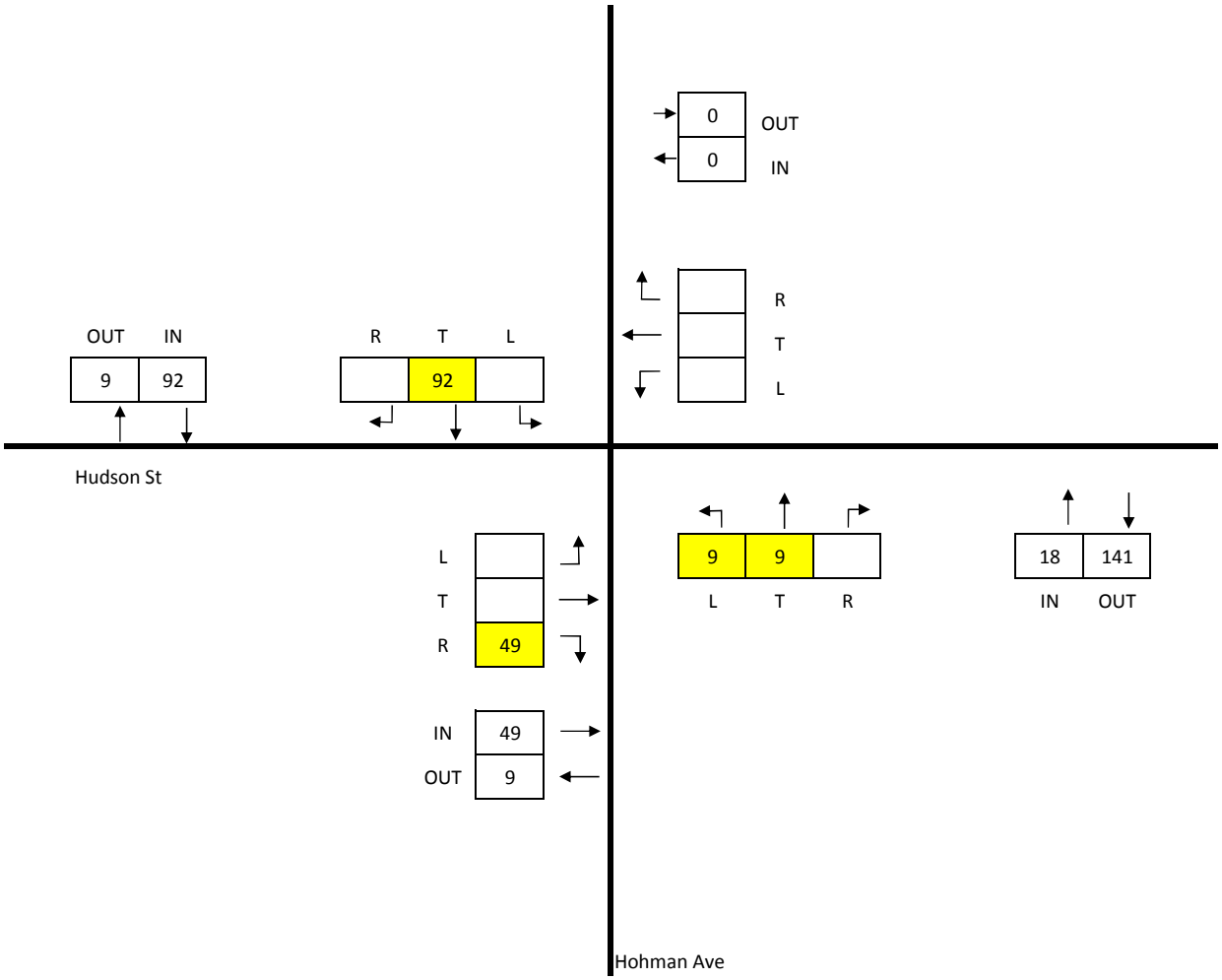
HAMMOND GATEWAY STATION

October 2017

TOTAL INTERSECTION

IN	159
OUT	159

NORTH



CLASSIFICATION: ALL VEHICLES

HOHMAN AVE & HUDSON ST

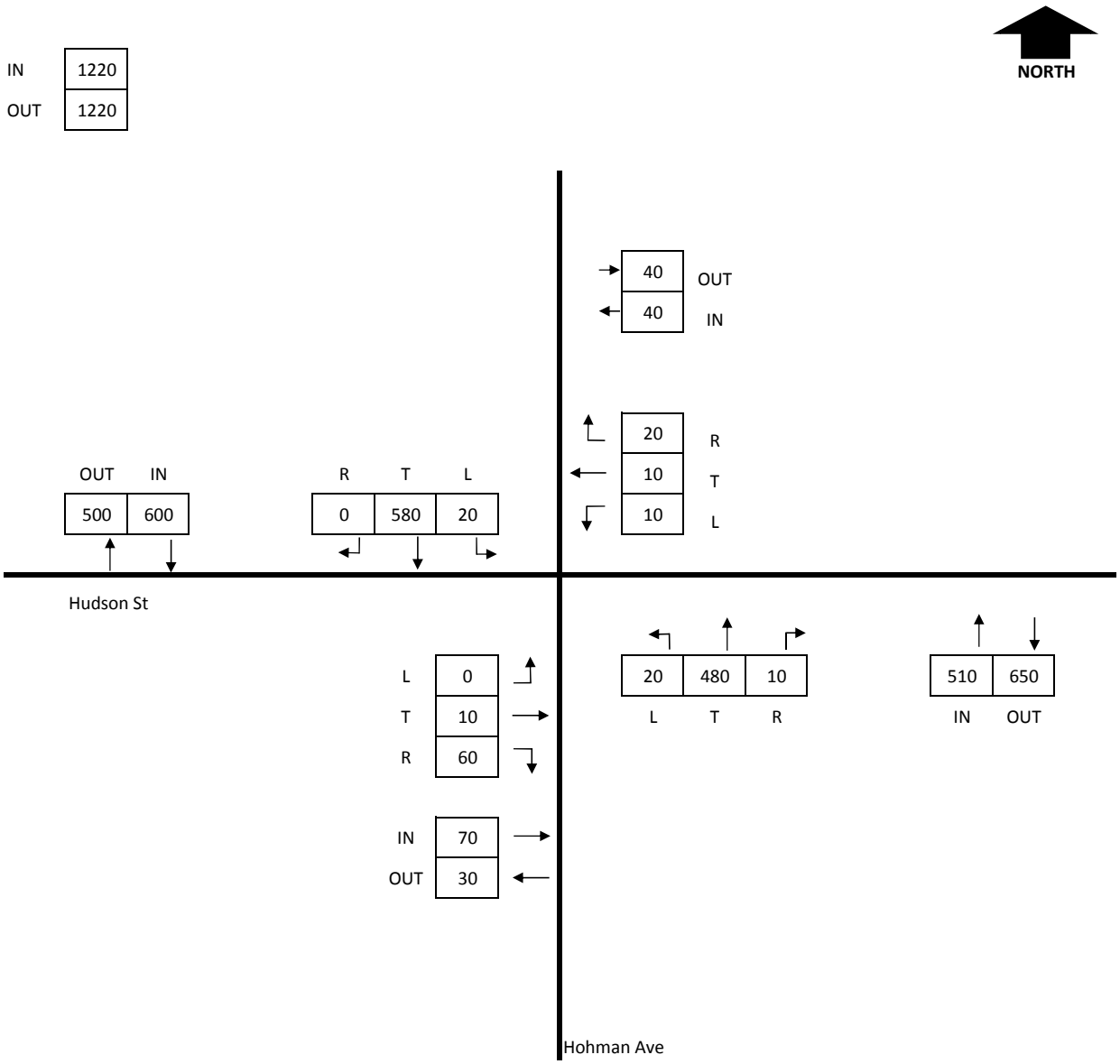
2040 SITE GENERATED TRIPS (PM)

HAMMOND GATEWAY STATION

October 2017

TOTAL INTERSECTION

IN	1220
OUT	1220



CLASSIFICATION: ALL VEHICLES

HOHMAN AVE & HUDSON ST

2040 BUILD TRAFFIC VOLUMES (PM)

HAMMOND GATEWAY STATION

October 2017

TOTAL INTERSECTION

	2017	2022
IN	-	580
OUT	-	580

Sheffield Ave

	2017	2022	
→	-	0	OUT
←	-	0	IN

	OUT	IN
2022	250	310
2017	-	-

	R	T	L
2022	30	280	
2017	-	-	

	2017	2022	
↰			R
←			T
↙			L

Sheffield Ave

	2022	2017	
L	30	-	↑
T			→
R	10	-	↓

	L	T	R
2017	-	-	
2022	10	220	

	2017	2022
↑	-	230
↓	-	290
	IN	OUT

	2040	2017	
IN	40	-	→
OUT	40	-	←

Chicago St

CLASSIFICATION: ALL VEHICLES

ANNUAL GROWTH RATE	
Northbound	n/a
Southbound	n/a
Eastbound	n/a
Westbound	n/a
Years to Escalate: 2022	n/a

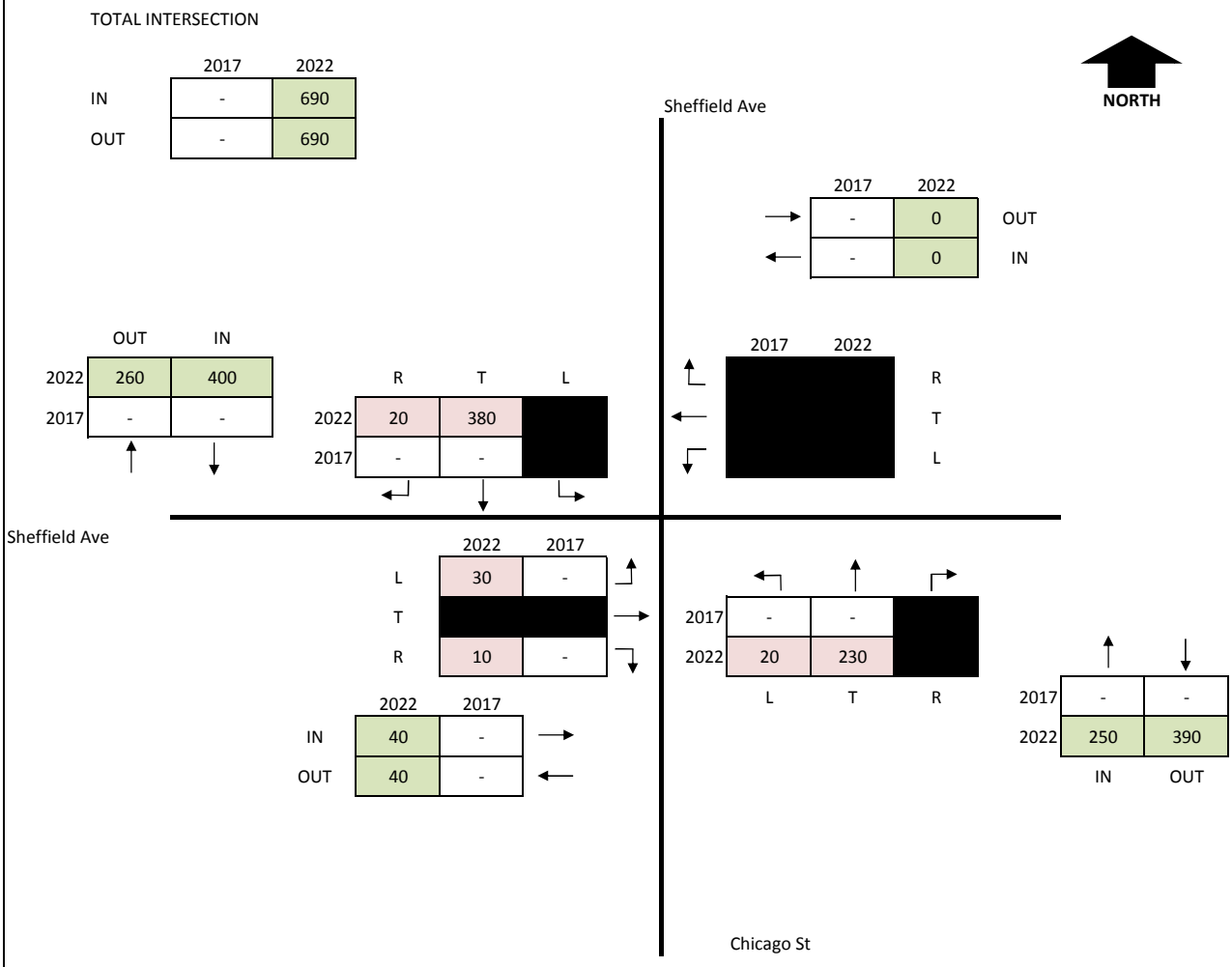
*No exisitng counts. Volumes estimated from adjacent intersections.

CHICAGO ST & SHEFFIELD AVE

2022 PROJECTED TRAFFIC VOLUMES (AM)

HAMMOND GATEWAY STATION

October 2017



CLASSIFICATION: ALL VEHICLES

ANNUAL GROWTH RATE	
Northbound	n/a
Southbound	n/a
Eastbound	n/a
Westbound	n/a
Years to Escalate: 2022	n/a

*No exisitng counts. Volumes estimated from adjacent intersections.

CHICAGO ST & SHEFFIELD AVE

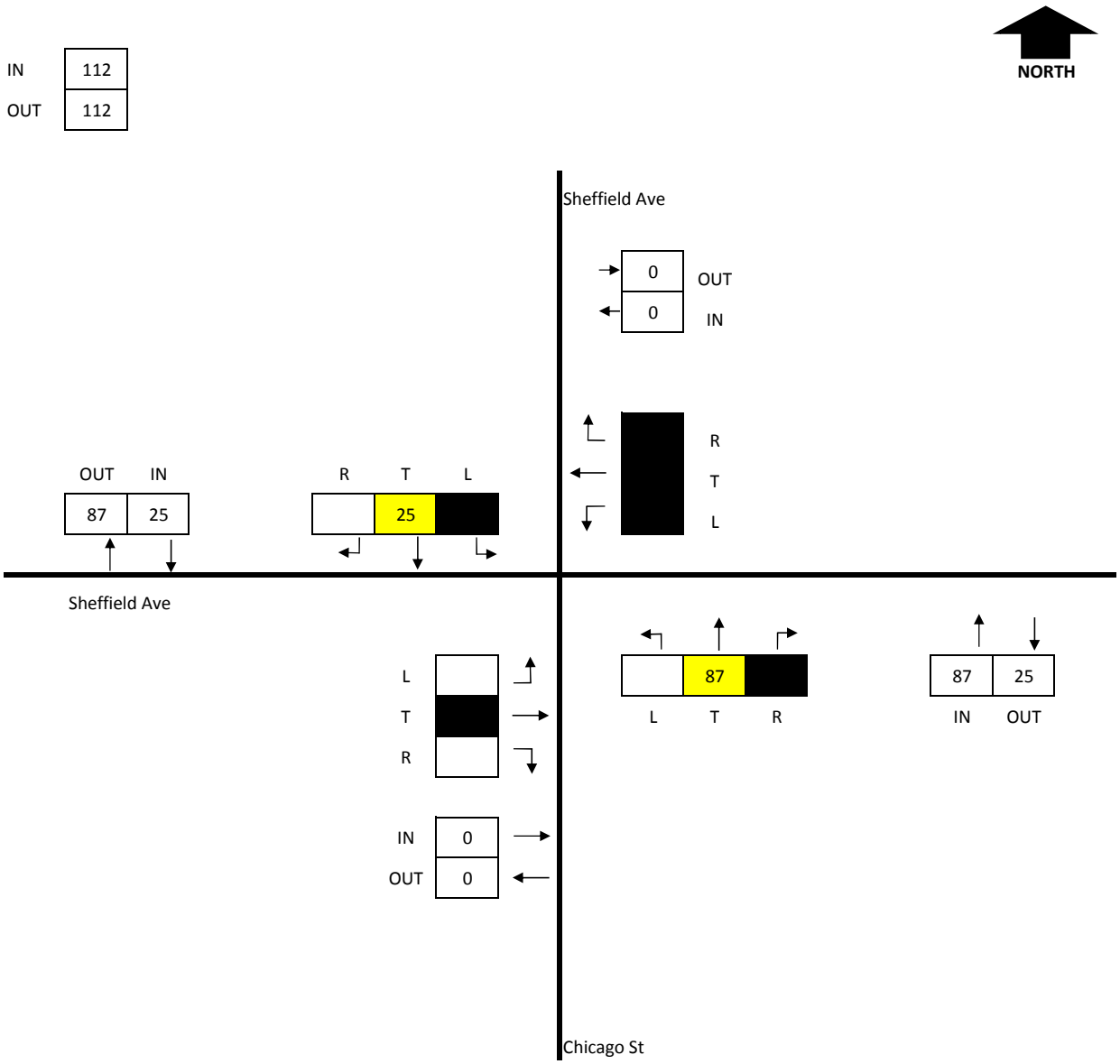
2022 PROJECTED TRAFFIC VOLUMES (PM)

HAMMOND GATEWAY STATION

October 2017

TOTAL INTERSECTION

IN	112
OUT	112



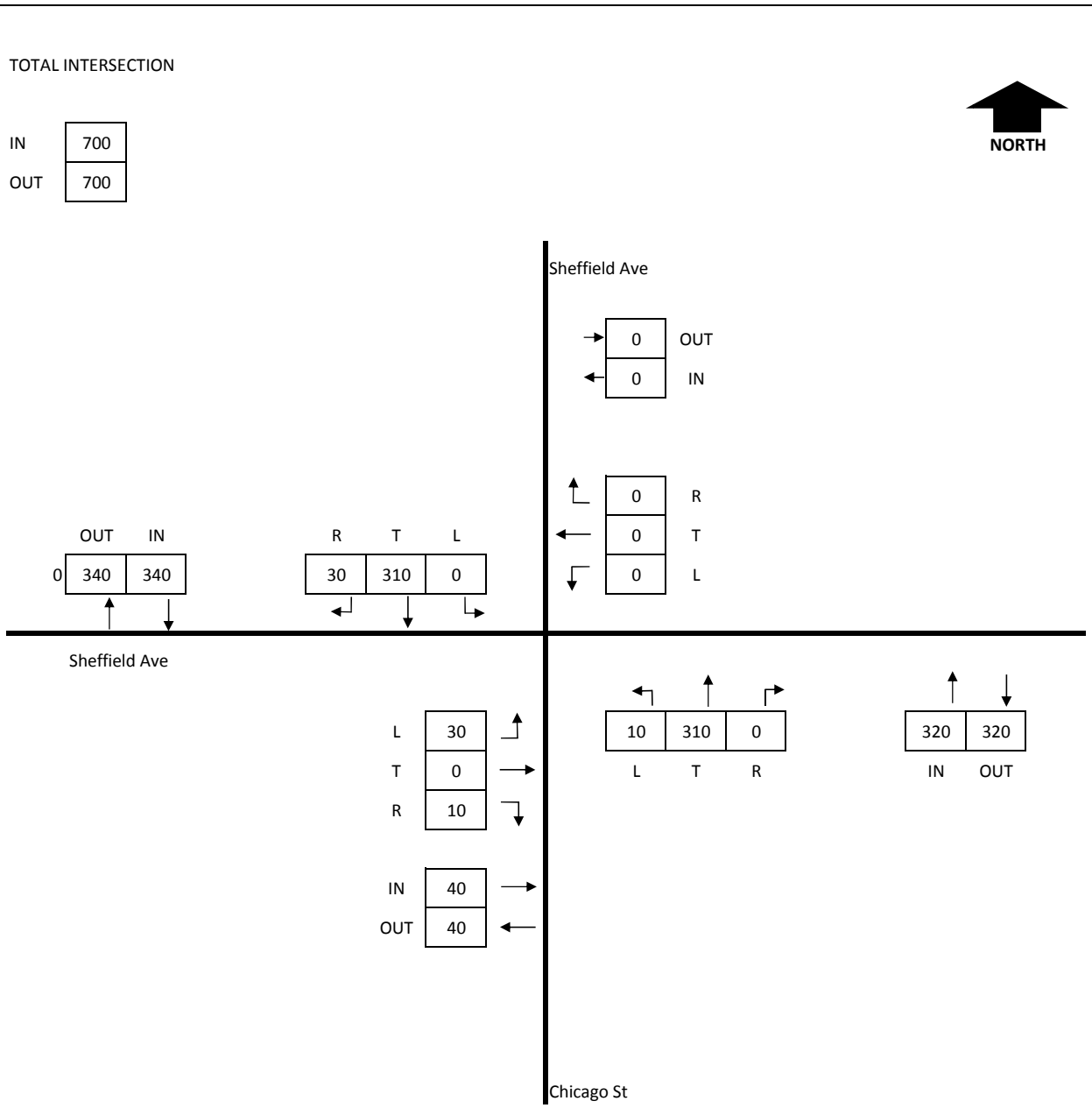
CLASSIFICATION: ALL VEHICLES

CHICAGO ST & SHEFFIELD AVE

2022 SITE GENERATED TRIPS (AM)

HAMMOND GATEWAY STATION

October 2017



CLASSIFICATION: ALL VEHICLES

CHICAGO ST & SHEFFIELD AVE

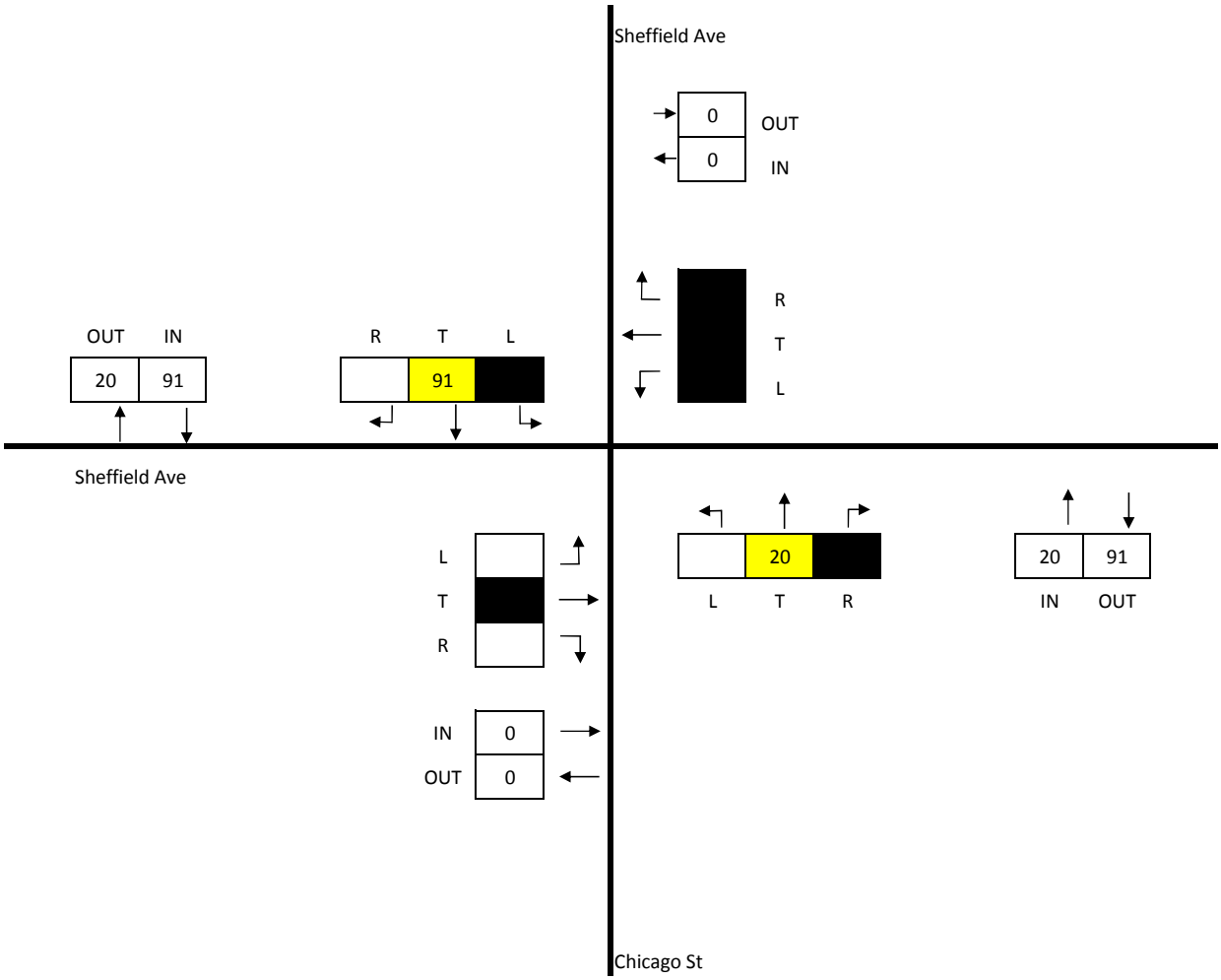
2022 BUILD TRAFFIC VOLUMES (AM)

HAMMOND GATEWAY STATION

October 2017

TOTAL INTERSECTION

IN	111
OUT	111



CLASSIFICATION: ALL VEHICLES

CHICAGO ST & SHEFFIELD AVE

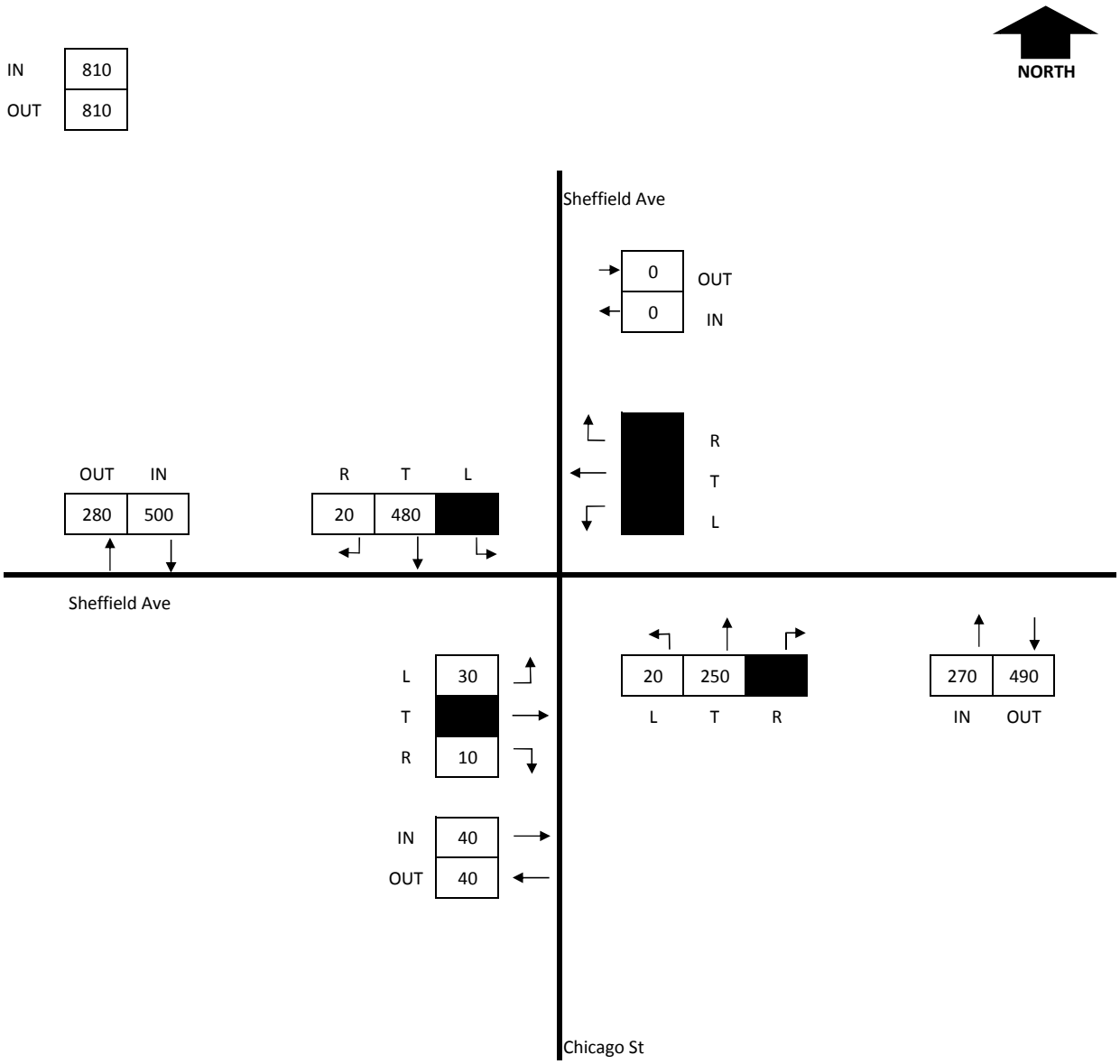
2022 SITE GENERATED TRIPS (PM)

HAMMOND GATEWAY STATION

October 2017

TOTAL INTERSECTION

IN	810
OUT	810



CLASSIFICATION: ALL VEHICLES

CHICAGO ST & SHEFFIELD AVE

2022 BUILD TRAFFIC VOLUMES (PM)

HAMMOND GATEWAY STATION

October 2017

TOTAL INTERSECTION

	2017	2040
IN	-	680
OUT	-	680

NORTH

Sheffield Ave

	2017	2040	
→	-	0	OUT
←	-	0	IN

	OUT	IN
2040	300	360
2017	-	-

	R	T	L
2040	40	320	
2017	-	-	

	2017	2040	
↰			R
←			T
↙			L

Sheffield Ave

	2040	2017	
L	40	-	↑
T			→
R	10	-	↓

	L	T	R
2017	-	-	
2040	10	260	

	2040	2017	
IN	50	-	→
OUT	50	-	←

	IN	OUT
2017	-	-
2040	270	330

Chicago St

CLASSIFICATION: ALL VEHICLES

ANNUAL GROWTH RATE	
Northbound	n/a
Southbound	n/a
Eastbound	n/a
Westbound	n/a
Years to Escalate: 2040	n/a

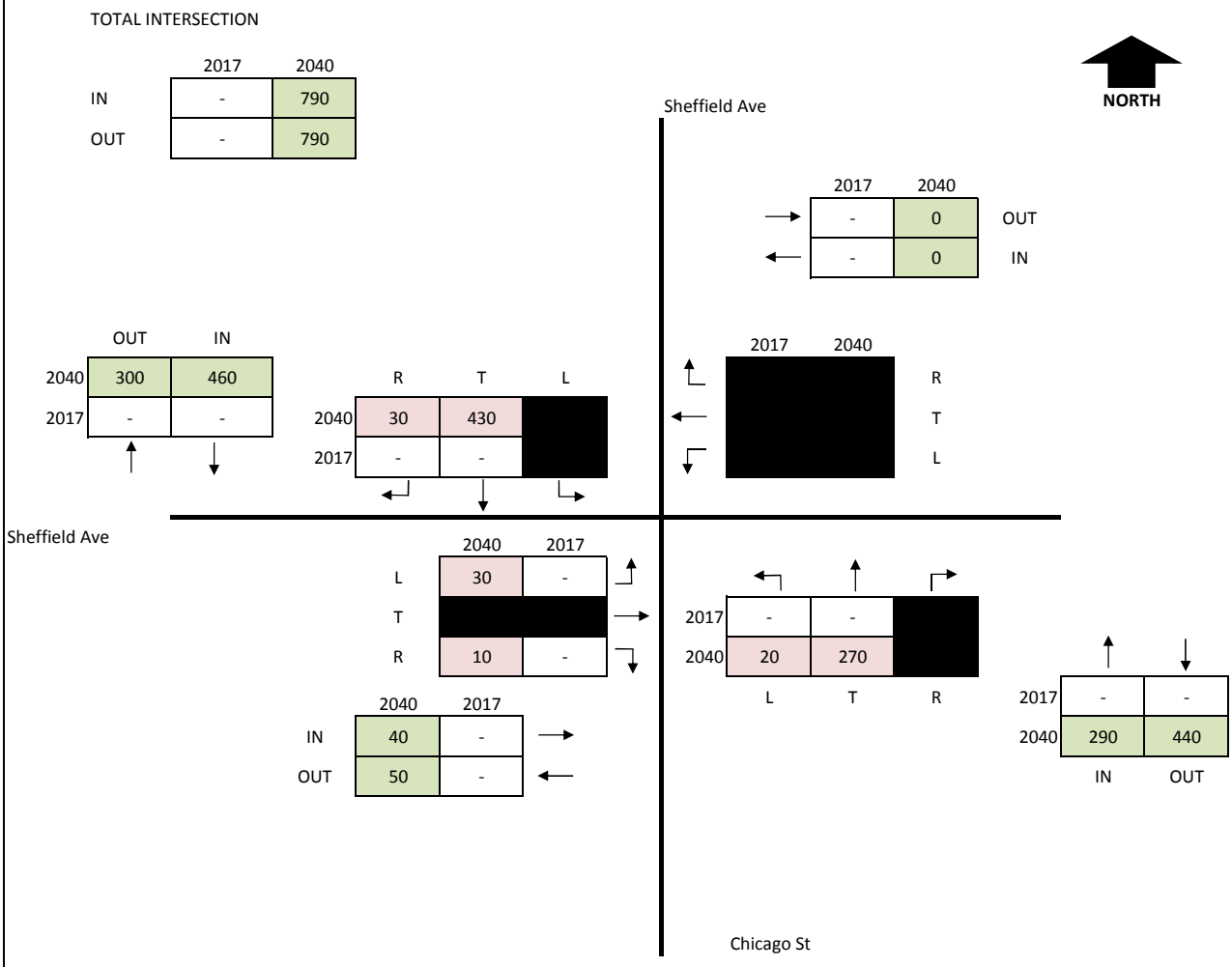
*No exisitng counts. Volumes estimated from adjacent intersections.

CHICAGO ST & SHEFFIELD AVE

2040 PROJECTED TRAFFIC VOLUMES (AM)

HAMMOND GATEWAY STATION

October 2017



CLASSIFICATION: ALL VEHICLES

ANNUAL GROWTH RATE	
Northbound	n/a
Southbound	n/a
Eastbound	n/a
Westbound	n/a
Years to Escalate: 2040	n/a

*No exisitng counts. Volumes estimated from adjacent intersections.

CHICAGO ST & SHEFFIELD AVE

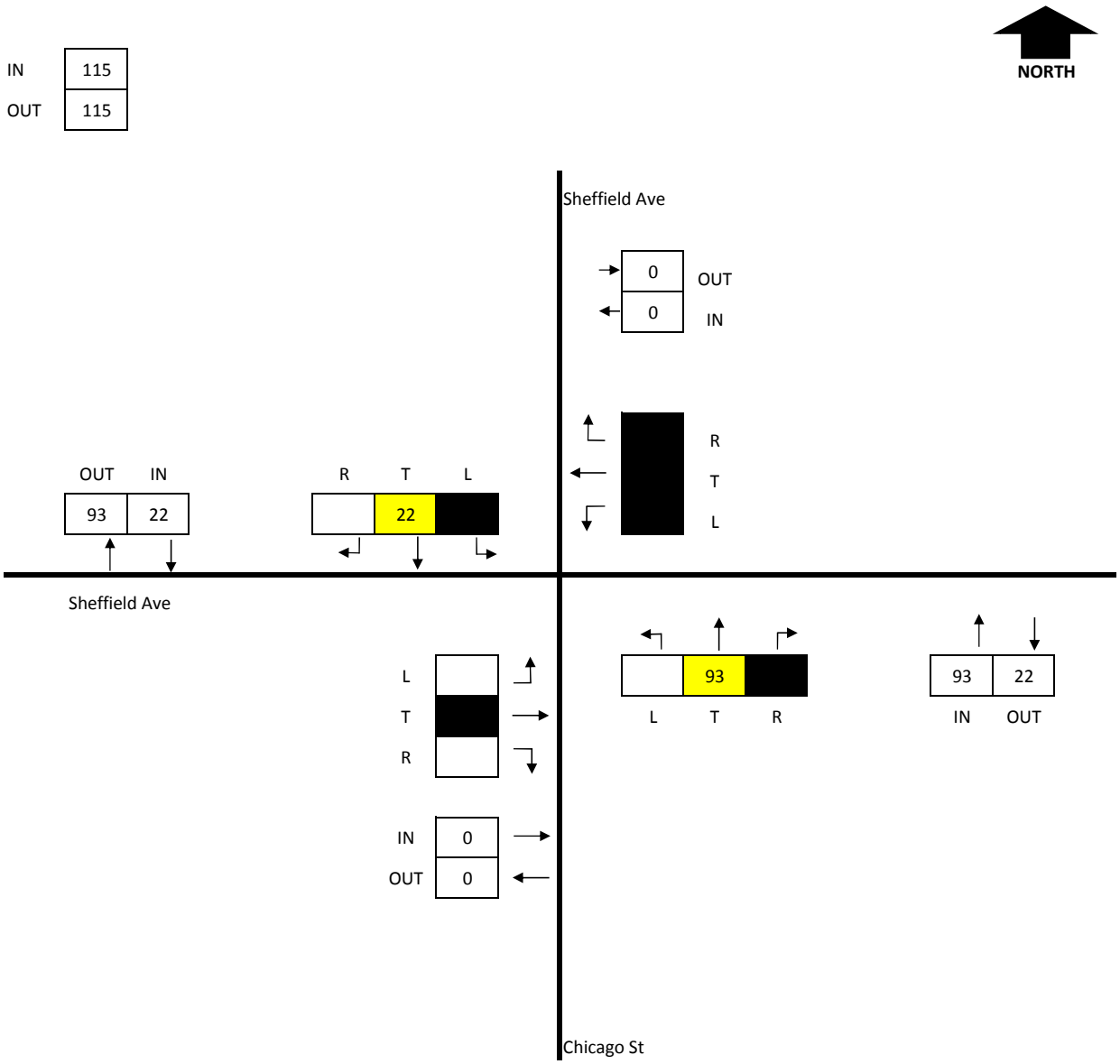
2040 PROJECTED TRAFFIC VOLUMES (PM)

HAMMOND GATEWAY STATION

October 2017

TOTAL INTERSECTION

IN	115
OUT	115



CLASSIFICATION: ALL VEHICLES

CHICAGO ST & SHEFFIELD AVE

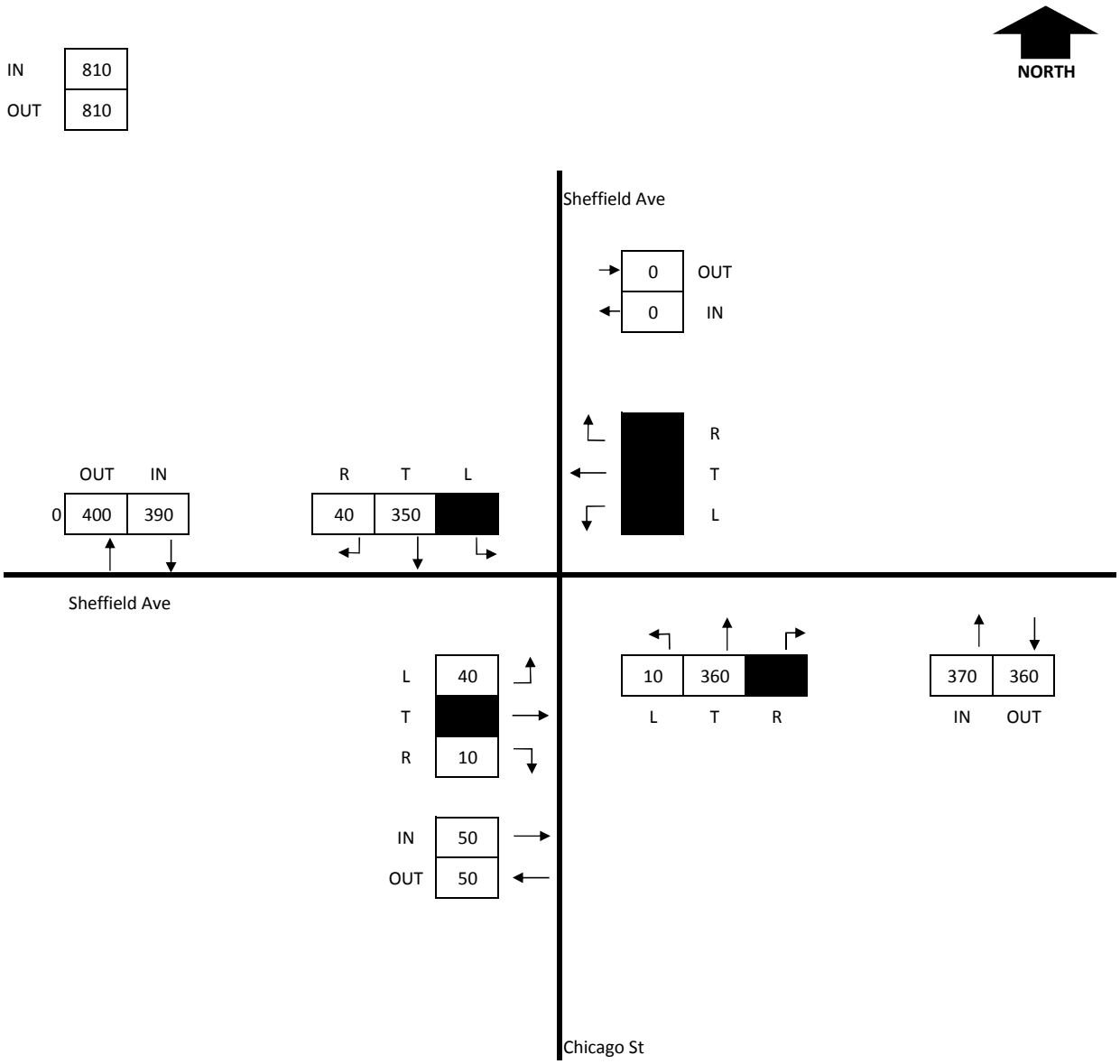
2040 SITE GENERATED TRIPS (AM)

HAMMOND GATEWAY STATION

October 2017

TOTAL INTERSECTION

IN	810
OUT	810



CLASSIFICATION: ALL VEHICLES

CHICAGO ST & SHEFFIELD AVE

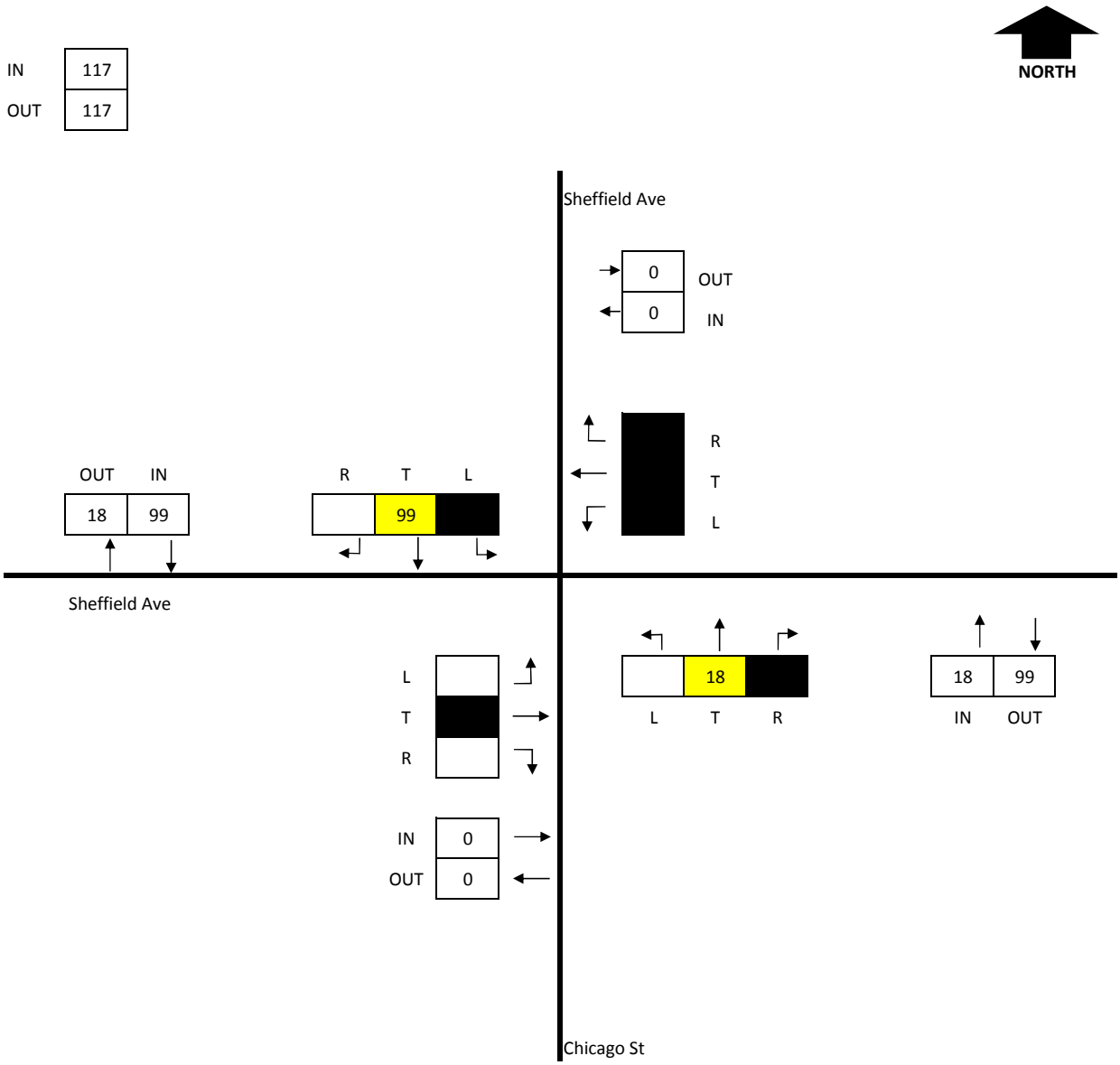
2040 BUILD TRAFFIC VOLUMES (AM)

HAMMOND GATEWAY STATION

October 2017

TOTAL INTERSECTION

IN	117
OUT	117



CLASSIFICATION: ALL VEHICLES

CHICAGO ST & SHEFFIELD AVE

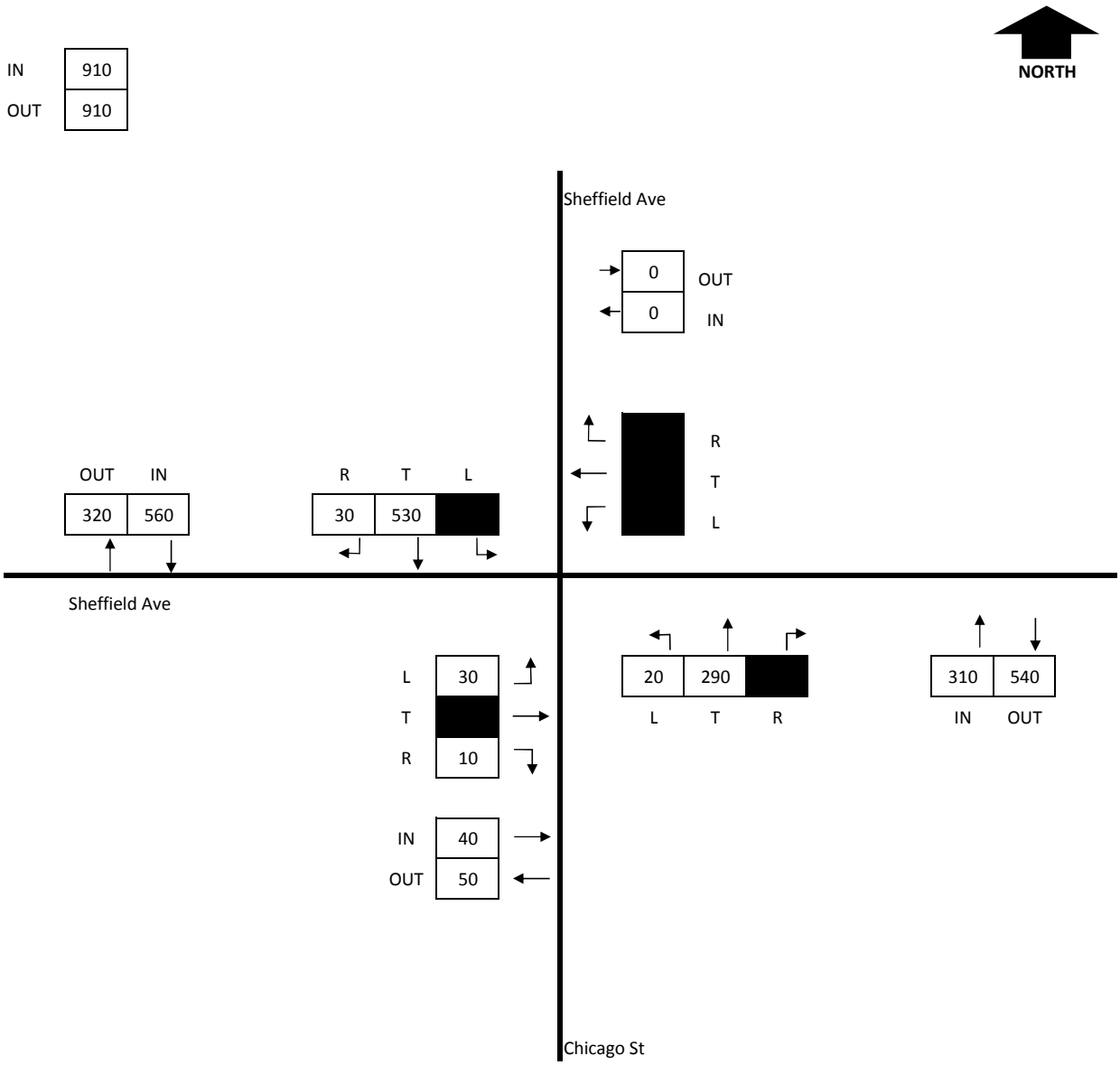
2040 SITE GENERATED TRIPS (PM)

HAMMOND GATEWAY STATION

October 2017

TOTAL INTERSECTION

IN	910
OUT	910



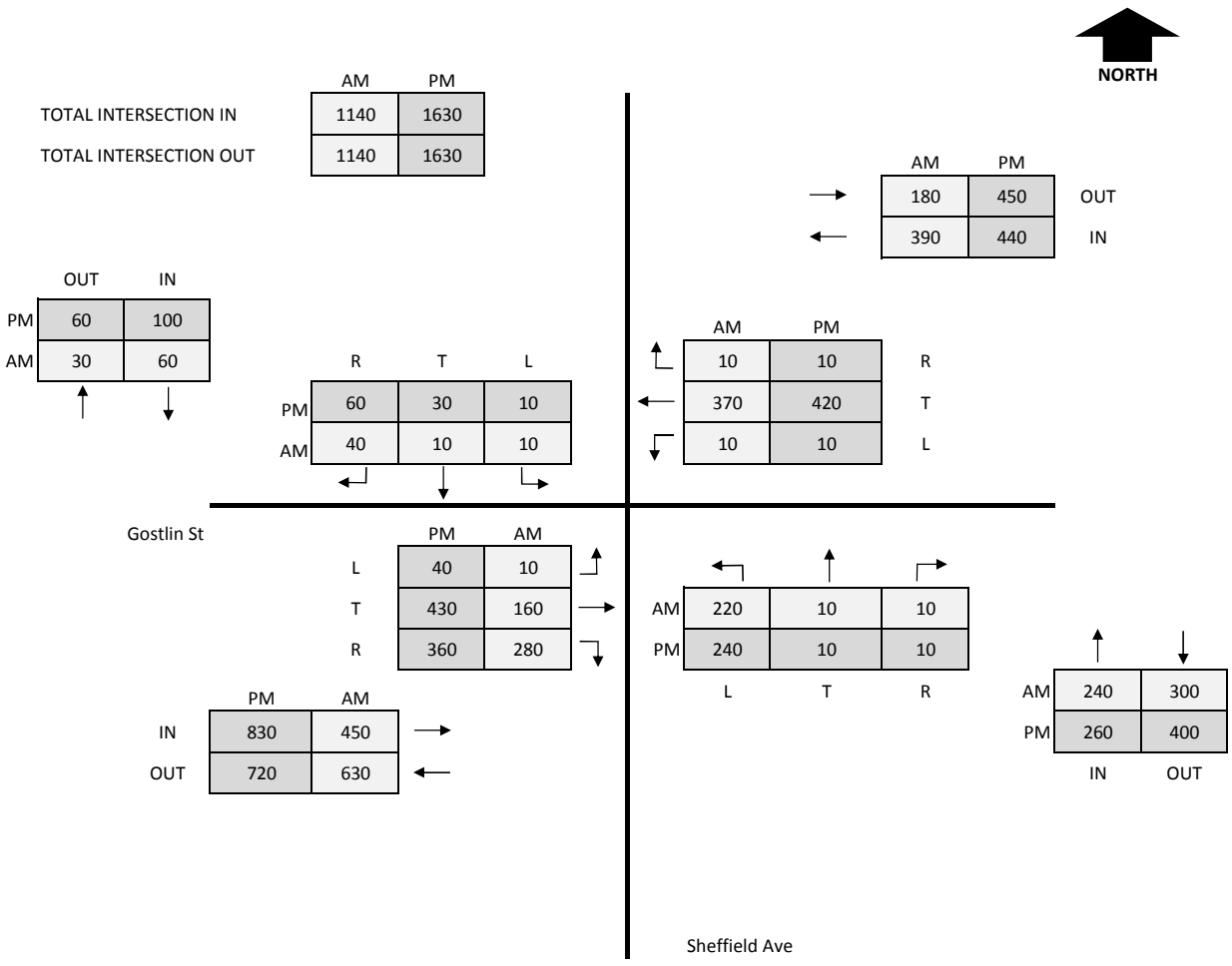
CLASSIFICATION: ALL VEHICLES

CHICAGO ST & SHEFFIELD AVE

2040 BUILD TRAFFIC VOLUMES (PM)

HAMMOND GATEWAY STATION

October 2017



CLASSIFICATION: ALL VEHICLES

Traffic Counts from Quality Counts	
AM	to
PM	to

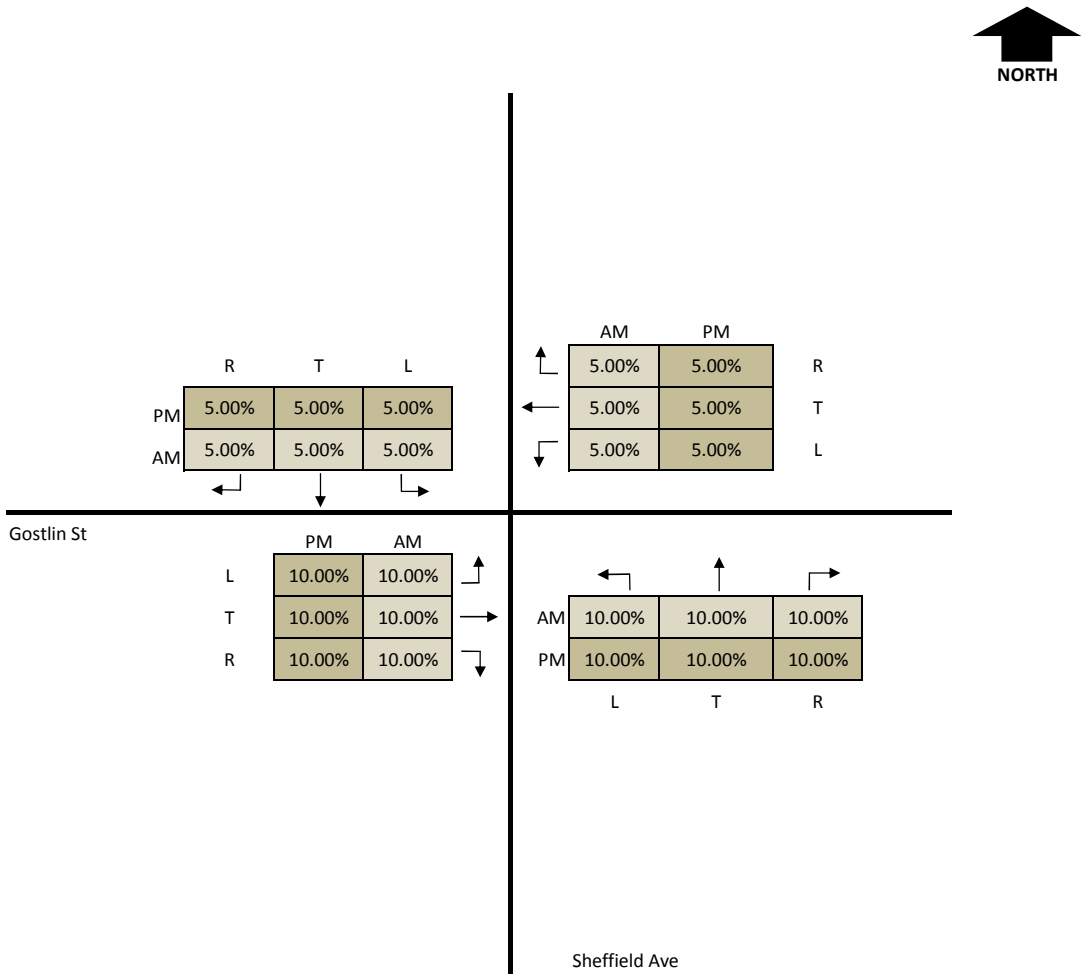
*Counts were obtained from StructurePoint as part of a previously conducted study.

SHEFFIELD AVE & GOSTLIN ST

FUTURE TRAFFIC VOLUMES (2034)

HAMMOND GATEWAY STATION

October 2017



CLASSIFICATION: TRUCKS

Traffic Counts from Quality Counts	
AM	to
PM	to

SHEFFIELD AVE & GOSTLIN ST

FUTURE TRAFFIC VOLUMES (2034)

HAMMOND GATEWAY STATION

October 2017

TOTAL INTERSECTION

	2034	2022
IN	1140	1100
OUT	1140	1100

	2034	2022	
→	180	180	OUT
←	390	370	IN

	OUT	IN
2022	30	60
2034	30	60

	R	T	L
2022	40	10	10
2034	40	10	10

	2034	2022	
↰	10	10	R
←	370	350	T
↙	10	10	L

Gostlin St

	2022	2034	
L	10	10	↰
T	160	160	→
R	270	280	↘

	2034	2022
IN	440	450
OUT	600	630

	L	T	R
2034	220	10	10
2022	210	10	10

	2034	2022
↑	240	230
↓	300	290
	IN	OUT

Sheffield Ave

CLASSIFICATION: A LL VEHICLES

ANNUAL GROWTH RATE	
Northbound	0.5%
Southbound	0.5%
Eastbound	0.5%
Westbound	0.5%
Years to Escalate: 2022	-12

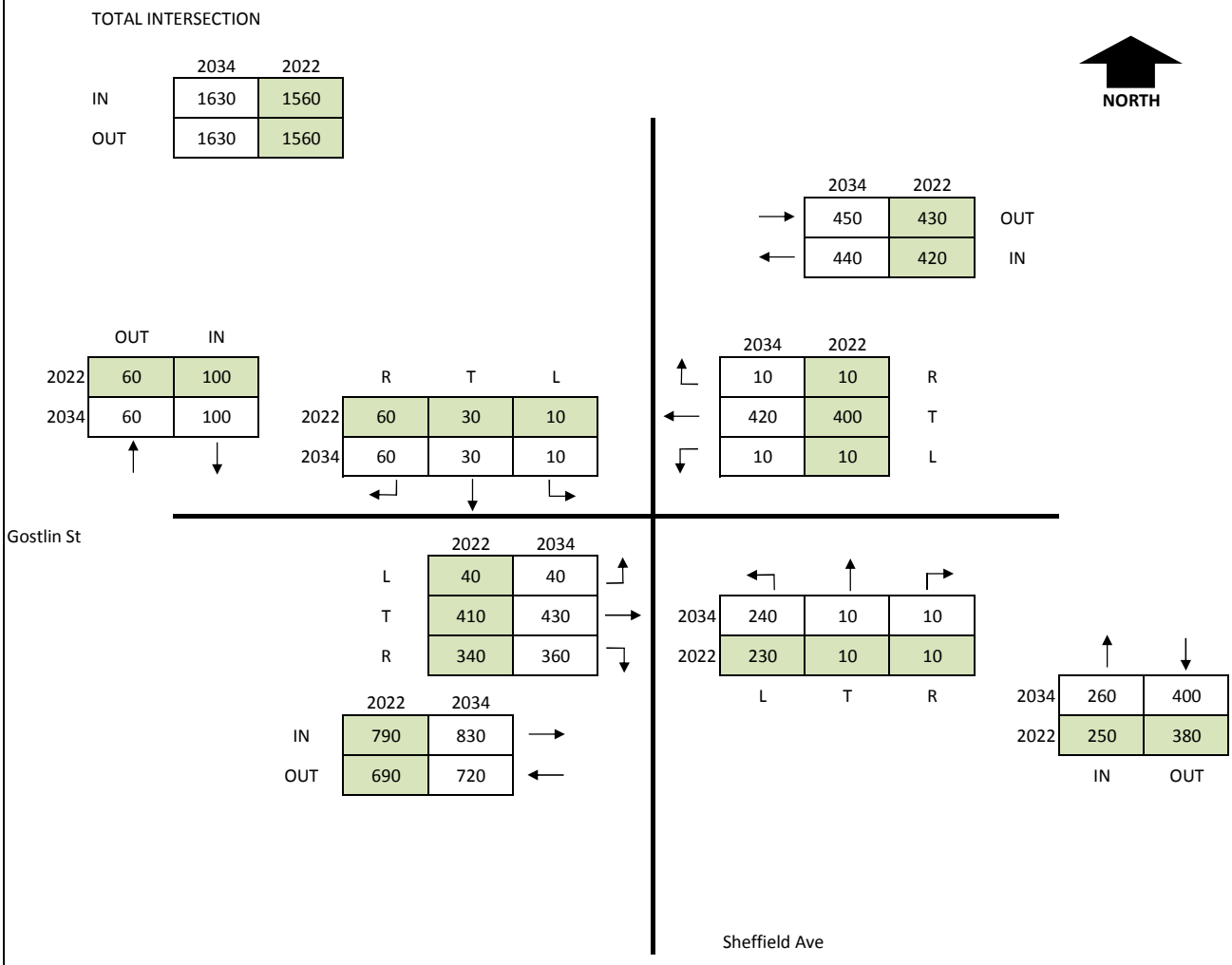
NICTD

SHEFFIELD AVE & GOSTLIN ST

2022 PROJECTED TRAFFIC VOLUMES (AM)

HAMMOND GATEWAY STATION

October 2017



CLASSIFICATION: ALL VEHICLES

ANNUAL GROWTH RATE	
Northbound	0.5%
Southbound	0.5%
Eastbound	0.5%
Westbound	0.5%
Years to Escalate: 2040	-12

SHEFFIELD AVE & GOSTLIN ST

2022 PROJECTED TRAFFIC VOLUMES (PM)

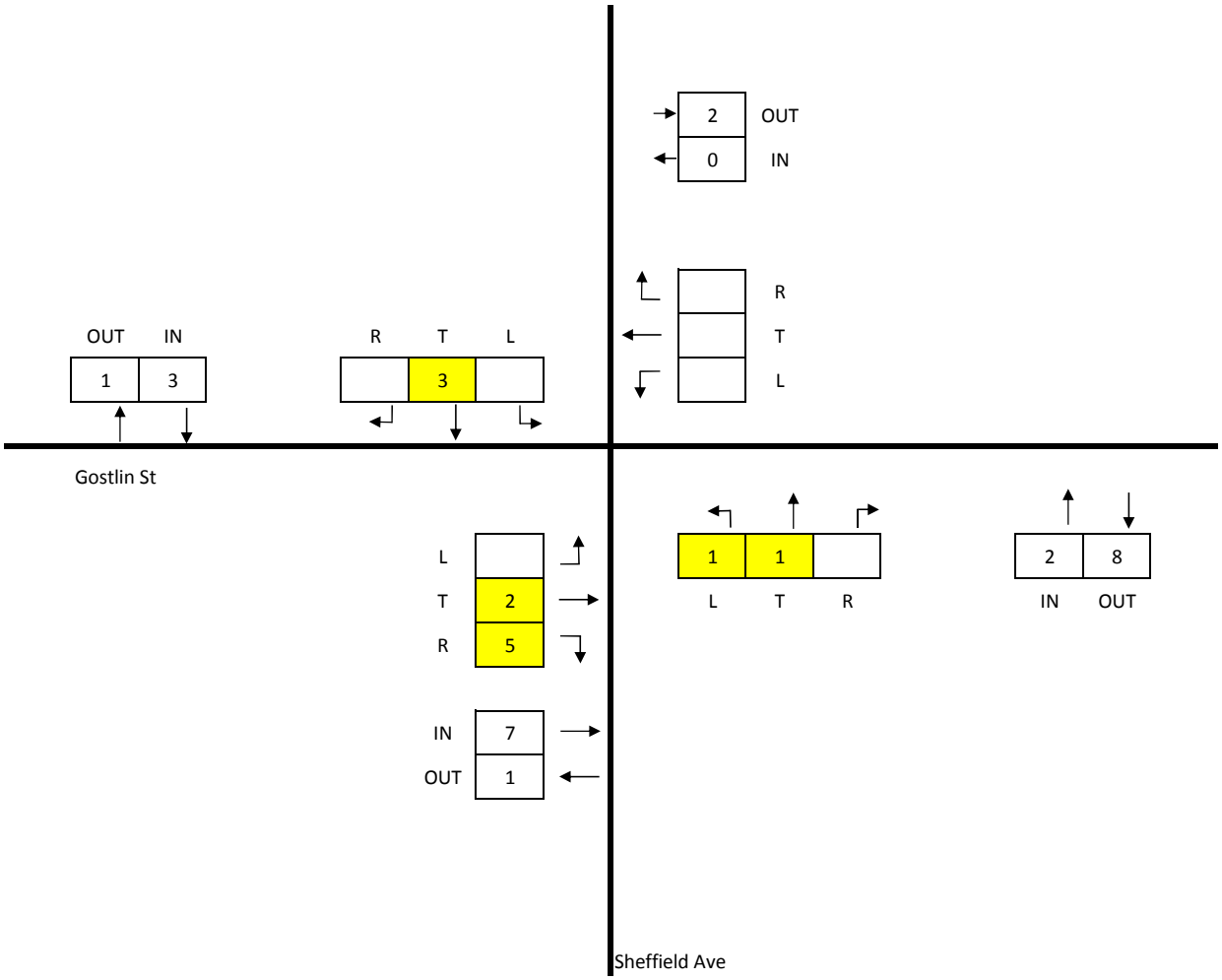
HAMMOND GATEWAY STATION

October 2017

TOTAL INTERSECTION

IN	12
OUT	12

NORTH



CLASSIFICATION: ALL VEHICLES

SHEFFIELD AVE & GOSTLIN ST

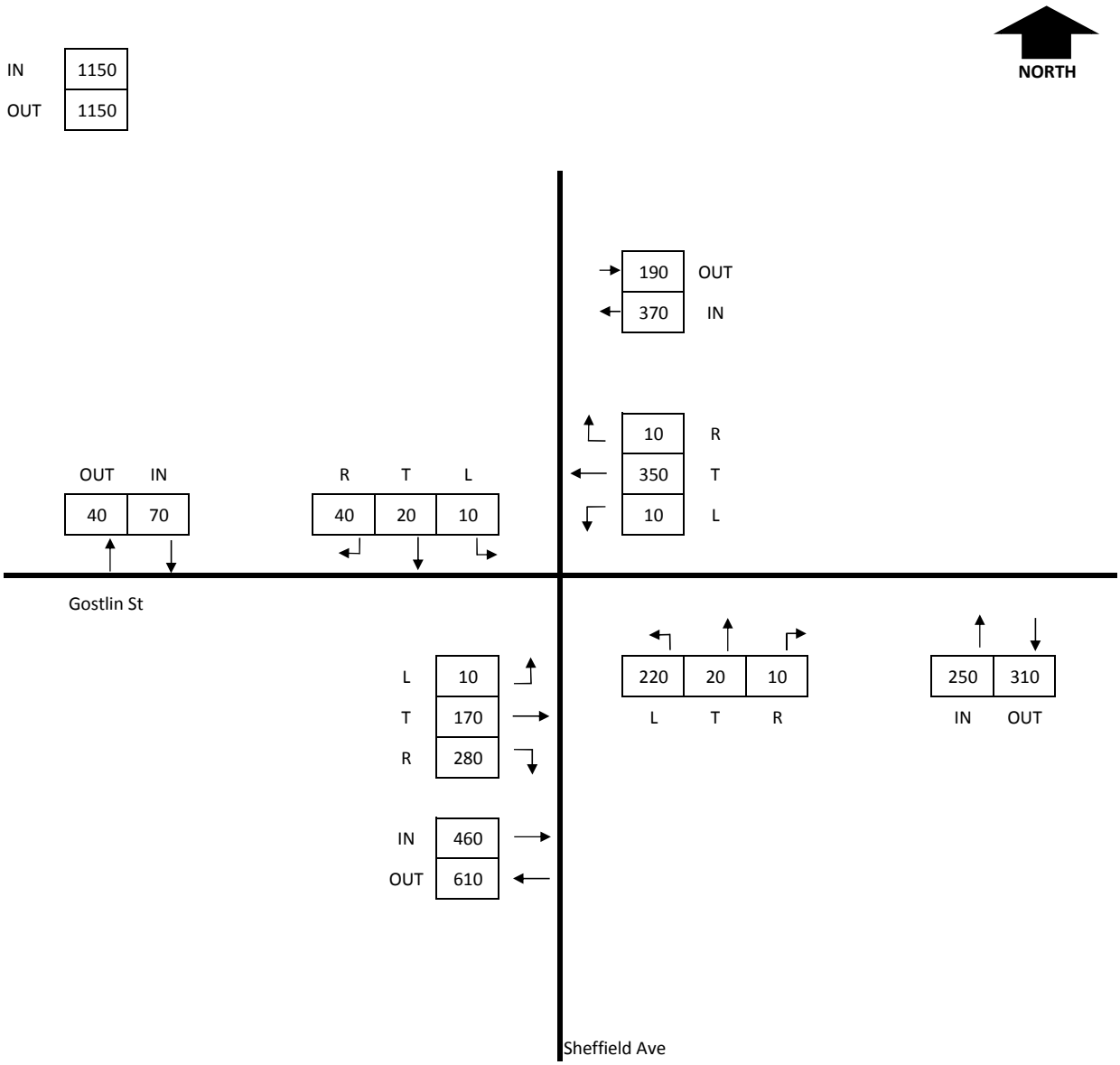
2022 SITE GENERATED TRIPS (AM)

HAMMOND GATEWAY STATION

October 2017

TOTAL INTERSECTION

IN	1150
OUT	1150



CLASSIFICATION: ALL VEHICLES

SHEFFIELD AVE & GOSTLIN ST

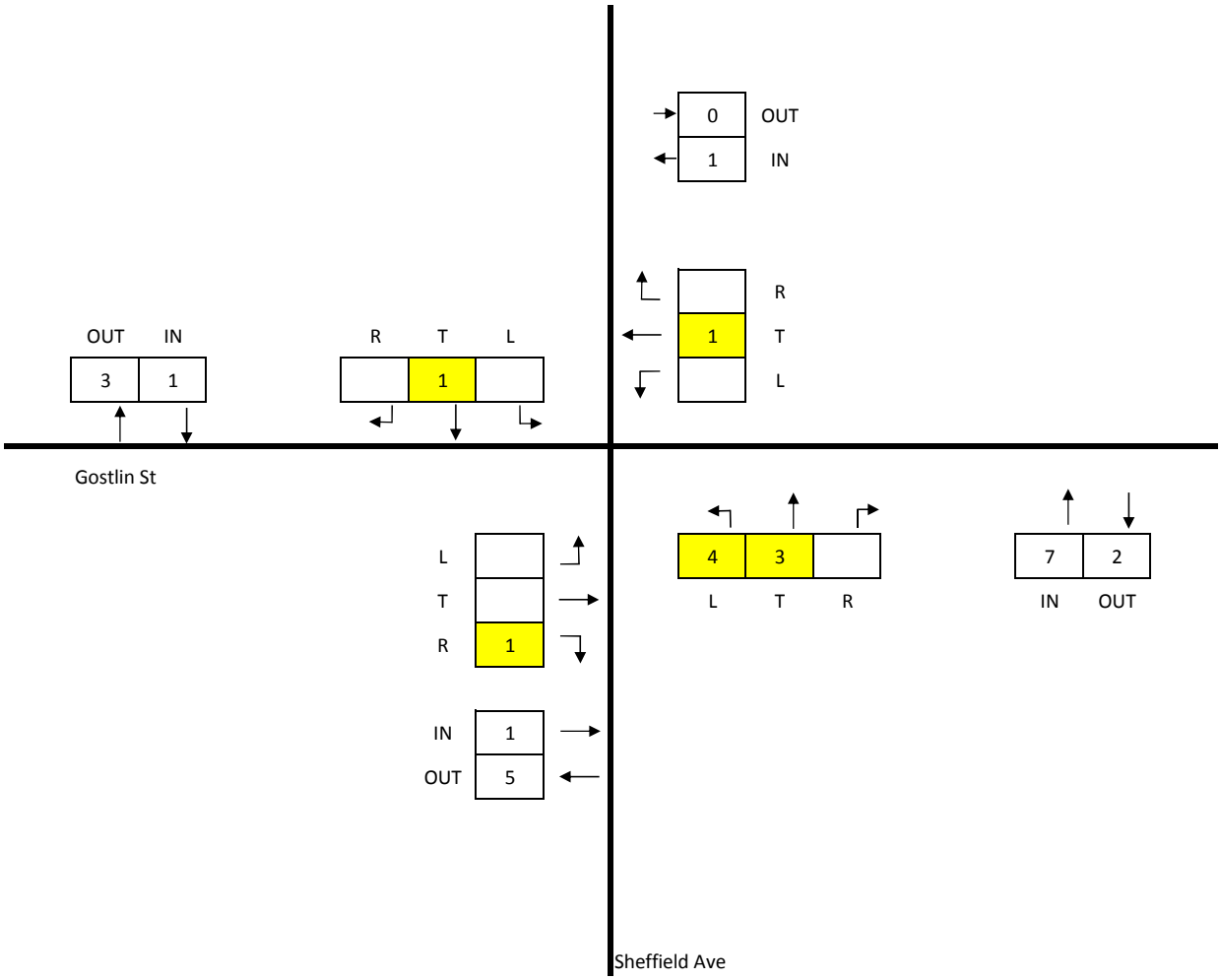
2022 BUILD TRAFFIC VOLUMES (AM)

HAMMOND GATEWAY STATION

October 2017

TOTAL INTERSECTION

IN	10
OUT	10



CLASSIFICATION: ALL VEHICLES

SHEFFIELD AVE & GOSTLIN ST

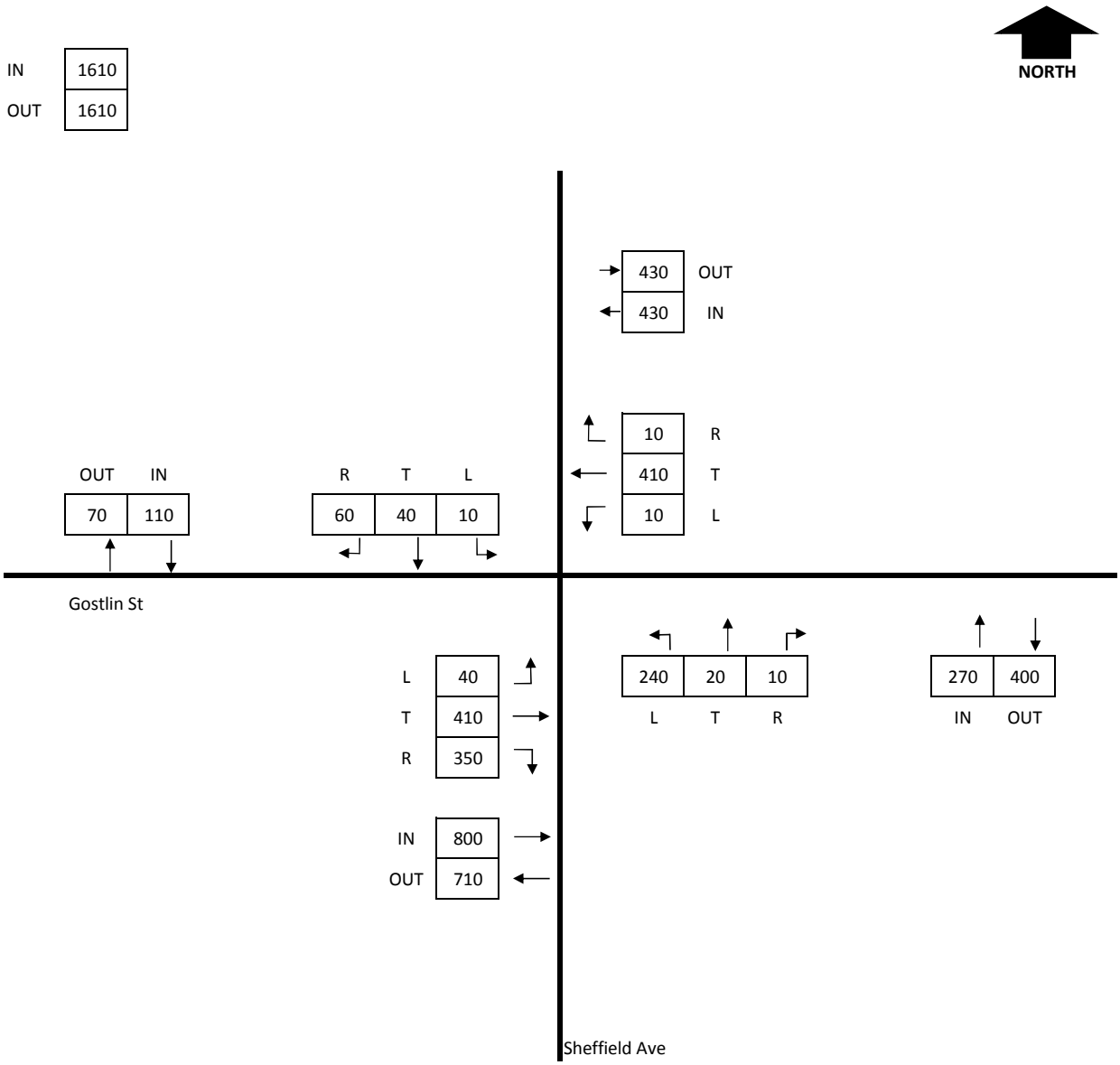
2022 SITE GENERATED TRIPS (PM)

HAMMOND GATEWAY STATION

October 2017

TOTAL INTERSECTION

IN	1610
OUT	1610



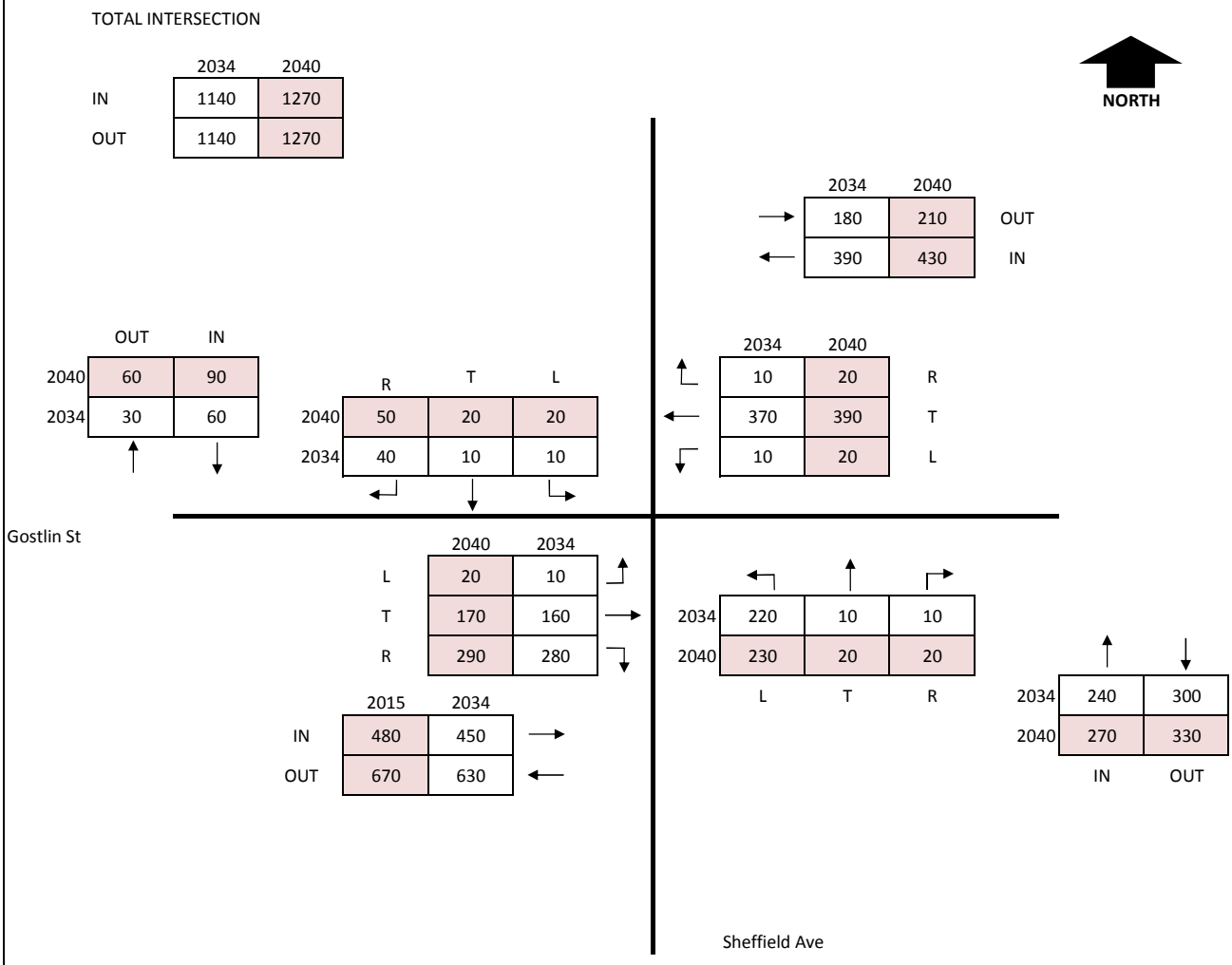
CLASSIFICATION: ALL VEHICLES

SHEFFIELD AVE & GOSTLIN ST

2022 BUILD TRAFFIC VOLUMES (PM)

HAMMOND GATEWAY STATION

October 2017



CLASSIFICATION: ALL VEHICLES

ANNUAL GROWTH RATE	
Northbound	0.5%
Southbound	0.5%
Eastbound	0.5%
Westbound	0.5%
Years to Escalate: 2040	6

SHEFFIELD AVE & GOSTLIN ST

2040 PROJECTED TRAFFIC VOLUMES (AM)

HAMMOND GATEWAY STATION

October 2017

TOTAL INTERSECTION

	2034	2040
IN	1630	1780
OUT	1630	1780

NORTH

	2034	2040	
→	450	490	OUT
←	440	480	IN

	OUT	IN
2040	90	130
2034	60	100

	R	T	L
2040	70	40	20
2034	60	30	10

	2034	2040	
↰	10	20	R
←	420	440	T
↙	10	20	L

Gostlin St

	2040	2034	
L	50	40	↰
T	450	430	→
R	380	360	↘

	2040	2034
IN	880	830 →
OUT	760	720 ←

	←	↑	→
2034	240	10	10
2040	250	20	20
	L	T	R

	↑	↓
2034	260	400
2040	290	440
	IN	OUT

Sheffield Ave

CLASSIFICATION: ALL VEHICLES

ANNUAL GROWTH RATE	
Northbound	0.5%
Southbound	0.5%
Eastbound	0.5%
Westbound	0.5%
Years to Escalate: 2040	6

SHEFFIELD AVE & GOSTLIN ST

2040 PROJECTED TRAFFIC VOLUMES (PM)

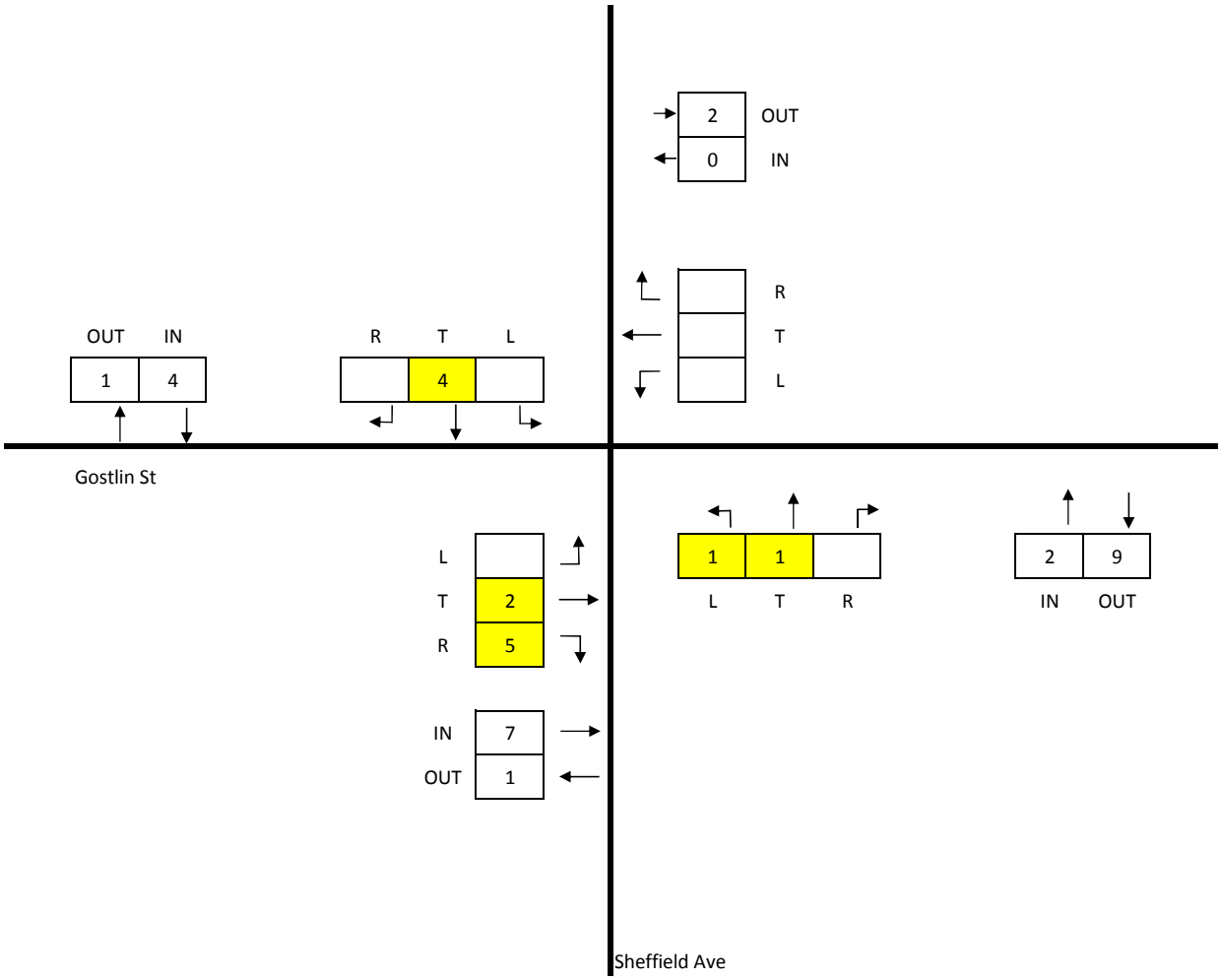
HAMMOND GATEWAY STATION

October 2017

TOTAL INTERSECTION

IN	13
OUT	13

NORTH



CLASSIFICATION: ALL VEHICLES

SHEFFIELD AVE & GOSTLIN ST

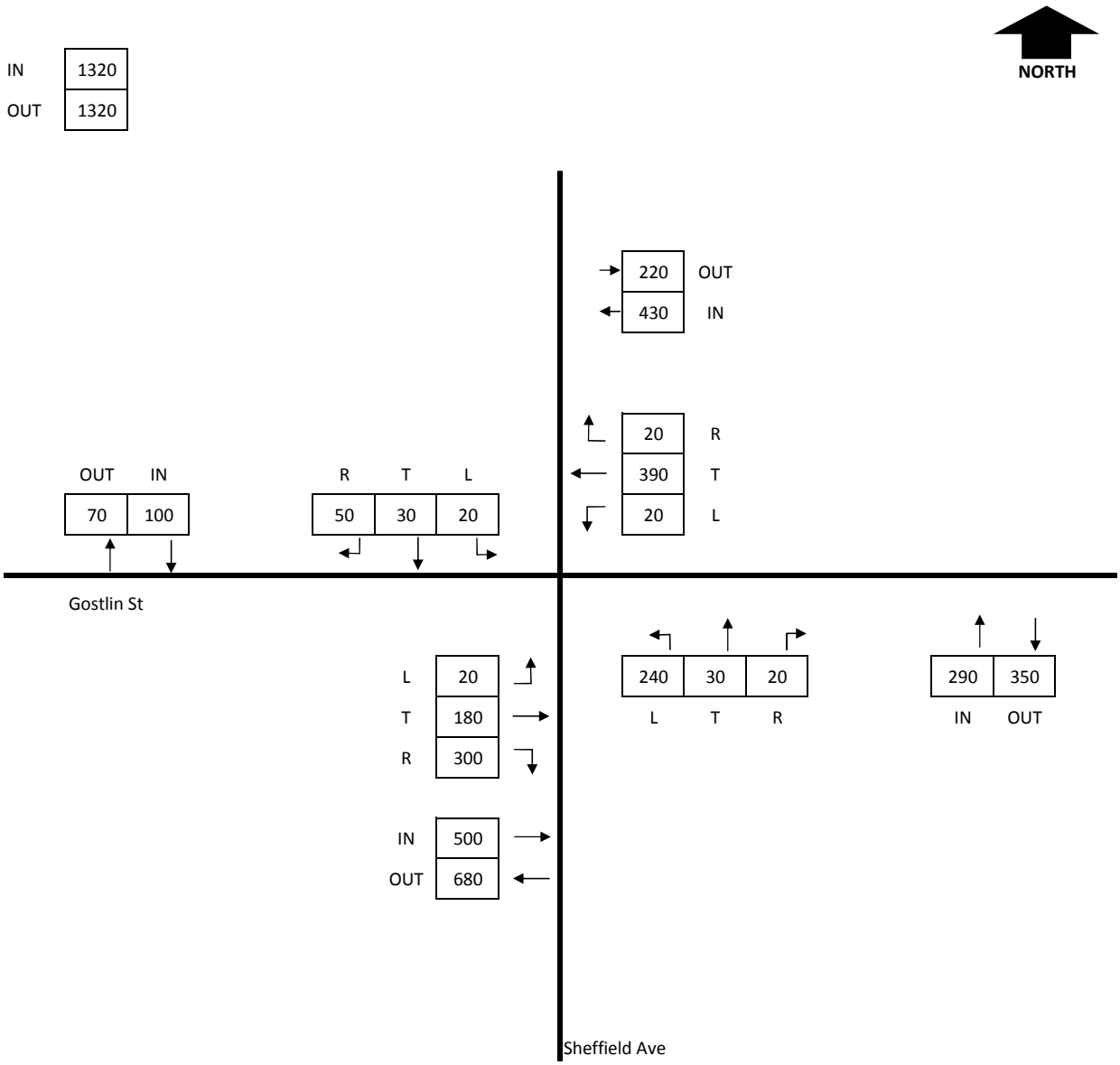
2040 SITE GENERATED TRIPS (AM)

HAMMOND GATEWAY STATION

October 2017

TOTAL INTERSECTION

IN	1320
OUT	1320



CLASSIFICATION: ALL VEHICLES

SHEFFIELD AVE & GOSTLIN ST

2040 BUILD TRAFFIC VOLUMES (AM)

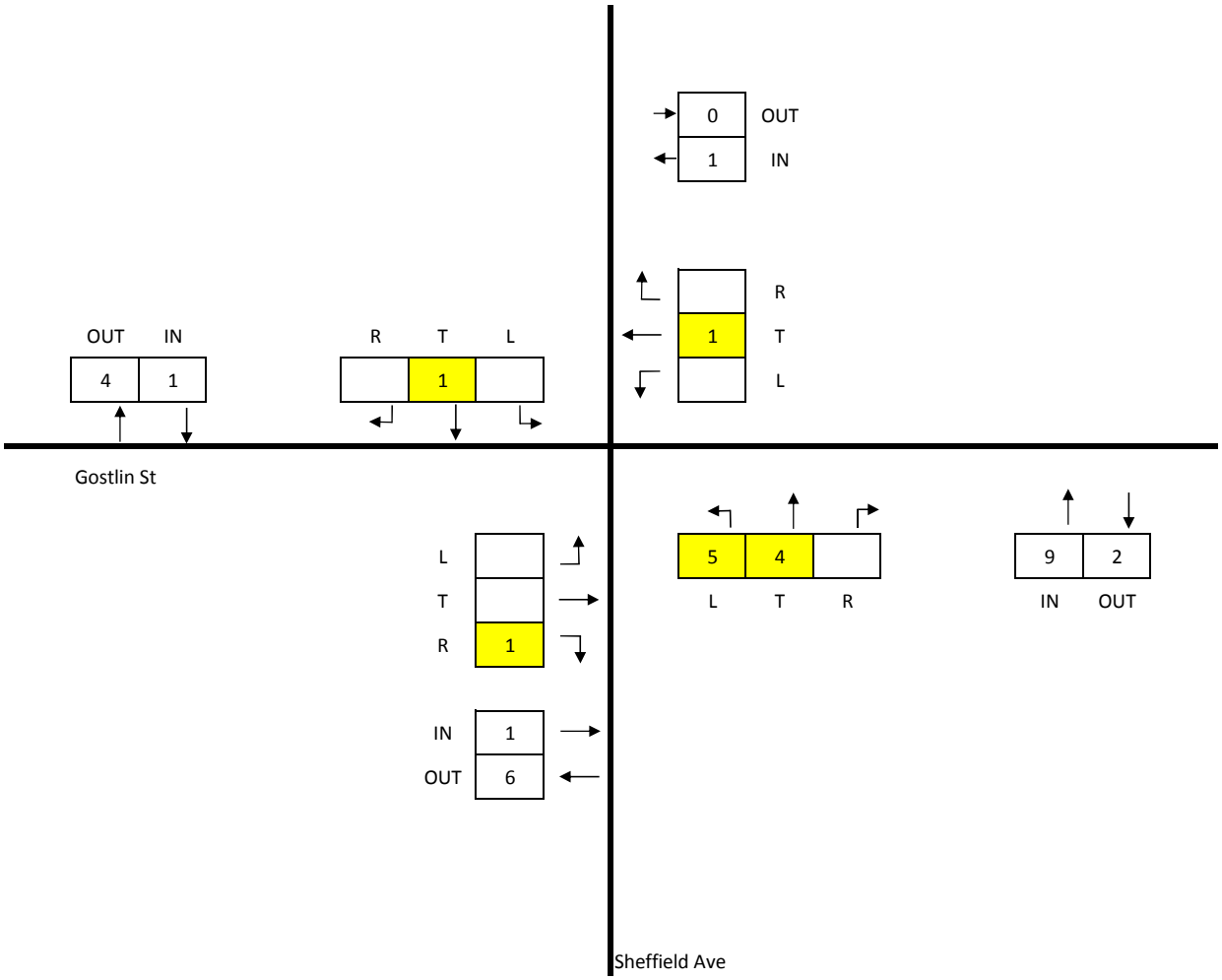
HAMMOND GATEWAY STATION

October 2017

TOTAL INTERSECTION

IN	12
OUT	12

NORTH



CLASSIFICATION: ALL VEHICLES

SHEFFIELD AVE & GOSTLIN ST

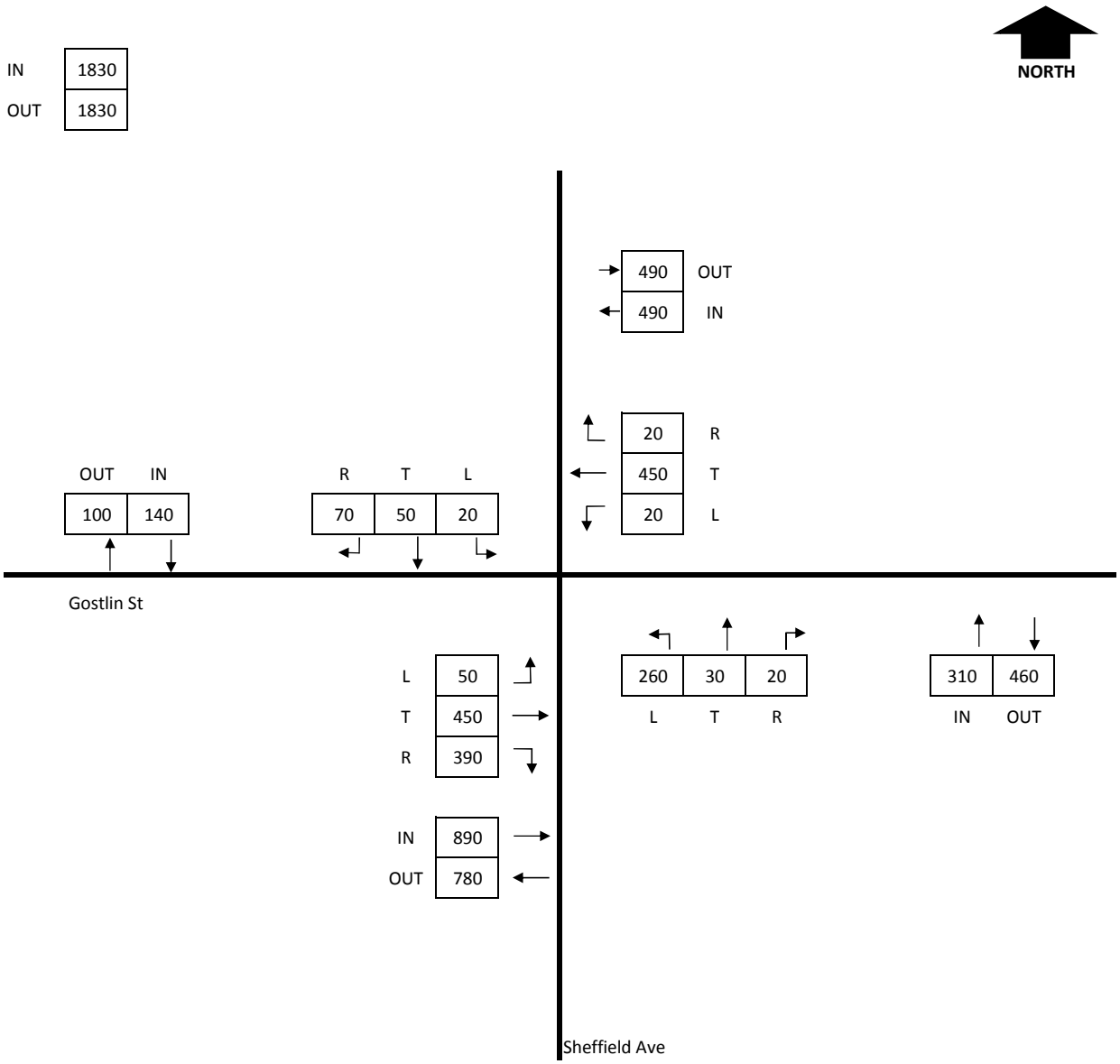
2040 SITE GENERATED TRIPS (PM)

HAMMOND GATEWAY STATION

October 2017

TOTAL INTERSECTION

IN	1830
OUT	1830



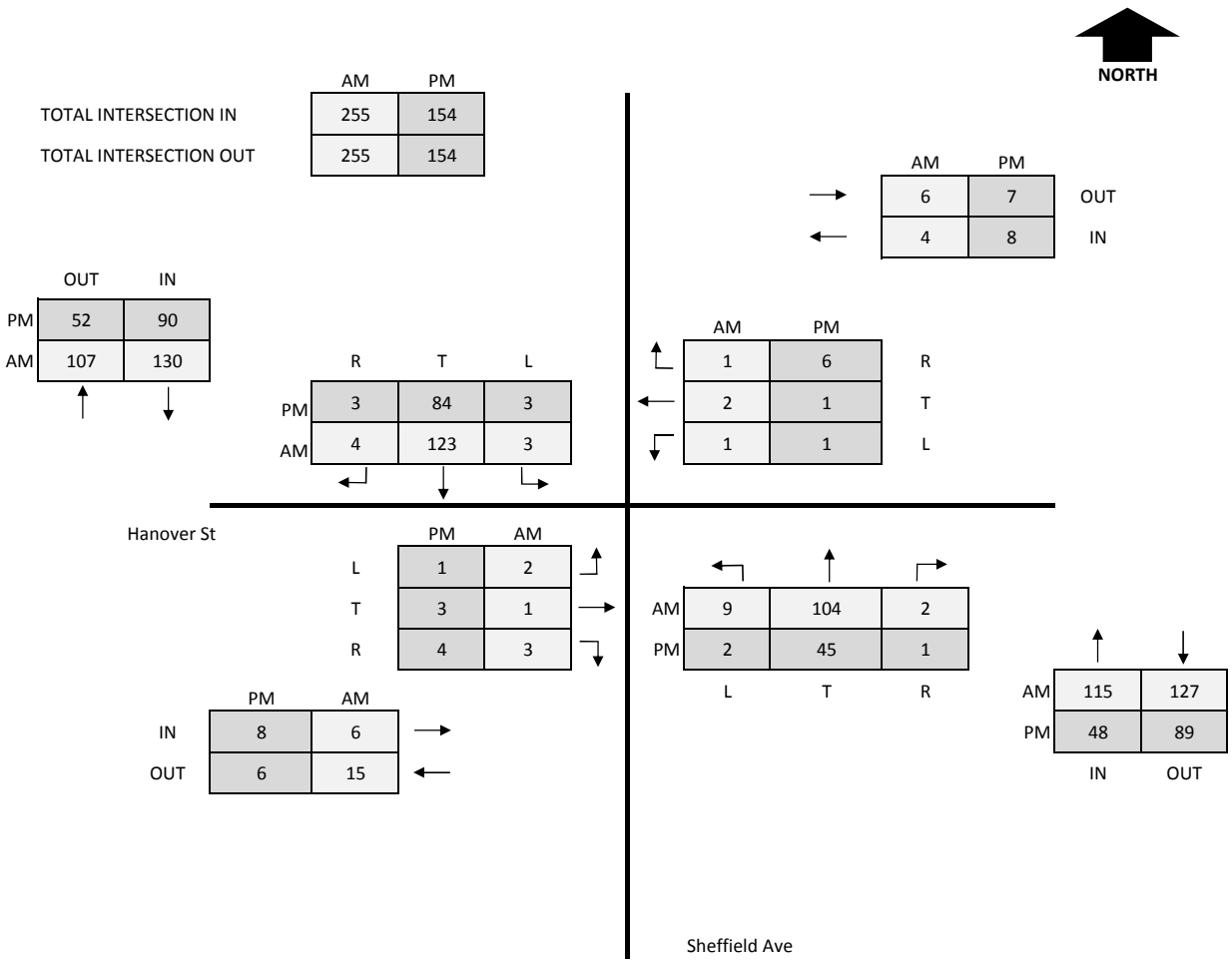
CLASSIFICATION: ALL VEHICLES

SHEFFIELD AVE & GOSTLIN ST

2040 BUILD TRAFFIC VOLUMES (PM)

HAMMOND GATEWAY STATION

October 2017



CLASSIFICATION: ALL VEHICLES

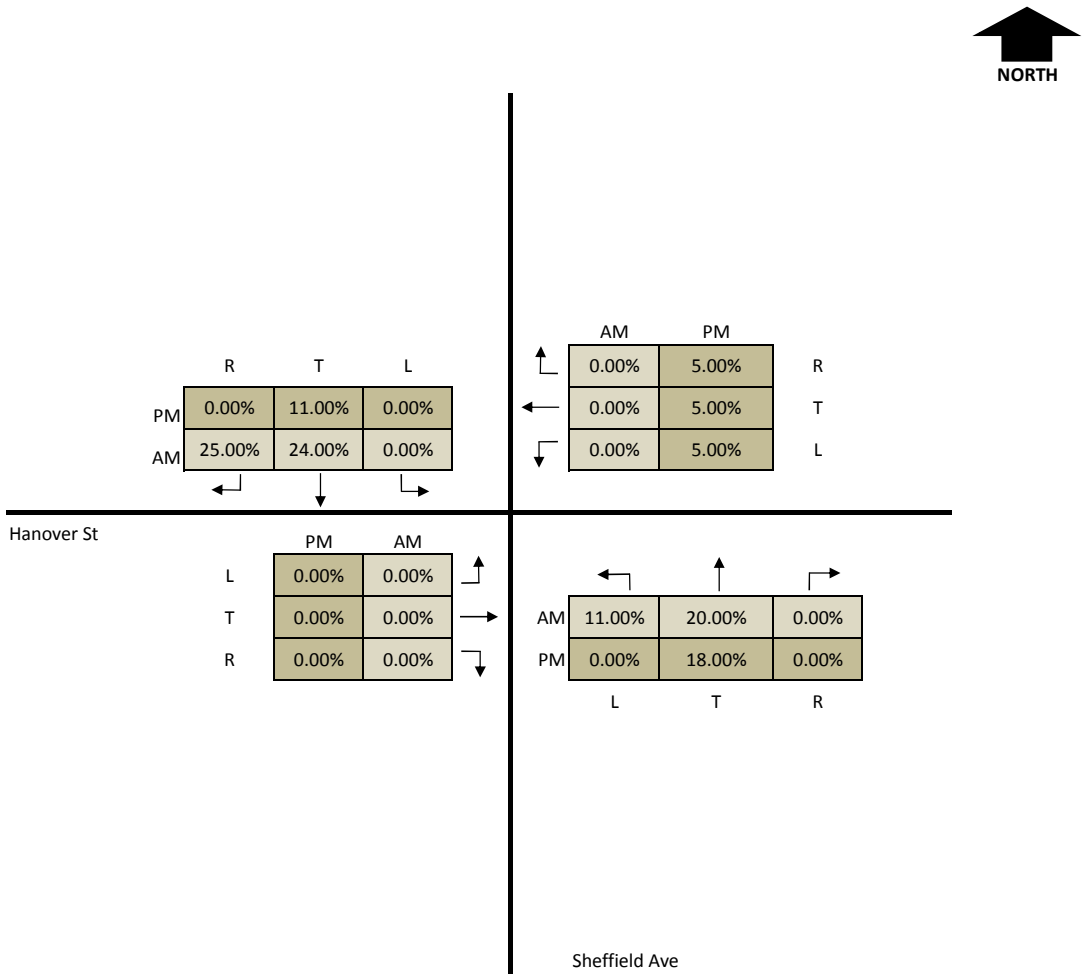
Traffic Counts from Quality Counts				
AM	11/18/2014	7:00 AM	to	8:00 AM
PM	11/18/2014	6:00 PM	to	7:00 PM

SHEFFIELD AVE & HANOVER ST

EXISTING TRAFFIC VOLUMES (2014)

HAMMOND GATEWAY STATION

October 2017



CLASSIFICATION: TRUCKS

Traffic Counts from Quality Counts				
AM	11/18/2014	7:00 AM	to	8:00 AM
PM	11/18/2014	6:00 PM	to	7:00 PM

SHEFFIELD AVE & HANOVER ST

EXISTING TRAFFIC VOLUMES (2014)

HAMMOND GATEWAY STATION

October 2017

TOTAL INTERSECTION

	2014	2022
IN	255	340
OUT	255	340

NORTH

	2014	2022	
→	6	30	OUT
←	4	30	IN

	OUT	IN
2022	130	150
2014	107	130

	R	T	L
2022	10	130	10
2014	4	123	3

	2014	2022	
↱	1	10	R
←	2	10	T
↳	1	10	L

Hanover St

	2022	2014	
L	10	2	↰
T	10	1	→
R	10	3	↴

	2014	2022
IN	30	6
OUT	30	15

	↰ L	↑ T	↱ R
2014	9	104	2
2022	10	110	10

	↑ IN	↓ OUT
2014	115	127
2022	130	150

Sheffield Ave

CLASSIFICATION: ALL VEHICLES

ANNUAL GROWTH RATE	
Northbound	0.5%
Southbound	0.5%
Eastbound	0.5%
Westbound	0.5%
Years to Escalate: 2022	8

SHEFFIELD AVE & HANOVER ST

2022 PROJECTED TRAFFIC VOLUMES (AM)

HAMMOND GATEWAY STATION

October 2017

TOTAL INTERSECTION

	2014	2022
IN	154	240
OUT	154	240

	2014	2022	
→	7	30	OUT
←	8	30	IN

	OUT	IN
2022	70	110
2014	52	90

	R	T	L
2022	10	90	10
2014	3	84	3

	2014	2022	
↰	6	10	R
←	1	10	T
↙	1	10	L

Hanover St

	2022	2014	
L	10	1	↰
T	10	3	→
R	10	4	↘

	2014	45	1
2022	10	50	10
	L	T	R

	2022	2014
IN	30	8 →
OUT	30	6 ←

	2014	2022
	48	89
	70	110
	IN	OUT

Sheffield Ave

CLASSIFICATION: ALL VEHICLES

ANNUAL GROWTH RATE	
Northbound	0.5%
Southbound	0.5%
Eastbound	0.5%
Westbound	0.5%
Years to Escalate: 2022	8

SHEFFIELD AVE & HANOVER ST

2022 PROJECTED TRAFFIC VOLUMES (PM)

HAMMOND GATEWAY STATION

October 2017

TOTAL INTERSECTION

	AM	PM
IN	580	690
OUT	580	690

	AM	PM	
→	30	30	OUT
←	30	30	IN

	OUT	IN
PM	250	380
AM	230	290

	R	T	L
PM	10	360	10
AM	10	270	10

	AM	PM	
↰	10	10	R
←	10	10	T
↙	10	10	L

Hanover St

	PM	AM
L	10	10
T	10	10
R	10	10

	PM	AM
IN	30	30
OUT	30	30

	L	T	R
AM	10	210	10
PM	10	230	10

	AM	PM
IN	230	290
OUT	250	380

Sheffield Ave

CLASSIFICATION: ALL VEHICLES

NICTD

SHEFFIELD AVE & HANOVER ST

2022 PROJECTED TRAFFIC VOLUMES - BALANCED (AM/PM)

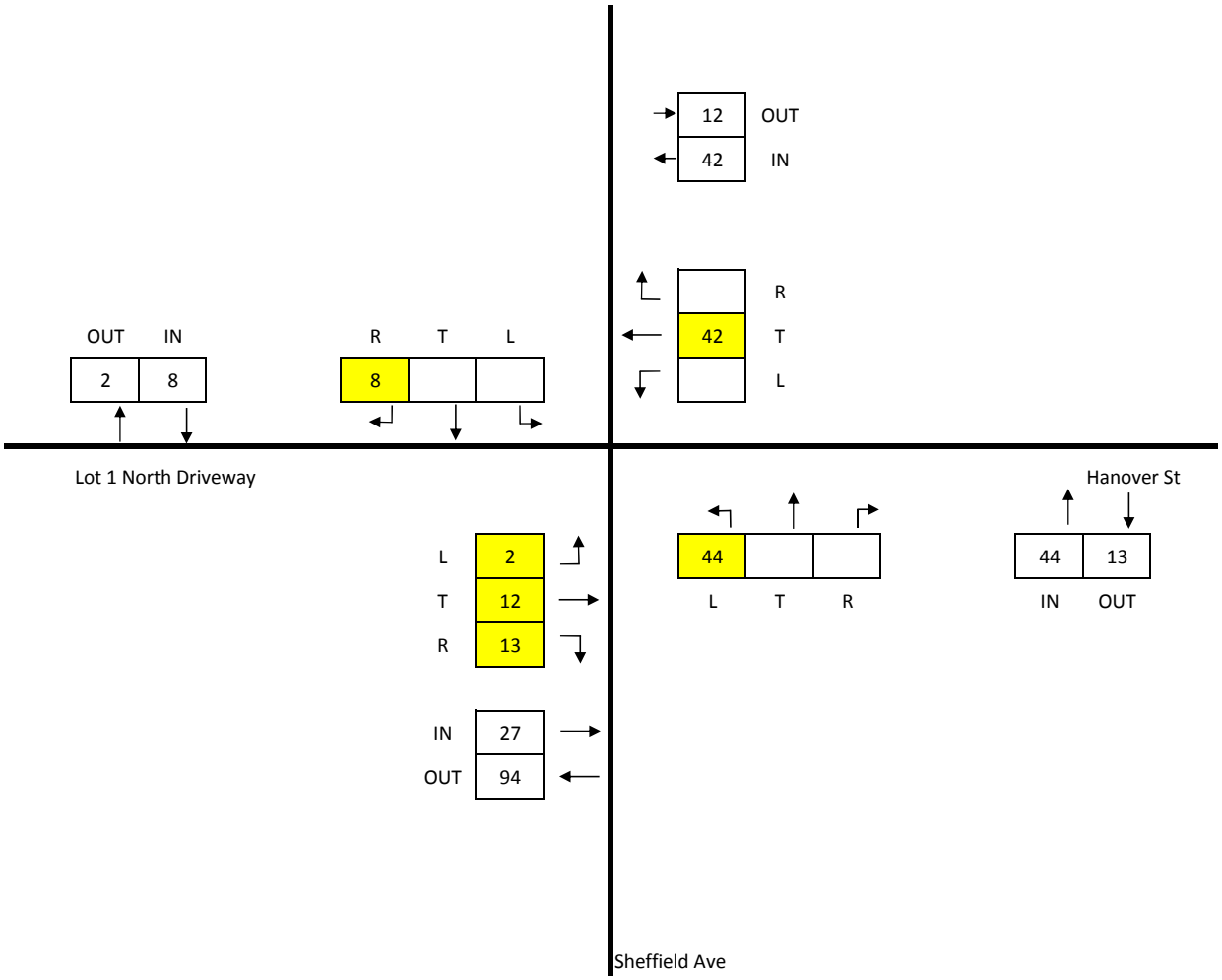
HAMMOND GATEWAY STATION

October 2017

TOTAL INTERSECTION

IN	121
OUT	121

NORTH



CLASSIFICATION: ALL VEHICLES

NICD

SHEFFIELD AVE & HANOVER ST

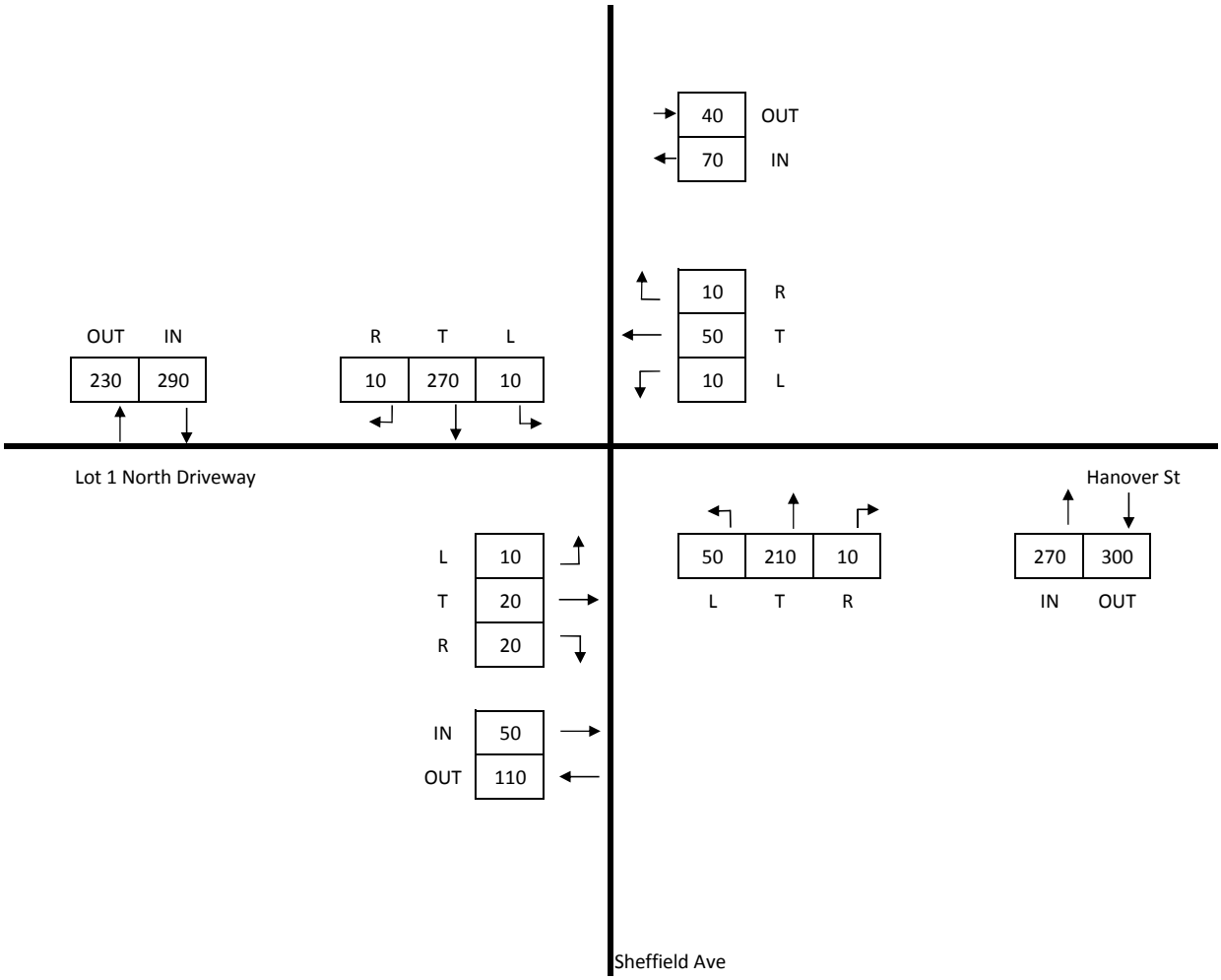
2022 SITE GENERATED TRIPS (AM)

HAMMOND GATEWAY STATION

October 2017

TOTAL INTERSECTION

IN	680
OUT	680



CLASSIFICATION: ALL VEHICLES

SHEFFIELD AVE & HANOVER ST

2022 BUILD TRAFFIC VOLUMES (AM)

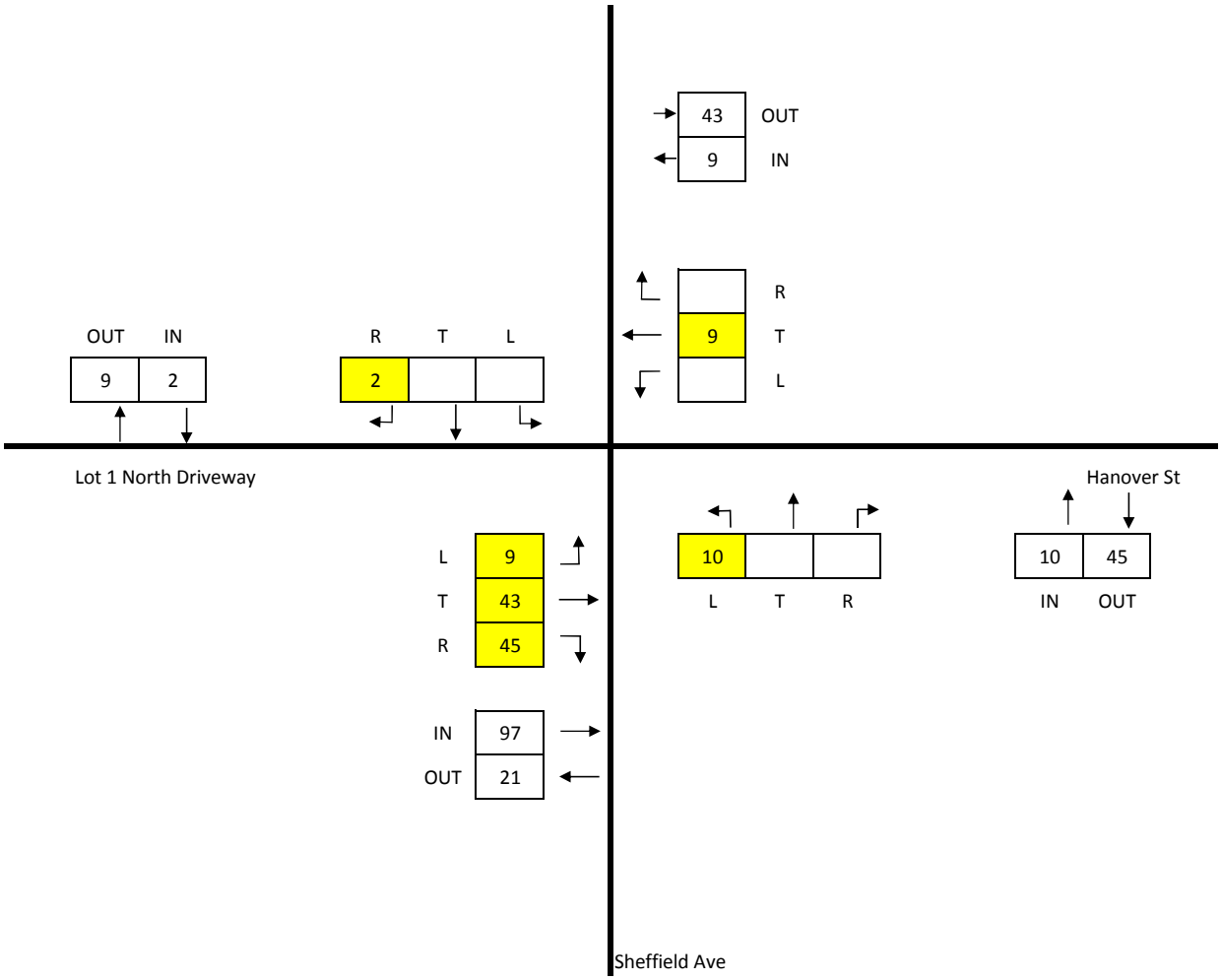
HAMMOND GATEWAY STATION

October 2017

TOTAL INTERSECTION

IN	118
OUT	118

NORTH



CLASSIFICATION: ALL VEHICLES

SHEFFIELD AVE & HANOVER ST

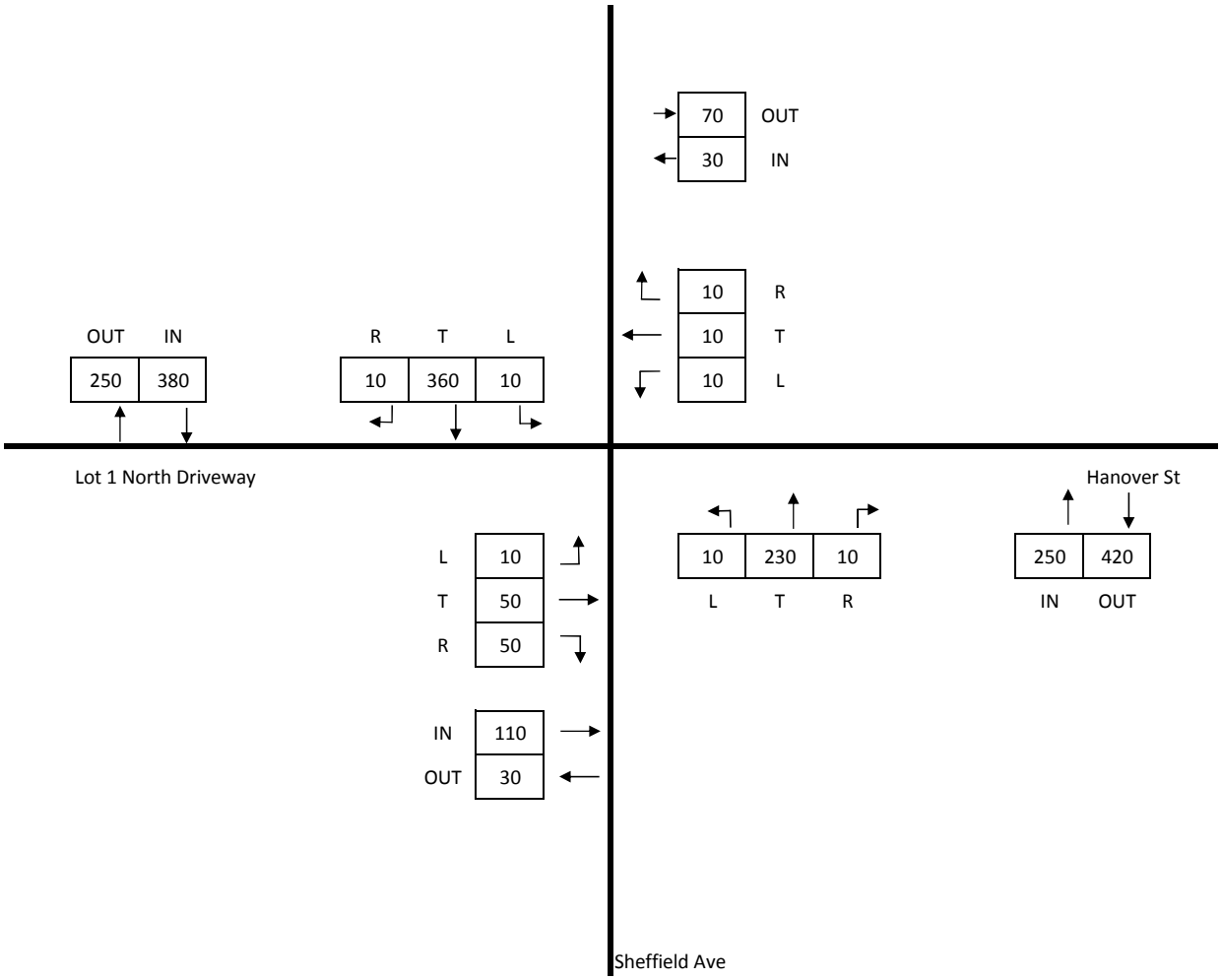
2022 SITE GENERATED TRIPS (PM)

HAMMOND GATEWAY STATION

October 2017

TOTAL INTERSECTION

IN	770
OUT	770



CLASSIFICATION: ALL VEHICLES

NICD

SHEFFIELD AVE & HANOVER ST

2022 BUILD TRAFFIC VOLUMES (PM)

HAMMOND GATEWAY STATION

October 2017

TOTAL INTERSECTION

	2014	2040
IN	255	370
OUT	255	370

	2014	2040	
→	6	30	OUT
←	4	30	IN

	OUT	IN
2040	140	160
2014	107	130

	R	T	L
2040	10	140	10
2014	4	123	3

	2014	2040	
↰	1	10	R
←	2	10	T
↙	1	10	L

Hanover St

	2040	2014	
L	10	2	↰
T	10	1	→
R	10	3	↘

	2040	2014	
IN	30	6	→
OUT	40	15	←

	L	T	R
2014	9	104	2
2040	20	120	10

	IN	OUT
2014	115	127
2040	150	160

Sheffield Ave

CLASSIFICATION: ALL VEHICLES

ANNUAL GROWTH RATE	
Northbound	0.5%
Southbound	0.5%
Eastbound	0.5%
Westbound	0.5%
Years to Escalate: 2040	26

SHEFFIELD AVE & HANOVER ST

2040 PROJECTED TRAFFIC VOLUMES (AM)

HAMMOND GATEWAY STATION

October 2017

TOTAL INTERSECTION

	2014	2040
IN	154	260
OUT	154	260

NORTH

	2014	2040	
→	7	30	OUT
←	8	30	IN

	OUT	IN
2040	80	120
2014	52	90

	R	T	L
2040	10	100	10
2014	3	84	3

	2014	2040	
↰	6	10	R
←	1	10	T
↙	1	10	L

Hanover St

	2040	2014	
L	10	1	↰
T	10	3	→
R	10	4	↘

	2040	2014	
IN	30	8	→
OUT	30	6	←

	L	T	R
2014	2	45	1
2040	10	60	10

	2014	2040
2014	48	89
2040	80	120
	IN	OUT

Sheffield Ave

CLASSIFICATION: ALL VEHICLES

ANNUAL GROWTH RATE	
Northbound	0.5%
Southbound	0.5%
Eastbound	0.5%
Westbound	0.5%
Years to Escalate: 2040	26

SHEFFIELD AVE & HANOVER ST

2040 PROJECTED TRAFFIC VOLUMES (PM)

HAMMOND GATEWAY STATION

October 2017

TOTAL INTERSECTION

	AM	PM
IN	670	790
OUT	670	790

	AM	PM	
→	30	30	OUT
←	30	30	IN

	OUT	IN
PM	290	440
AM	270	330

	R	T	L
PM	10	420	10
AM	10	310	10

	AM	PM	
↰	10	10	R
←	10	10	T
↙	10	10	L

Hanover St

	PM	AM	
L	10	10	↑
T	10	10	→
R	10	10	↓

	PM	AM
IN	30	30 →
OUT	30	40 ←

	↰	↑	↱
AM	20	250	10
PM	10	270	10
	L	T	R

	↑	↓
AM	280	330
PM	290	440
	IN	OUT

Sheffield Ave

CLASSIFICATION: ALL VEHICLES

SHEFFIELD AVE & HANOVER ST

2040 PROJECTED TRAFFIC VOLUMES - BALANCED (AM/PM)

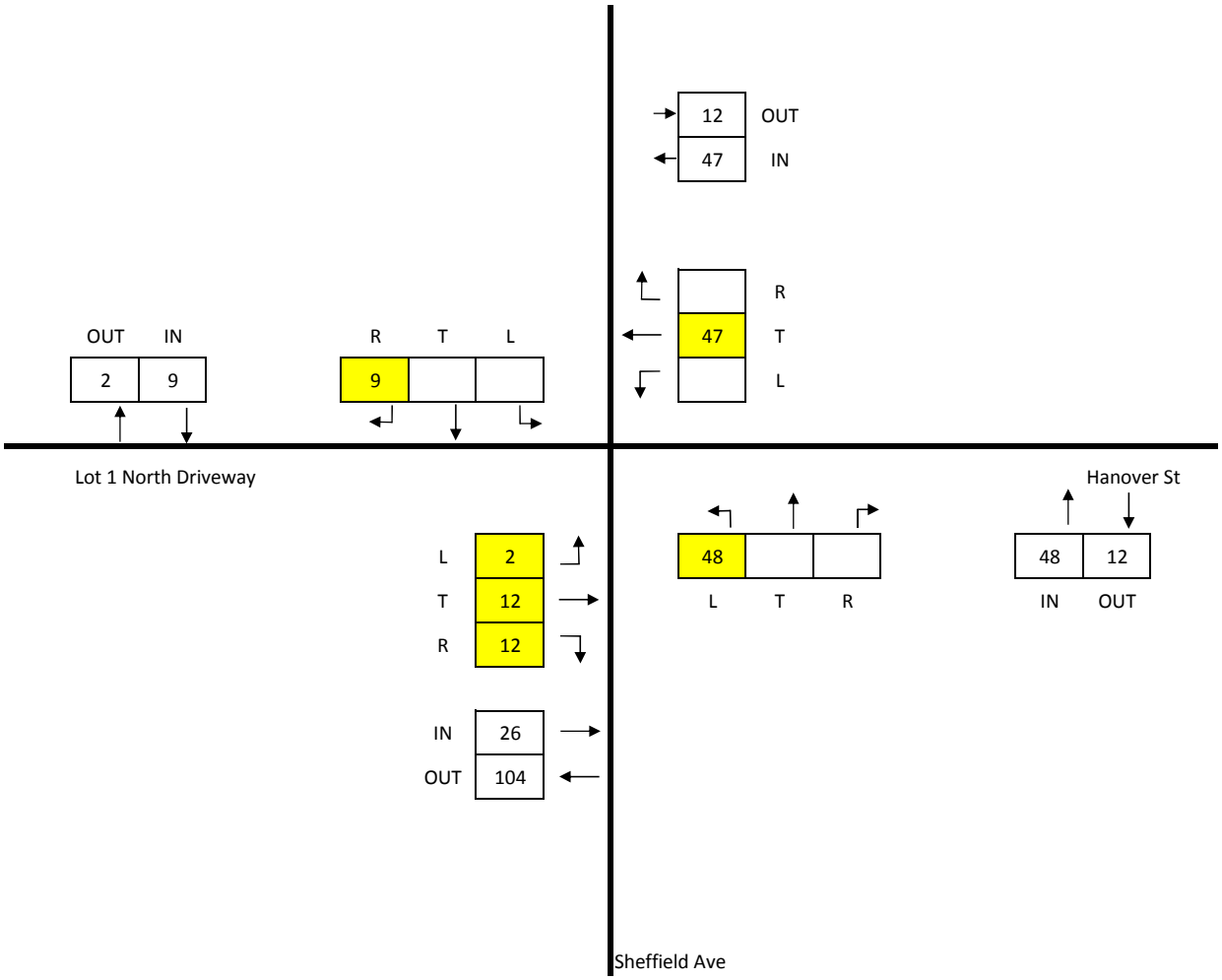
HAMMOND GATEWAY STATION

October 2017

TOTAL INTERSECTION

IN	130
OUT	130

NORTH



CLASSIFICATION: ALL VEHICLES

SHEFFIELD AVE & HANOVER ST

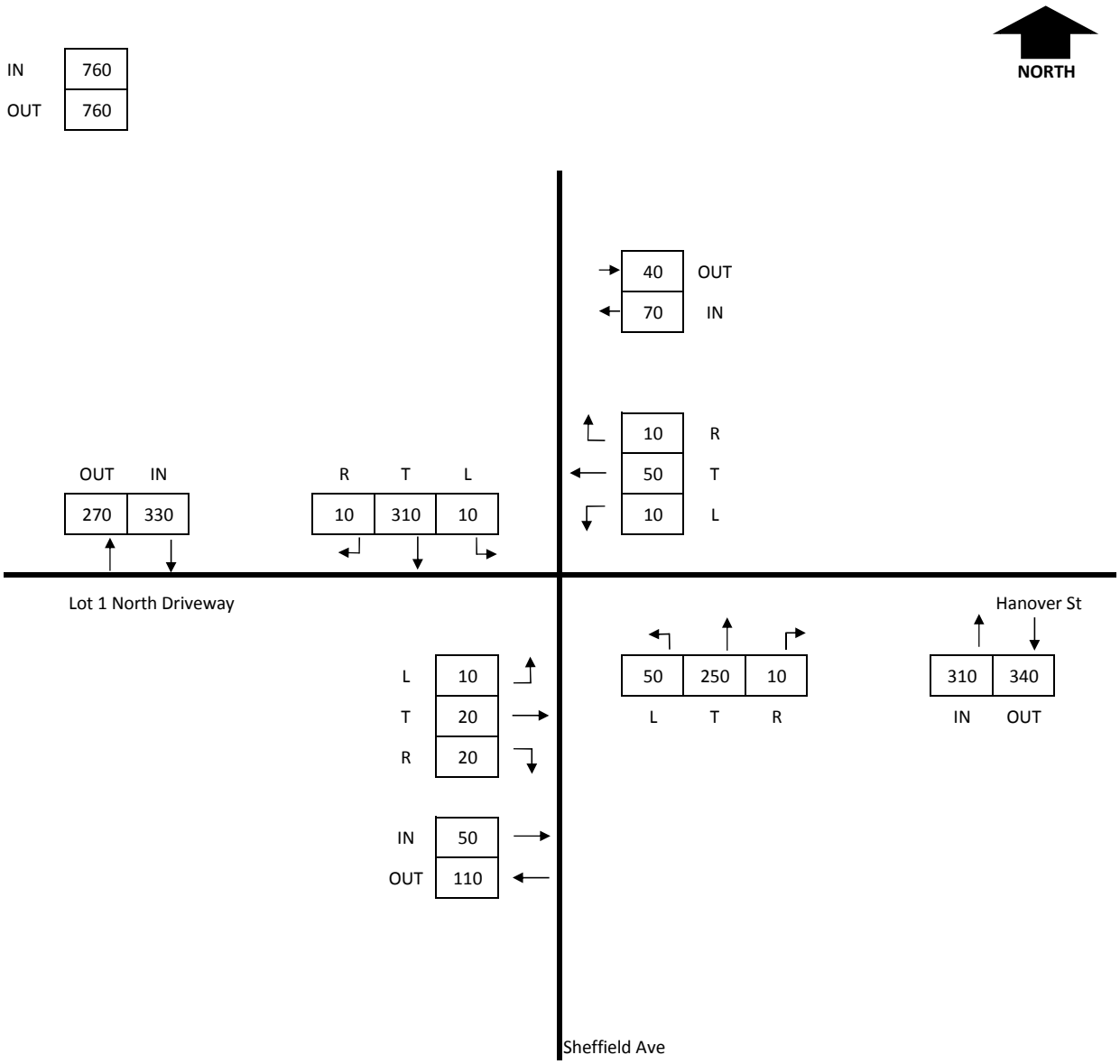
2040 SITE GENERATED TRIPS (AM)

HAMMOND GATEWAY STATION

October 2017

TOTAL INTERSECTION

IN	760
OUT	760



CLASSIFICATION: ALL VEHICLES

SHEFFIELD AVE & HANOVER ST

2040 BUILD TRAFFIC VOLUMES (AM)

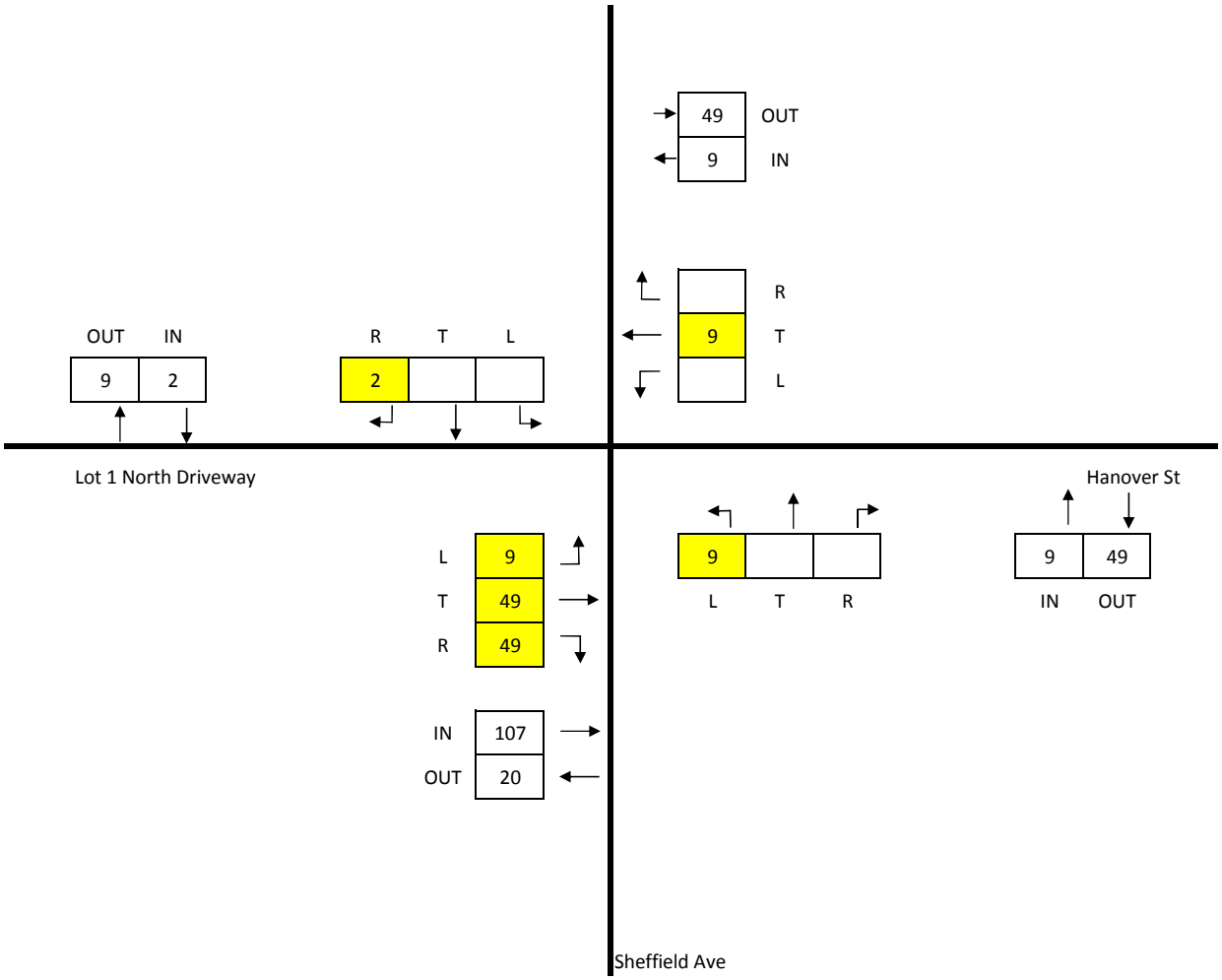
HAMMOND GATEWAY STATION

October 2017

TOTAL INTERSECTION

IN	127
OUT	127

NORTH



CLASSIFICATION: ALL VEHICLES

SHEFFIELD AVE & HANOVER ST

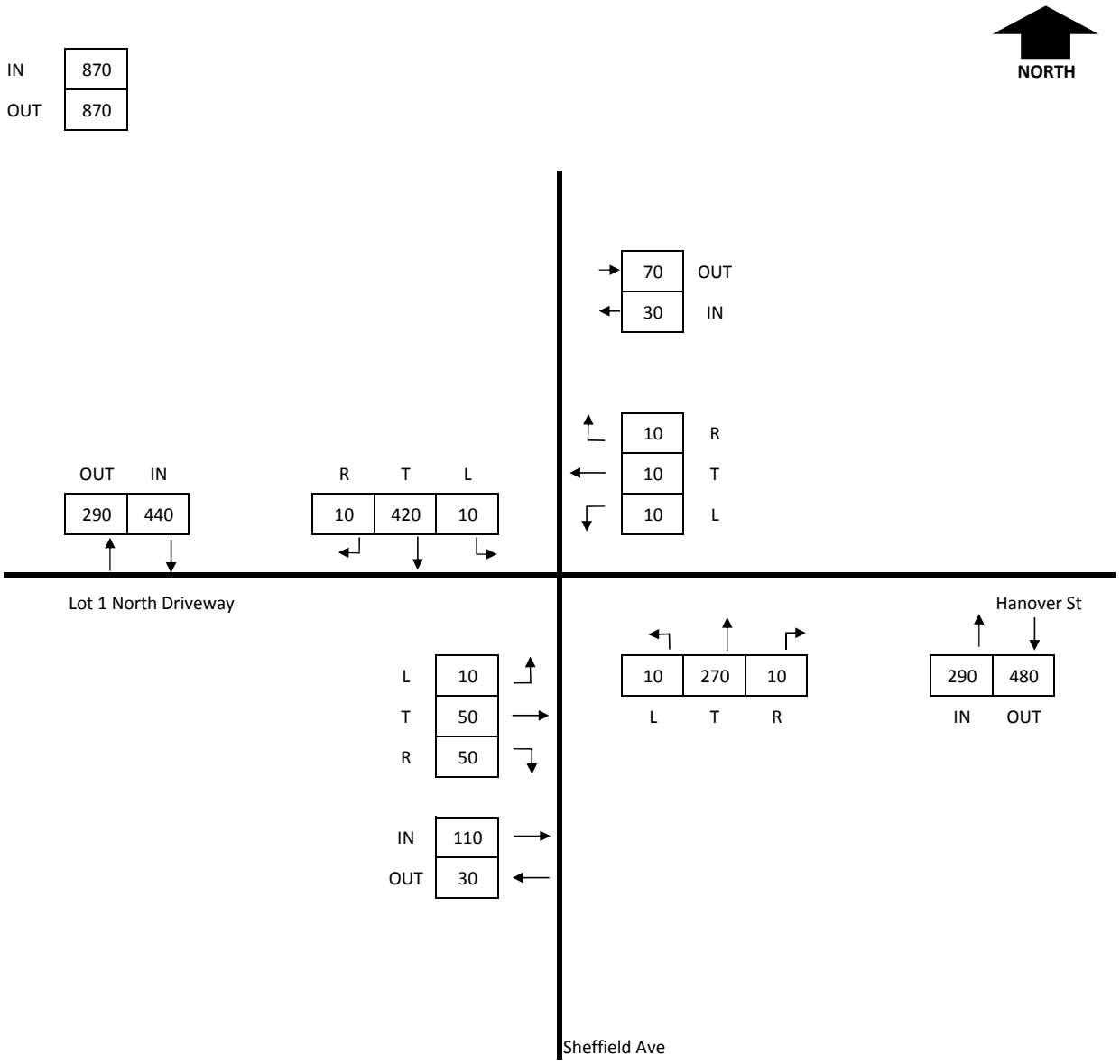
2040 SITE GENERATED TRIPS (PM)

HAMMOND GATEWAY STATION

October 2017

TOTAL INTERSECTION

IN	870
OUT	870



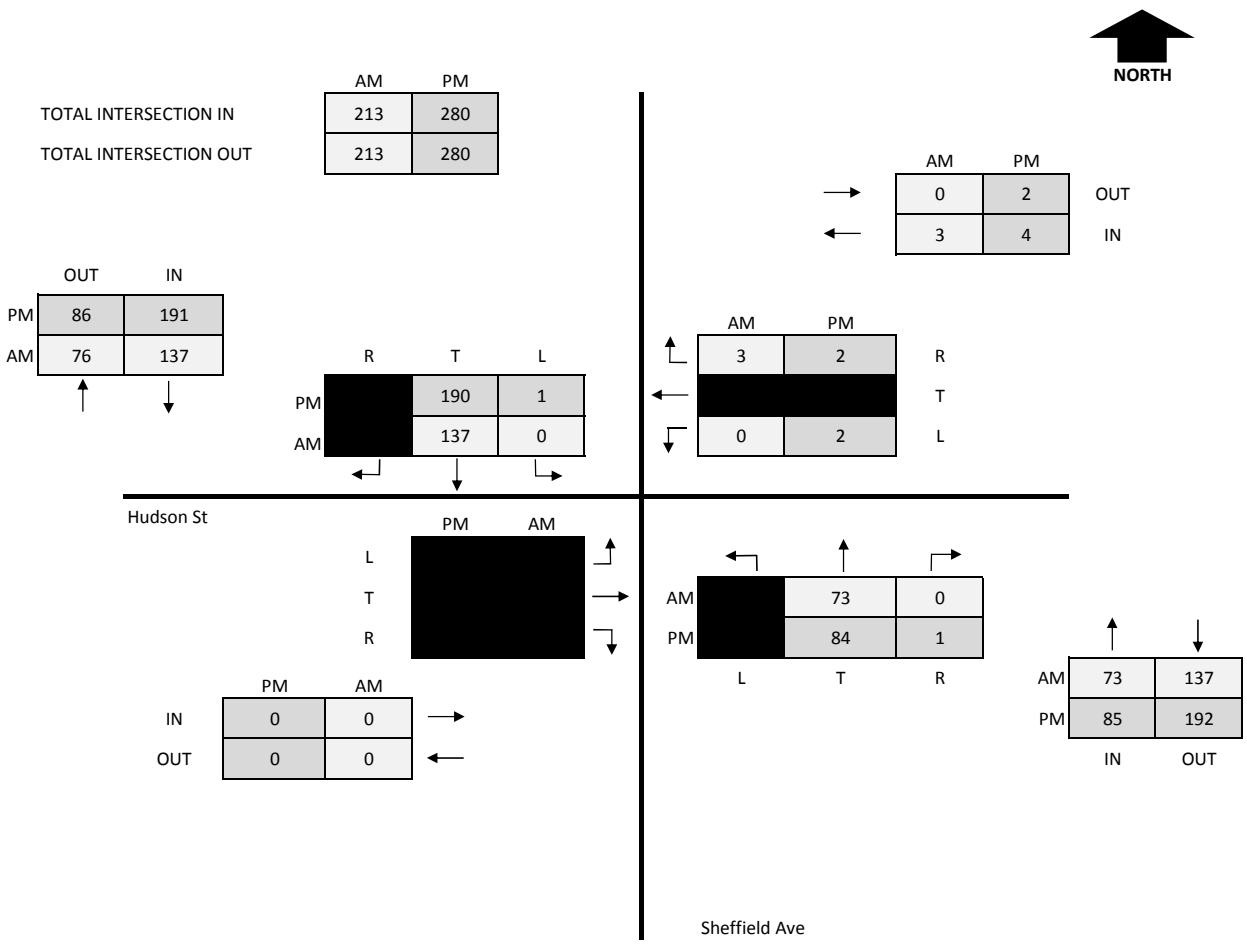
CLASSIFICATION: ALL VEHICLES

SHEFFIELD AVE & HANOVER ST

2040 BUILD TRAFFIC VOLUMES (PM)

HAMMOND GATEWAY STATION

October 2017



CLASSIFICATION: ALL VEHICLES

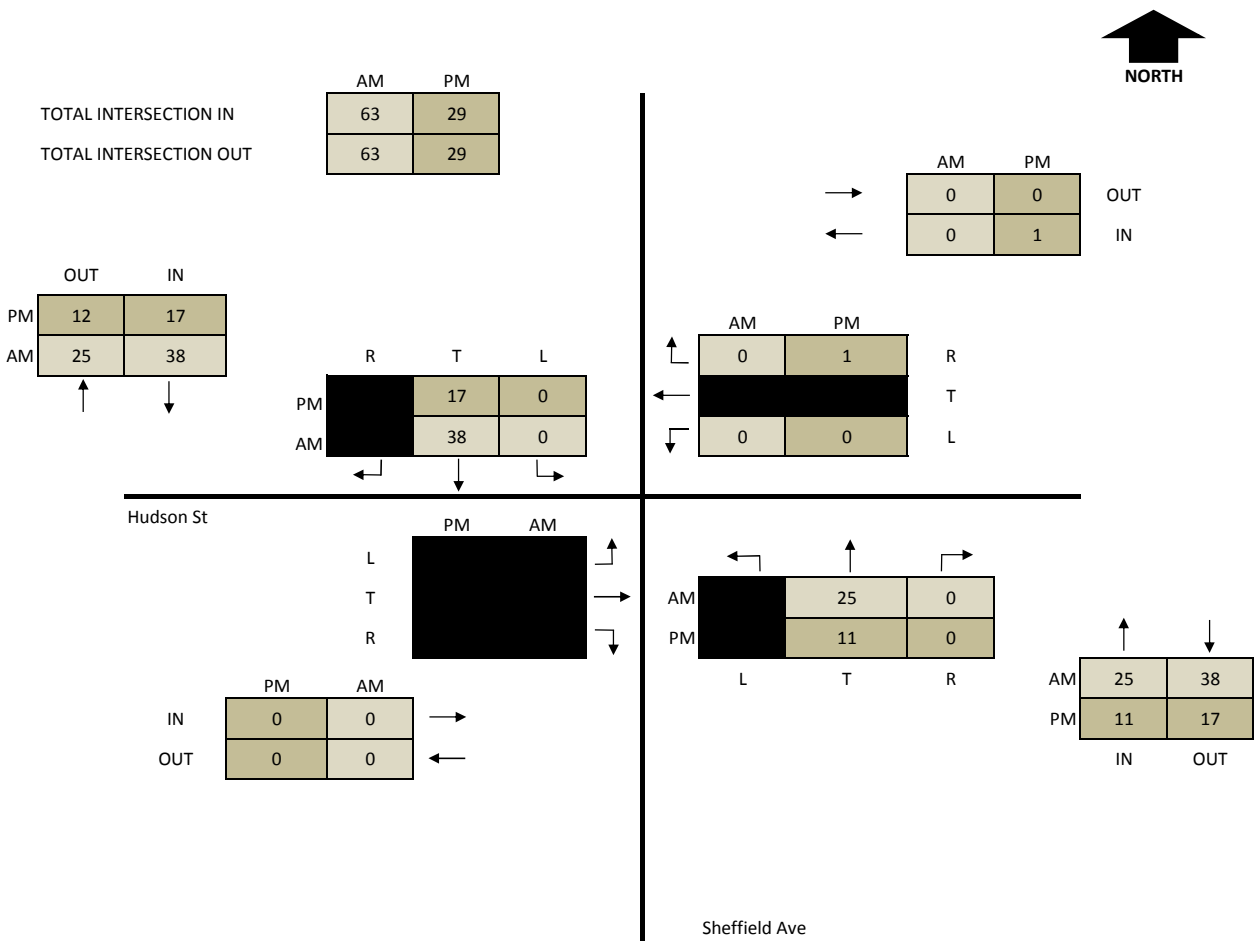
Traffic Counts from Quality Counts				
AM	4/4/2017	7:15 AM	to	8:15 AM
PM	4/4/2017	4:30 PM	to	5:30 PM

SHEFFIELD AVE/HUDSON ST

EXISTING TRAFFIC VOLUMES (2017)

HAMMOND GATEWAY STATION

October 2017



CLASSIFICATION: TRUCKS

Traffic Counts from Quality Counts				
AM	4/4/2017	7:15 AM	to	8:15 AM
PM	4/4/2017	4:30 PM	to	5:30 PM

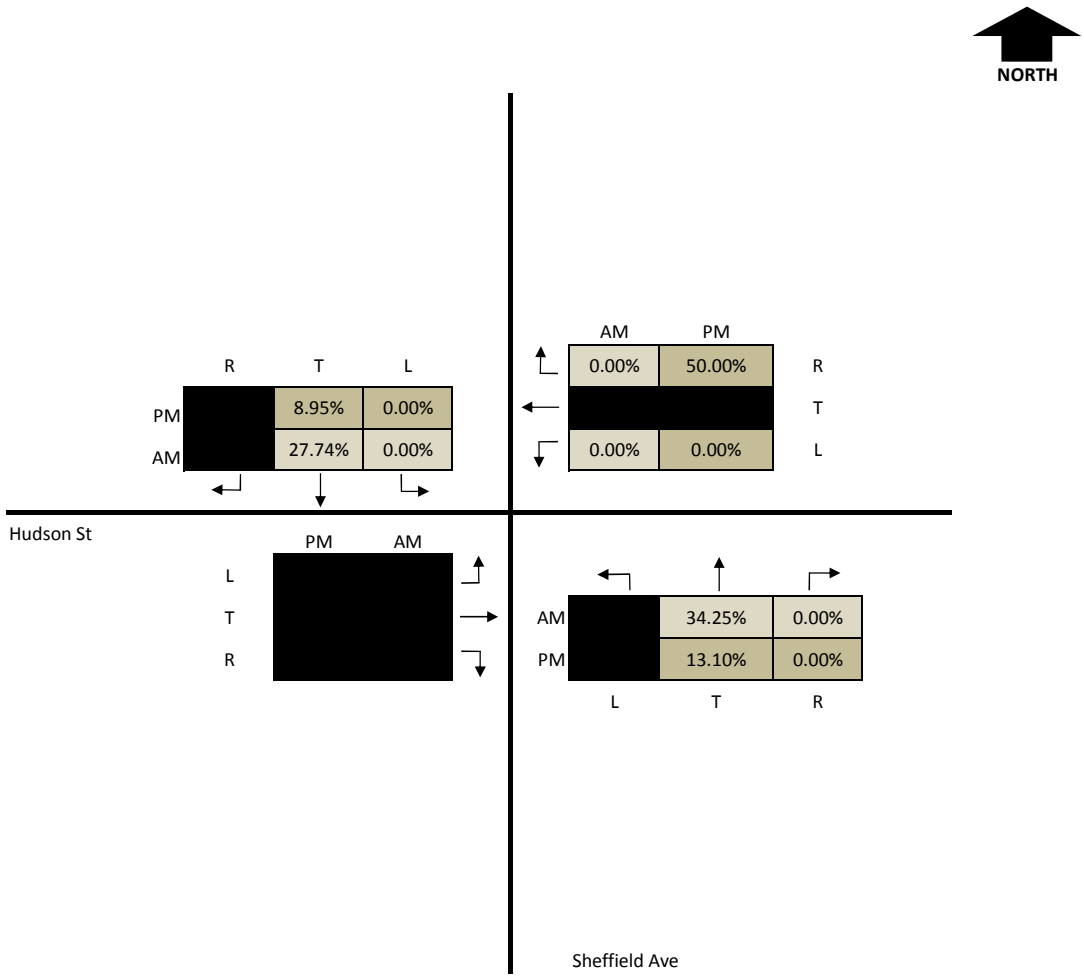
NICTD

SHEFFIELD AVE/HUDSON ST

EXISTING TRUCK VOLUMES (2017)

HAMMOND GATEWAY STATION

October 2017



CLASSIFICATION: TRUCKS

Traffic Counts from Quality Counts				
AM	4/4/2017	7:15 AM	to	8:15 AM
PM	4/4/2017	4:30 PM	to	5:30 PM

SHEFFIELD AVE/HUDSON ST

EXISTING TRUCK PERCENTAGE (2017)

HAMMOND GATEWAY STATION

October 2017

TOTAL INTERSECTION

	2017	2022
IN	213	240
OUT	213	240

NORTH

	2017	2022	
→	0	0	OUT
←	3	10	IN

	OUT	IN
2022	90	150
2017	76	137

	R	T	L
2022		150	0
2017		137	0

	2017	2022	
↰	3	10	R
←			T
↙	0	0	L

Hudson St

	2022	2017
L		
T		
R		

	2022	2017
IN	0	0
OUT	0	0

2017		73	0
2022		80	0
	L	T	R

	2017	2022
IN	73	137
OUT	80	150

Sheffield Ave

CLASSIFICATION: ALL VEHICLES

ANNUAL GROWTH RATE	
Northbound	0.5%
Southbound	0.5%
Eastbound	0.5%
Westbound	0.5%
Years to Escalate: 2022	5

SHEFFIELD AVE/HUDSON ST

2022 PROJECTED TRAFFIC VOLUMES (AM)

HAMMOND GATEWAY STATION

October 2017

TOTAL INTERSECTION

	2017	2022
IN	280	330
OUT	280	330

NORTH

	2017	2022	
→	2	20	OUT
←	4	20	IN

	OUT	IN
2022	100	210
2017	86	191

	R	T	L
2022		200	10
2017		190	1

	2017	2022	
↰	2	10	R
←			T
↲	2	10	L

Hudson St

	2022	2017
L		
T		
R		

	2022	2017
IN	0	0
OUT	0	0

2017		84	1
2022		90	10
	L	T	R

2017	85	192
2022	100	210
	IN	OUT

Sheffield Ave

CLASSIFICATION: ALL VEHICLES

ANNUAL GROWTH RATE	
Northbound	0.5%
Southbound	0.5%
Eastbound	0.5%
Westbound	0.5%
Years to Escalate: 2022	5

SHEFFIELD AVE/HUDSON ST

2022 PROJECTED TRAFFIC VOLUMES (PM)

HAMMOND GATEWAY STATION

October 2017

TOTAL INTERSECTION

	AM	PM
IN	540	650
OUT	540	650

NORTH

	AM	PM	
→	20	20	OUT
←	20	20	IN

	OUT	IN
PM	250	380
AM	230	290

	R	T	L
PM		370	10
AM		280	10

	AM	PM	
↰	10	10	R
←			T
↙	10	10	L

Hudson St

	PM	AM
L		
T		
R		

	AM	PM
AM		220	10
PM		240	10
	L	T	R

	AM	PM
AM	230	290
PM	250	380
	IN	OUT

	2040	AM
IN	0	0
OUT	0	0

Sheffield Ave

CLASSIFICATION: ALL VEHICLES

SHEFFIELD AVE/HUDSON ST

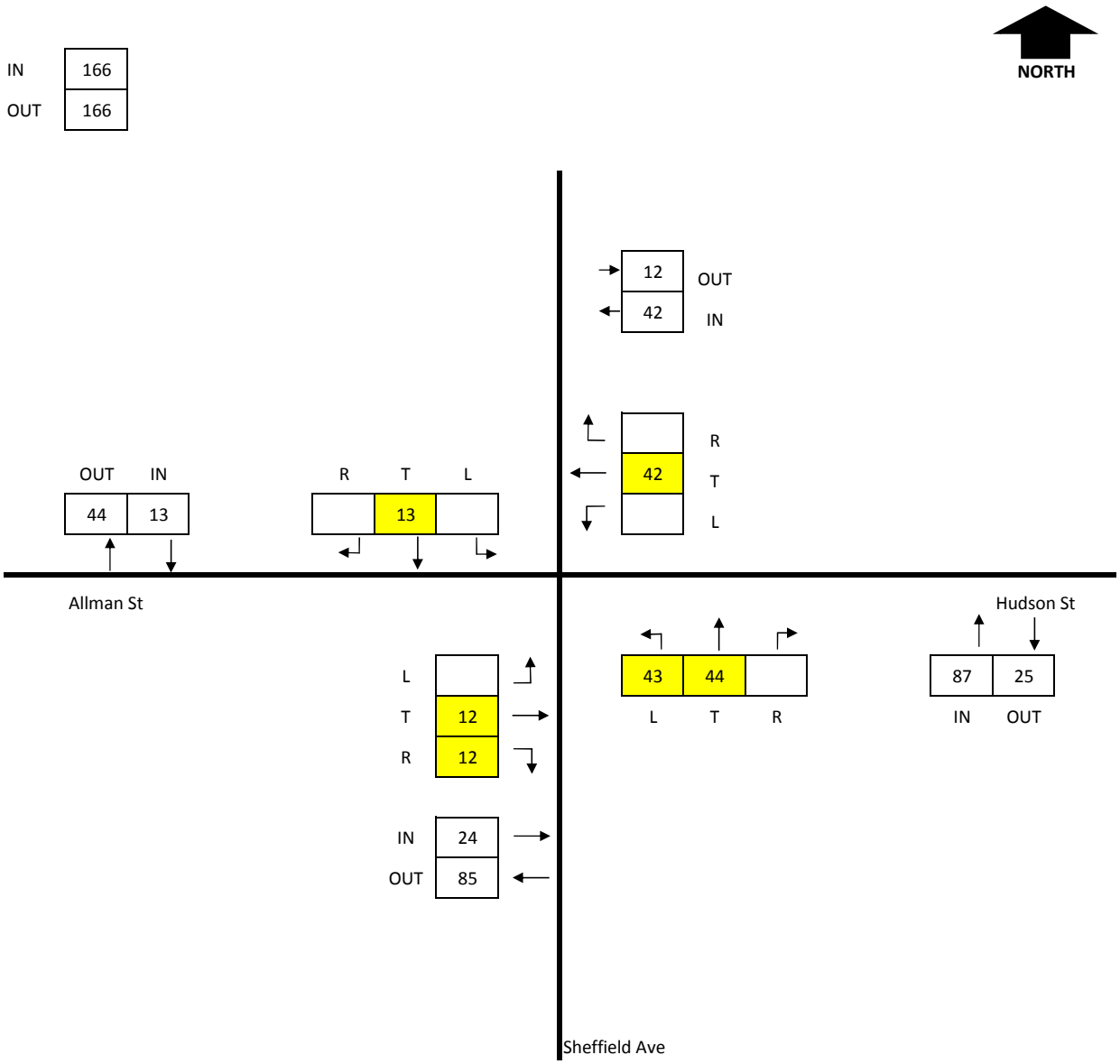
2022 PROJECTED TRAFFIC VOLUMES - BALANCED (AM/PM)

HAMMOND GATEWAY STATION

October 2017

TOTAL INTERSECTION

IN	166
OUT	166



CLASSIFICATION: ALL VEHICLES

SHEFFIELD AVE/HUDSON ST

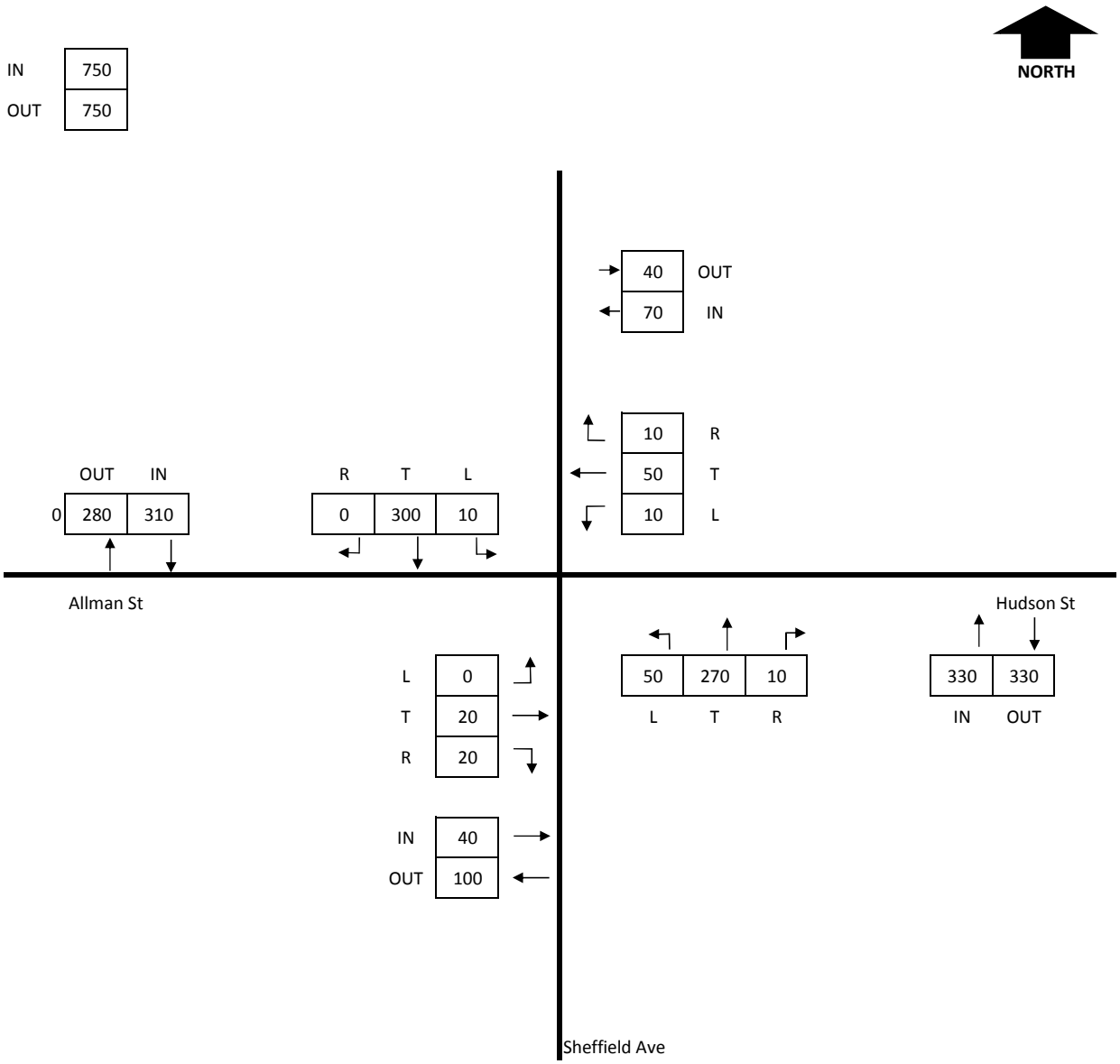
2022 SITE GENERATED TRIPS (AM)

HAMMOND GATEWAY STATION

October 2017

TOTAL INTERSECTION

IN	750
OUT	750



CLASSIFICATION: ALL VEHICLES

SHEFFIELD AVE/HUDSON ST

2022 BUILD TRAFFIC VOLUMES (AM)

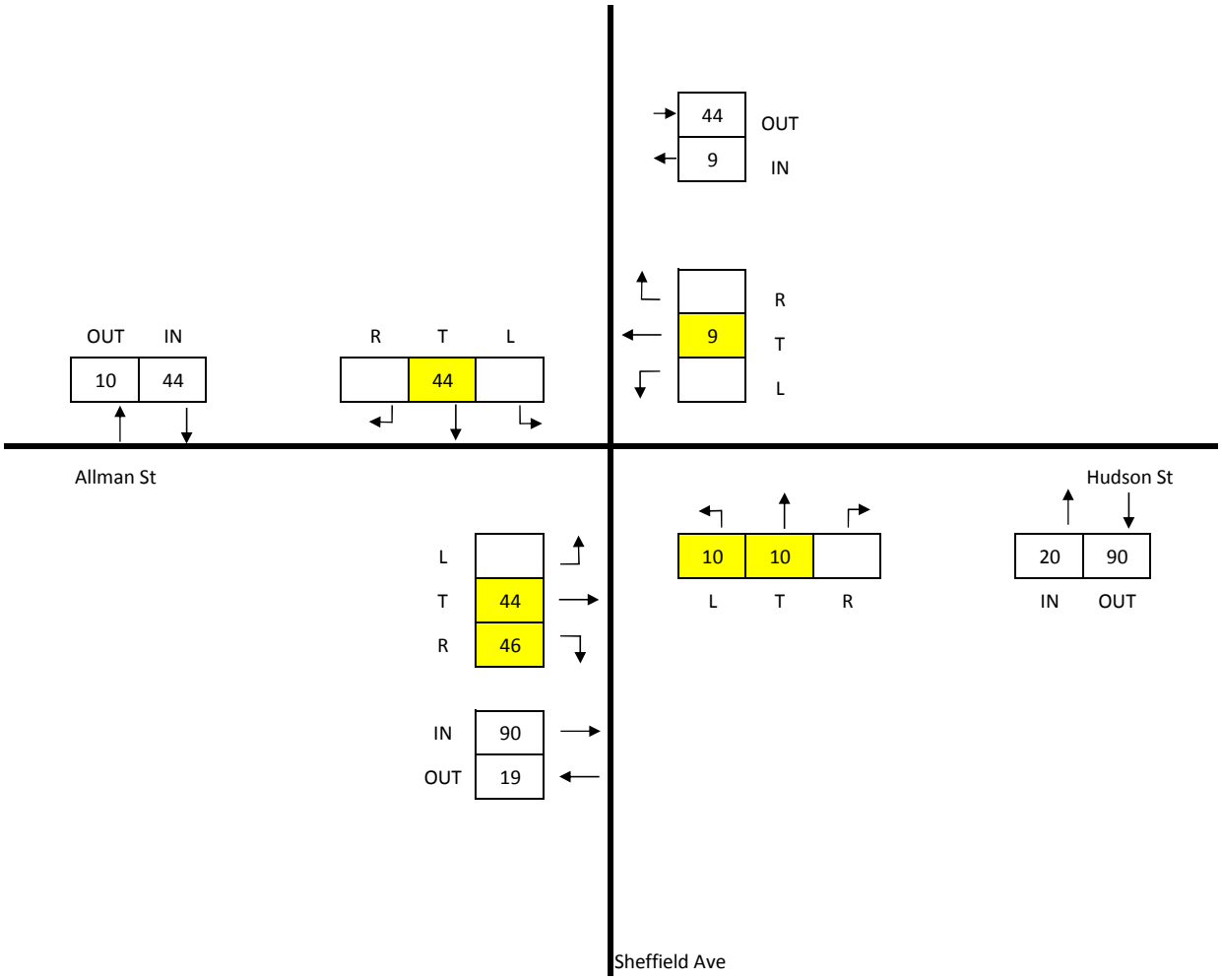
HAMMOND GATEWAY STATION

October 2017

TOTAL INTERSECTION

IN	163
OUT	163

NORTH



CLASSIFICATION: ALL VEHICLES

SHEFFIELD AVE/HUDSON ST

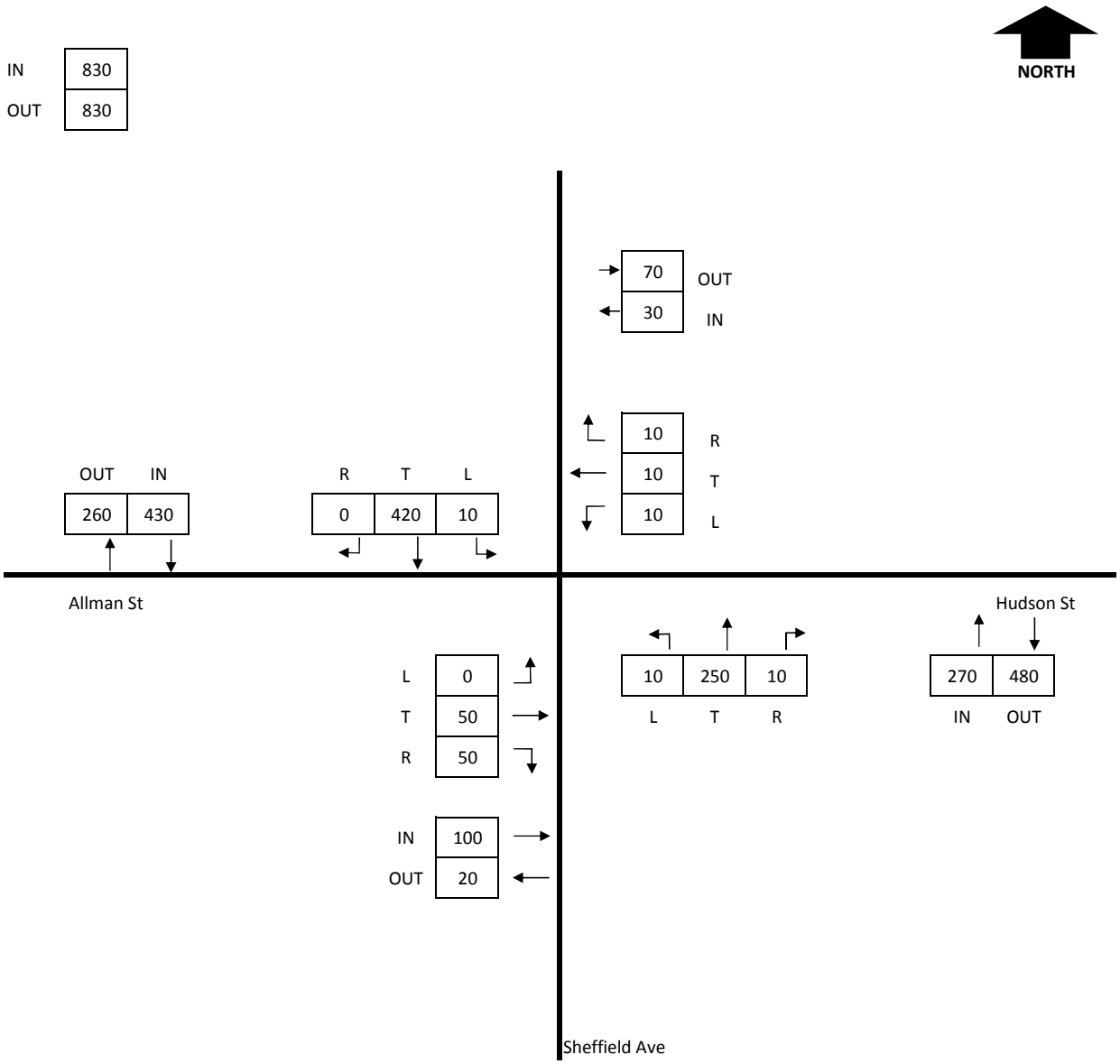
2022 SITE GENERATED TRIPS (PM)

HAMMOND GATEWAY STATION

October 2017

TOTAL INTERSECTION

IN	830
OUT	830



CLASSIFICATION: ALL VEHICLES

SHEFFIELD AVE/HUDSON ST

2022 BUILD TRAFFIC VOLUMES (PM)

HAMMOND GATEWAY STATION

October 2017

TOTAL INTERSECTION

	2017	2040
IN	213	260
OUT	213	260

NORTH

	2017	2040	
→	0	0	OUT
←	3	10	IN

	OUT	IN
2040	100	160
2017	76	137

	R	T	L
2040	0	160	0
2017	0	137	0

	2017	2040	
↰	3	10	R
←	0	0	T
↙	0	0	L

Hudson St

	2040	2017	
L	0	0	↰
T	0	0	→
R	0	0	↘

	2040	2017	
IN	0	0	→
OUT	0	0	←

	L	T	R
2017	0	73	0
2040	0	90	0

	2017	2040
IN	73	90
OUT	137	160

Sheffield Ave

CLASSIFICATION: ALL VEHICLES

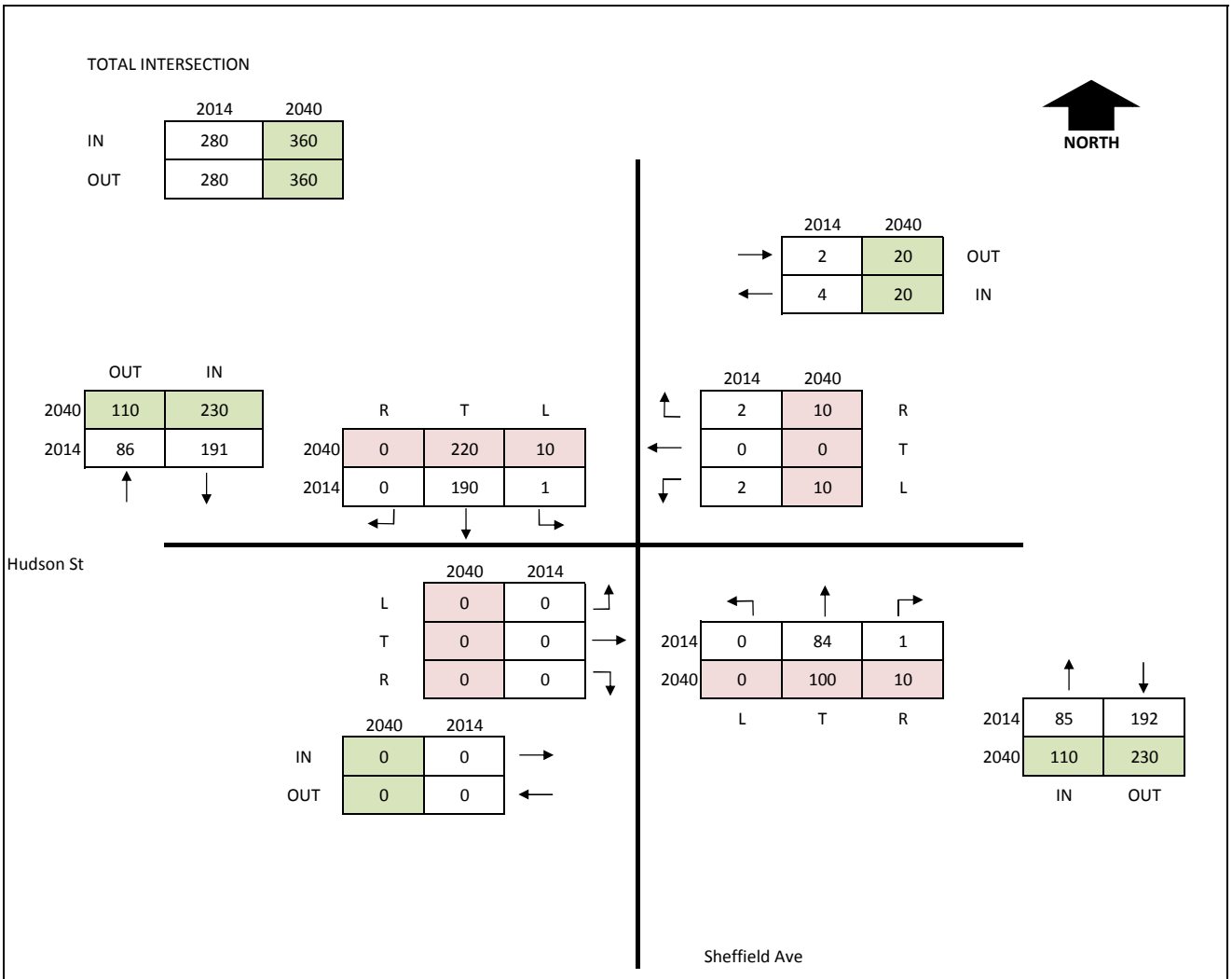
ANNUAL GROWTH RATE	
Northbound	0.5%
Southbound	0.5%
Eastbound	0.5%
Westbound	0.5%
Years to Escalate: 2040	23

SHEFFIELD AVE & HUDSON ST

2040 PROJECTED TRAFFIC VOLUMES (AM)

HAMMOND GATEWAY STATION

October 2017



CLASSIFICATION: ALL VEHICLES

ANNUAL GROWTH RATE	
Northbound	0.5%
Southbound	0.5%
Eastbound	0.5%
Westbound	0.5%
Years to Escalate: 2040	23

SHEFFIELD AVE & HUDSON ST

2040 PROJECTED TRAFFIC VOLUMES (PM)

HAMMOND GATEWAY STATION

October 2017

TOTAL INTERSECTION

	AM	PM
IN	630	750
OUT	630	750

	AM	PM	
→	20	20	OUT
←	20	20	IN

	OUT	IN
PM	290	440
AM	280	330

	R	T	L
PM		430	10
AM		320	10

	AM	PM	
↰	10	10	R
←			T
↙	10	10	L

Hudson St

	PM	AM
L		
T		
R		

	AM		
AM		270	10
PM		280	10
	L	T	R

	AM	PM
AM	280	330
PM	290	440
	IN	OUT

	2040	AM
IN	0	0
OUT	0	0

Sheffield Ave

CLASSIFICATION: ALL VEHICLES

SHEFFIELD AVE & HUDSON ST

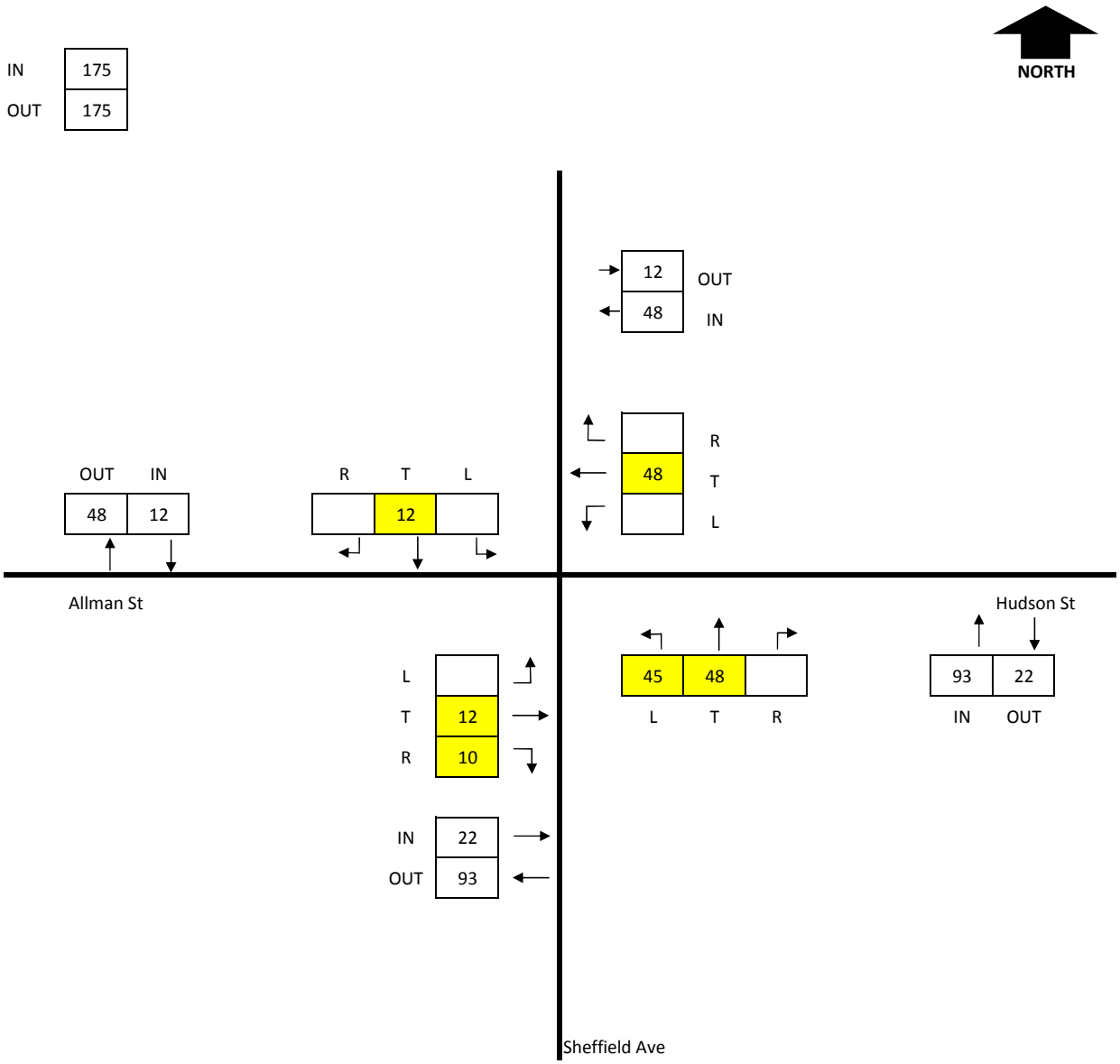
2040 PROJECTED TRAFFIC VOLUMES - BALANCED (AM/PM)

HAMMOND GATEWAY STATION

October 2017

TOTAL INTERSECTION

IN	175
OUT	175



CLASSIFICATION: ALL VEHICLES

SHEFFIELD AVE & ALLMAN ST/ HUDSON ST

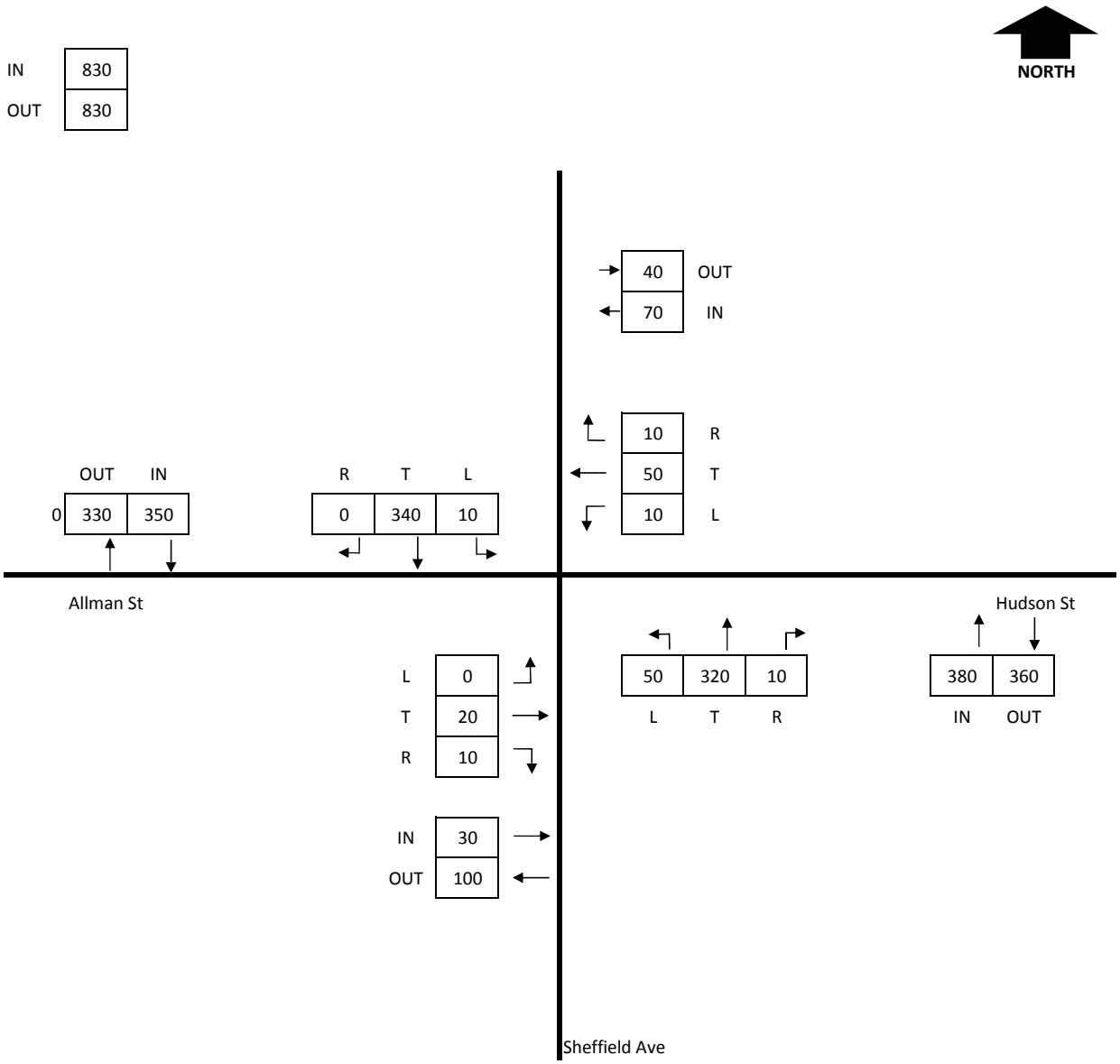
2040 SITE GENERATED TRIPS (AM)

HAMMOND GATEWAY STATION

October 2017

TOTAL INTERSECTION

IN	830
OUT	830



CLASSIFICATION: ALL VEHICLES

SHEFFIELD AVE & ALLMAN ST/ HUDSON ST

2040 BUILD TRAFFIC VOLUMES (AM)

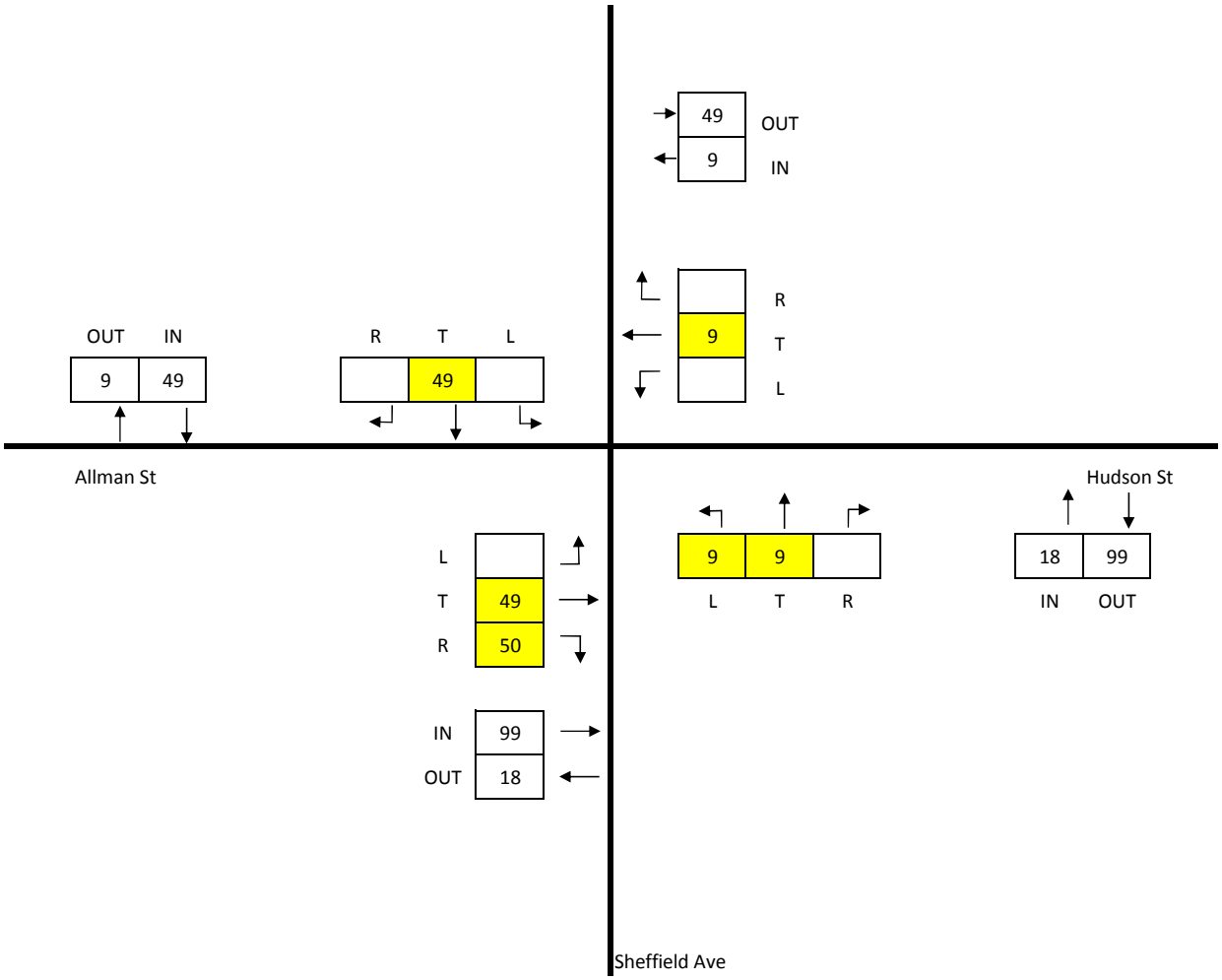
HAMMOND GATEWAY STATION

October 2017

TOTAL INTERSECTION

IN	175
OUT	175

NORTH



CLASSIFICATION: ALL VEHICLES

SHEFFIELD AVE & ALLMAN ST/ HUDSON ST

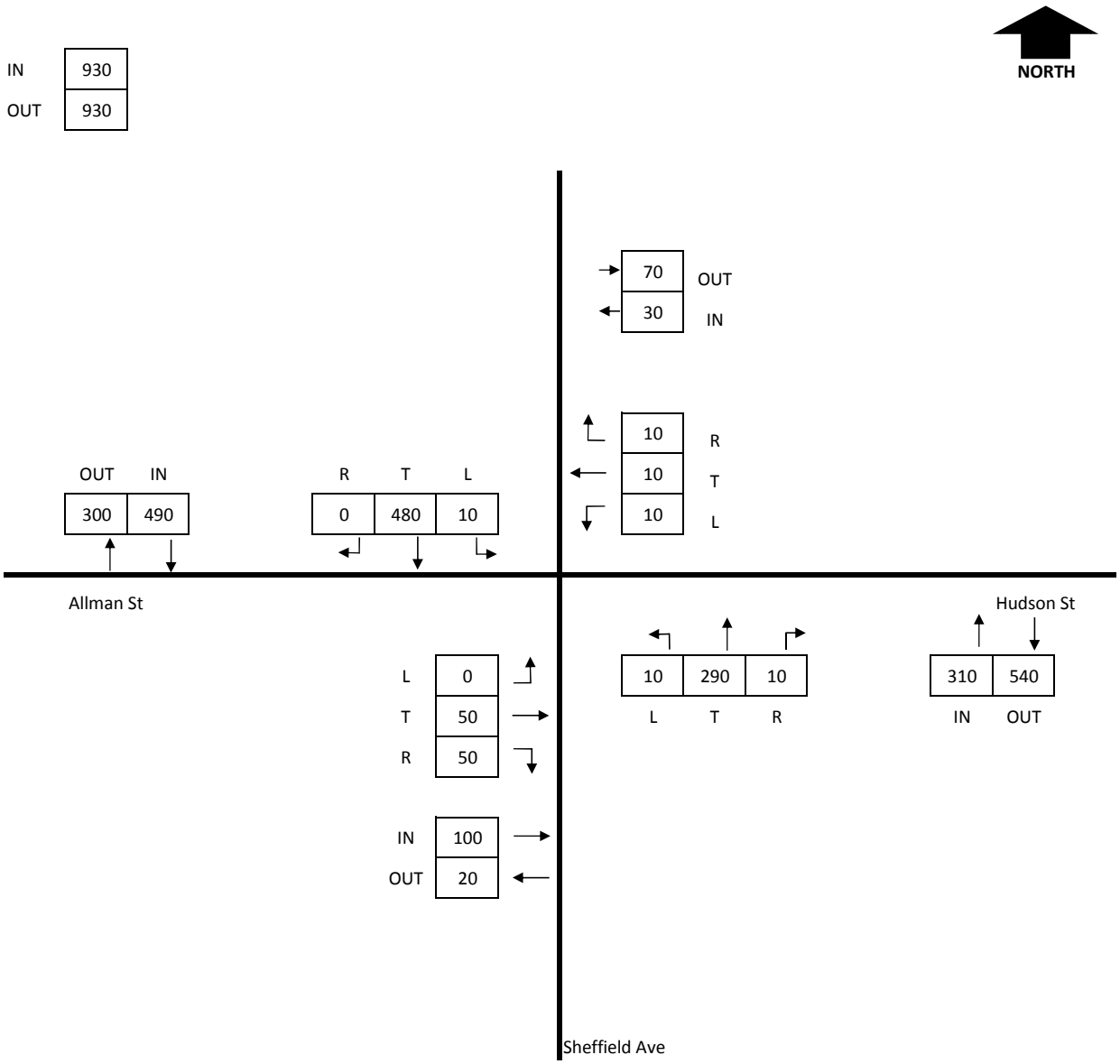
2040 SITE GENERATED TRIPS (PM)

HAMMOND GATEWAY STATION

October 2017

TOTAL INTERSECTION

IN	930
OUT	930



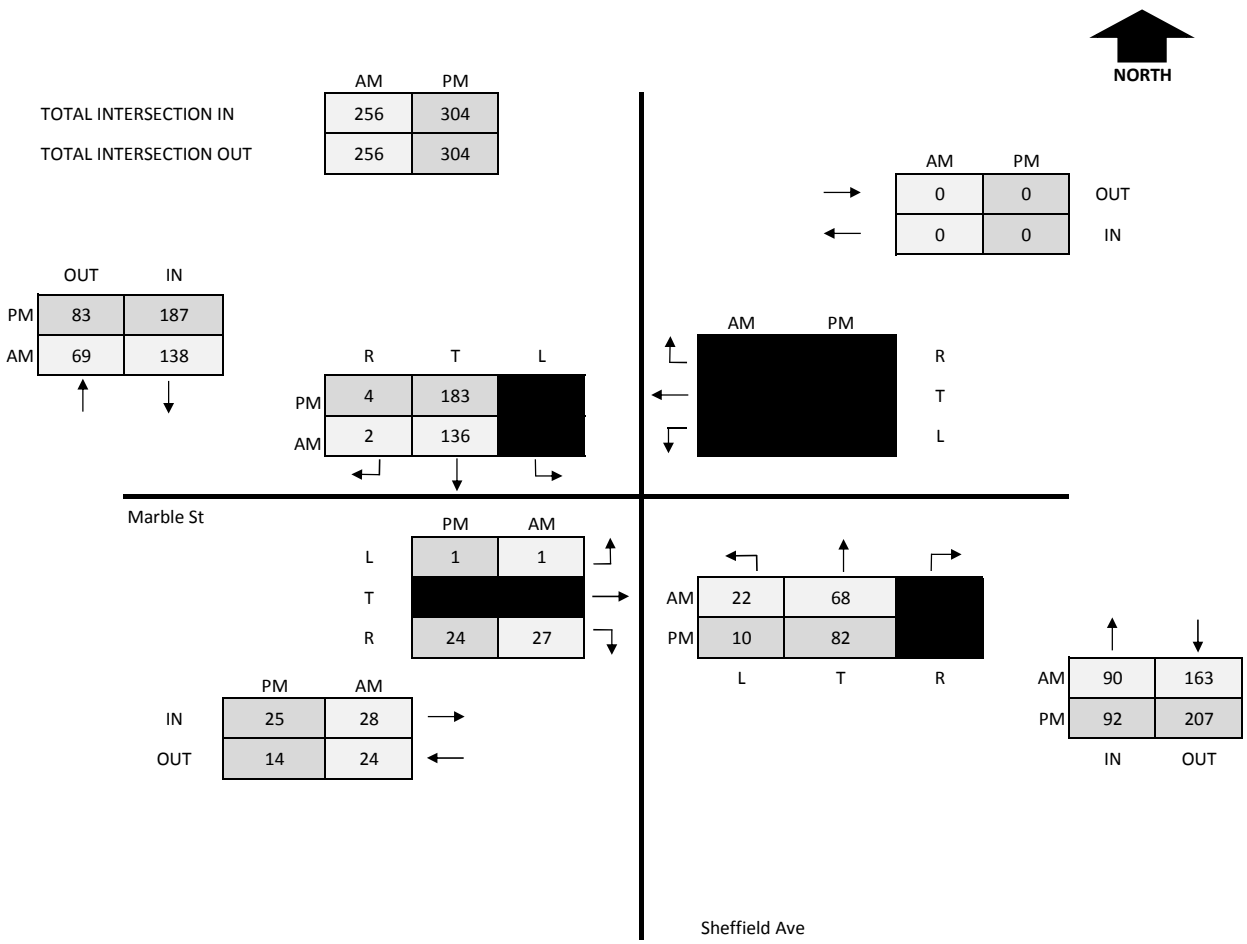
CLASSIFICATION: ALL VEHICLES

SHEFFIELD AVE & ALLMAN ST/ HUDSON ST

2040 BUILD TRAFFIC VOLUMES (PM)

HAMMOND GATEWAY STATION

October 2017



CLASSIFICATION: ALL VEHICLES

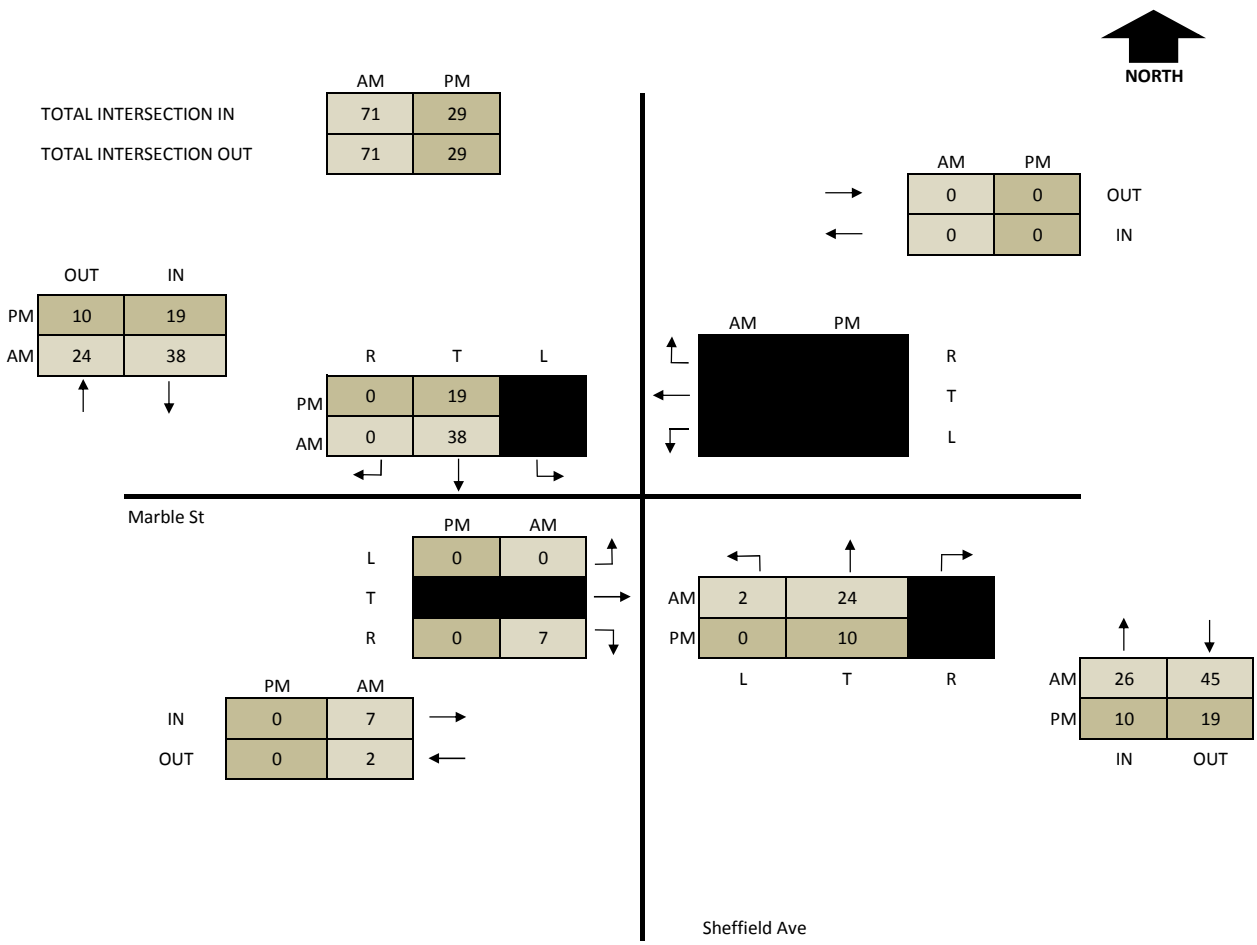
Traffic Counts from Quality Counts				
AM	4/4/2017	7:15 AM	to	8:15 AM
PM	4/4/2017	4:30 PM	to	5:30 PM

SHEFFIELD AVE & MARBLE ST

EXISTING TRAFFIC VOLUMES (2017)

HAMMOND GATEWAY STATION

October 2017



CLASSIFICATION: TRUCKS

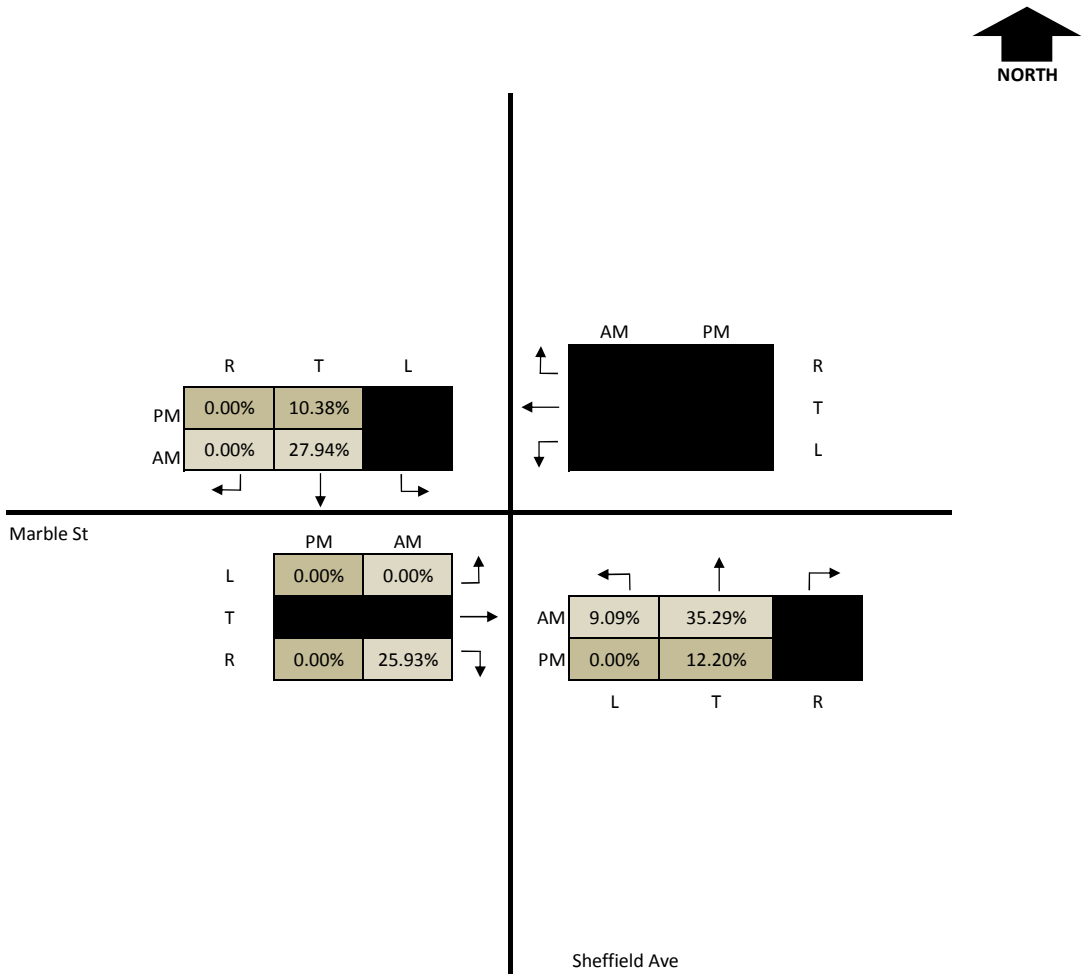
Traffic Counts from Quality Counts				
AM	4/4/2017	7:15 AM	to	8:15 AM
PM	4/4/2017	4:30 PM	to	5:30 PM

SHEFFIELD AVE & MARBLE ST

EXISTING TRAFFIC VOLUMES (2017)

HAMMOND GATEWAY STATION

October 2017



CLASSIFICATION: TRUCKS

Traffic Counts from Quality Counts				
AM	4/4/2017	7:15 AM	to	8:15 AM
PM	4/4/2017	4:30 PM	to	5:30 PM

SHEFFIELD AVE & MARBLE ST

EXISTING TRAFFIC VOLUMES (2017)

HAMMOND GATEWAY STATION

October 2017

TOTAL INTERSECTION

	2017	2022
IN	256	290
OUT	256	290

NORTH

	2017	2022	
→	0	0	OUT
←	0	0	IN

	OUT	IN
2022	80	150
2017	69	138

	R	T	L
2022	10	140	0
2017	2	136	0

	2017	2022	
↰	0	0	R
←	0	0	T
↲	0	0	L

Marble St

	2022	2017	
L	10	1	↑
T	0	0	→
R	30	27	↓

	2022	2017	
IN	40	28	→
OUT	40	24	←

	L	T	R
2017	22	68	0
2022	30	70	0

	2017	2022
↑	90	100
↓	163	170
	IN	OUT

Sheffield Ave

CLASSIFICATION: ALL VEHICLES

ANNUAL GROWTH RATE	
Northbound	0.5%
Southbound	0.5%
Eastbound	0.5%
Westbound	0.5%
Years to Escalate: 2022	5

SHEFFIELD AVE & MARBLE ST

2022 PROJECTED TRAFFIC VOLUMES (AM)

HAMMOND GATEWAY STATION

October 2017

TOTAL INTERSECTION

	2017	2022
IN	304	350
OUT	304	350

	2017	2022	
→	0	0	OUT
←	0	0	IN

	OUT	IN
2022	100	200
2017	83	187

	R	T	L
2022	10	190	0
2017	4	183	0

	2017	2022	
↰	0	0	R
←	0	0	T
↙	0	0	L

Marble St

	2022	2017	
L	10	1	↰
T	0	0	→
R	30	24	↘

	L	T	R
2017	10	82	0
2022	20	90	0

	2022	2017	
IN	40	25	→
OUT	30	14	←

	IN	OUT
2017	92	207
2022	110	220

Sheffield Ave

CLASSIFICATION: ALL VEHICLES

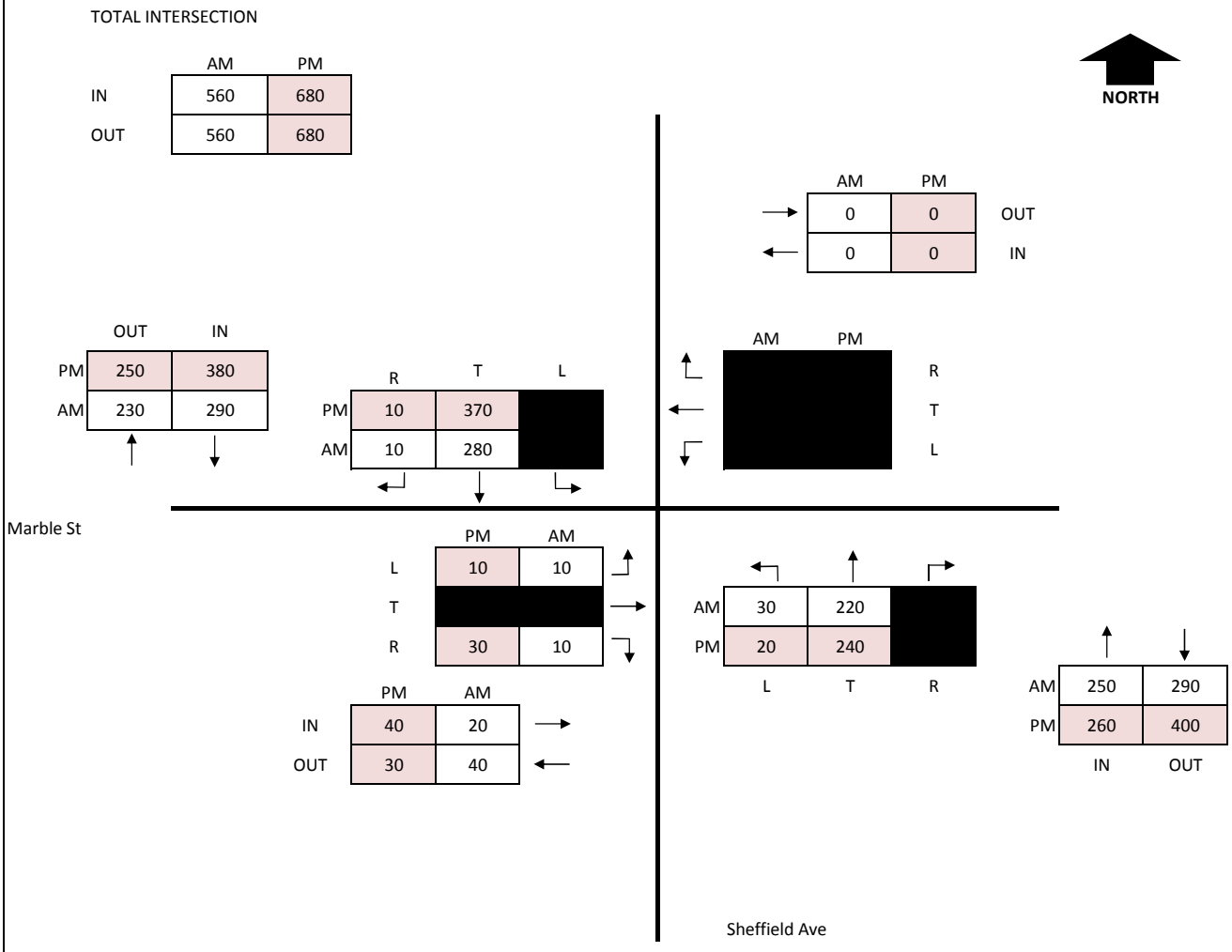
ANNUAL GROWTH RATE	
Northbound	0.5%
Southbound	0.5%
Eastbound	0.5%
Westbound	0.5%
Years to Escalate: 2022	5

SHEFFIELD AVE & MARBLE ST

2022 PROJECTED TRAFFIC VOLUMES (PM)

HAMMOND GATEWAY STATION

October 2017



CLASSIFICATION: ALL VEHICLES

NICTD

SHEFFIELD AVE & MARBLE ST

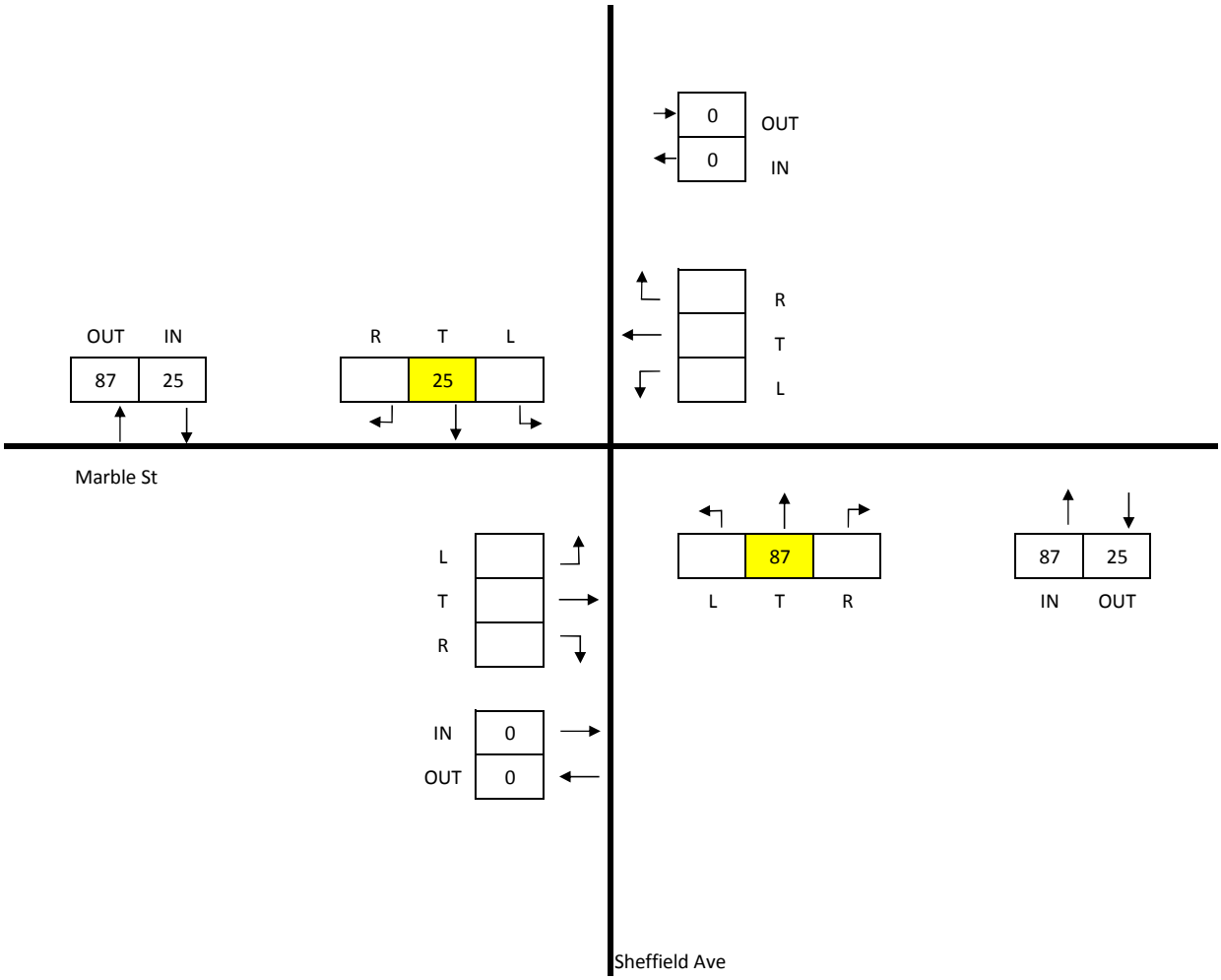
2022 PROJECTED TRAFFIC VOLUMES - BALANCED (AM/PM))

HAMMOND GATEWAY STATION

October 2017

TOTAL INTERSECTION

IN	112
OUT	112



CLASSIFICATION: ALL VEHICLES

SHEFFIELD AVE & MARBLE ST

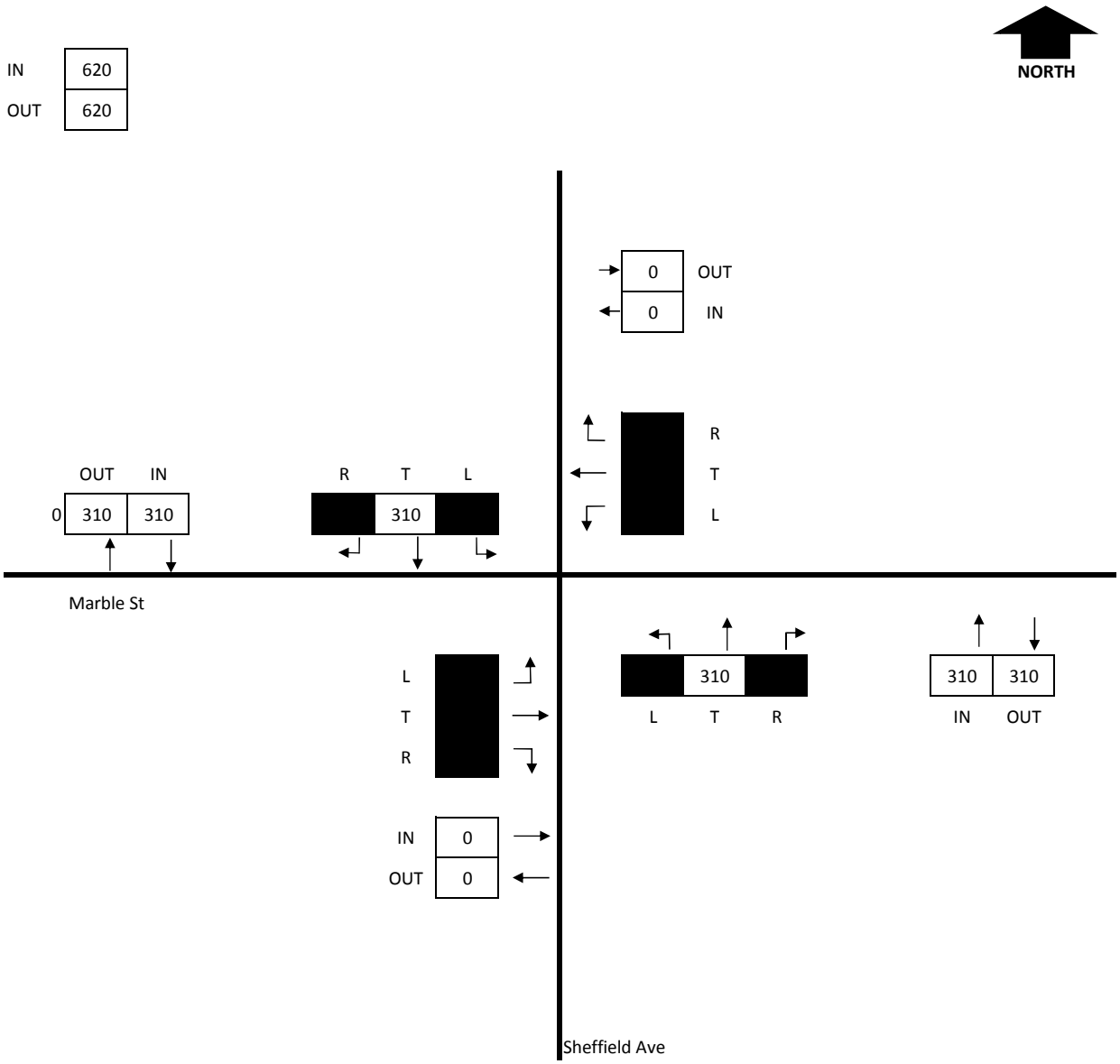
2022 SITE GENERATED TRIPS (AM)

HAMMOND GATEWAY STATION

October 2017

TOTAL INTERSECTION

IN	620
OUT	620



CLASSIFICATION: ALL VEHICLES

SHEFFIELD AVE & MARBLE ST

2022 BUILD TRAFFIC VOLUMES (AM)

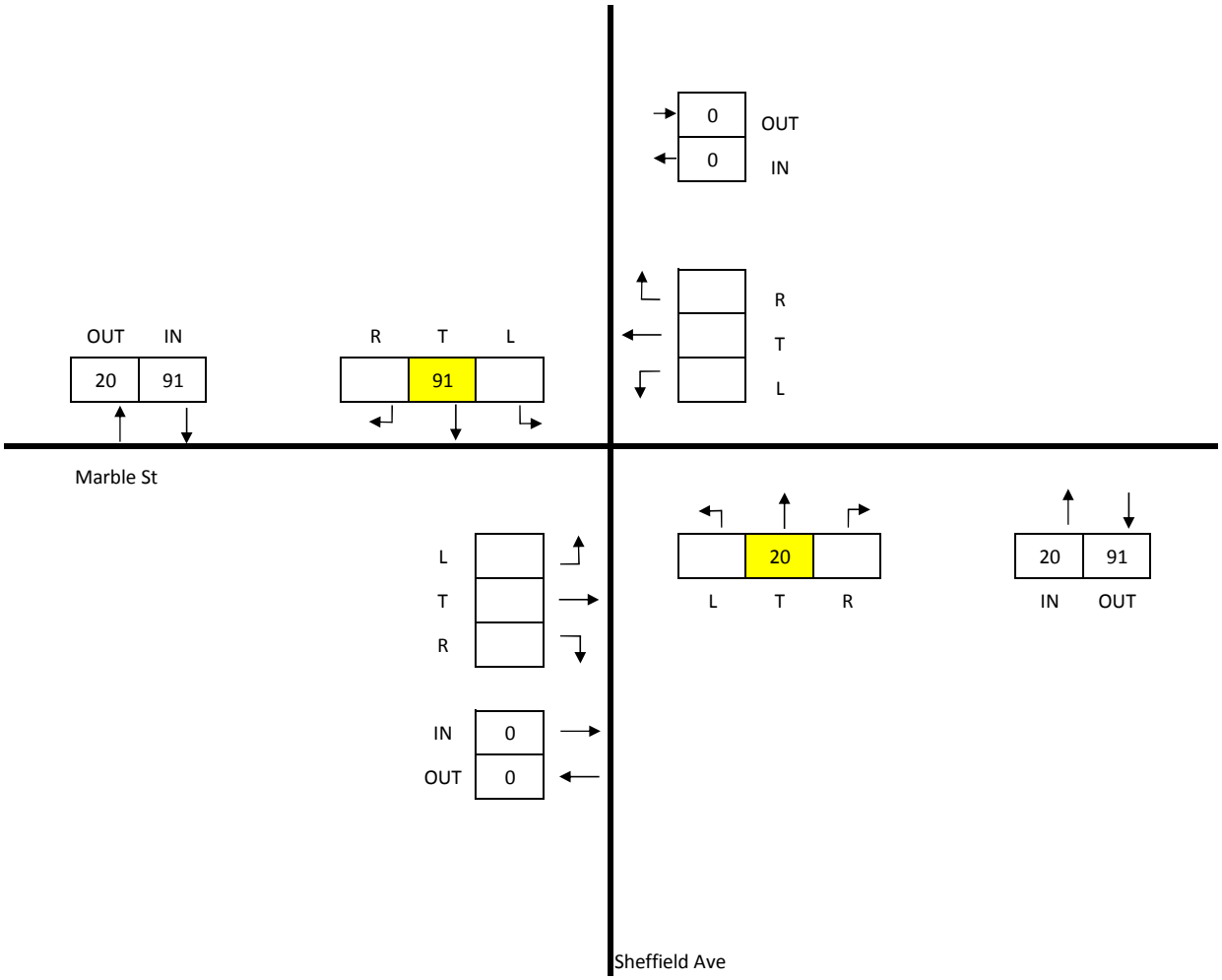
HAMMOND GATEWAY STATION

October 2017

TOTAL INTERSECTION

IN	111
OUT	111

NORTH



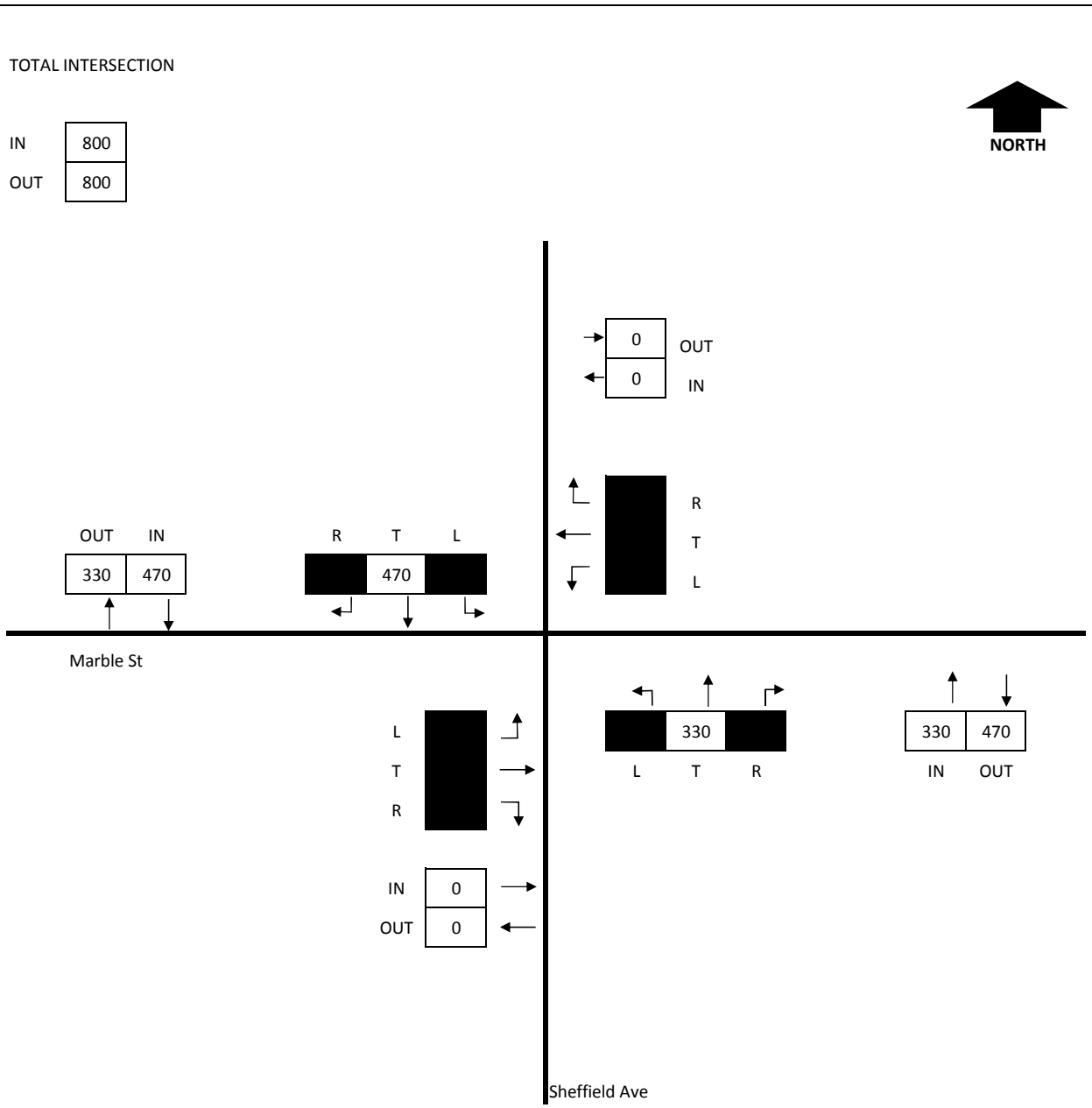
CLASSIFICATION: ALL VEHICLES

SHEFFIELD AVE & MARBLE ST

2022 SITE GENERATED TRIPS (PM)

HAMMOND GATEWAY STATION

October 2017



CLASSIFICATION: ALL VEHICLES

SHEFFIELD AVE & MARBLE ST

2022 BUILD TRAFFIC VOLUMES (PM)

HAMMOND GATEWAY STATION

October 2017

TOTAL INTERSECTION

	2017	2040
IN	256	330
OUT	256	330

NORTH

	2017	2040	
→	0	0	OUT
←	0	0	IN

	OUT	IN
2040	90	170
2017	69	138

	R	T	L
2040	10	160	0
2017	2	136	0

	2017	2040	
↰	0	0	R
←	0	0	T
↲	0	0	L

Marble St

	2040	2017	
L	10	1	↑
T	0	0	→
R	40	27	↓

	2040	2017
IN	50	28
OUT	40	24

	↰	↑	↱
2017	22	68	0
2040	30	80	0
	L	T	R

	↑	↓
2017	90	163
2040	110	200
	IN	OUT

Sheffield Ave

CLASSIFICATION: ALL VEHICLES

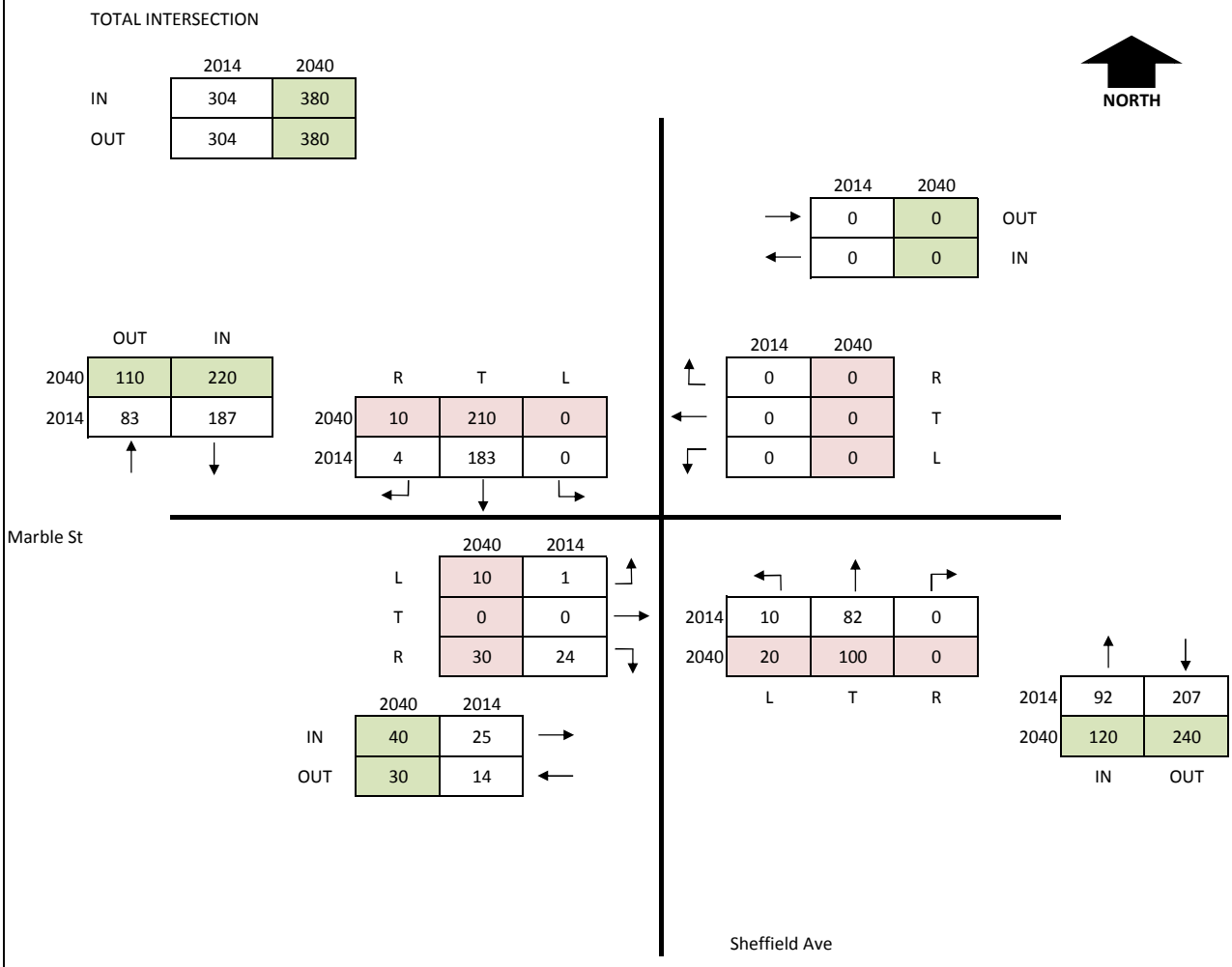
ANNUAL GROWTH RATE	
Northbound	0.5%
Southbound	0.5%
Eastbound	0.5%
Westbound	0.5%
Years to Escalate: 2040	23

SHEFFIELD AVE & MARBLE ST

2040 PROJECTED TRAFFIC VOLUMES (AM)

HAMMOND GATEWAY STATION

October 2017



CLASSIFICATION: ALL VEHICLES

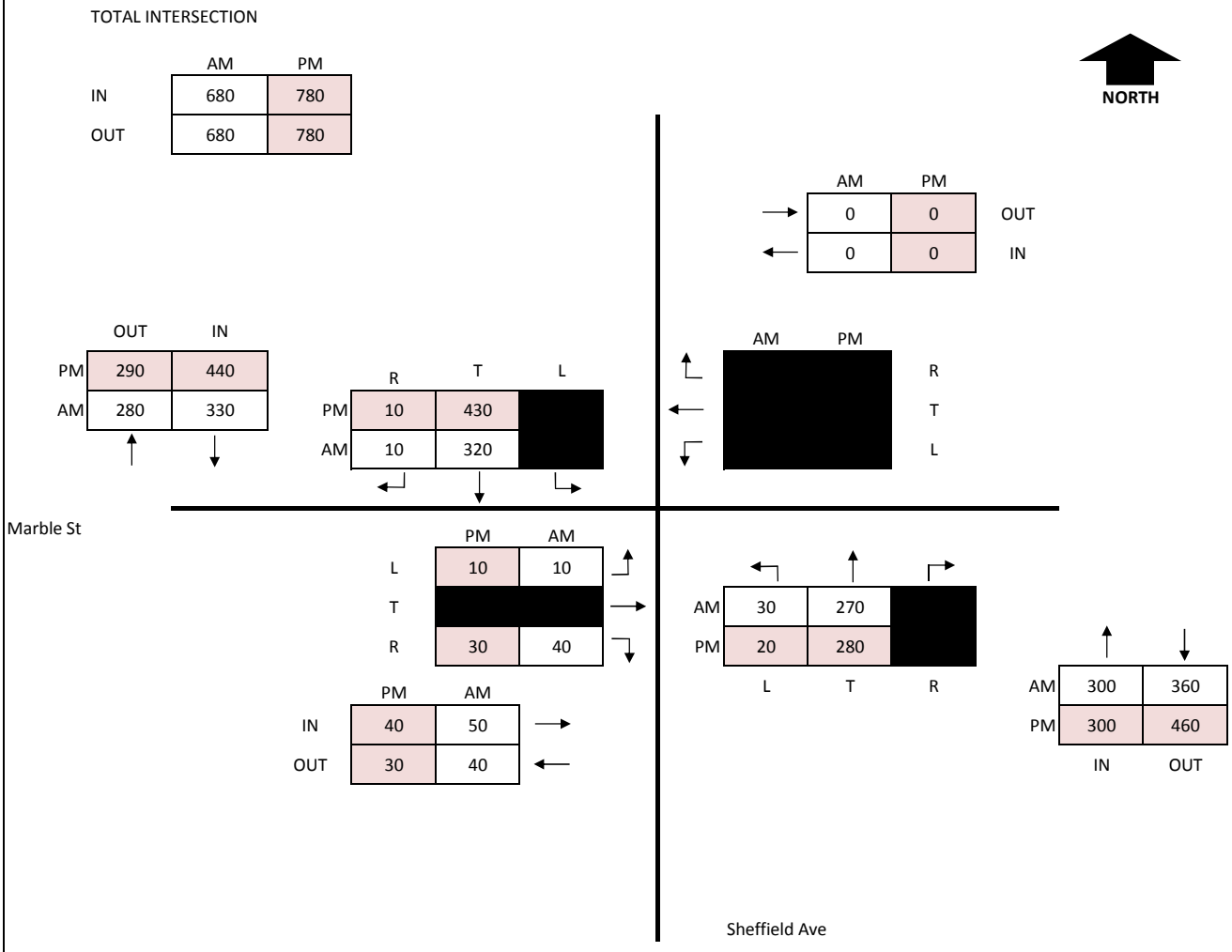
ANNUAL GROWTH RATE	
Northbound	0.5%
Southbound	0.5%
Eastbound	0.5%
Westbound	0.5%
Years to Escalate: 2040	23

SHEFFIELD AVE & MARBLE ST

2040 PROJECTED TRAFFIC VOLUMES (PM)

HAMMOND GATEWAY STATION

October 2017



CLASSIFICATION: ALL VEHICLES

NICTD

SHEFFIELD AVE & MARBLE ST

2040 PROJECTED TRAFFIC VOLUMES - BALANCED (AM/PM)

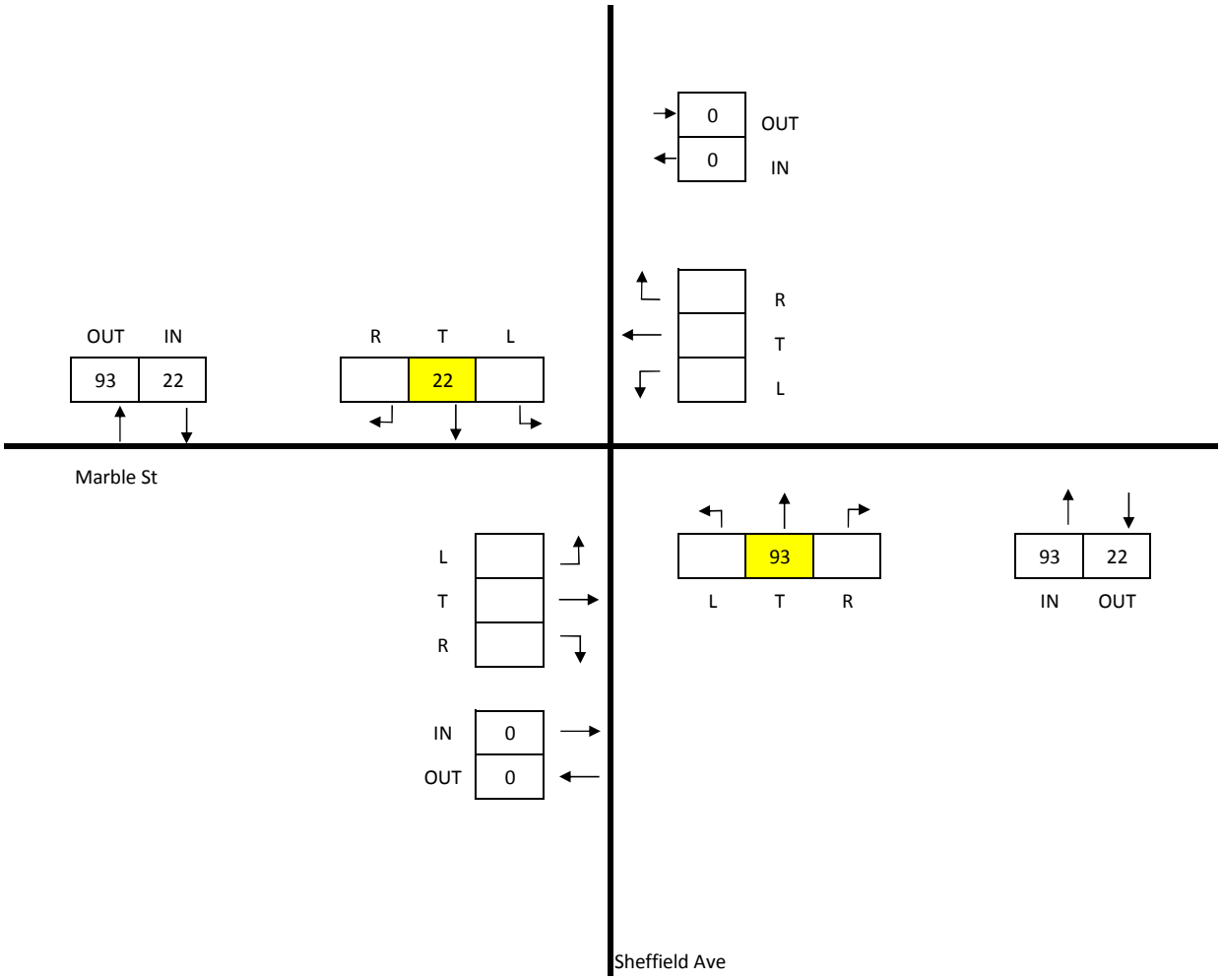
HAMMOND GATEWAY STATION

October 2017

TOTAL INTERSECTION

IN	115
OUT	115

NORTH



CLASSIFICATION: ALL VEHICLES

SHEFFIELD AVE & MARBLE ST

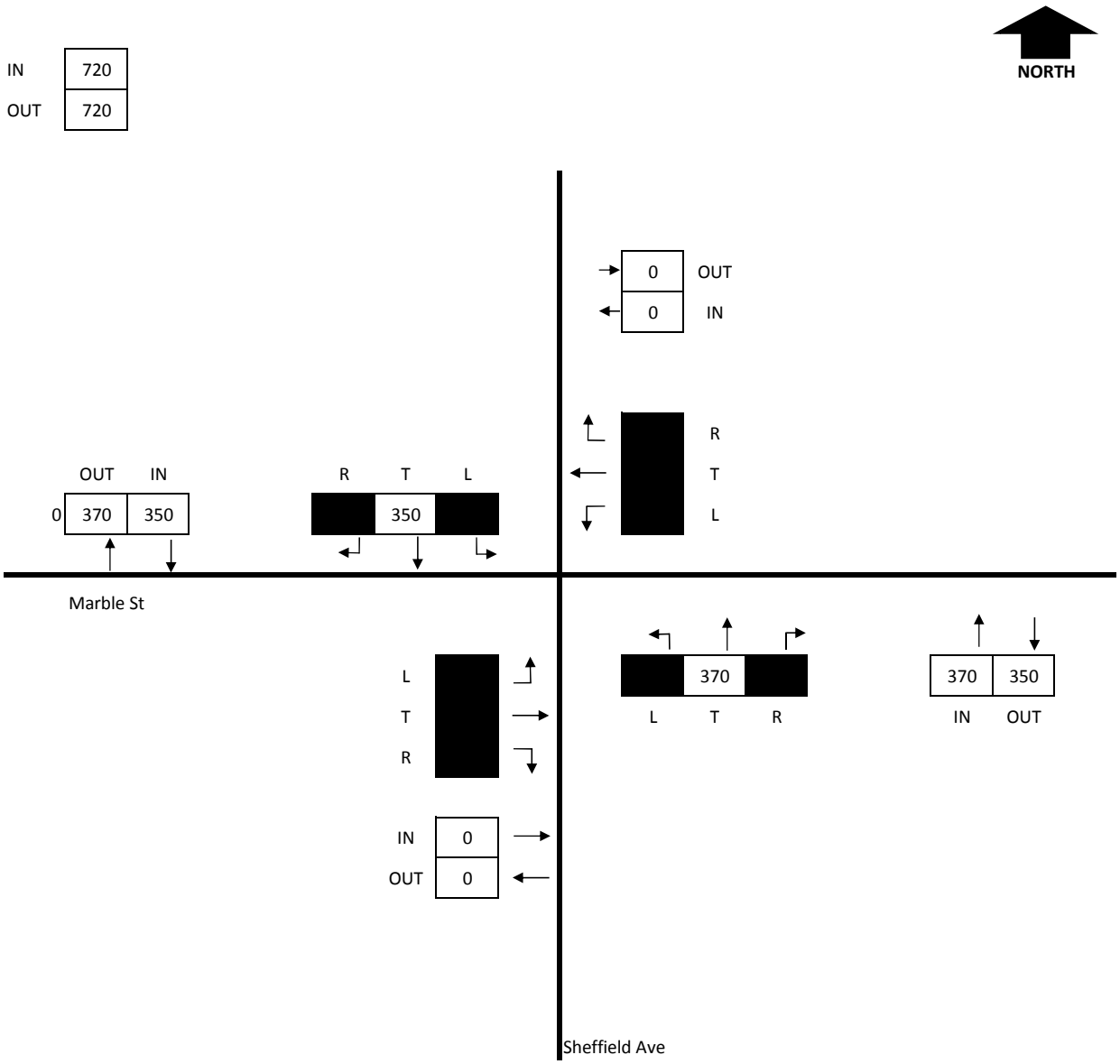
2040 SITE GENERATED TRIPS (AM)

HAMMOND GATEWAY STATION

October 2017

TOTAL INTERSECTION

IN	720
OUT	720



CLASSIFICATION: ALL VEHICLES

SHEFFIELD AVE & MARBLE ST

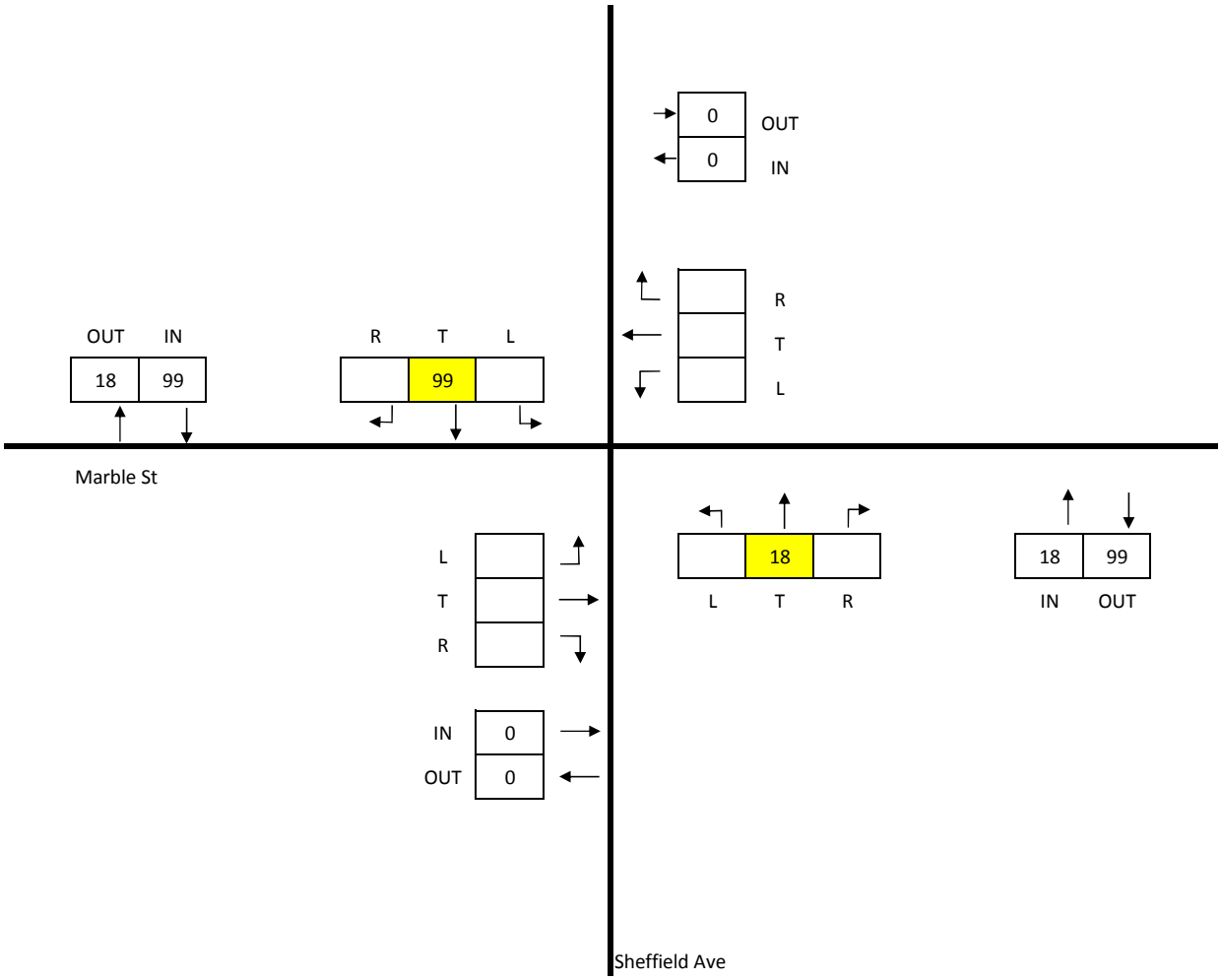
2040 BUILD TRAFFIC VOLUMES (AM)

HAMMOND GATEWAY STATION

October 2017

TOTAL INTERSECTION

IN	117
OUT	117



CLASSIFICATION: ALL VEHICLES

SHEFFIELD AVE & MARBLE ST

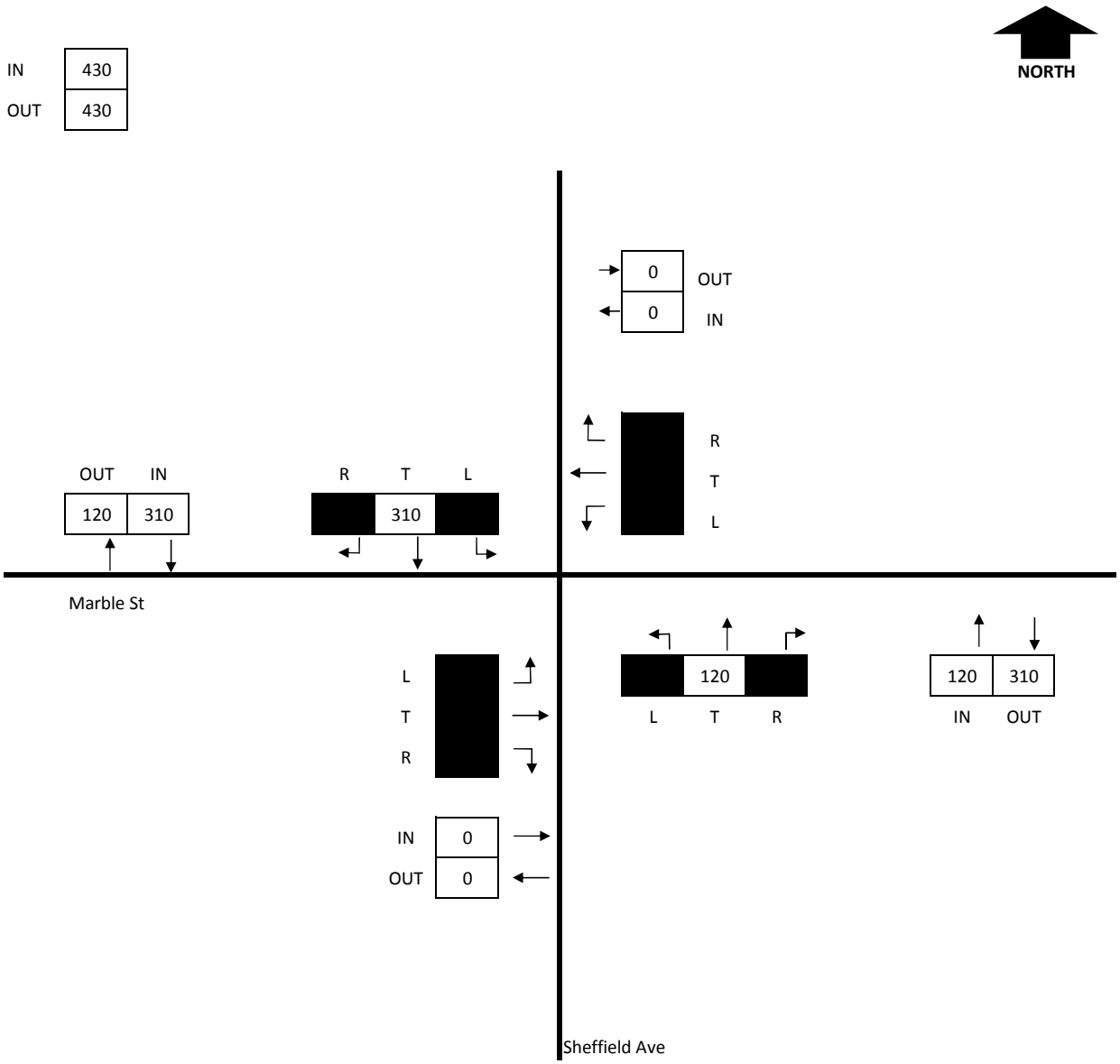
2040 SITE GENERATED TRIPS (PM)

HAMMOND GATEWAY STATION

October 2017

TOTAL INTERSECTION

IN	430
OUT	430



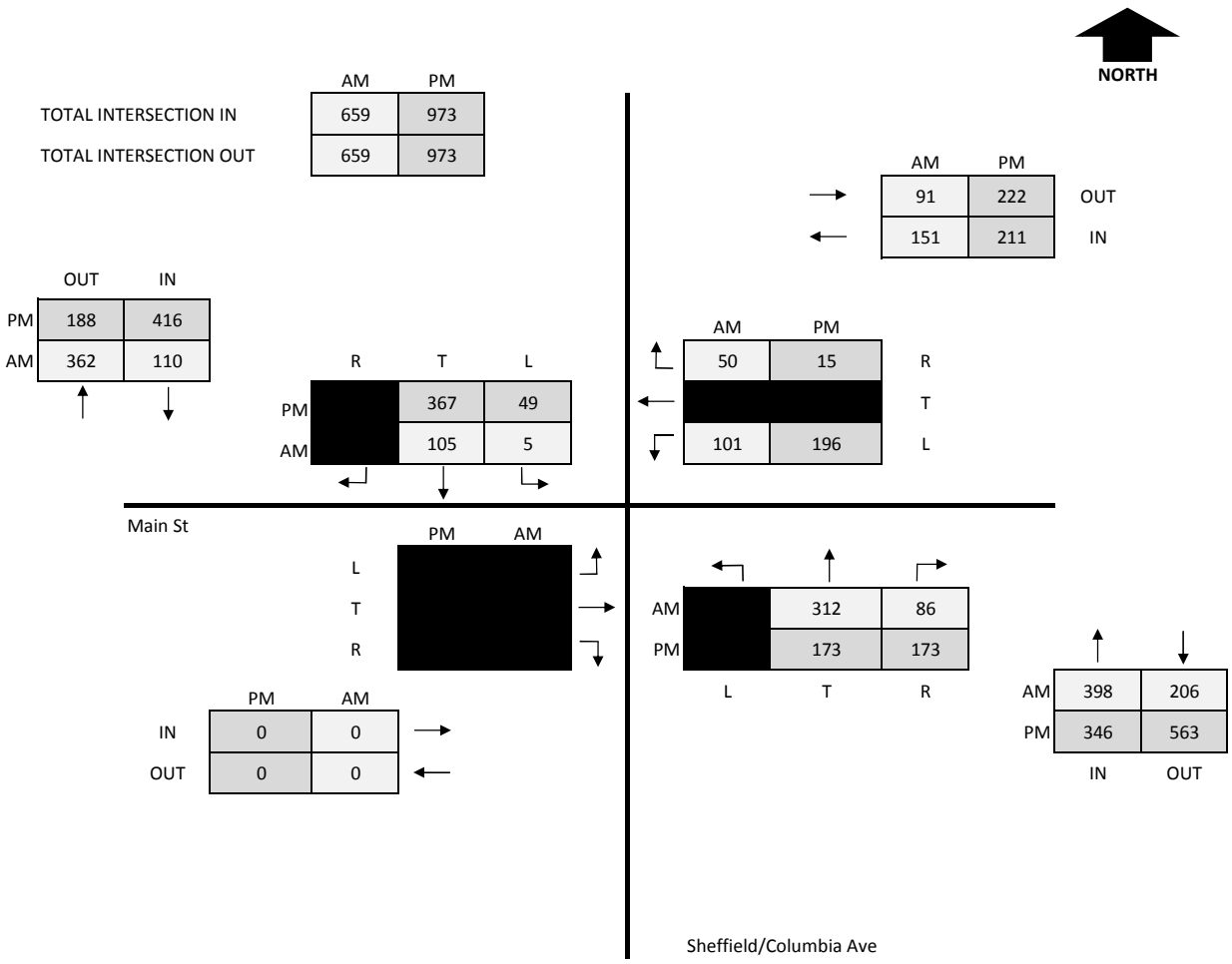
CLASSIFICATION: ALL VEHICLES

SHEFFIELD AVE & MARBLE ST

2040 BUILD TRAFFIC VOLUMES (PM)

HAMMOND GATEWAY STATION

October 2017



CLASSIFICATION: ALL VEHICLES

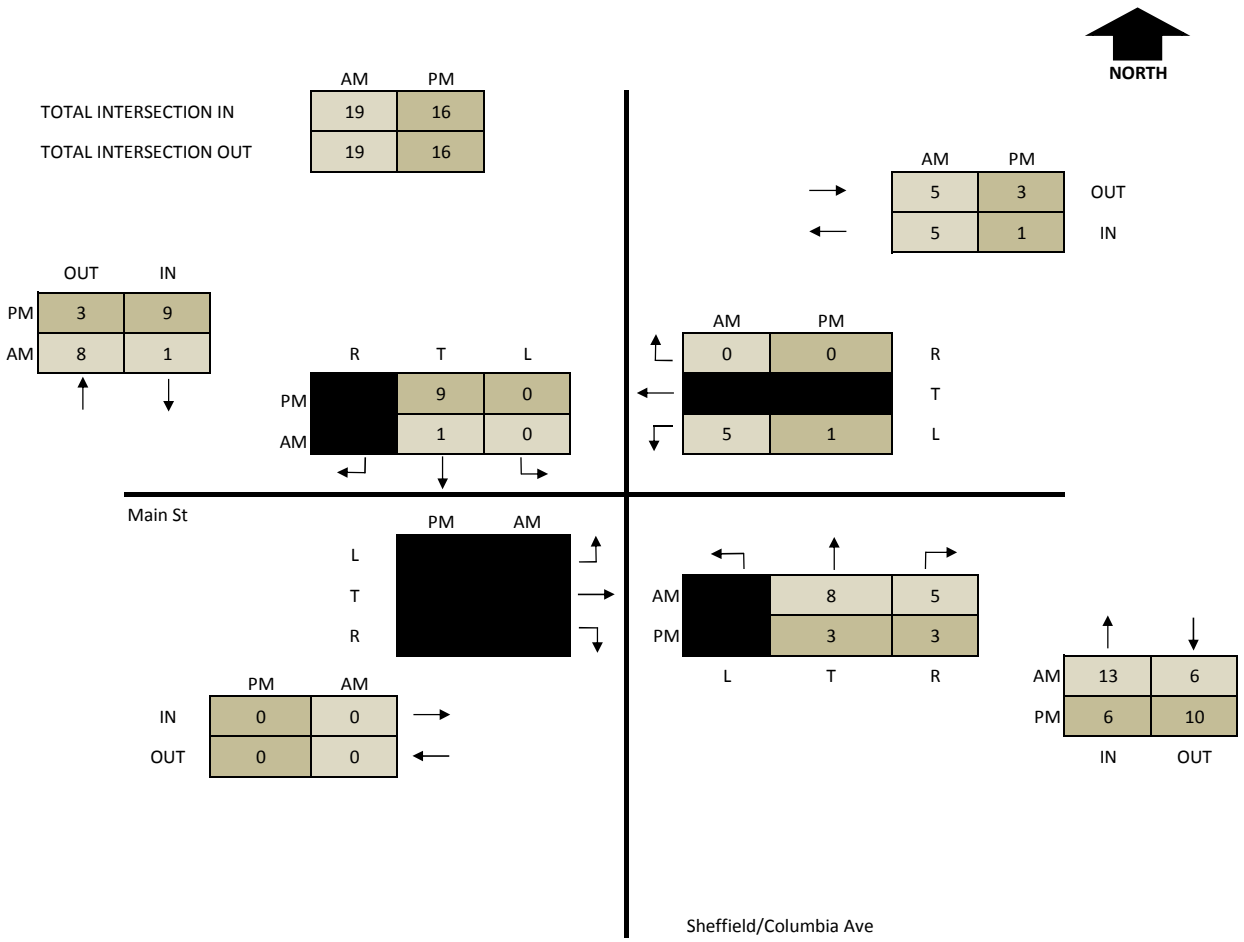
Traffic Counts from Quality Counts				
AM	11/4/2014	7:15 AM	to	8:15 AM
PM	11/4/2014	4:30 PM	to	5:30 PM

SHEFFIELD/COLUMBIA AVE & MAIN ST

EXISTING TRAFFIC VOLUMES (2014)

MUNSTER/DYER MAIN STREET STATION

October 2017



CLASSIFICATION: TRUCKS

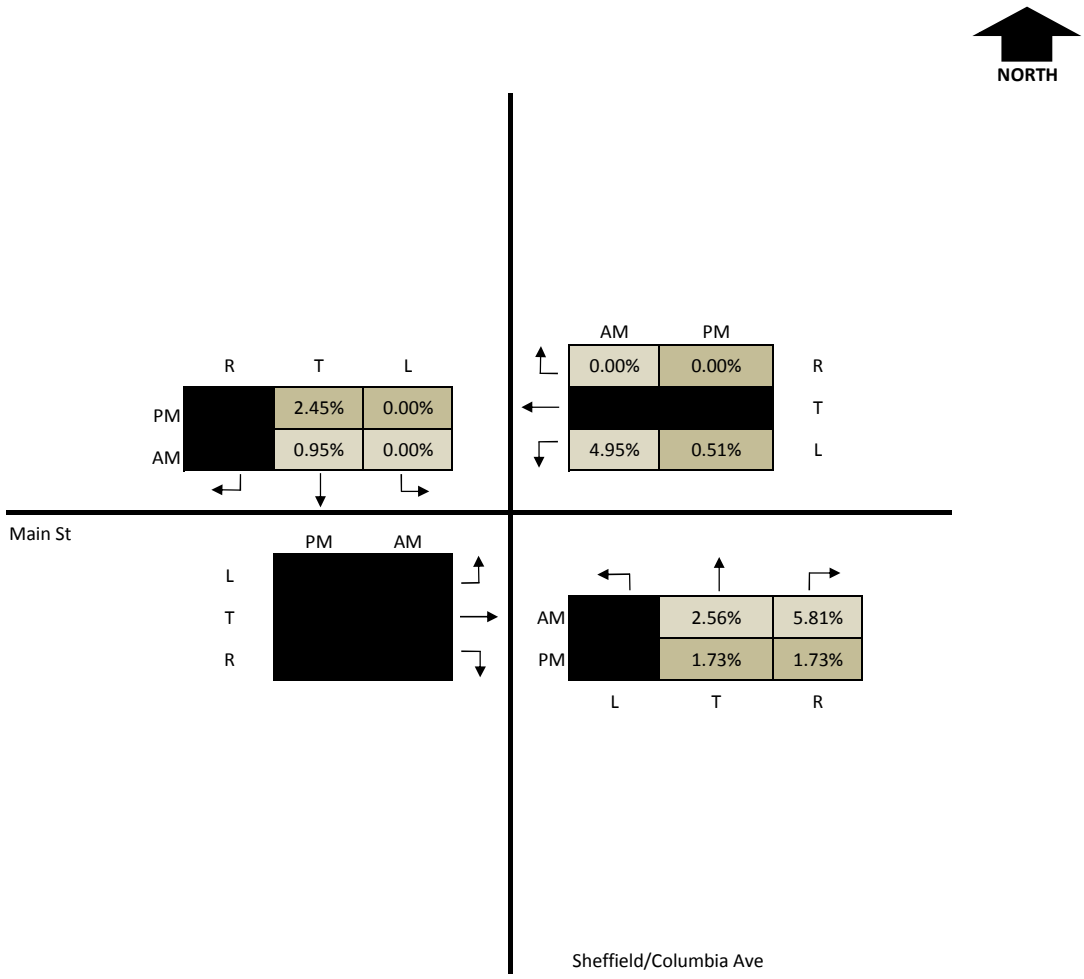
Traffic Counts from Quality Counts				
AM	11/4/2014	7:15 AM	to	8:15 AM
PM	11/4/2014	4:30 PM	to	5:30 PM

SHEFFIELD/COLUMBIA AVE & MAIN ST

EXISTING TRAFFIC VOLUMES (2014)

MUNSTER/DYER MAIN STREET STATION

October 2017



CLASSIFICATION: TRUCKS

Traffic Counts from Quality Counts				
AM	11/4/2014	7:15 AM	to	8:15 AM
PM	11/4/2014	4:30 PM	to	5:30 PM

SHEFFIELD/COLUMBIA AVE & MAIN ST

EXISTING TRAFFIC VOLUMES (2014)

MUNSTER/DYER MAIN STREET STATION

October 2017

TOTAL INTERSECTION

	2014	2022
IN	659	780
OUT	659	780

NORTH

	2014	2022	
→	91	110	OUT
←	151	180	IN

	OUT	IN
2022	410	150
2014	362	110

	R	T	L
2022		140	10
2014		105	5

	2014	2022	
↰	50	60	R
←			T
↙	101	120	L

Main St

	2022	2014
L		
T		
R		

	2015	2014
IN	0	0
OUT	0	0

2014		312	86
2022		350	100
	L	T	R

	2014	2022
IN	398	450
OUT	206	260

Sheffield/Columbia Ave

CLASSIFICATION: ALL VEHICLES

ANNUAL GROWTH RATE	
Northbound	1.5%
Southbound	3.5%
Eastbound	-
Westbound	1.9%
Years to Escalate: 2022	8

SHEFFIELD/COLUMBIA AVE & MAIN ST

2022 PROJECTED TRAFFIC VOLUMES (AM)

MUNSTER/DYER MAIN STREET STATION

October 2017

TOTAL INTERSECTION

	2014	2022
IN	973	1190
OUT	973	1190

	2014	2022	
→	222	270	OUT
←	211	250	IN

	OUT	IN
2022	220	540
2014	188	416

	R	T	L
2022		470	70
2014		367	49

	2014	2022	
↰	15	20	R
←			T
↙	196	230	L

Main St

	2022	2014
L		
T		
R		

	2014	2022
IN	0	0
OUT	0	0

2014		173	173
2022		200	200
	L	T	R

	2014	2022
IN	346	400
OUT	563	700

Sheffield/Columbia Ave

CLASSIFICATION: ALL VEHICLES

ANNUAL GROWTH RATE	
Northbound	1.5%
Southbound	3.5%
Eastbound	-
Westbound	1.9%
Years to Escalate: 2022	8

NICTD

SHEFFIELD/COLUMBIA AVE & MAIN ST

2022 PROJECTED TRAFFIC VOLUMES (PM)

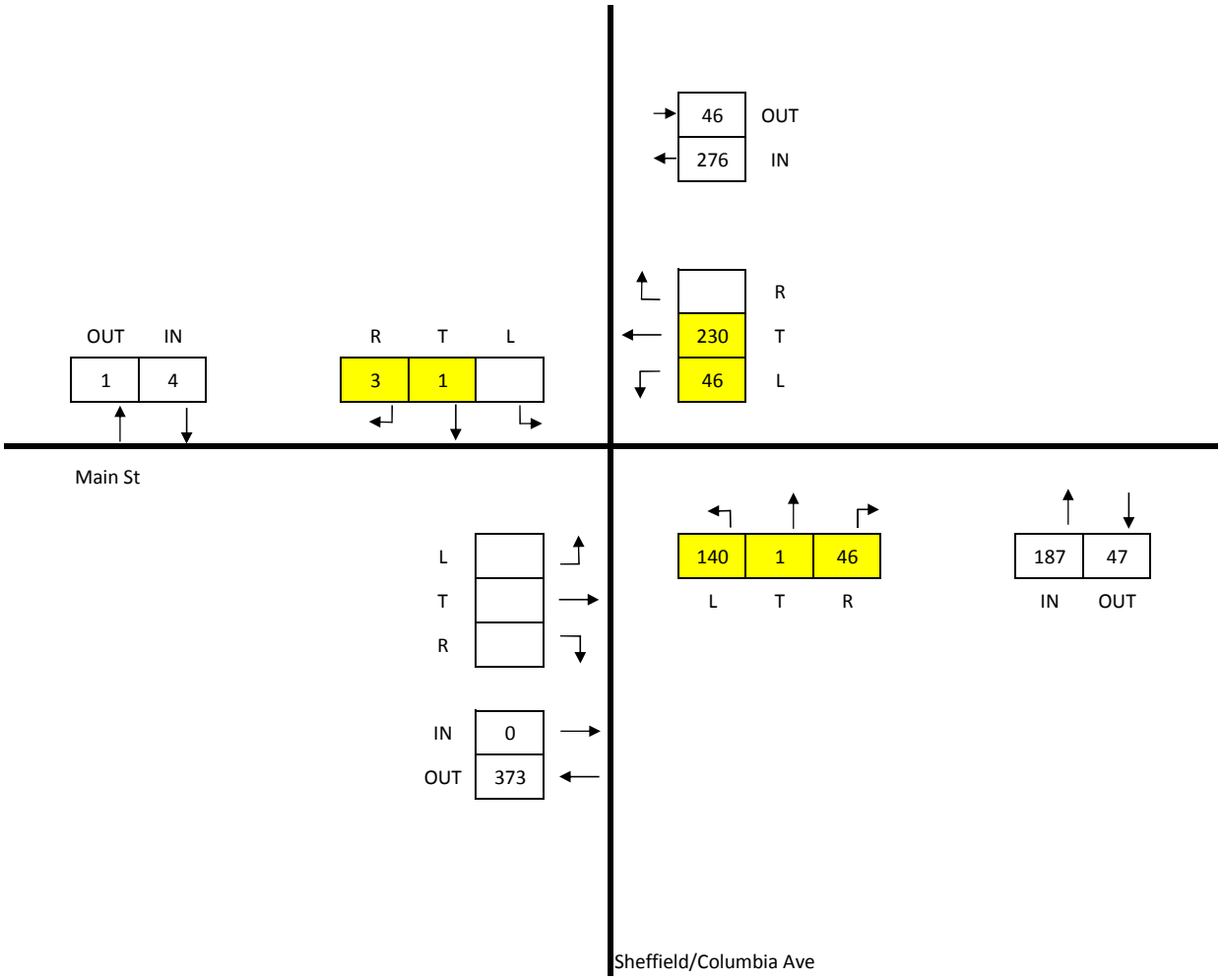
MUNSTER/DYER MAIN STREET STATION

October 2017

TOTAL INTERSECTION

IN	467
OUT	467

NORTH



CLASSIFICATION: ALL VEHICLES

SHEFFIELD/COLUMBIA AVE & MAIN ST

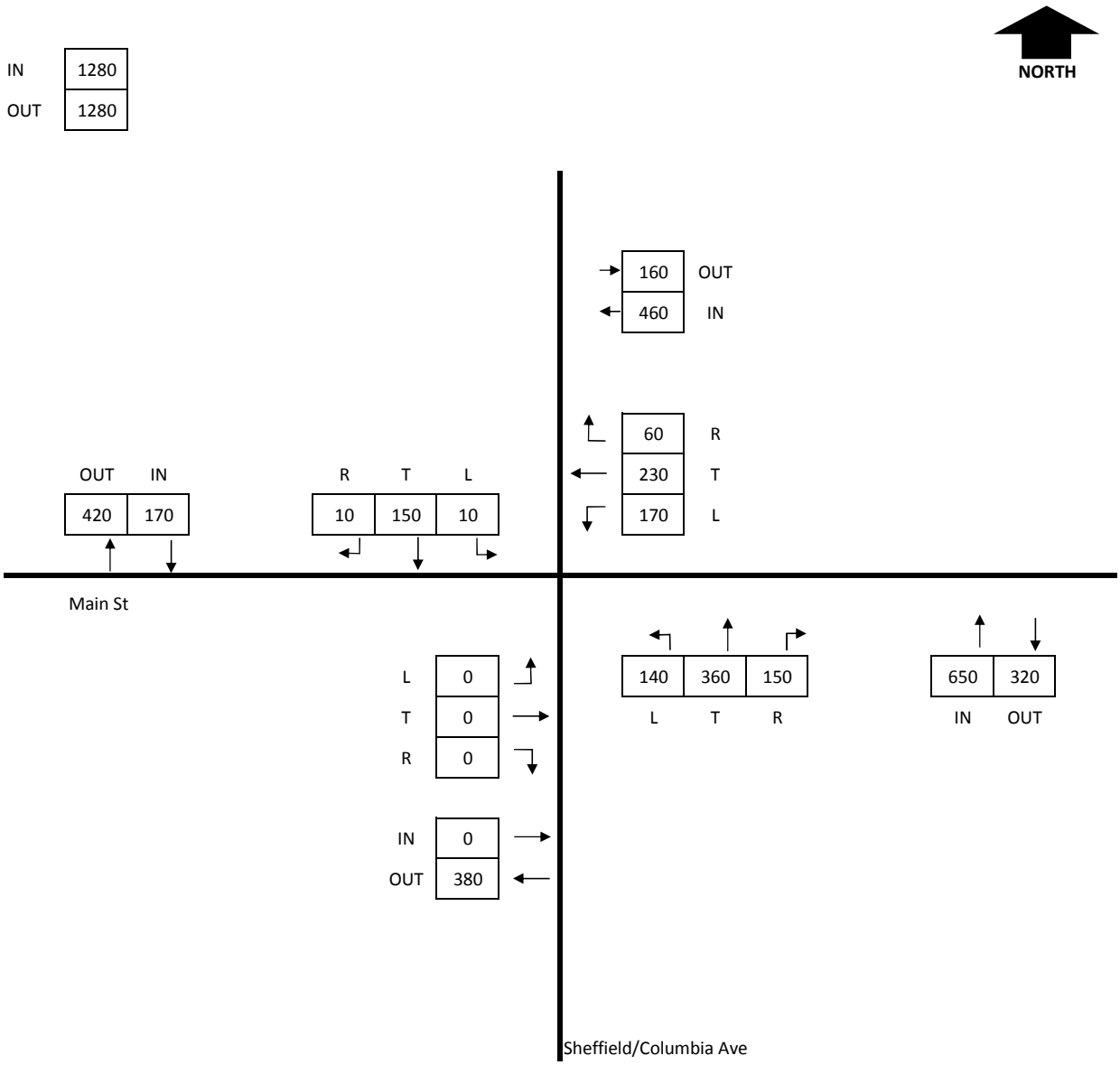
2022 SITE GENERATED TRIPS (AM)

MUNSTER/DYER MAIN STREET STATION

October 2017

TOTAL INTERSECTION

IN	1280
OUT	1280



CLASSIFICATION: ALL VEHICLES

SHEFFIELD/COLUMBIA AVE & MAIN ST

2022 BUILD TRAFFIC VOLUMES (AM)

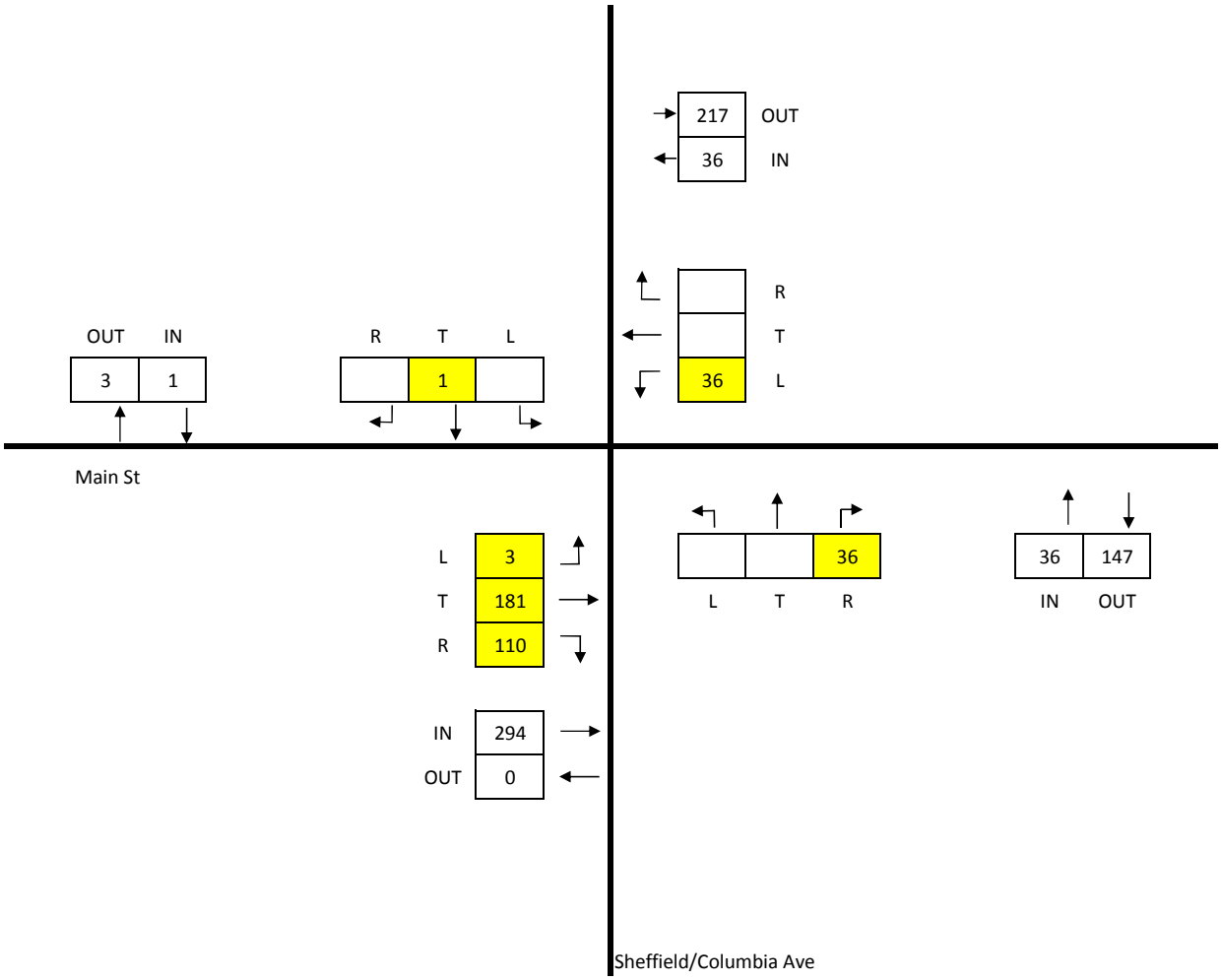
MUNSTER/DYER MAIN STREET STATION

October 2017

TOTAL INTERSECTION

IN	367
OUT	367

NORTH



CLASSIFICATION: ALL VEHICLES

SHEFFIELD/COLUMBIA AVE & MAIN ST

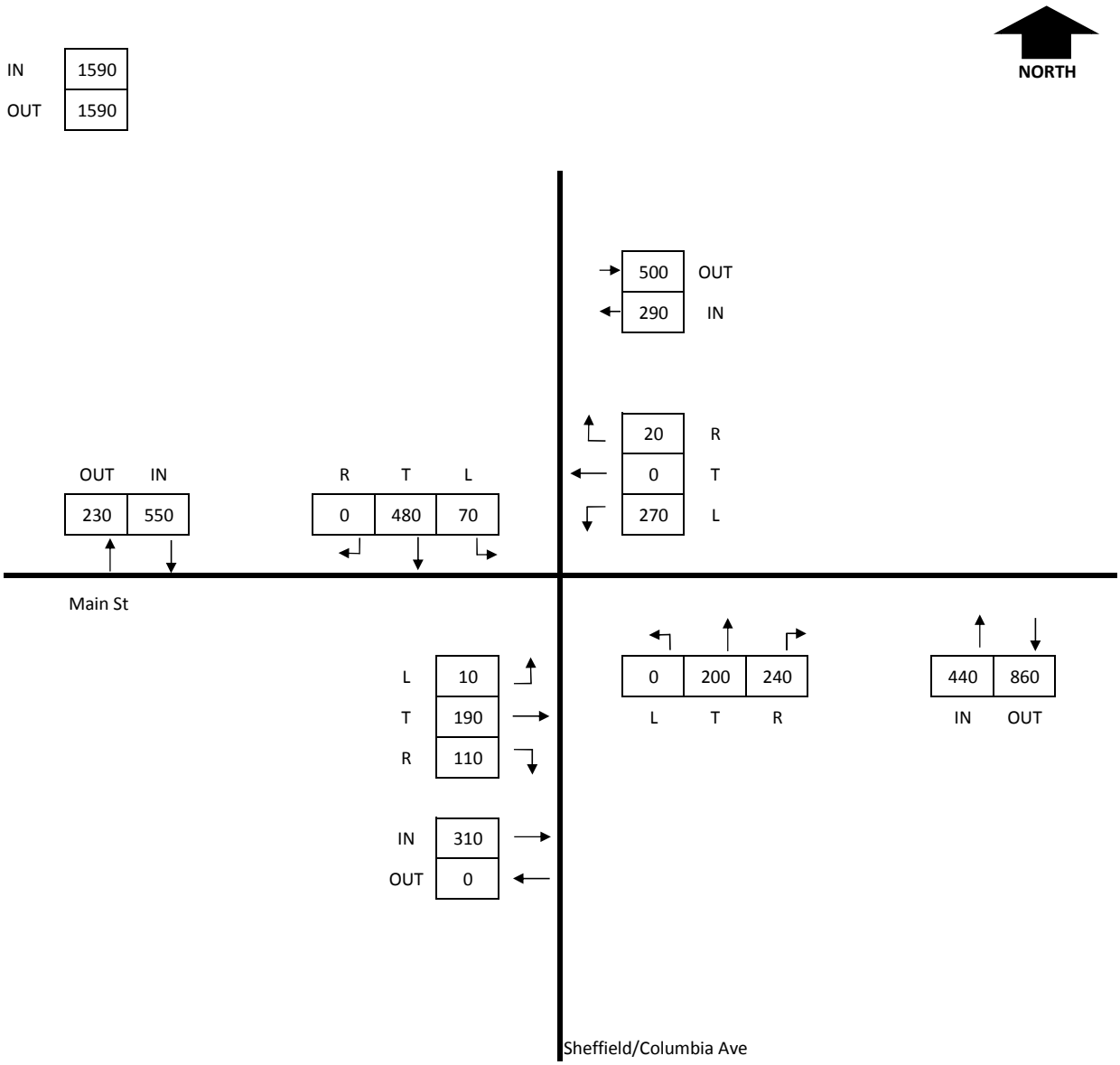
2022 SITE GENERATED TRIPS (PM)

MUNSTER/DYER MAIN STREET STATION

October 2017

TOTAL INTERSECTION

IN	1590
OUT	1590



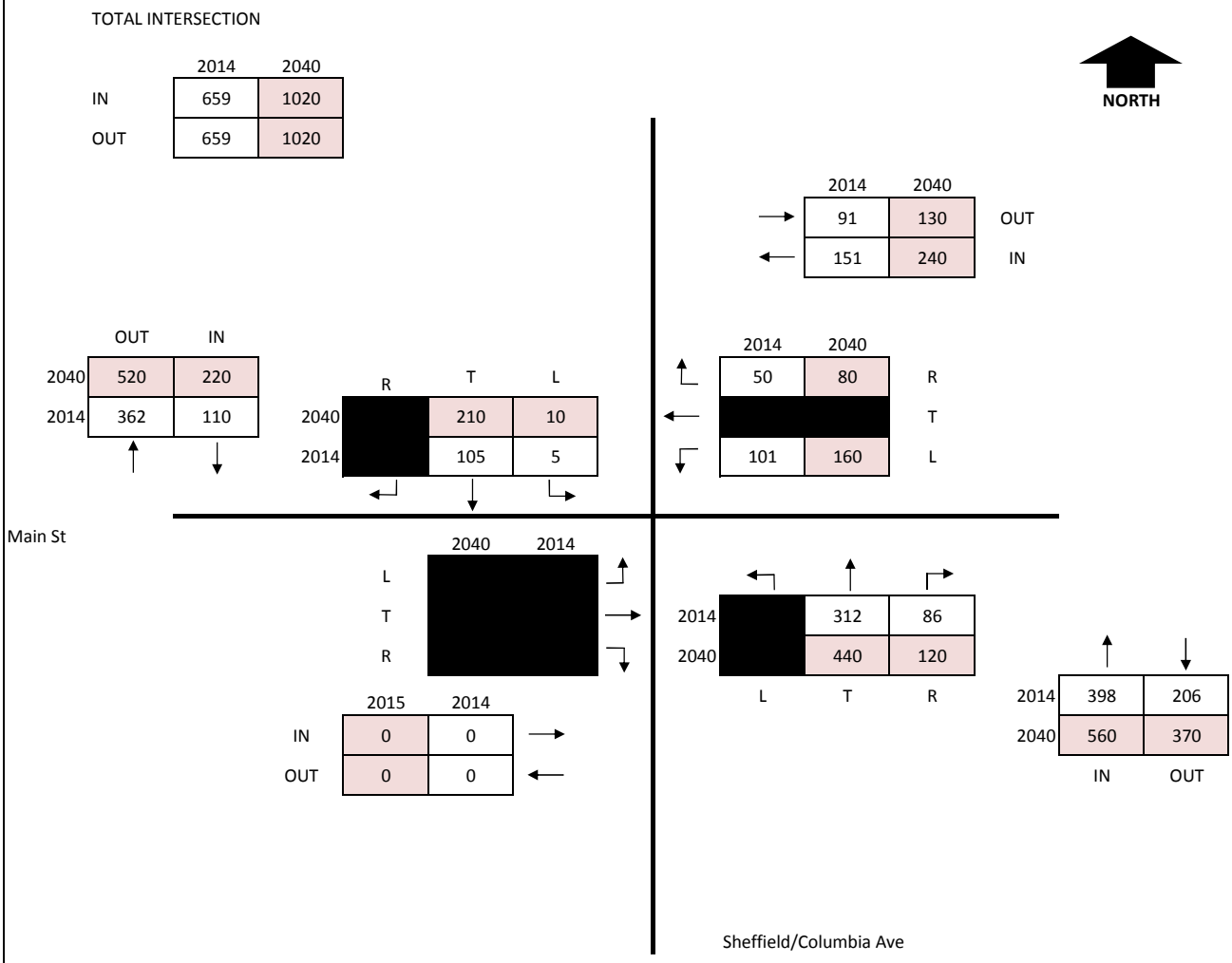
CLASSIFICATION: ALL VEHICLES

SHEFFIELD/COLUMBIA AVE & MAIN ST

2022 BUILD TRAFFIC VOLUMES (PM)

MUNSTER/DYER MAIN STREET STATION

October 2017



CLASSIFICATION: ALL VEHICLES

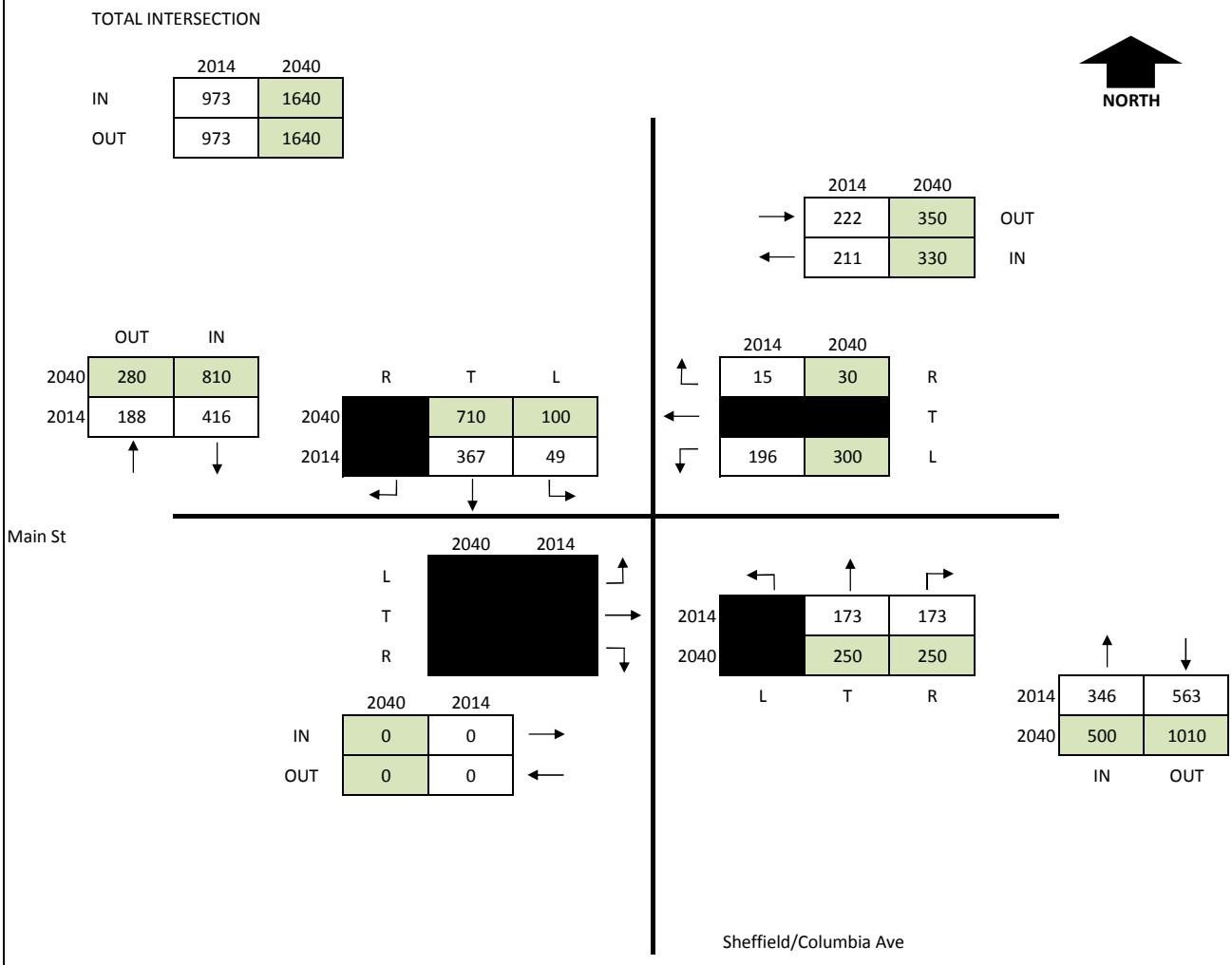
ANNUAL GROWTH RATE	
Northbound	1.5%
Southbound	3.5%
Eastbound	-
Westbound	1.9%
Years to Escalate: 2040	26

SHEFFIELD/COLUMBIA AVE & MAIN ST

2040 PROJECTED TRAFFIC VOLUMES (AM)

MUNSTER/DYER MAIN STREET STATION

October 2017



CLASSIFICATION: ALL VEHICLES

ANNUAL GROWTH RATE	
Northbound	1.5%
Southbound	3.5%
Eastbound	-
Westbound	1.9%
Years to Escalate: 2040	26

SHEFFIELD/COLUMBIA AVE & MAIN ST

2040 PROJECTED TRAFFIC VOLUMES (PM)

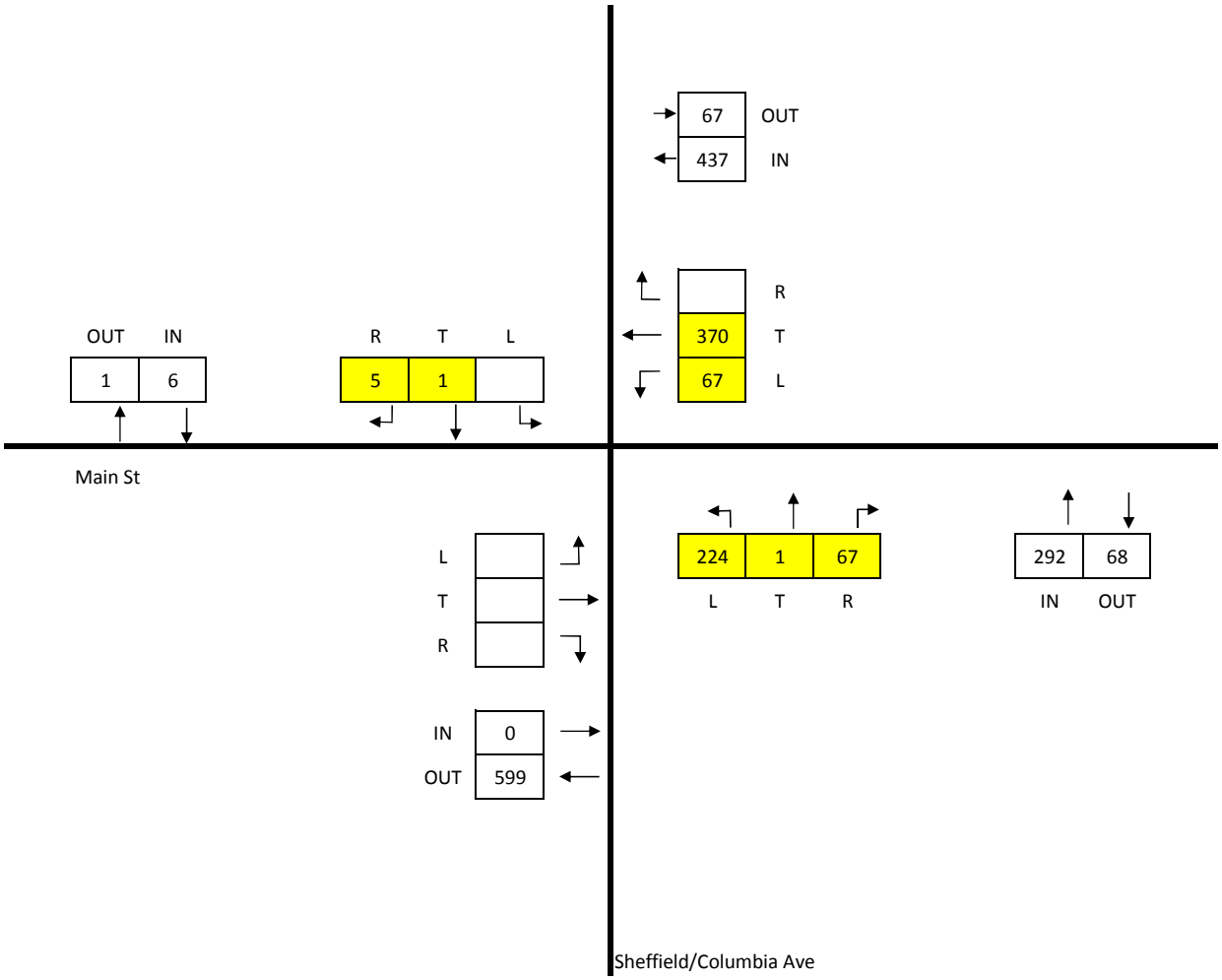
MUNSTER/DYER MAIN STREET STATION

October 2017

TOTAL INTERSECTION

IN	735
OUT	735

NORTH



CLASSIFICATION: ALL VEHICLES

SHEFFIELD/COLUMBIA AVE & MAIN ST

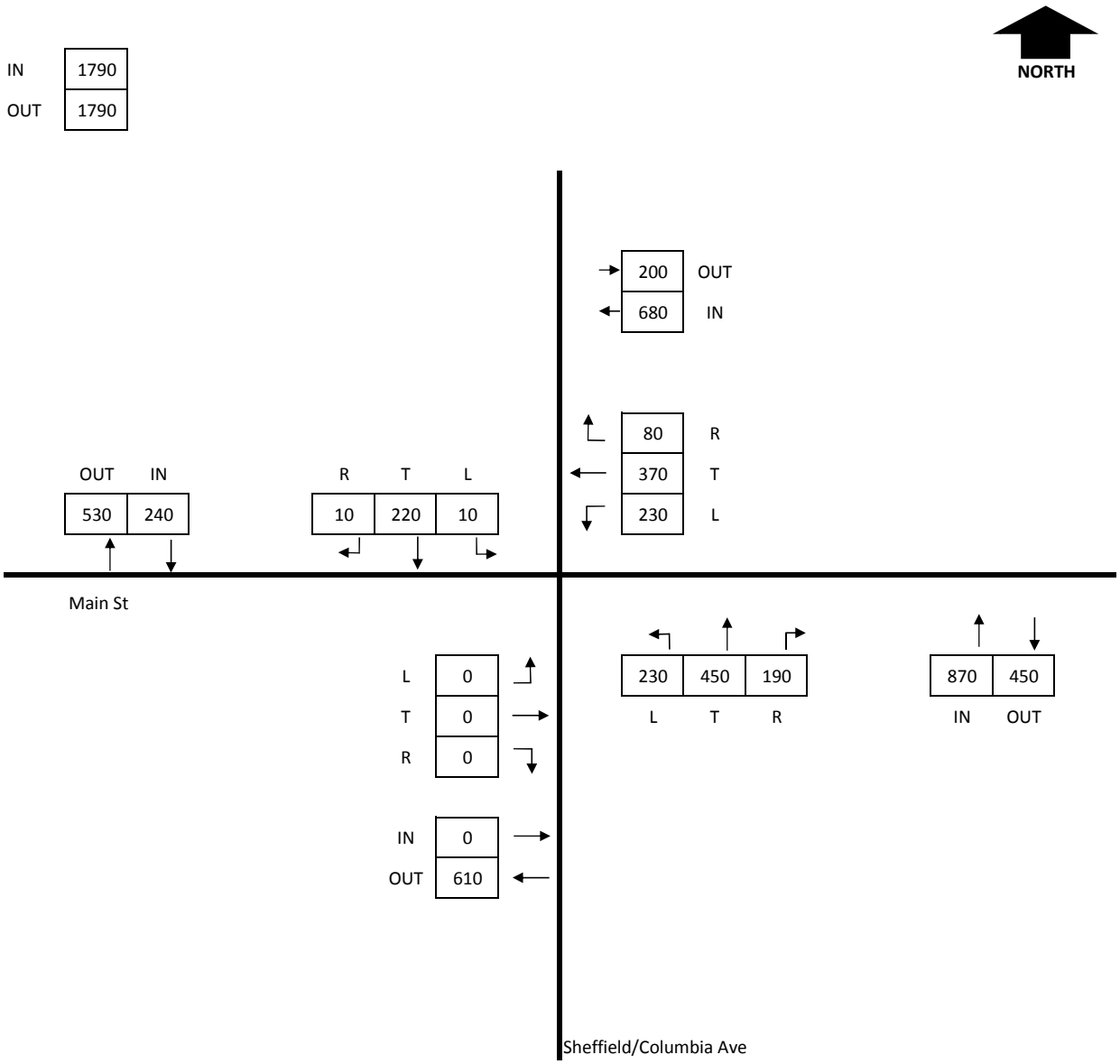
2040 SITE GENERATED TRIPS (AM)

MUNSTER/DYER MAIN STREET STATION

October 2017

TOTAL INTERSECTION

IN	1790
OUT	1790



CLASSIFICATION: ALL VEHICLES

SHEFFIELD/COLUMBIA AVE & MAIN ST

2040 BUILD TRAFFIC VOLUMES (AM)

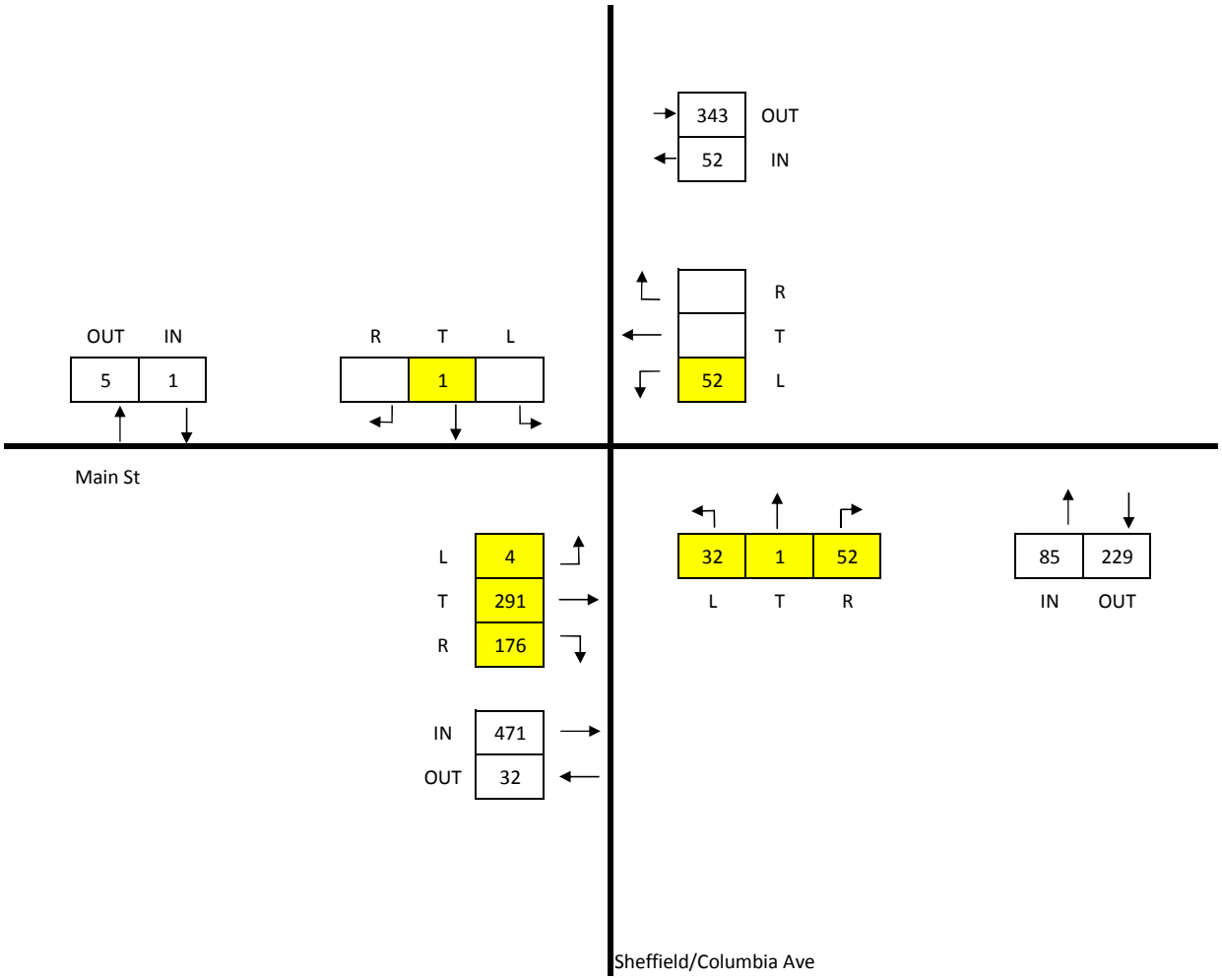
MUNSTER/DYER MAIN STREET STATION

October 2017

TOTAL INTERSECTION

IN	609
OUT	609

NORTH



CLASSIFICATION: ALL VEHICLES

SHEFFIELD/COLUMBIA AVE & MAIN ST

2040 SITE GENERATED TRIPS (PM)

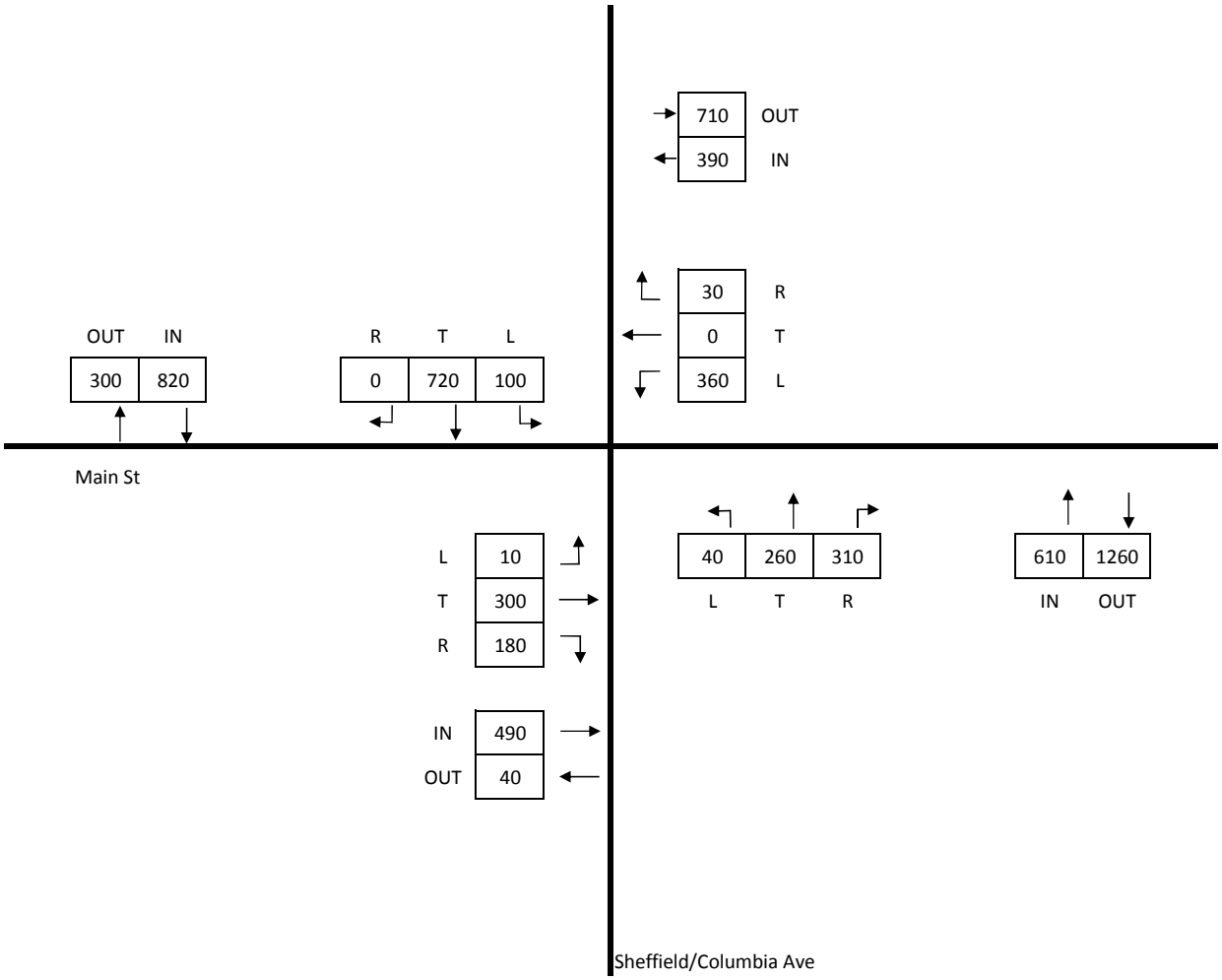
MUNSTER/DYER MAIN STREET STATION

October 2017

TOTAL INTERSECTION

IN	2310
OUT	2310

NORTH



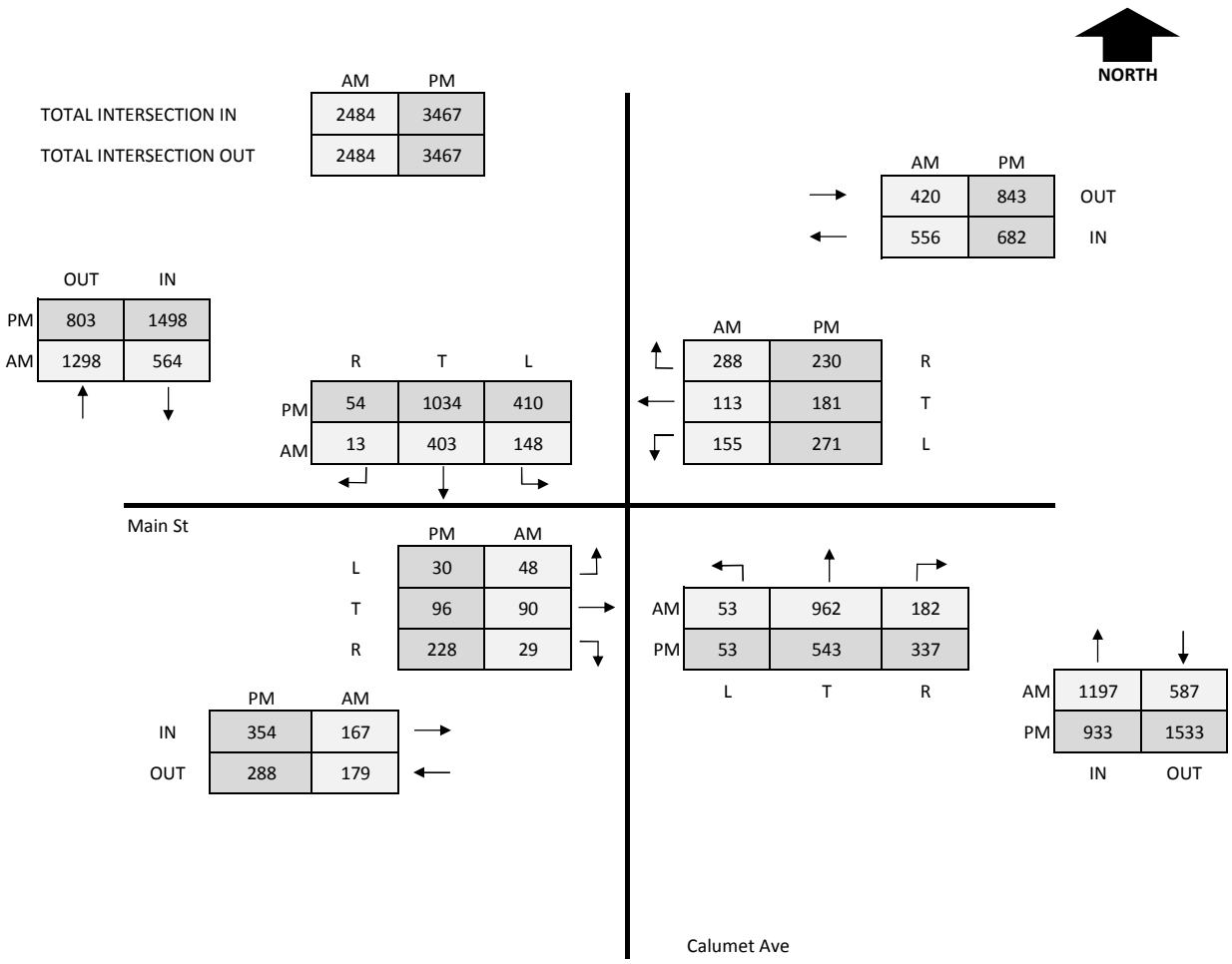
CLASSIFICATION: ALL VEHICLES

SHEFFIELD/COLUMBIA AVE & MAIN ST

2040 BUILD TRAFFIC VOLUMES (PM)

MUNSTER/DYER MAIN STREET STATION

October 2017



CLASSIFICATION: ALL VEHICLES

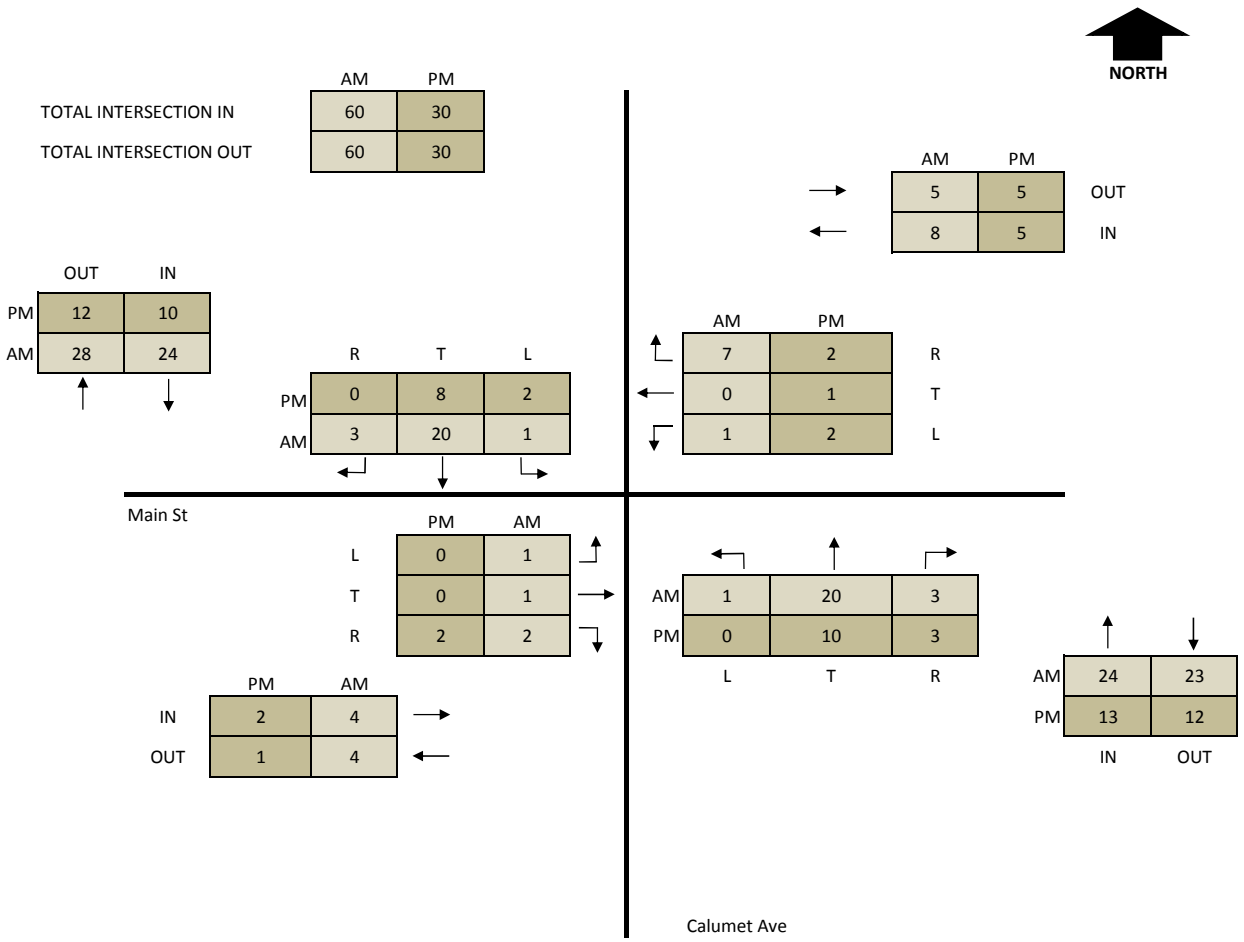
Traffic Counts from Quality Counts				
AM	4/4/2017	7:15 AM	to	8:15 AM
PM	4/4/2017	4:30 PM	to	5:30 PM

CALUMET AVE & MAIN ST

EXISTING TRAFFIC VOLUMES (2017)

MUNSTER/DYER MAIN STREET STATION

October 2017



CLASSIFICATION: TRUCKS

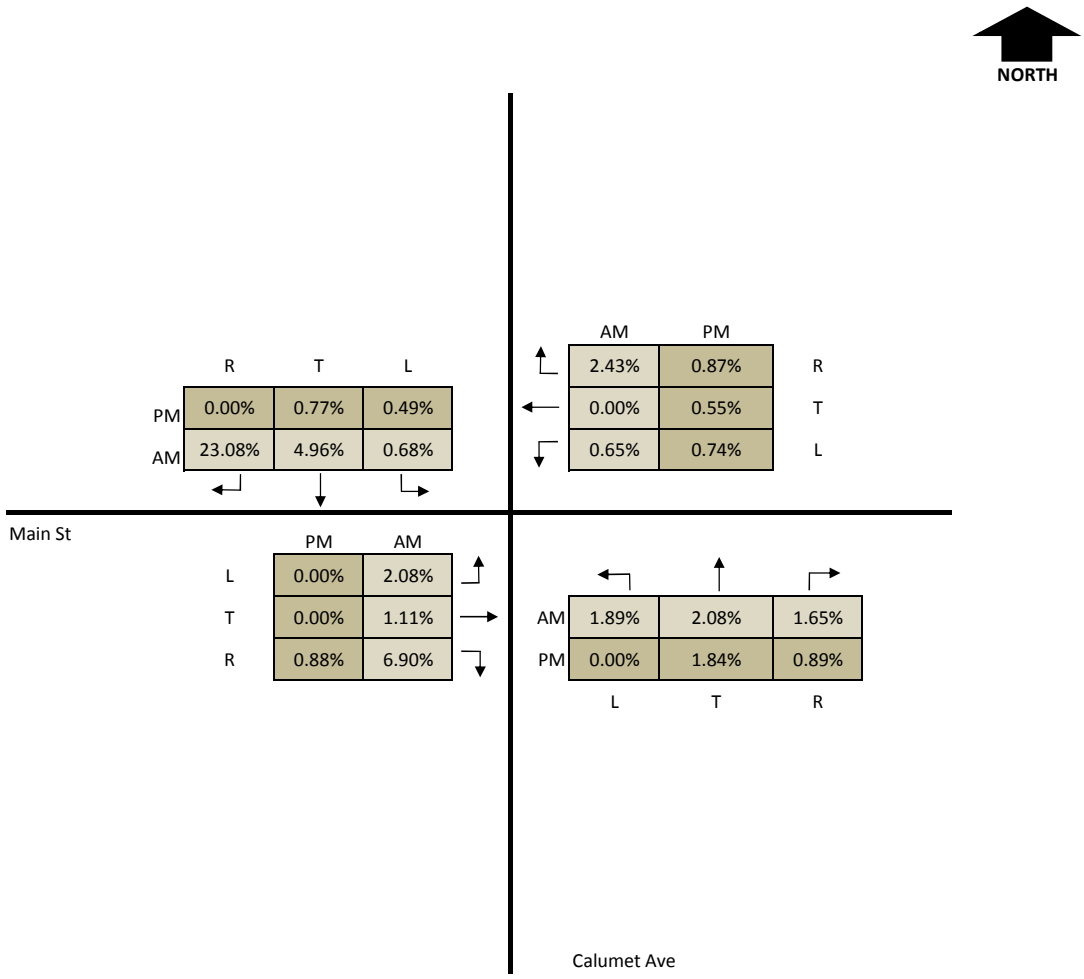
Traffic Counts from Quality Counts				
AM	4/4/2017	7:15 AM	to	8:15 AM
PM	4/4/2017	4:30 PM	to	5:30 PM

CALUMET AVE & MAIN ST

EXISTING TRAFFIC VOLUMES (2017)

MUNSTER/DYER MAIN STREET STATION

October 2017



CLASSIFICATION: TRUCKS

Traffic Counts from Quality Counts				
AM	4/4/2017	7:15 AM	to	8:15 AM
PM	4/4/2017	4:30 PM	to	5:30 PM

CALUMET AVE & MAIN ST

EXISTING TRAFFIC VOLUMES (2017)

MUNSTER/DYER MAIN STREET STATION

October 2017

TOTAL INTERSECTION

	2017	2022
IN	2484	2800
OUT	2484	2800

	2017	2022	
→	420	480	OUT
←	556	620	IN

	OUT	IN
2022	1420	680
2017	1298	564

	R	T	L
2022	20	480	180
2017	13	403	148

	2017	2022	
↰	288	320	R
←	113	130	T
↙	155	170	L

Main St

	2022	2017
L	60	48
T	100	90
R	40	29

	L	T	R
2017	53	962	182
2022	60	1040	200

	2015	2017	
IN	200	167	→
OUT	210	179	←

	2017	2022
IN	1197	1300
OUT	587	690

Calumet Ave

CLASSIFICATION: ALL VEHICLES

ANNUAL GROWTH RATE	
Northbound	1.5%
Southbound	3.5%
Eastbound	1.9%
Westbound	1.9%
Years to Escalate: 2022	5

CALUMET AVE & MAIN ST

2022 PROJECTED TRAFFIC VOLUMES (AM)

MUNSTER/DYER MAIN STREET STATION

October 2017

TOTAL INTERSECTION

	2017	2022
IN	3467	3960
OUT	3467	3960

	2017	2022	
→	843	970	OUT
←	682	760	IN

	OUT	IN
2022	890	1780
2017	803	1498

	R	T	L
2022	70	1220	490
2017	54	1034	410

	2017	2022	
↰	230	260	R
←	181	200	T
↙	271	300	L

Main St

	2022	2017	
L	40	30	↑
T	110	96	→
R	250	228	↓

	↰	↑	↱
2017	53	543	337
2022	60	590	370
	L	T	R

	2022	2017	
IN	400	354	→
OUT	330	288	←

	↑	↓
2017	933	1533
2022	1020	1770
	IN	OUT

Calumet Ave

CLASSIFICATION: ALL VEHICLES

ANNUAL GROWTH RATE	
Northbound	1.5%
Southbound	3.5%
Eastbound	1.9%
Westbound	1.9%
Years to Escalate: 2022	5

NICTD

CALUMET AVE & MAIN ST

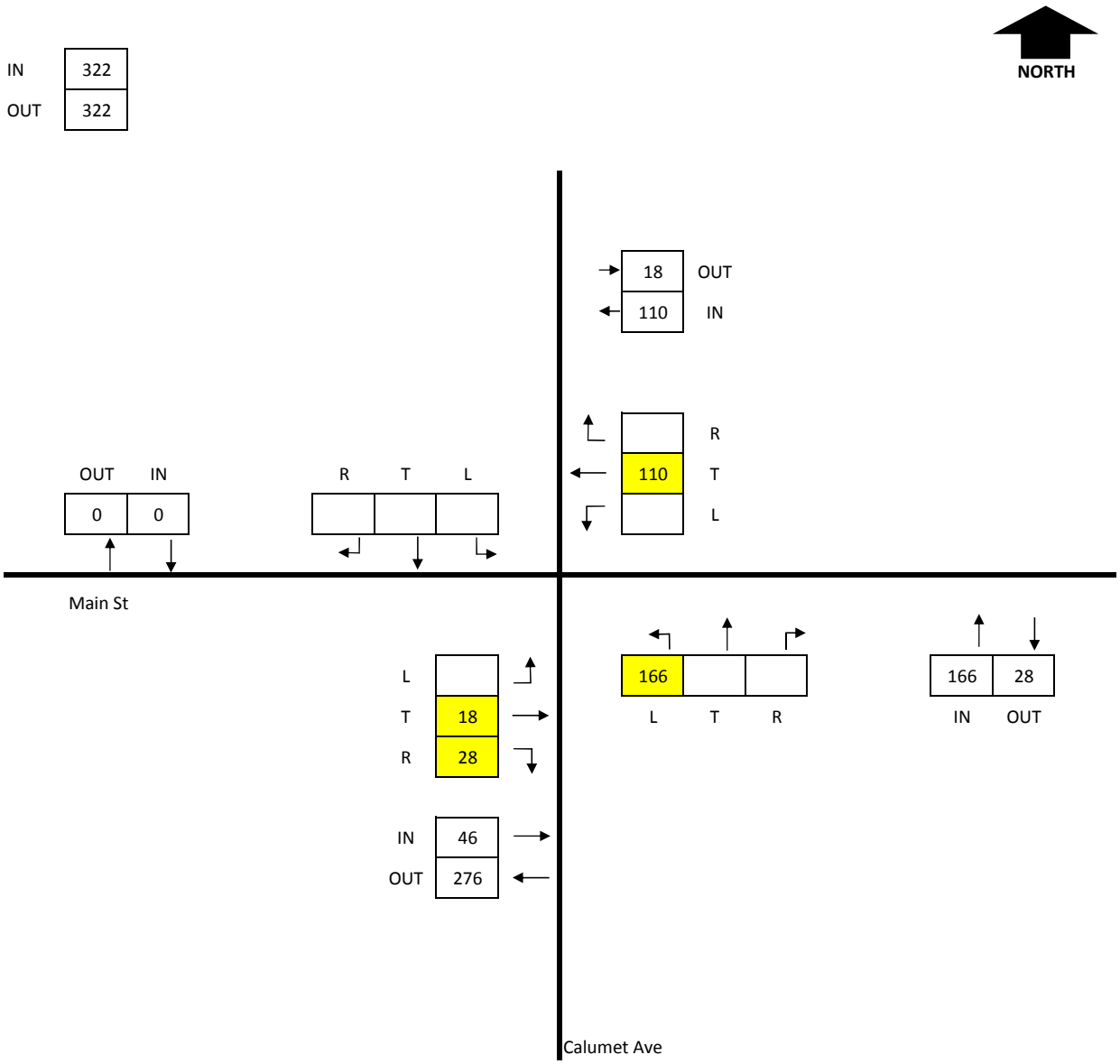
2022 PROJECTED TRAFFIC VOLUMES (PM)

MUNSTER/DYER MAIN STREET STATION

October 2017

TOTAL INTERSECTION

IN	322
OUT	322



CLASSIFICATION: ALL VEHICLES

CALUMET AVE & MAIN ST

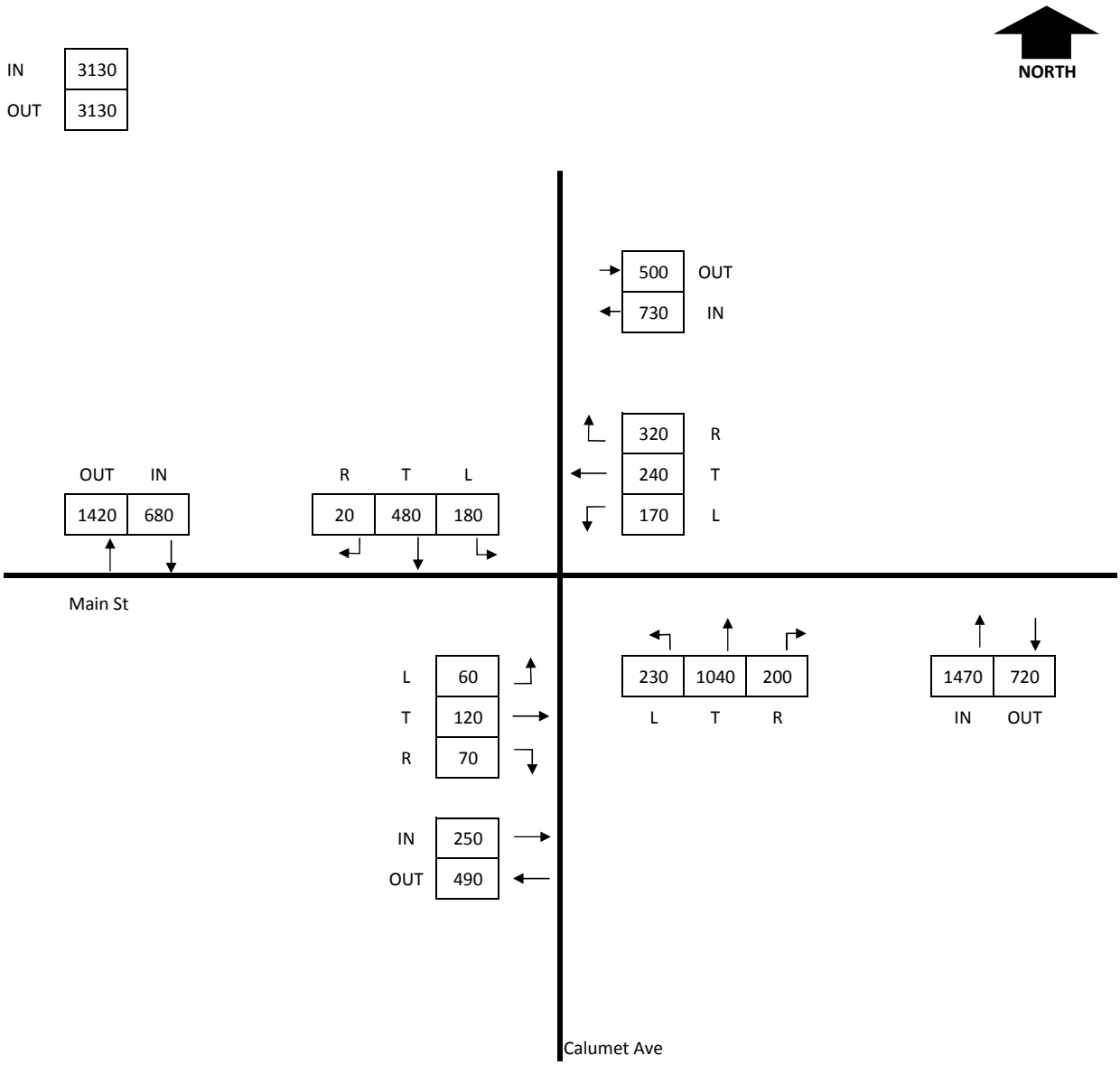
2022 SITE GENERATED TRIPS (AM)

MUNSTER/DYER MAIN STREET STATION

October 2017

TOTAL INTERSECTION

IN	3130
OUT	3130



CLASSIFICATION: ALL VEHICLES

CALUMET AVE & MAIN ST

2022 BUILD TRAFFIC VOLUMES (AM)

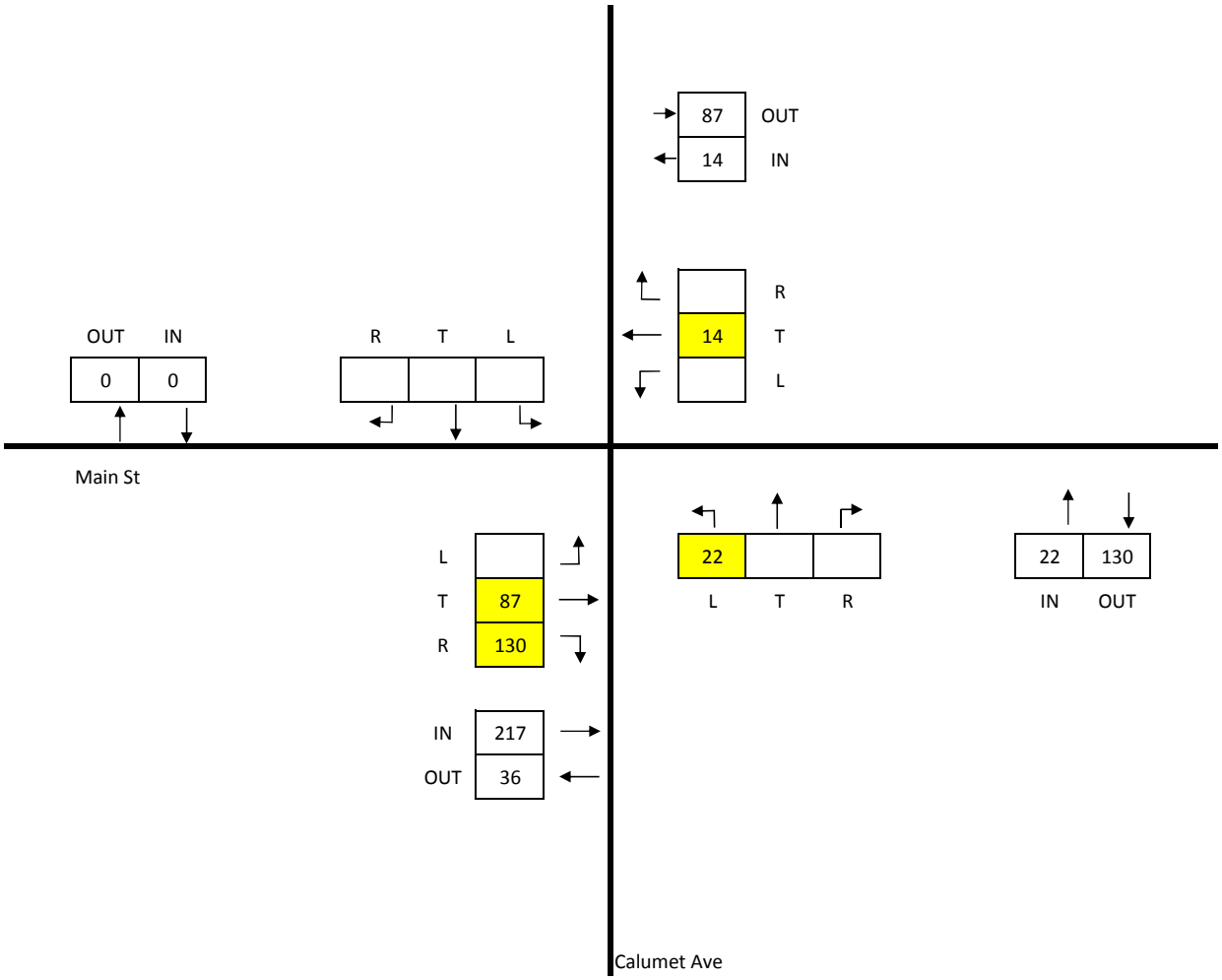
MUNSTER/DYER MAIN STREET STATION

October 2017

TOTAL INTERSECTION

IN	253
OUT	253

NORTH



CLASSIFICATION: ALL VEHICLES

CALUMET AVE & MAIN ST

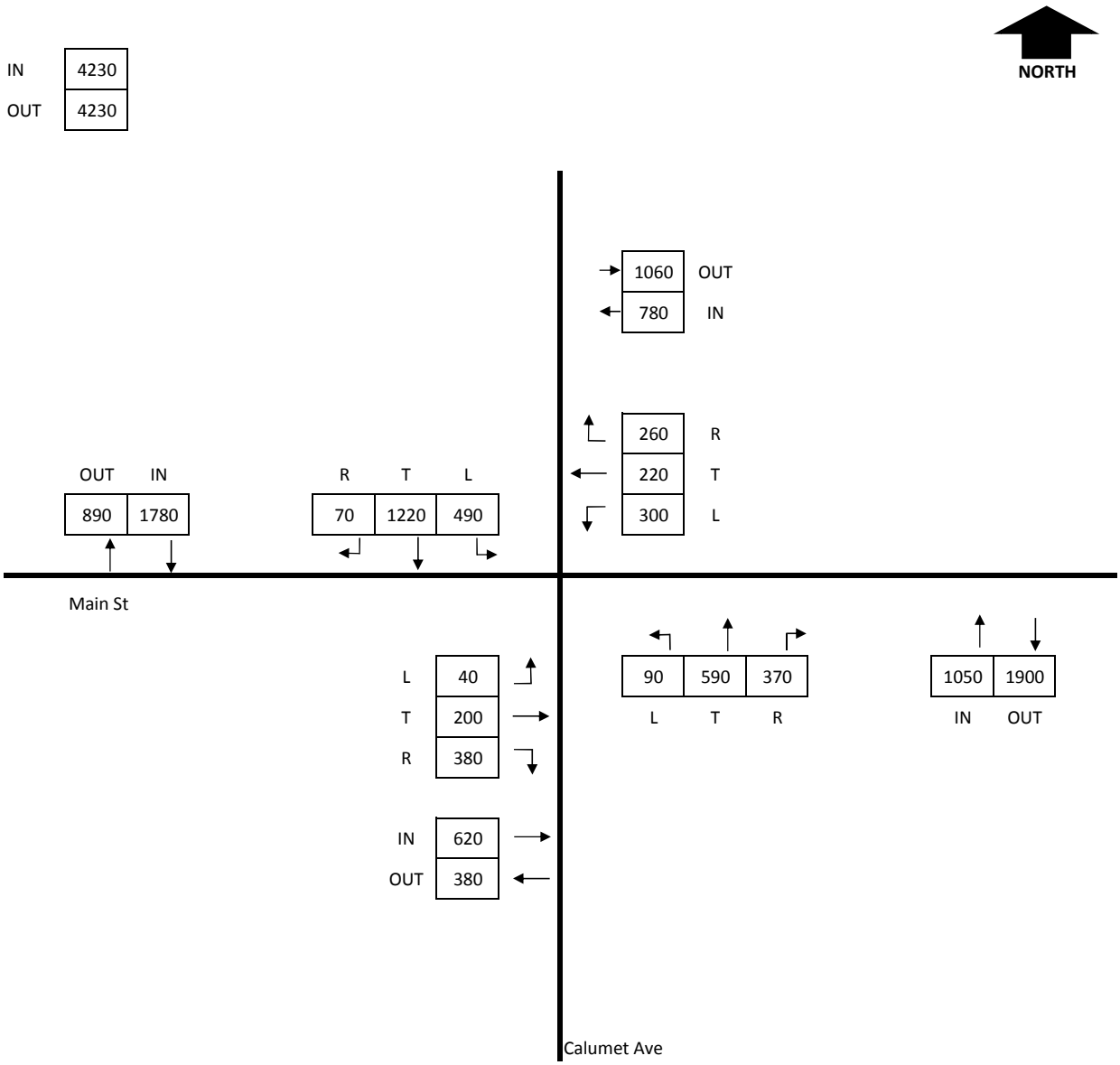
2022 SITE GENERATED TRIPS (PM)

MUNSTER/DYER MAIN STREET STATION

October 2017

TOTAL INTERSECTION

IN	4230
OUT	4230



CLASSIFICATION: ALL VEHICLES

CALUMET AVE & MAIN ST

2022 BUILD TRAFFIC VOLUMES (PM)

MUNSTER/DYER MAIN STREET STATION

October 2017

TOTAL INTERSECTION

	2017	2040
IN	2484	3730
OUT	2484	3730

NORTH

	2017	2040	
→	420	650	OUT
←	556	820	IN

	OUT	IN
2040	1790	1030
2017	1298	564

	R	T	L
2040	30	730	270
2017	13	403	148

	2017	2040	
↰	288	420	R
←	113	170	T
↙	155	230	L

Main St

	2040	2017
L	70	48
T	130	90
R	50	29

	L	T	R
2017	53	962	182
2040	80	1300	250

	2015	2017	
IN	250	167	→
OUT	280	179	←

	2017	2040
2017	1197	587
2040	1630	1010
	IN	OUT

Calumet Ave

CLASSIFICATION: ALL VEHICLES

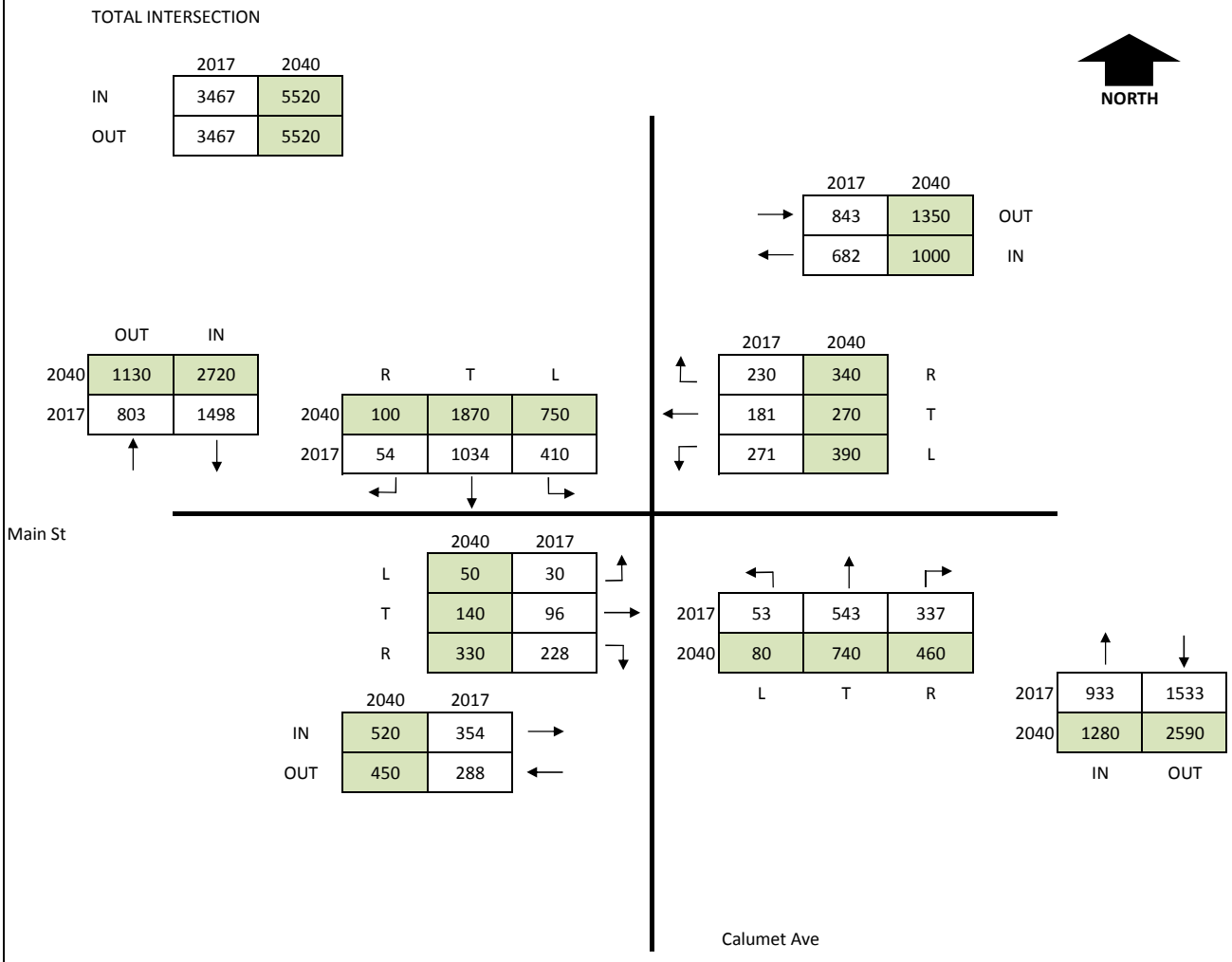
ANNUAL GROWTH RATE	
Northbound	1.5%
Southbound	3.5%
Eastbound	1.9%
Westbound	1.9%
Years to Escalate: 2040	23

CALUMET AVE & MAIN ST

2040 PROJECTED TRAFFIC VOLUMES (AM)

MUNSTER/DYER MAIN STREET STATION

October 2017



CLASSIFICATION: ALL VEHICLES

ANNUAL GROWTH RATE	
Northbound	1.5%
Southbound	3.5%
Eastbound	1.9%
Westbound	1.9%
Years to Escalate: 2040	23

CALUMET AVE & MAIN ST

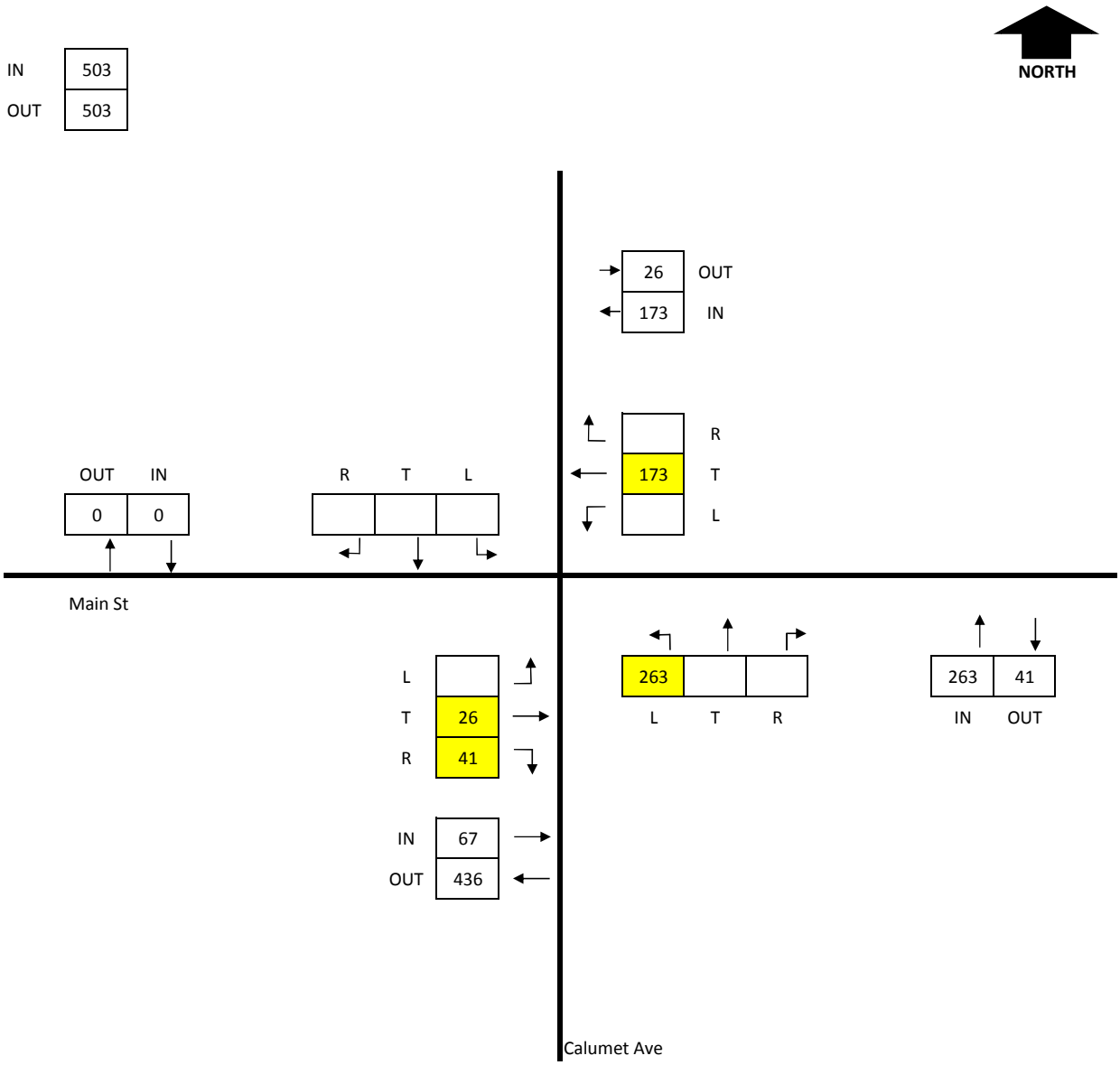
2040 PROJECTED TRAFFIC VOLUMES (PM)

MUNSTER/DYER MAIN STREET STATION

October 2017

TOTAL INTERSECTION

IN	503
OUT	503



CLASSIFICATION: ALL VEHICLES

CALUMET AVE & MAIN ST

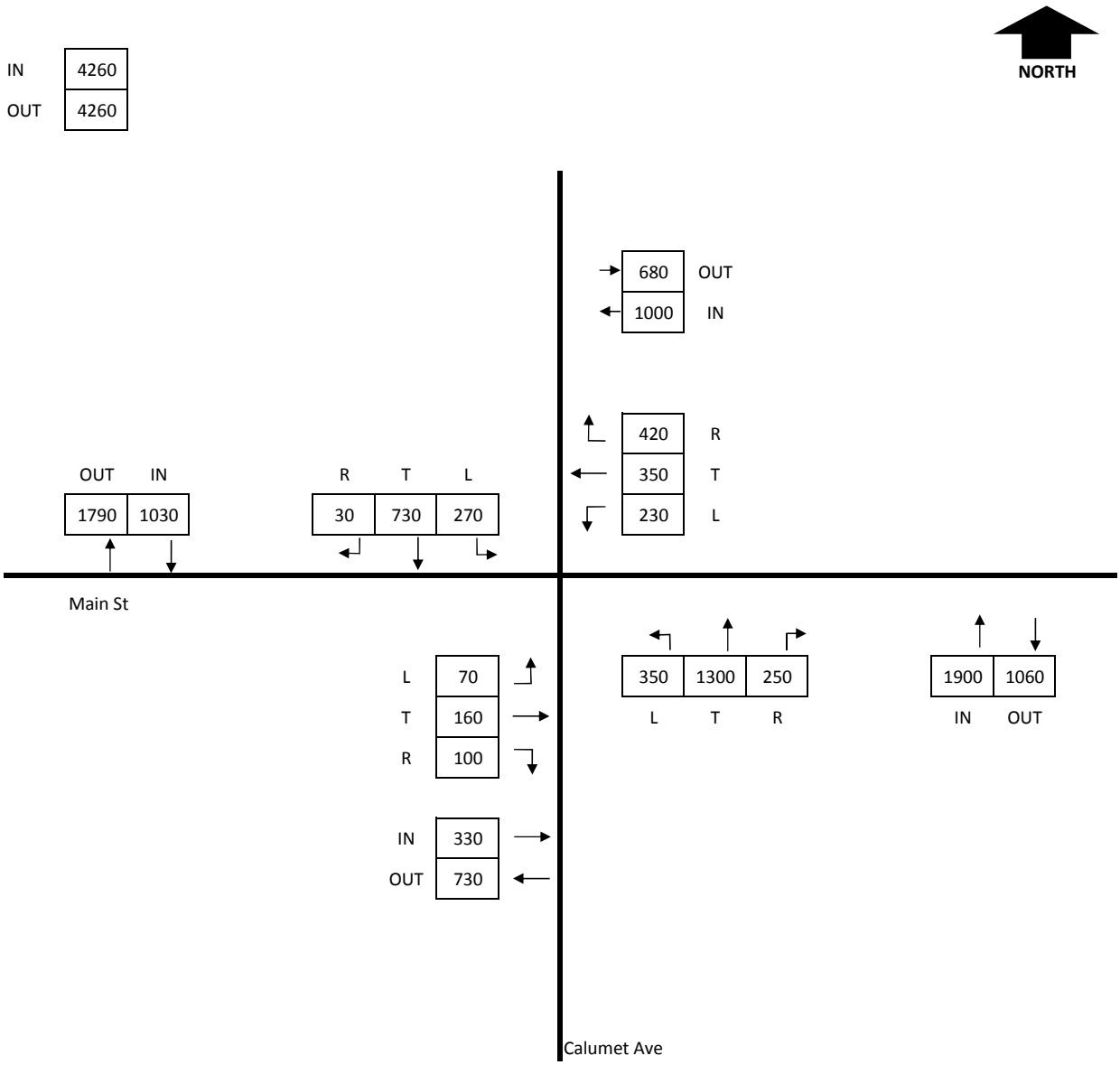
2040 SITE GENERATED TRIPS (AM)

MUNSTER/DYER MAIN STREET STATION

October 2017

TOTAL INTERSECTION

IN	4260
OUT	4260



CLASSIFICATION: ALL VEHICLES

CALUMET AVE & MAIN ST

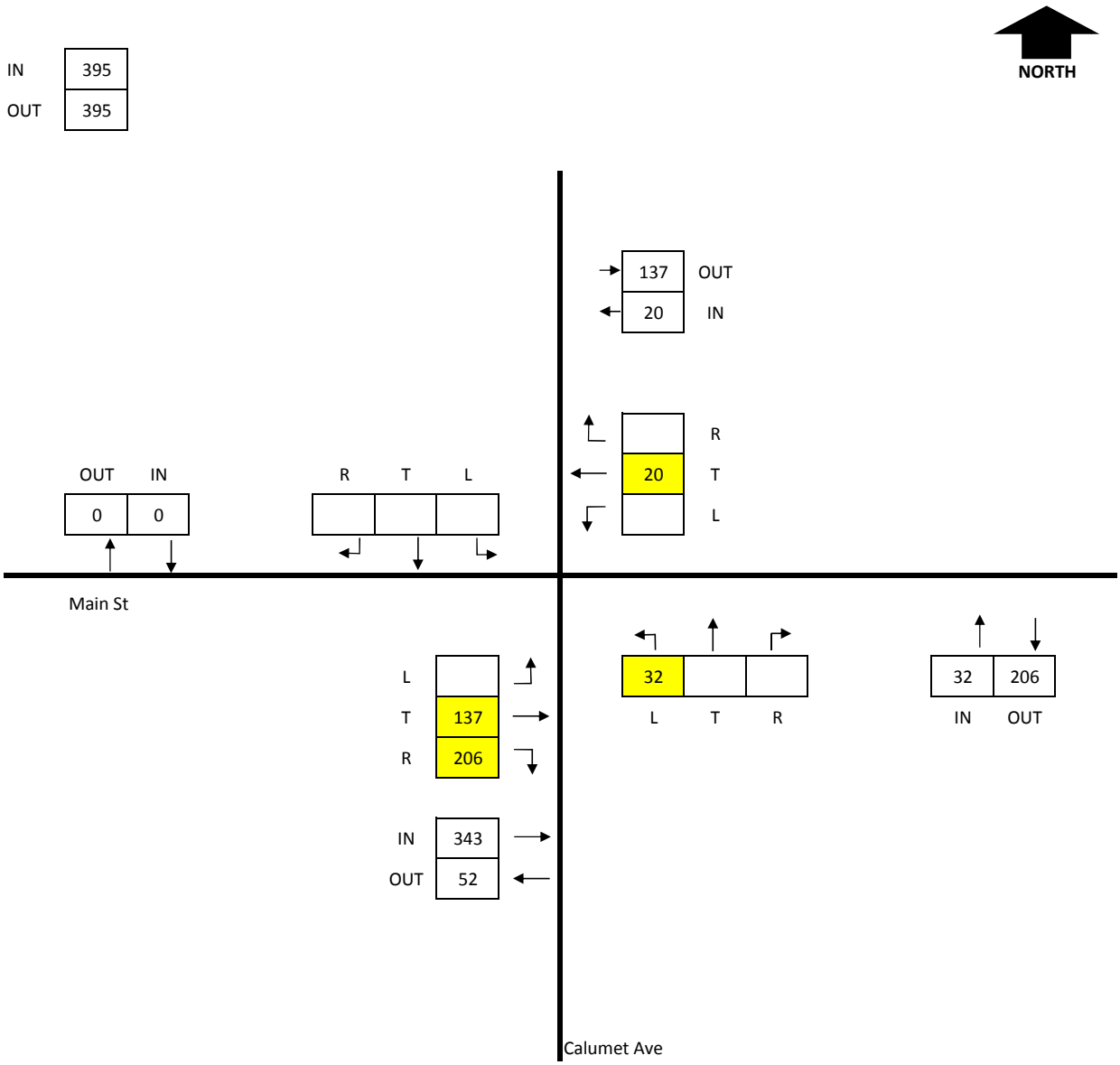
2040 BUILD TRAFFIC VOLUMES (AM)

MUNSTER/DYER MAIN STREET STATION

October 2017

TOTAL INTERSECTION

IN	395
OUT	395



CLASSIFICATION: ALL VEHICLES

CALUMET AVE & MAIN ST

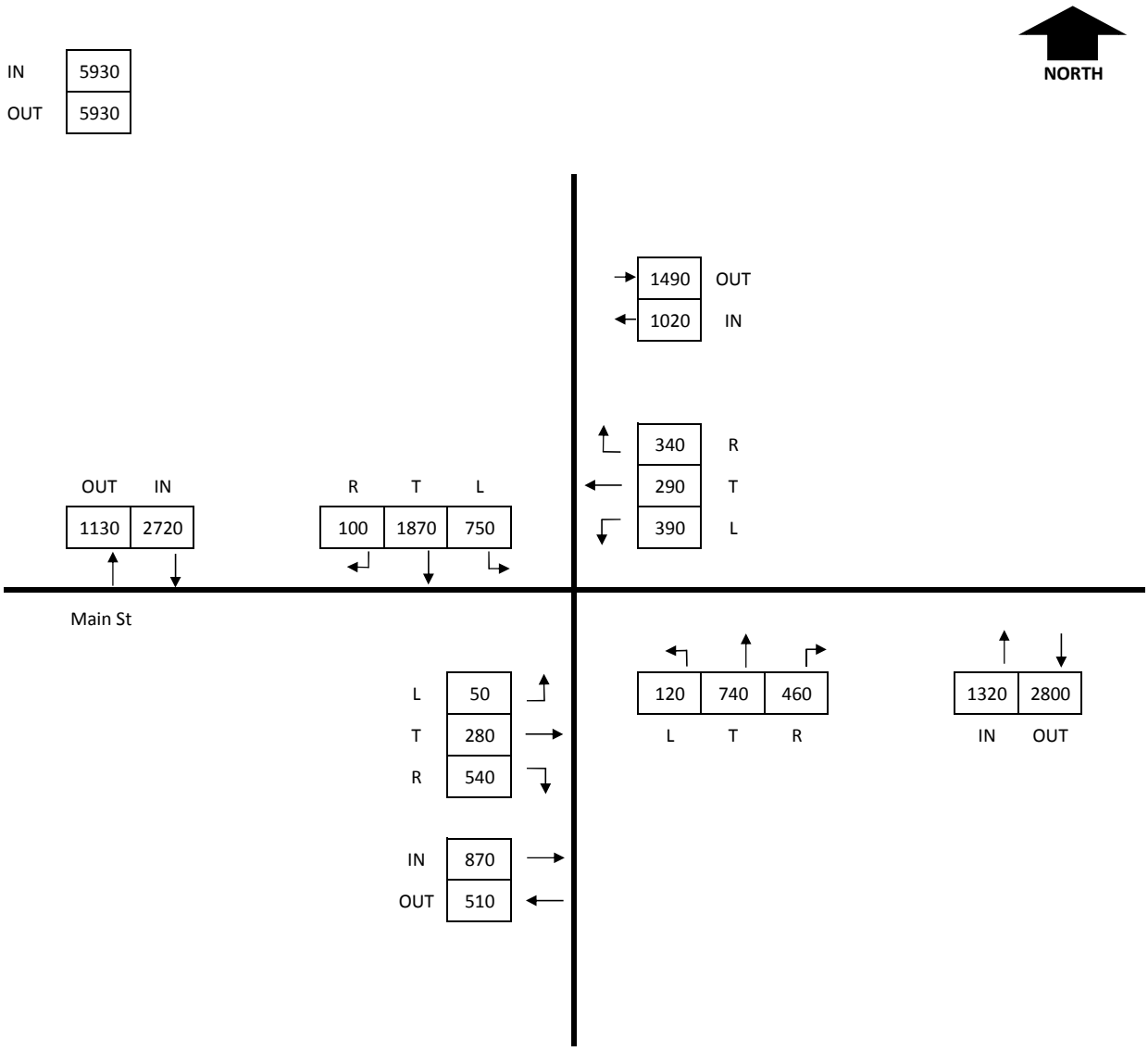
2040 SITE GENERATED TRIPS (PM)

MUNSTER/DYER MAIN STREET STATION

October 2017

TOTAL INTERSECTION

IN	5930
OUT	5930



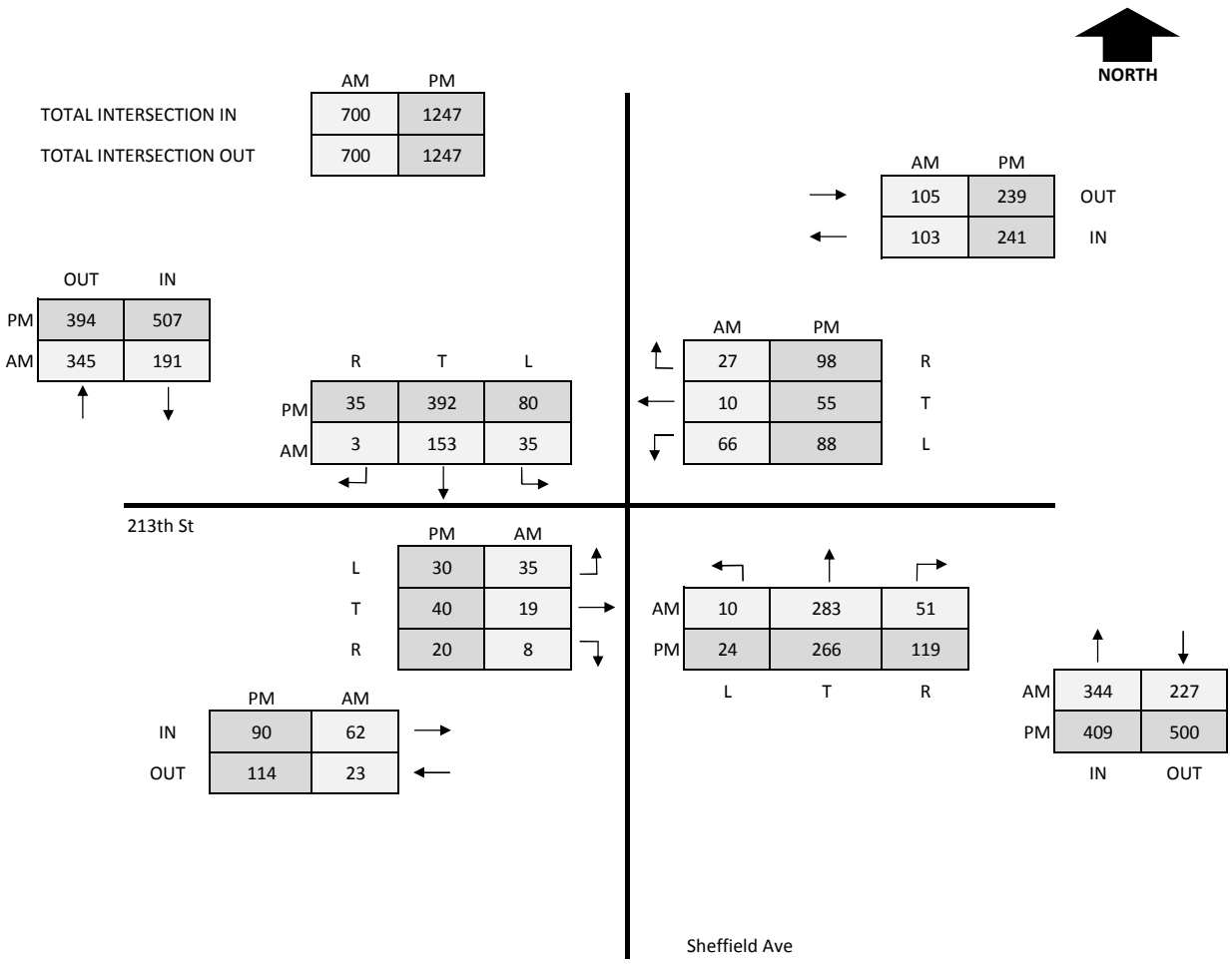
CLASSIFICATION: ALL VEHICLES

CALUMET AVE & MAIN ST

2040 BUILD TRAFFIC VOLUMES (PM)

MUNSTER/DYER MAIN STREET STATION

October 2017



CLASSIFICATION: ALL VEHICLES

Traffic Counts from Quality Counts				
AM	10/30/2014	7:15 AM	to	8:15 AM
PM	10/30/2014	4:30 PM	to	5:30 PM

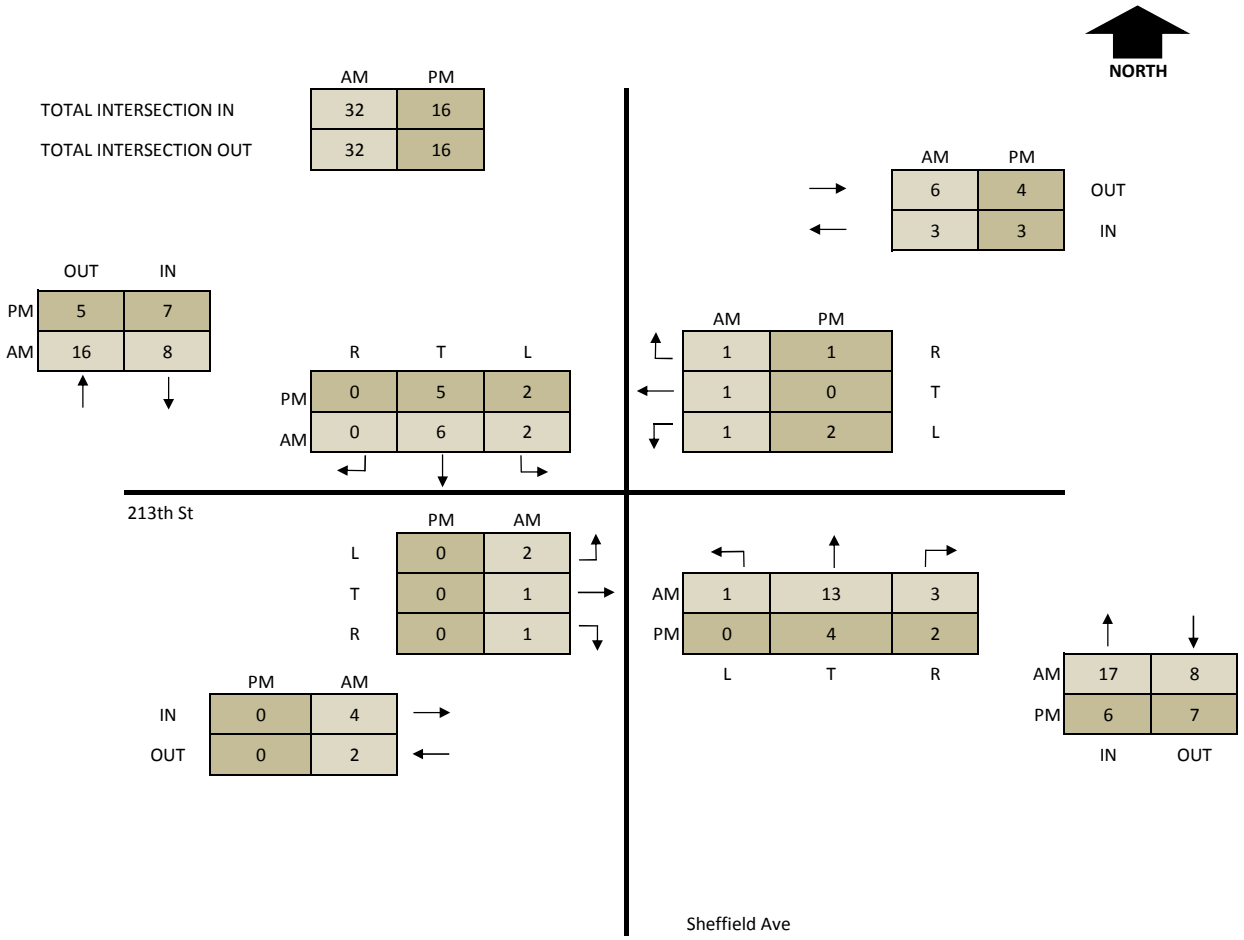
NICTD

SHEFFIELD AVE & 213TH ST

EXISTING TRAFFIC VOLUMES (2014)

MUNSTER/DYER MAIN STREET STATION

October 2017



CLASSIFICATION: TRUCKS

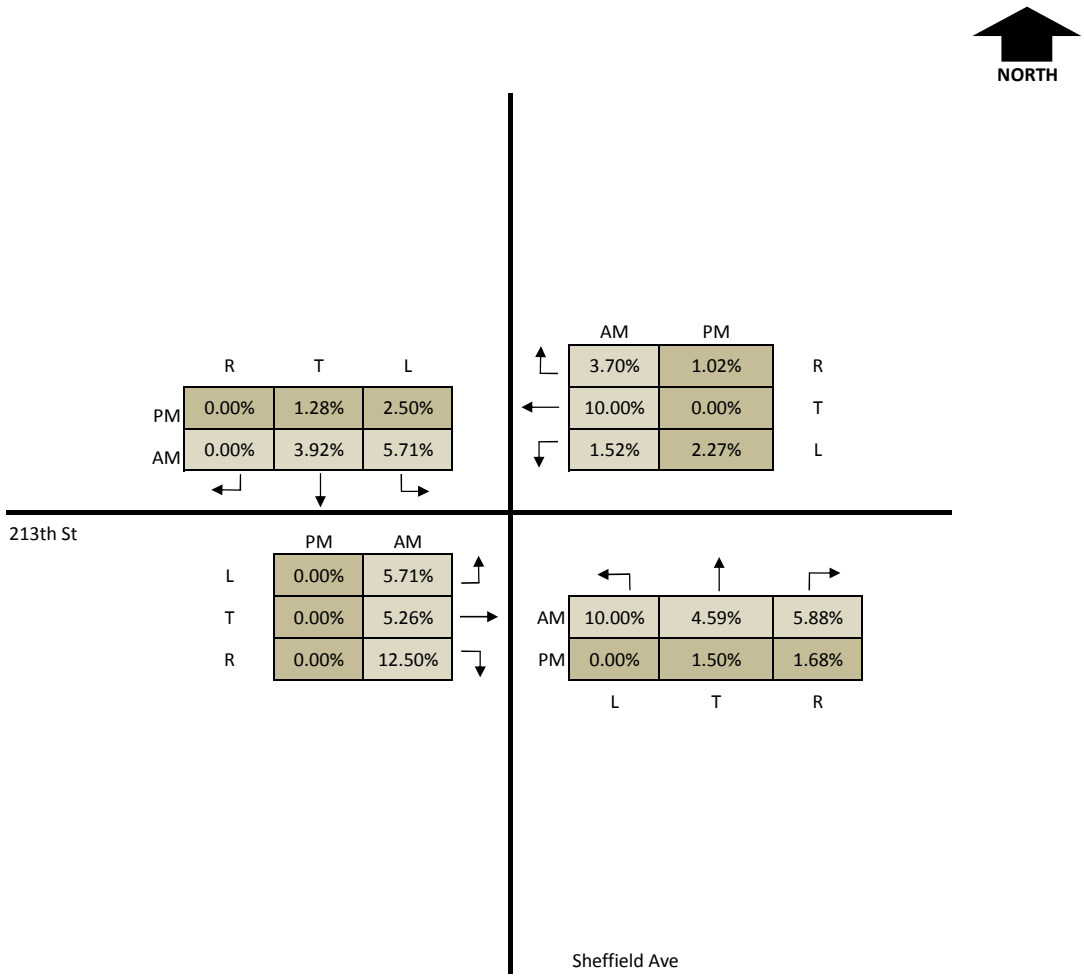
Traffic Counts from Quality Counts				
AM	10/30/2014	7:15 AM	to	8:15 AM
PM	10/30/2014	4:30 PM	to	5:30 PM

SHEFFIELD AVE & 213TH ST

EXISTING TRUCK VOLUMES (2014)

MUNSTER/DYER MAIN STREET STATION

October 2017



CLASSIFICATION: TRUCKS

Traffic Counts from Quality Counts				
AM	10/30/2014	7:15 AM	to	8:15 AM
PM	10/30/2014	4:30 PM	to	5:30 PM

SHEFFIELD AVE & 213TH ST

EXISTING TRUCK PERCENTAGE (2014)

MUNSTER/DYER MAIN STREET STATION

October 2017

TOTAL INTERSECTION

	2014	2022
IN	700	800
OUT	700	800

	2014	2022	
→	105	130	OUT
←	103	120	IN

	OUT	IN
2022	370	220
2014	345	191

	R	T	L
2022	10	170	40
2014	3	153	35

	2014	2022	
↱	27	30	R
←	10	20	T
↳	66	70	L

213th St

	2022	2014	
L	40	35	↰
T	30	19	→
R	10	8	↱

	2014	2015	
IN	80	62	→
OUT	50	23	←

	L	T	R
2014	10	283	51
2022	20	300	60

	2014	2022
2014	344	227
2022	380	250
	IN	OUT

Sheffield Ave

CLASSIFICATION: ALL VEHICLES

ANNUAL GROWTH RATE		
Northbound		0.5%
Southbound		1.2%
Eastbound		0.9%
Westbound		0.6%
Years to Escalate: 204	2022	8

NICTD

SHEFFIELD AVE & 213TH ST

2022 PROJECTED TRAFFIC VOLUMES (AM)

MUNSTER/DYER MAIN STREET STATION

October 2017

TOTAL INTERSECTION

	2014	2022
IN	1247	1390
OUT	1247	1390

	2014	2022	
→	239	270	OUT
←	241	270	IN

	OUT	IN
2022	430	560
2014	394	507

	R	T	L
2022	40	430	90
2014	35	392	80

	2014	2022	
↰	98	110	R
←	55	60	T
↙	88	100	L

213th St

	2022	2014	
L	40	30	↰
T	50	40	→
R	30	20	↘

	2014	2022
2014	24	266	119
2022	30	280	130
	L	T	R

	2022	2014	
IN	120	90	→
OUT	130	114	←

	2014	2022
2014	409	500
2022	440	560
	IN	OUT

Sheffield Ave

CLASSIFICATION: ALL VEHICLES

ANNUAL GROWTH RATE		
Northbound		0.5%
Southbound		1.2%
Eastbound		0.9%
Westbound		0.6%
Years to Escalate: 204	2022	8

SHEFFIELD AVE & 213TH ST

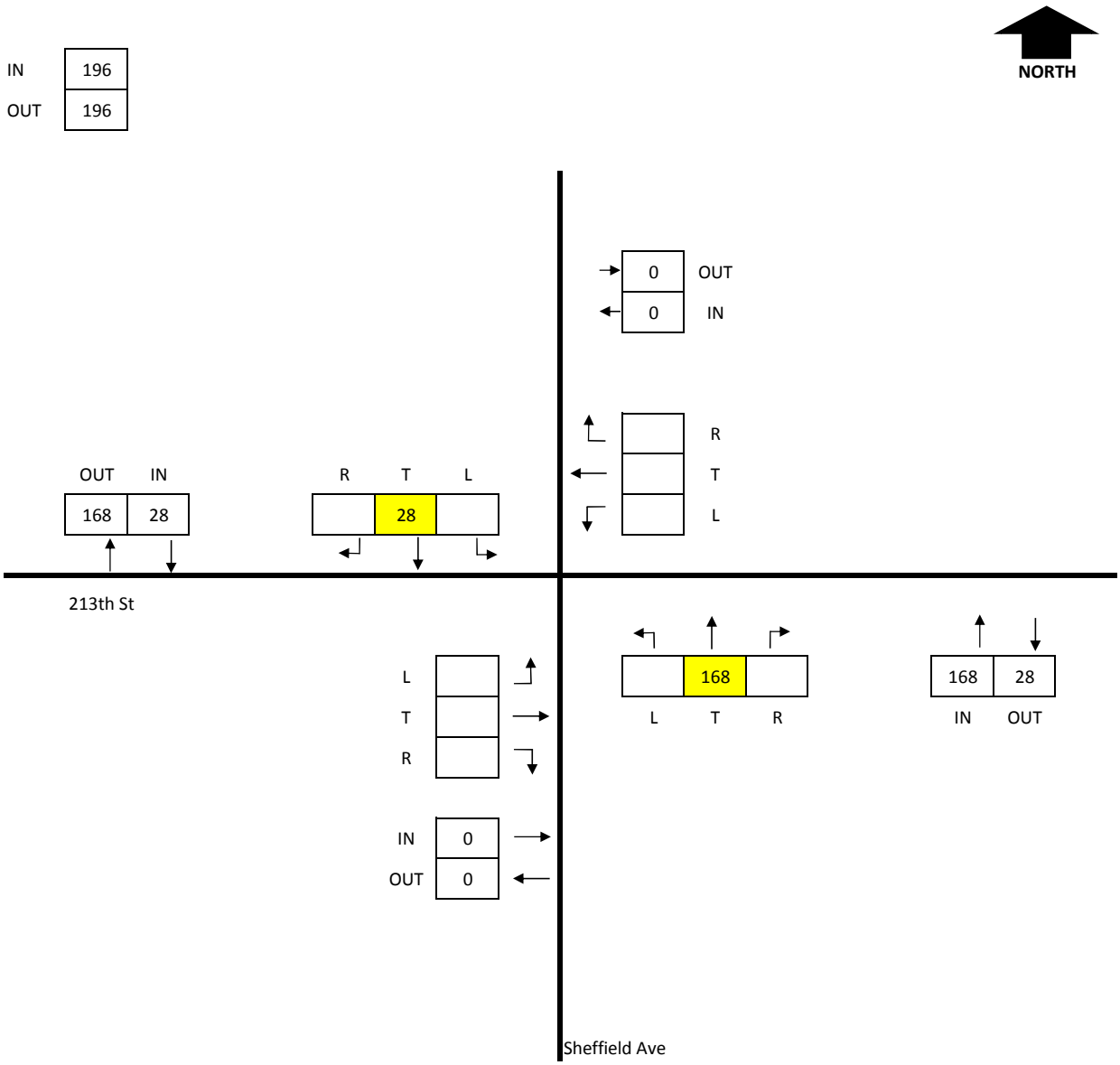
2022 PROJECTED TRAFFIC VOLUMES (PM)

MUNSTER/DYER MAIN STREET STATION

October 2017

TOTAL INTERSECTION

IN	196
OUT	196



CLASSIFICATION: ALL VEHICLES

NICTD

SHEFFIELD AVE & 213TH ST

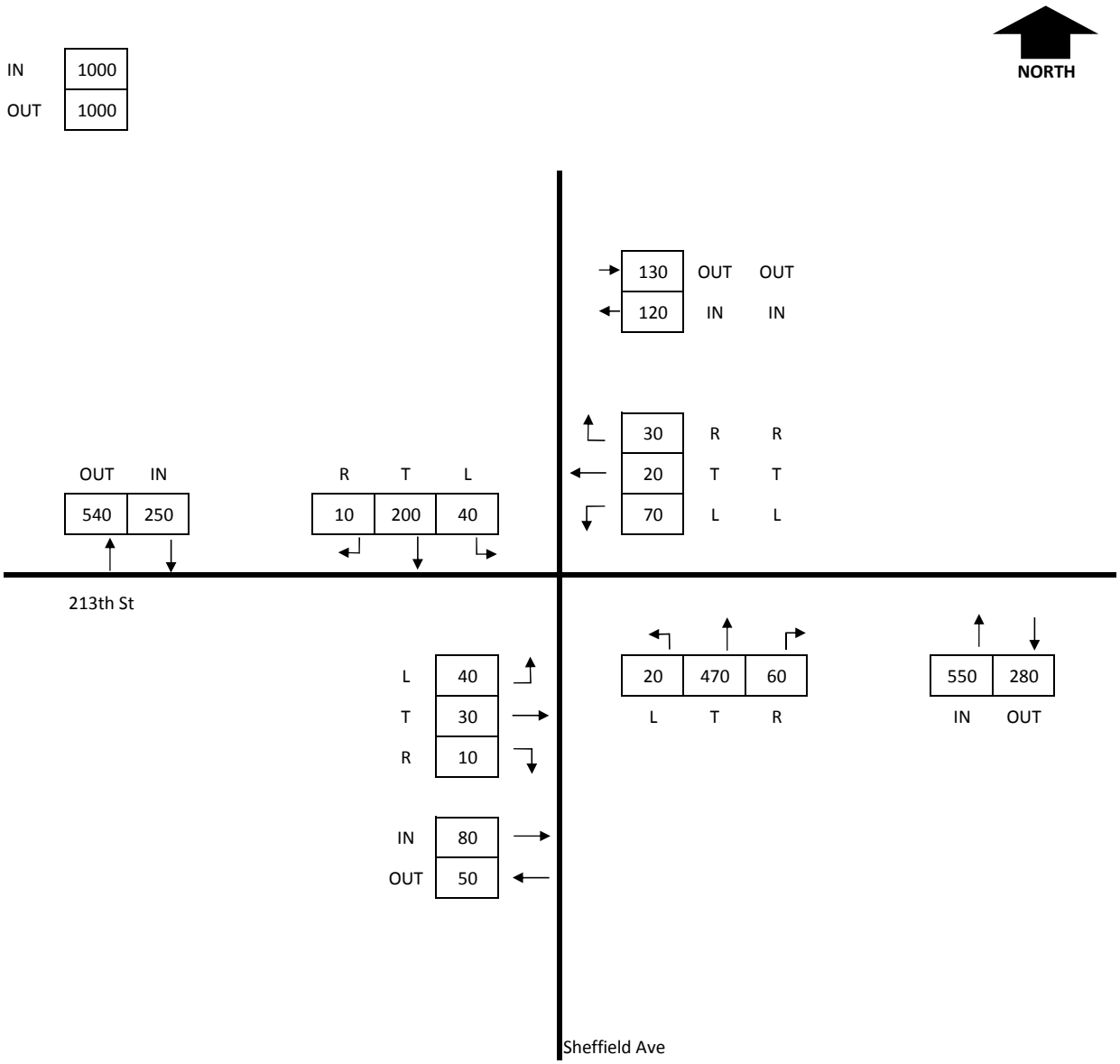
2022 SITE GENERATED TRIPS (AM)

MUNSTER/DYER MAIN STREET STATION

October 2017

TOTAL INTERSECTION

IN	1000
OUT	1000



CLASSIFICATION: ALL VEHICLES

SHEFFIELD AVE & 213TH ST

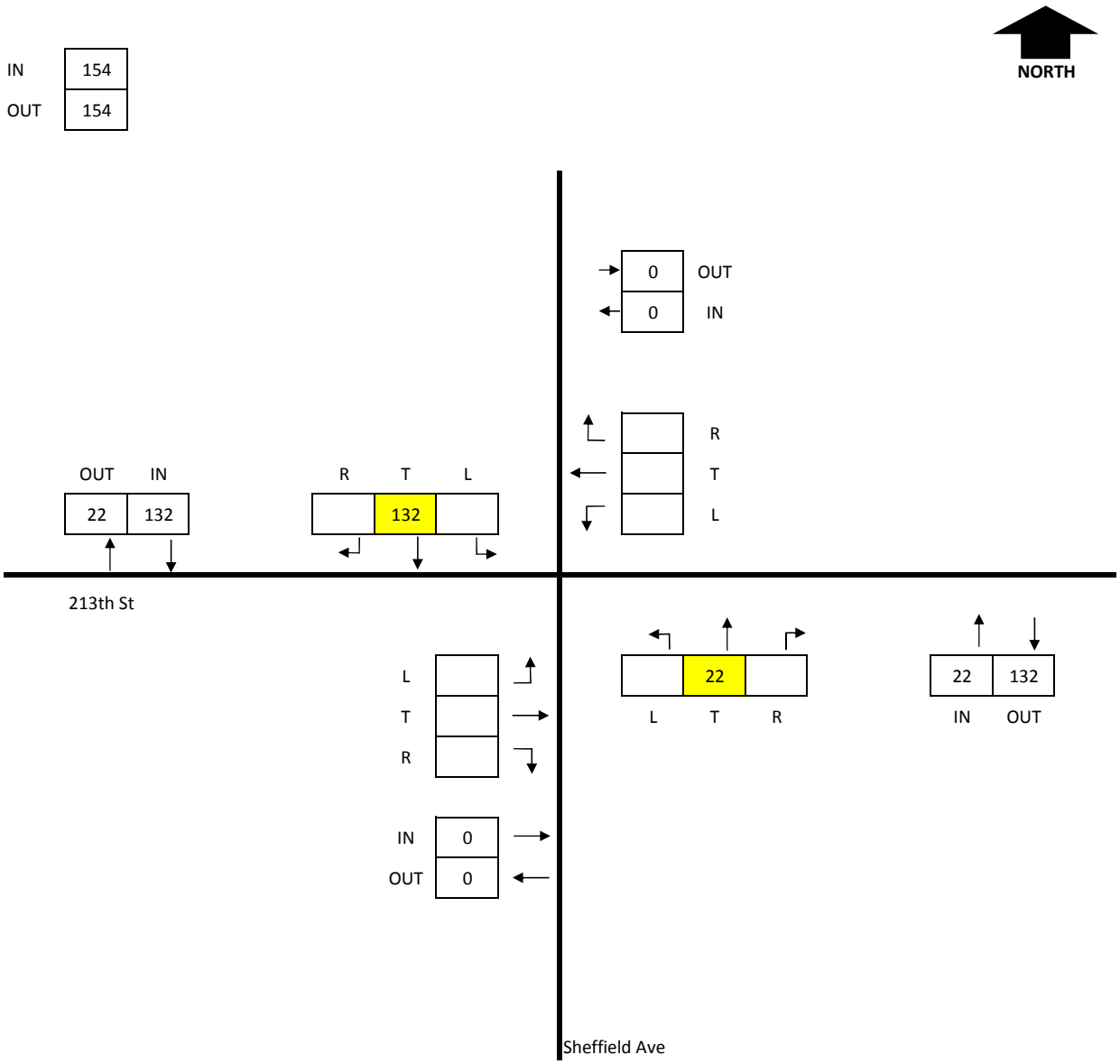
2022 BUILD TRAFFIC VOLUMES (AM)

MUNSTER/DYER MAIN STREET STATION

October 2017

TOTAL INTERSECTION

IN	154
OUT	154



CLASSIFICATION: ALL VEHICLES

NICTD

SHEFFIELD AVE & 213TH ST

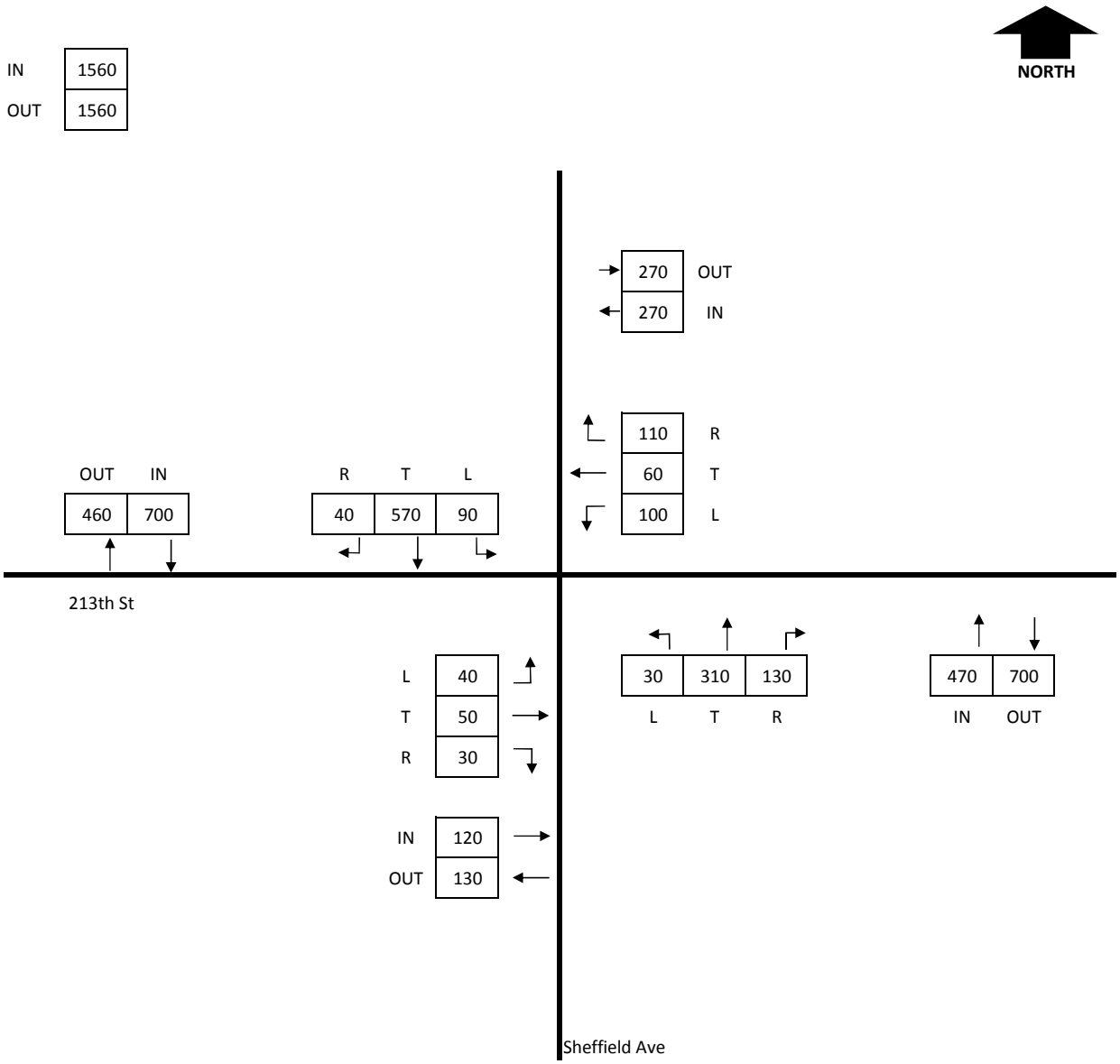
2022 SITE GENERATED TRIPS (PM)

MUNSTER/DYER MAIN STREET STATION

October 2017

TOTAL INTERSECTION

IN	1560
OUT	1560



CLASSIFICATION: ALL VEHICLES

SHEFFIELD AVE & 213TH ST

2022 BUILD TRAFFIC VOLUMES (PM)

MUNSTER/DYER MAIN STREET STATION

October 2017

TOTAL INTERSECTION

	2014	2040
IN	700	900
OUT	700	900

	2014	2040	
→	105	140	OUT
←	103	140	IN

	OUT	IN
2040	410	270
2014	345	191

	R	T	L
2040	10	210	50
2014	3	153	35

	2014	2040	
↰	27	40	R
←	10	20	T
↙	66	80	L

213th St

	2040	2014	
L	50	35	↑
T	30	19	→
R	10	8	↓

	↰	↑	↱
2014	10	283	51
2040	20	320	60
	L	T	R

	2015	2014	
IN	90	62	→
OUT	50	23	←

	↑	↓
2014	344	227
2040	400	300
	IN	OUT

Sheffield Ave

CLASSIFICATION: ALL VEHICLES

ANNUAL GROWTH RATE	
Northbound	0.5%
Southbound	1.2%
Eastbound	0.9%
Westbound	0.6%
Years to Escalate: 2040	26

NICTD

SHEFFIELD AVE & 213TH ST

2040 PROJECTED TRAFFIC VOLUMES (AM)

MUNSTER/DYER MAIN STREET STATION

October 2017

TOTAL INTERSECTION

	2014	2040
IN	1247	1580
OUT	1247	1580

NORTH

	2014	2040	
→	239	300	OUT
←	241	300	IN

	OUT	IN
2040	470	680
2014	394	507

	R	T	L
2040	50	520	110
2014	35	392	80

	2014	2040	
↰	98	120	R
←	55	70	T
↙	88	110	L

213th St

	2040	2014	
L	40	30	↰
T	50	40	→
R	30	20	↘

	2014	2040
2014	24	266	119
2040	30	310	140
	L	T	R

	2040	2014
IN	120	90
OUT	150	114

	2014	2040
2014	409	500
2040	480	660
	IN	OUT

Sheffield Ave

CLASSIFICATION: ALL VEHICLES

ANNUAL GROWTH RATE	
Northbound	0.5%
Southbound	1.2%
Eastbound	0.9%
Westbound	0.6%
Years to Escalate: 2040	26

SHEFFIELD AVE & 213TH ST

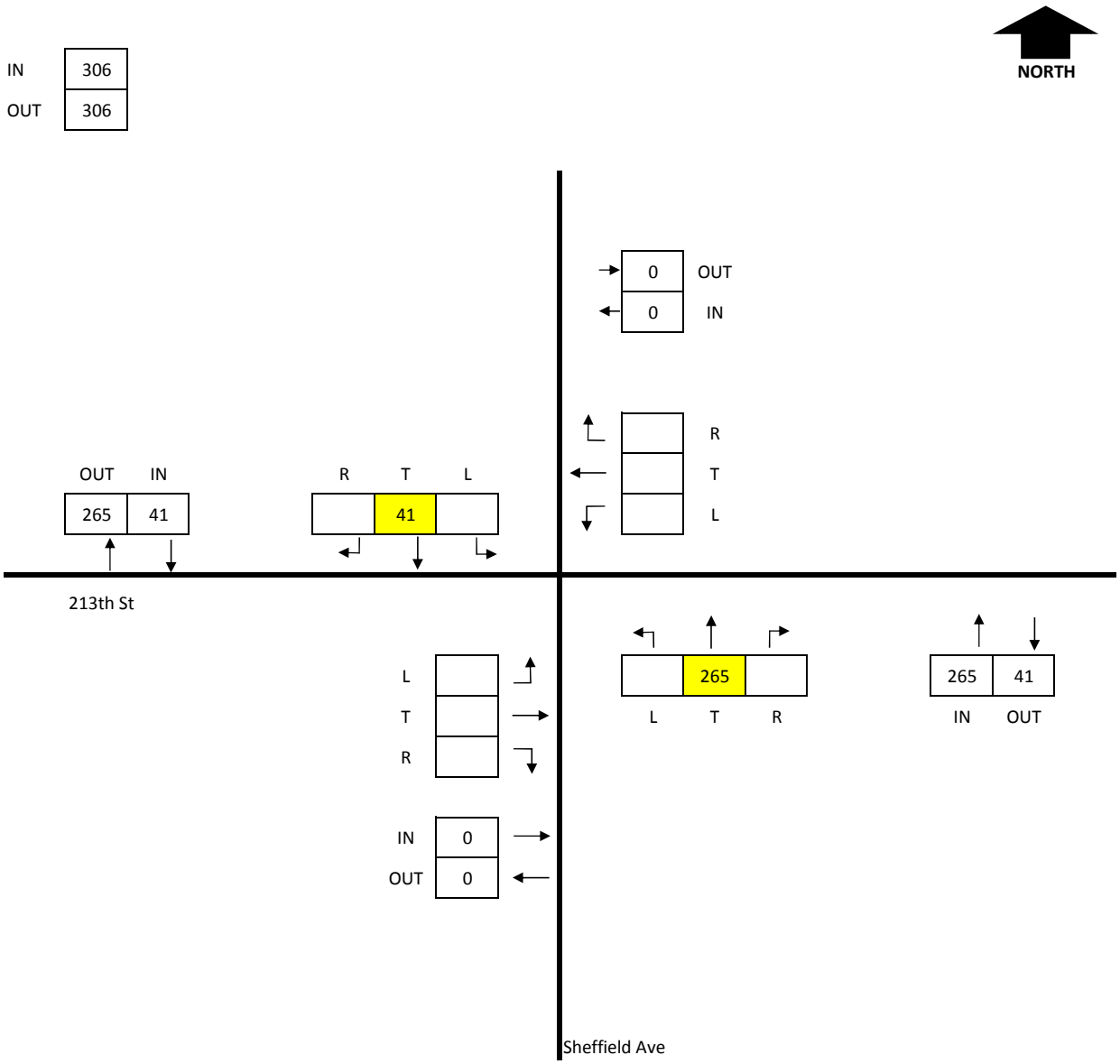
2040 PROJECTED TRAFFIC VOLUMES (PM)

MUNSTER/DYER MAIN STREET STATION

October 2017

TOTAL INTERSECTION

IN	306
OUT	306



CLASSIFICATION: ALL VEHICLES

SHEFFIELD AVE & 213TH ST

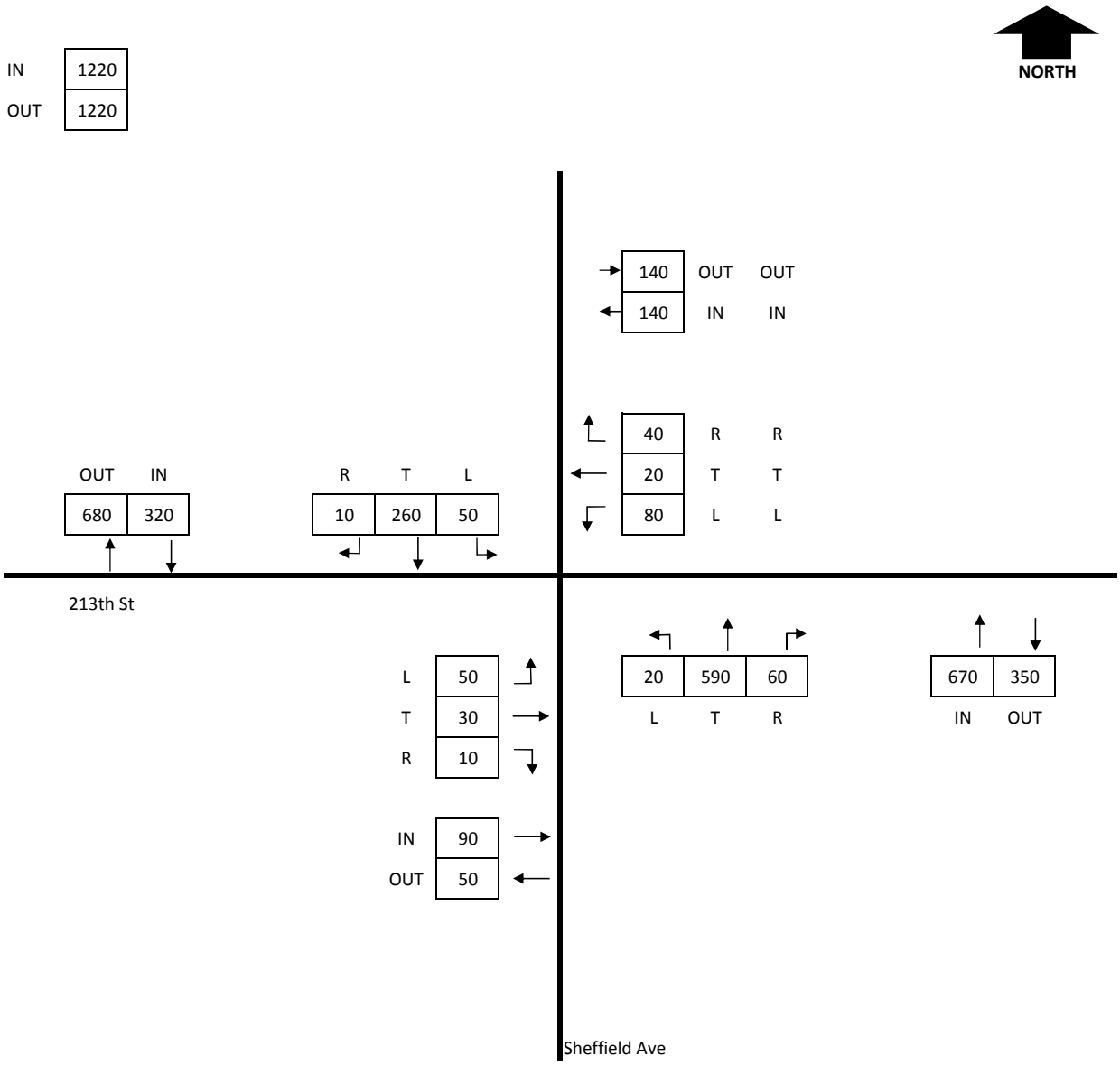
2040 SITE GENERATED TRIPS (AM)

MUNSTER/DYER MAIN STREET STATION

October 2017

TOTAL INTERSECTION

IN	1220
OUT	1220



CLASSIFICATION: ALL VEHICLES

SHEFFIELD AVE & 213TH ST

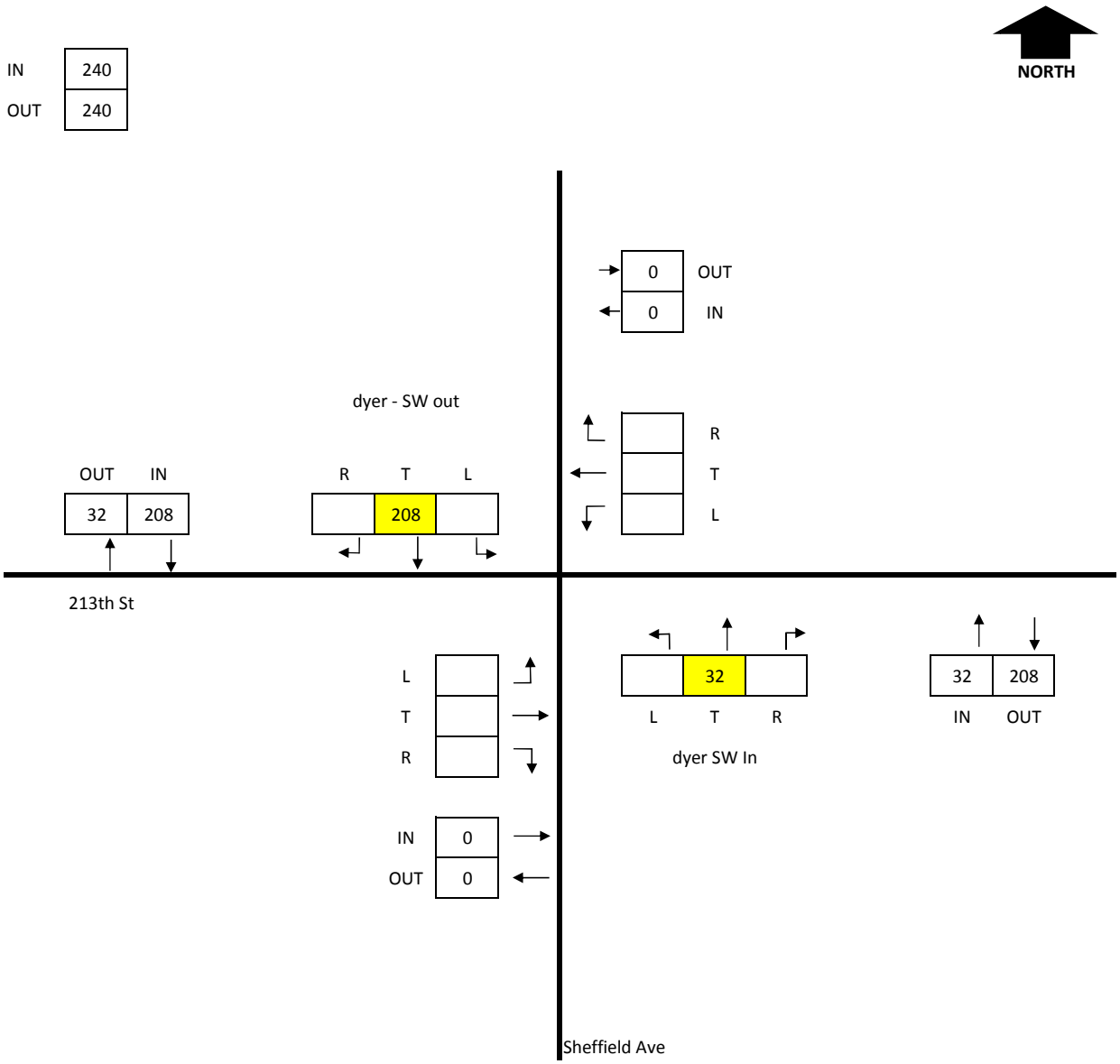
2040 BUILD TRAFFIC VOLUMES (AM)

MUNSTER/DYER MAIN STREET STATION

October 2017

TOTAL INTERSECTION

IN	240
OUT	240



CLASSIFICATION: ALL VEHICLES

SHEFFIELD AVE & 213TH ST

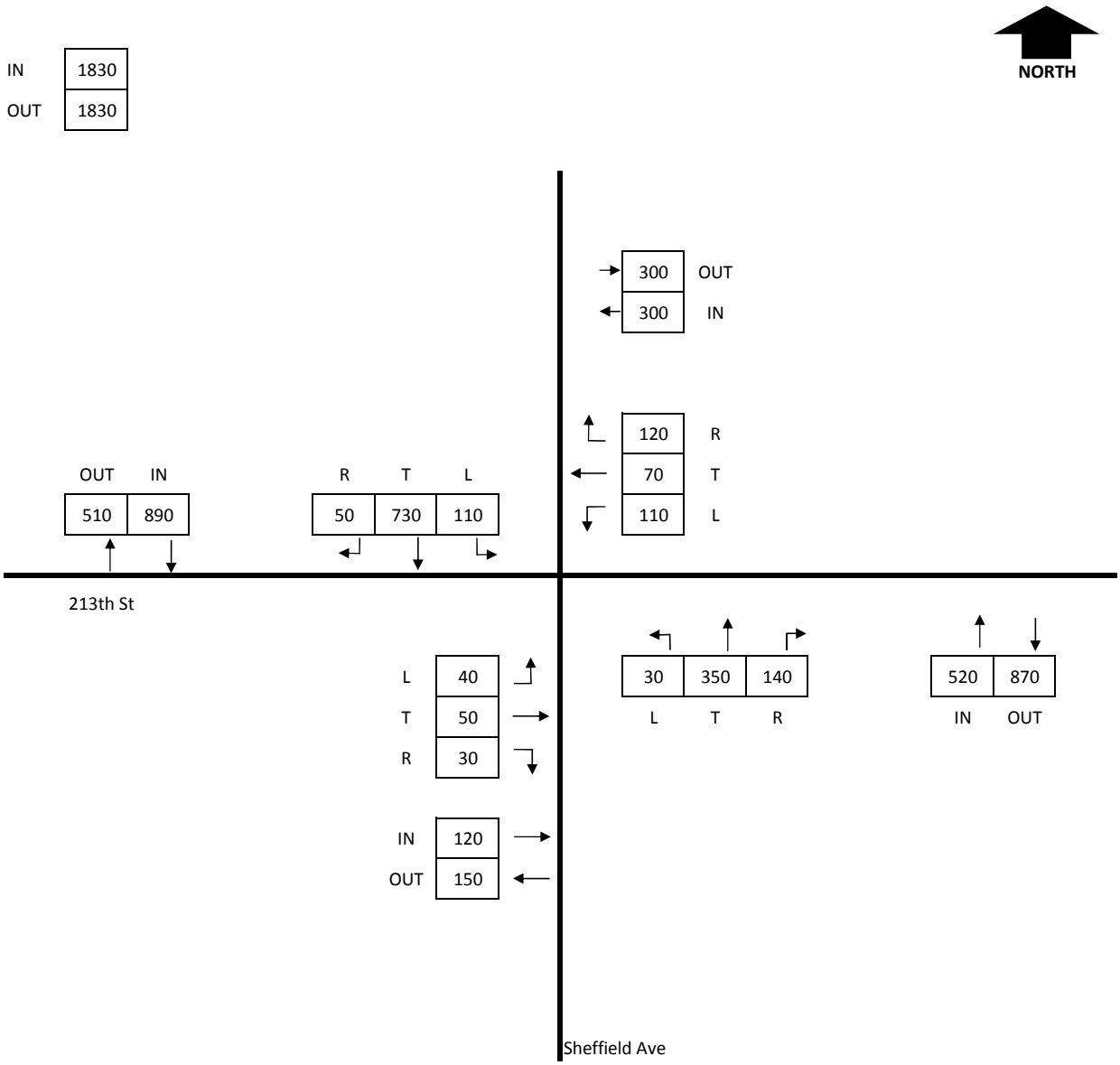
2040 SITE GENERATED TRIPS (PM)

MUNSTER/DYER MAIN STREET STATION

October 2017

TOTAL INTERSECTION

IN	1830
OUT	1830



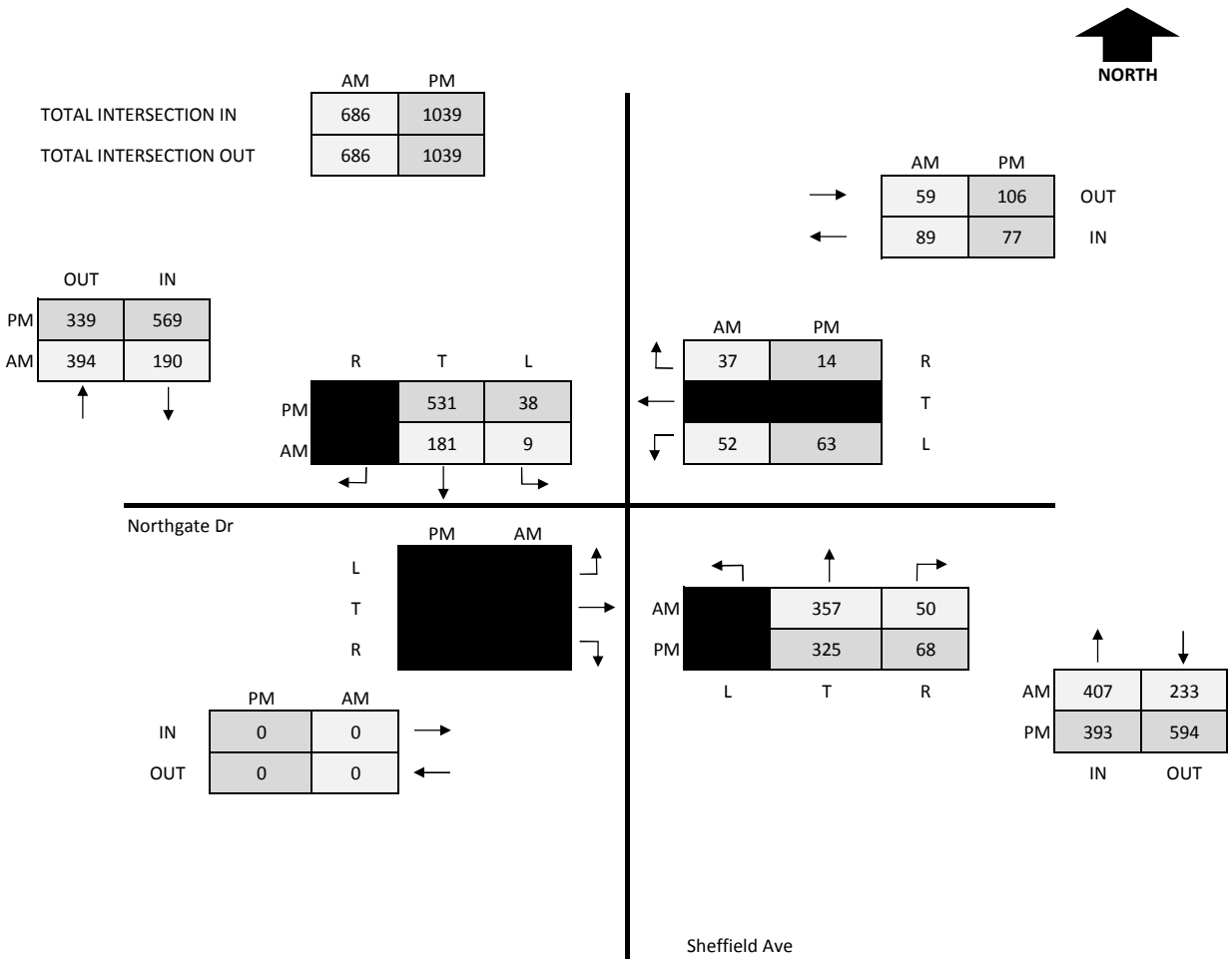
CLASSIFICATION: ALL VEHICLES

SHEFFIELD AVE & 213TH ST

2040 BUILD TRAFFIC VOLUMES (PM)

MUNSTER/DYER MAIN STREET STATION

October 2017



CLASSIFICATION: ALL VEHICLES

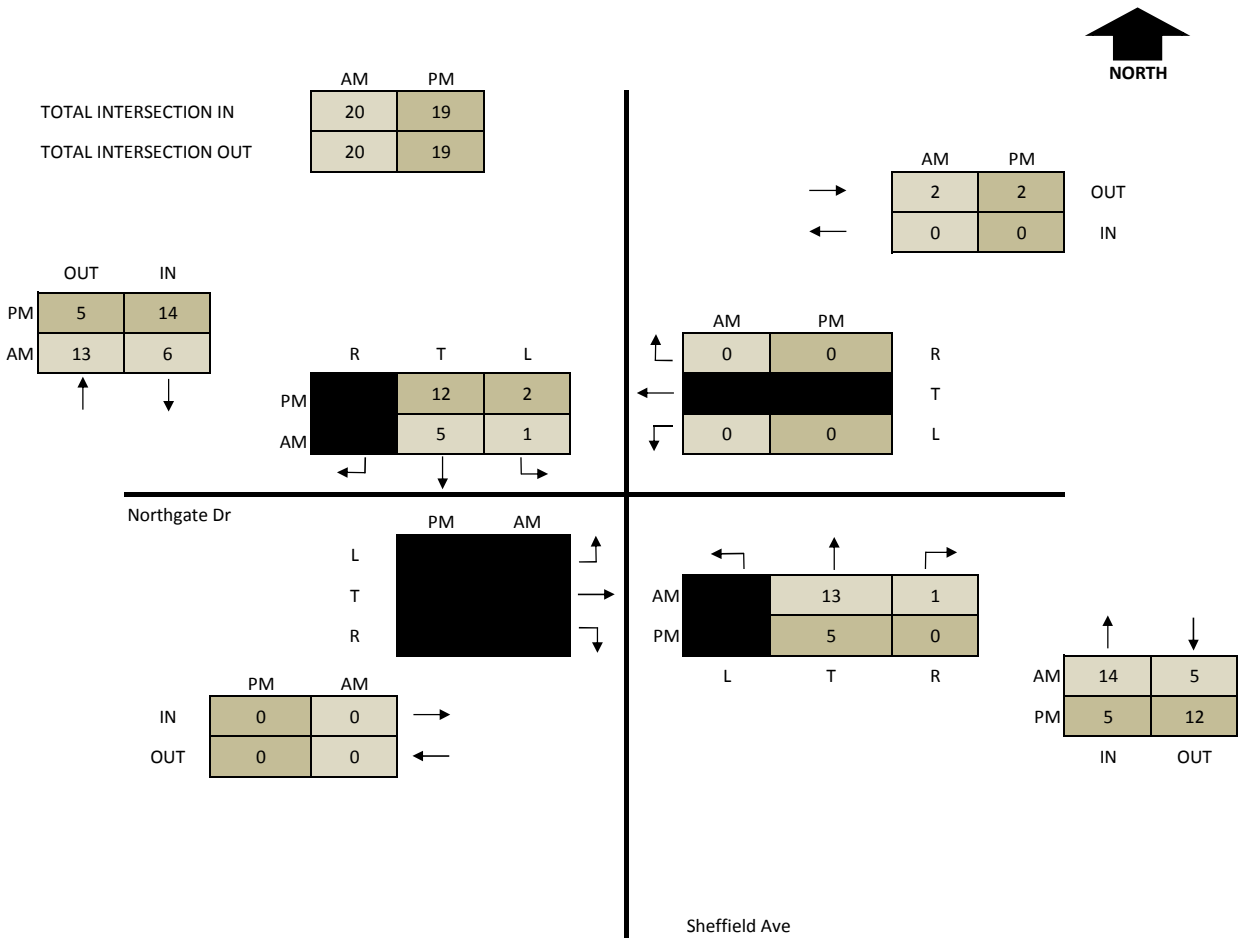
Traffic Counts from Quality Counts				
AM	11/4/2014	7:15 AM	to	8:15 AM
PM	11/4/2014	4:30 PM	to	5:30 PM

SHEFFIELD AVE & NORTHGATE DR

EXISTING TRAFFIC VOLUMES (2014)

MUNSTER/DYER MAIN STREET STATION

October 2017



CLASSIFICATION: TRUCKS

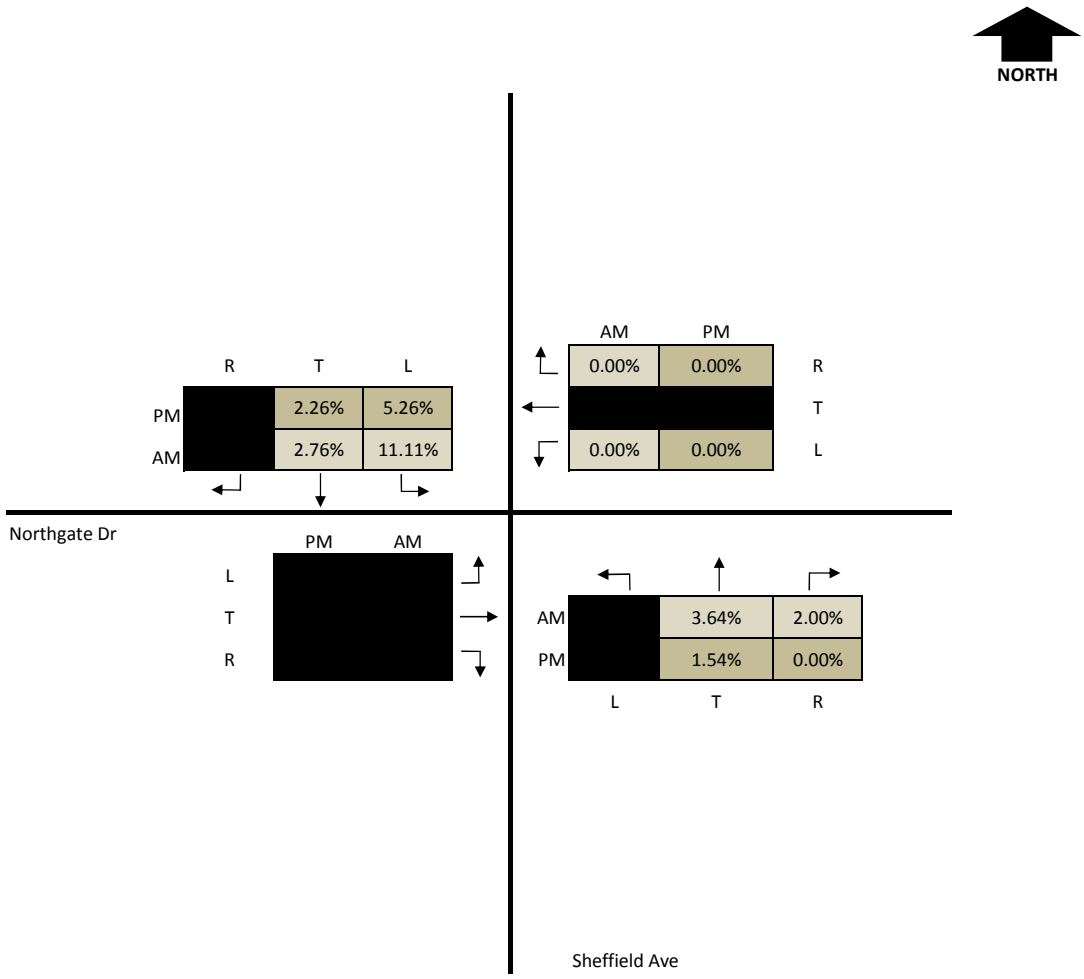
Traffic Counts from Quality Counts				
AM	11/4/2014	7:15 AM	to	8:15 AM
PM	11/4/2014	4:30 PM	to	5:30 PM

SHEFFIELD AVE & NORTHGATE DR

EXISTING TRAFFIC VOLUMES (2014)

MUNSTER/DYER MAIN STREET STATION

October 2017



CLASSIFICATION: TRUCKS

Traffic Counts from Quality Counts				
AM	11/4/2014	7:15 AM	to	8:15 AM
PM	11/4/2014	4:30 PM	to	5:30 PM

SHEFFIELD AVE & NORTHGATE DR

EXISTING TRAFFIC VOLUMES (2014)

MUNSTER/DYER MAIN STREET STATION

October 2017

TOTAL INTERSECTION

	2014	2022
IN	686	810
OUT	686	810

NORTH

	2014	2022	
→	59	80	OUT
←	89	110	IN

	OUT	IN
2022	460	230
2014	394	190

	R	T	L
2022		210	20
2014		181	9

	2014	2022	
↰	37	50	R
←			T
↙	52	60	L

Northgate Dr

	2022	2014
L		
T		
R		

	2015	2014
IN	0	0
OUT	0	0

2014		357	50
2022		410	60
	L	T	R

	2014	2022
2014	407	233
2022	470	270
	IN	OUT

Sheffield Ave

CLASSIFICATION: ALL VEHICLES

ANNUAL GROWTH RATE	
Northbound	1.6%
Southbound	1.5%
Eastbound	-
Westbound	1.6%
Years to Escalate: 2022	8

SHEFFIELD AVE & NORTHGATE DR

2022 PROJECTED TRAFFIC VOLUMES (AM)

MUNSTER/DYER MAIN STREET STATION

October 2017

TOTAL INTERSECTION

	2014	2022
IN	1039	1200
OUT	1039	1200

	2014	2022	
→	106	130	OUT
←	77	100	IN

	OUT	IN
2022	390	650
2014	339	569

	R	T	L
2022		600	50
2014		531	38

	2014	2022	
↰	14	20	R
←			T
↙	63	80	L

Northgate Dr

	2022	2014
L		
T		
R		

	2014	2022
IN	0	0
OUT	0	0

2014		325	68
2022		370	80
	L	T	R

	2014	2022
	393	594
	450	680
	IN	OUT

Sheffield Ave

CLASSIFICATION: ALL VEHICLES

ANNUAL GROWTH RATE	
Northbound	1.6%
Southbound	1.5%
Eastbound	-
Westbound	1.6%
Years to Escalate: 2022	8

NICTD

SHEFFIELD AVE & NORTHGATE DR

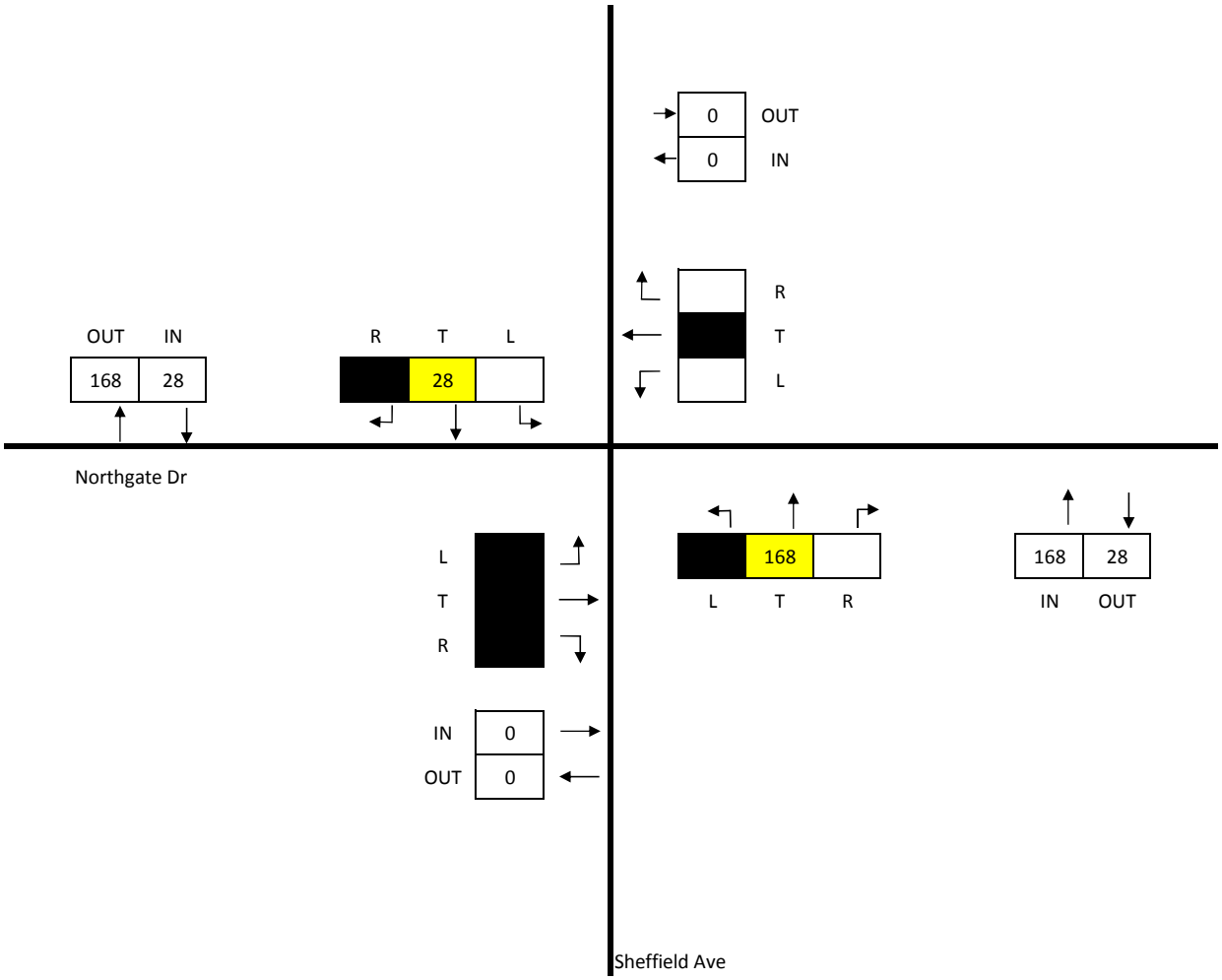
2022 PROJECTED TRAFFIC VOLUMES (PM)

MUNSTER/DYER MAIN STREET STATION

October 2017

TOTAL INTERSECTION

IN	196
OUT	196



CLASSIFICATION: ALL VEHICLES

NICTD

SHEFFIELD AVE & NORTHGATE DR

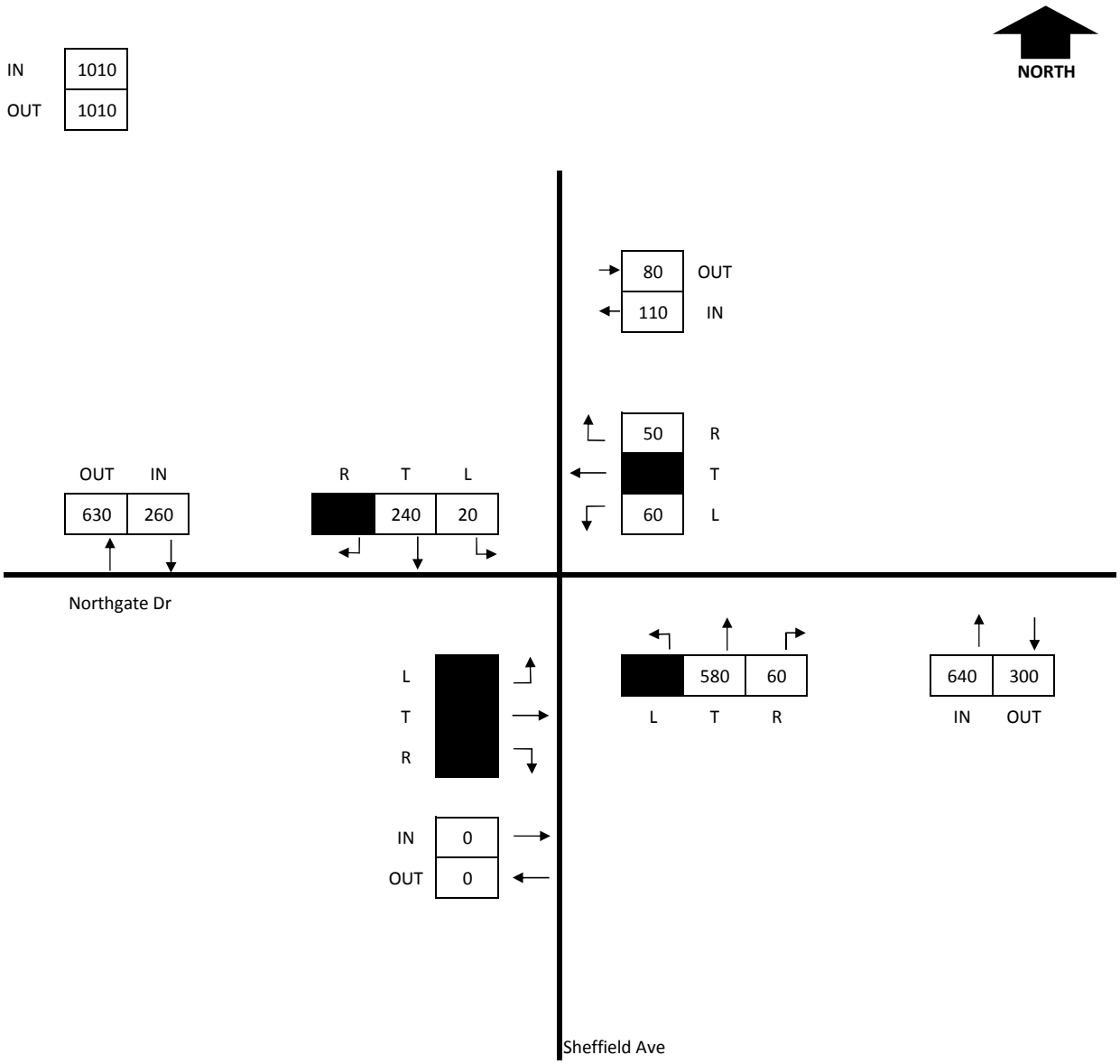
2022 SITE GENERATED TRIPS (AM)

MUNSTER/DYER MAIN STREET STATION

October 2017

TOTAL INTERSECTION

IN	1010
OUT	1010



CLASSIFICATION: ALL VEHICLES

SHEFFIELD AVE & NORTHGATE DR

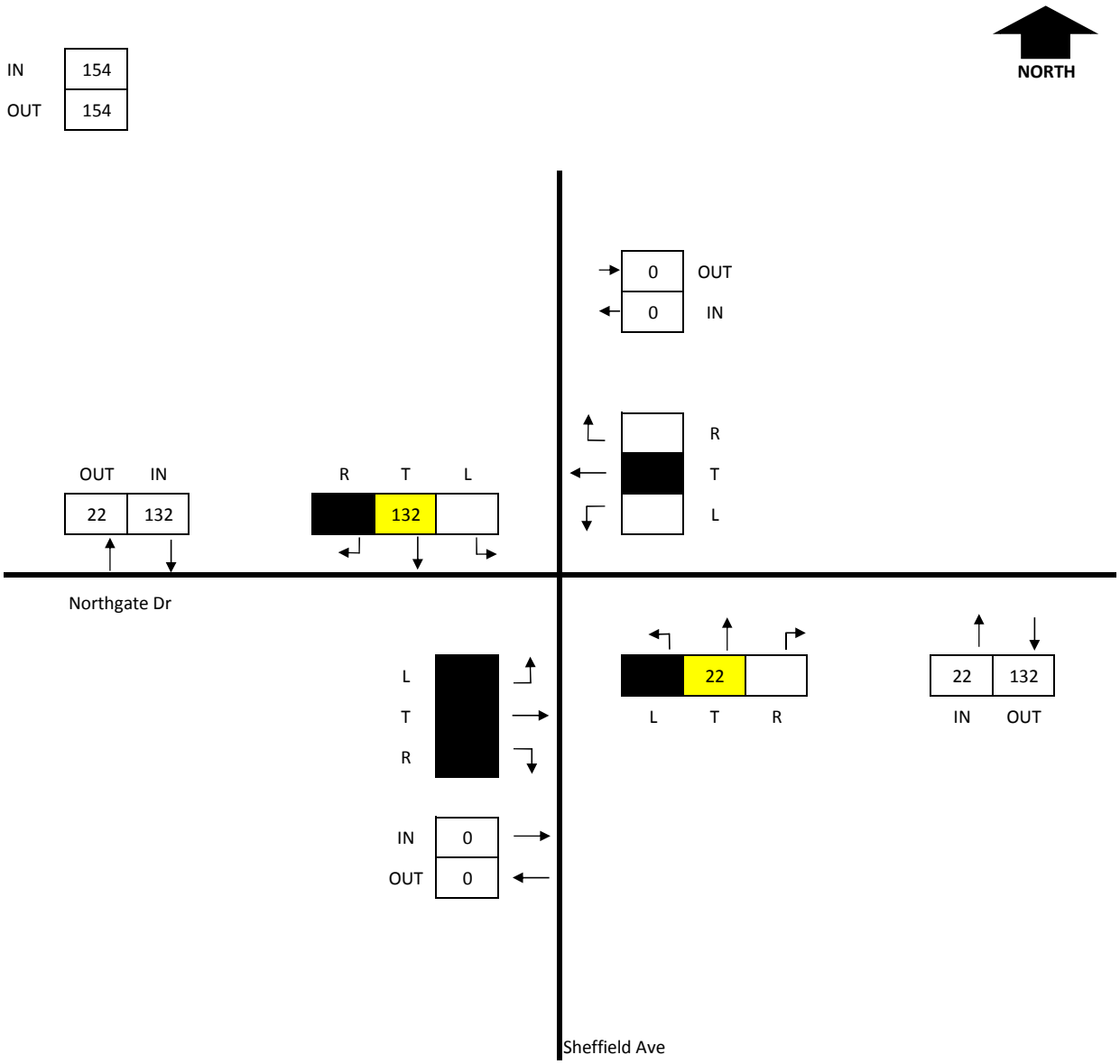
2022 BUILD TRAFFIC VOLUMES (AM)

MUNSTER/DYER MAIN STREET STATION

October 2017

TOTAL INTERSECTION

IN	154
OUT	154



CLASSIFICATION: ALL VEHICLES

SHEFFIELD AVE & NORTHGATE DR

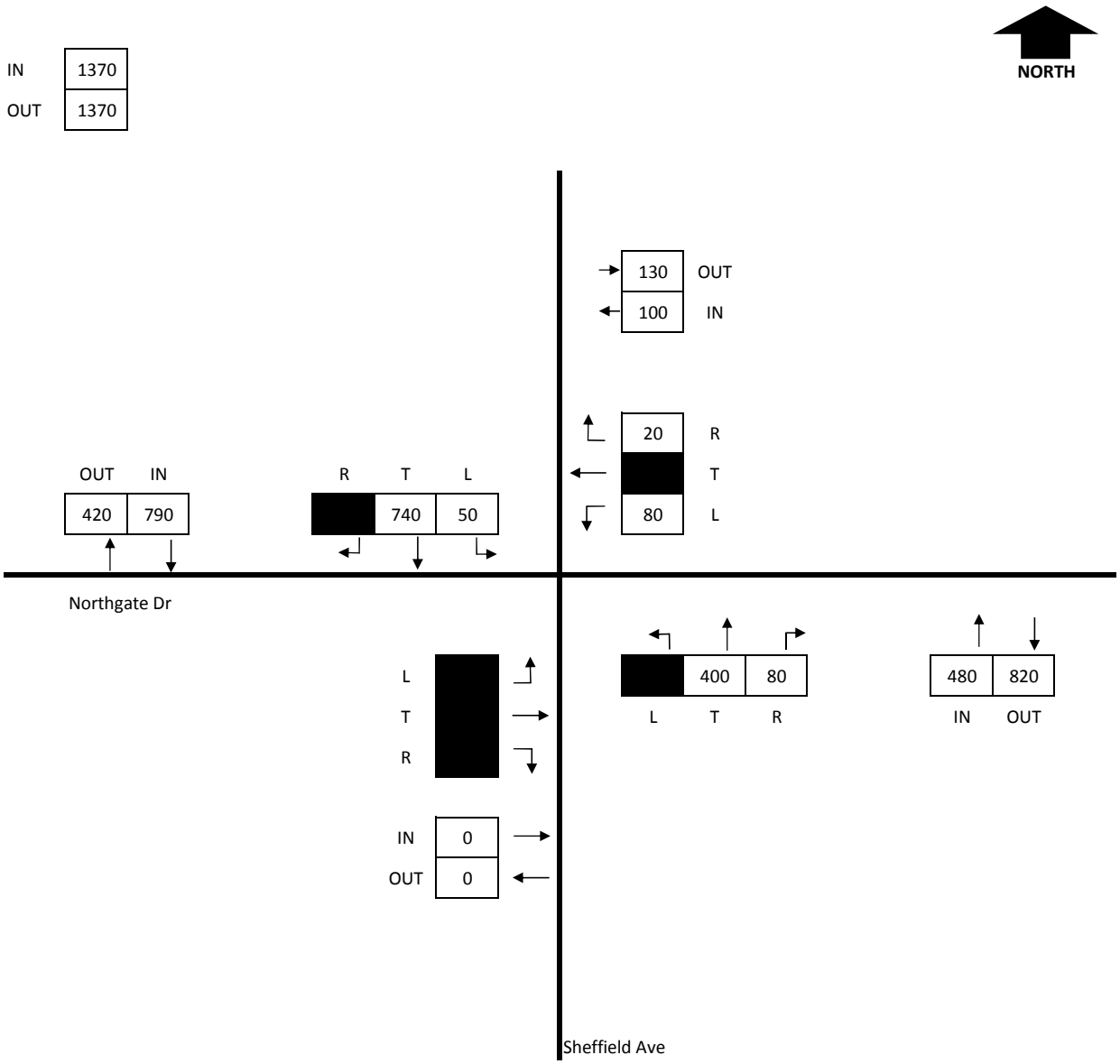
2022 SITE GENERATED TRIPS (PM)

MUNSTER/DYER MAIN STREET STATION

October 2017

TOTAL INTERSECTION

IN	1370
OUT	1370



CLASSIFICATION: ALL VEHICLES

SHEFFIELD AVE & NORTHGATE DR

2022 BUILD TRAFFIC VOLUMES (PM)

MUNSTER/DYER MAIN STREET STATION

October 2017

TOTAL INTERSECTION

	2014	2040
IN	686	1010
OUT	686	1010

NORTH

	2014	2040	
→	59	100	OUT
←	89	140	IN

	OUT	IN
2040	570	280
2014	394	190

	R	T	L
2040		260	20
2014		181	9

	2014	2040	
↰	37	60	R
←			T
↙	52	80	L

Northgate Dr

	2040	2014
L		
T		
R		

	2014	2040
IN	0	0
OUT	0	0

	L	T	R
2014		357	50
2040		510	80

	2014	2040
2014	407	233
2040	590	340
	IN	OUT

Sheffield Ave

CLASSIFICATION: ALL VEHICLES

ANNUAL GROWTH RATE	
Northbound	1.6%
Southbound	1.5%
Eastbound	-
Westbound	1.6%
Years to Escalate: 2040	26

SHEFFIELD AVE & NORTHGATE DR

2040 PROJECTED TRAFFIC VOLUMES (AM)

MUNSTER/DYER MAIN STREET STATION

October 2017

TOTAL INTERSECTION

	2014	2040
IN	1039	1480
OUT	1039	1480

NORTH

	2014	2040	
→	106	160	OUT
←	77	110	IN

	OUT	IN
2040	490	800
2014	339	569

	R	T	L
2040		740	60
2014		531	38

	2014	2040	
↱	14	20	R
←			T
↳	63	90	L

Northgate Dr

	2040	2014
L		
T		
R		

	2040	2014
IN	0	0
OUT	0	0

2014		325	68
2040		470	100
	L	T	R

2014	393	594
2040	570	830
	IN	OUT

Sheffield Ave

CLASSIFICATION: ALL VEHICLES

ANNUAL GROWTH RATE	
Northbound	1.6%
Southbound	1.5%
Eastbound	-
Westbound	1.6%
Years to Escalate: 2040	26

NICTD

SHEFFIELD AVE & NORTHGATE DR

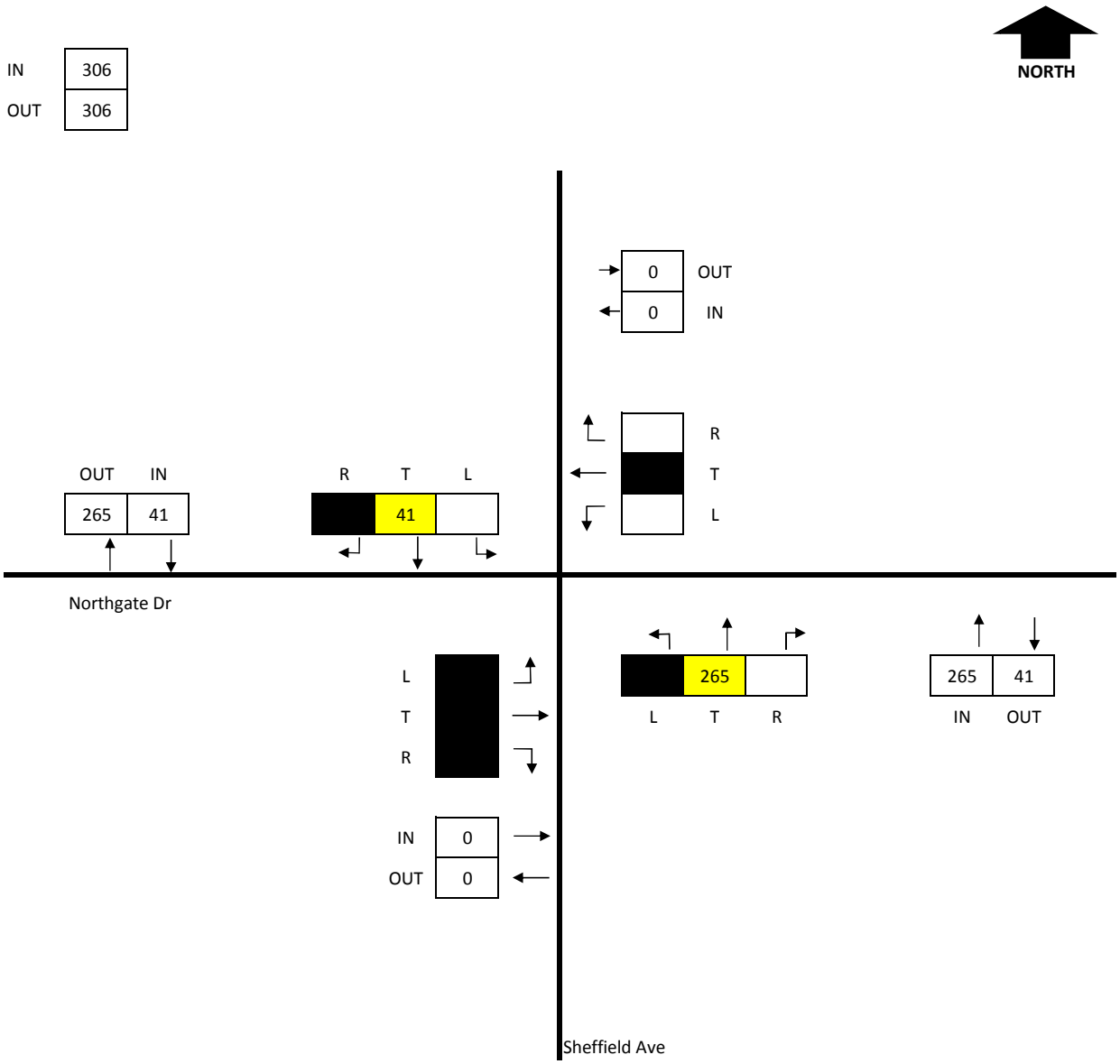
2040 PROJECTED TRAFFIC VOLUMES (PM)

MUNSTER/DYER MAIN STREET STATION

October 2017

TOTAL INTERSECTION

IN	306
OUT	306



CLASSIFICATION: ALL VEHICLES

SHEFFIELD AVE & NORTHGATE DR

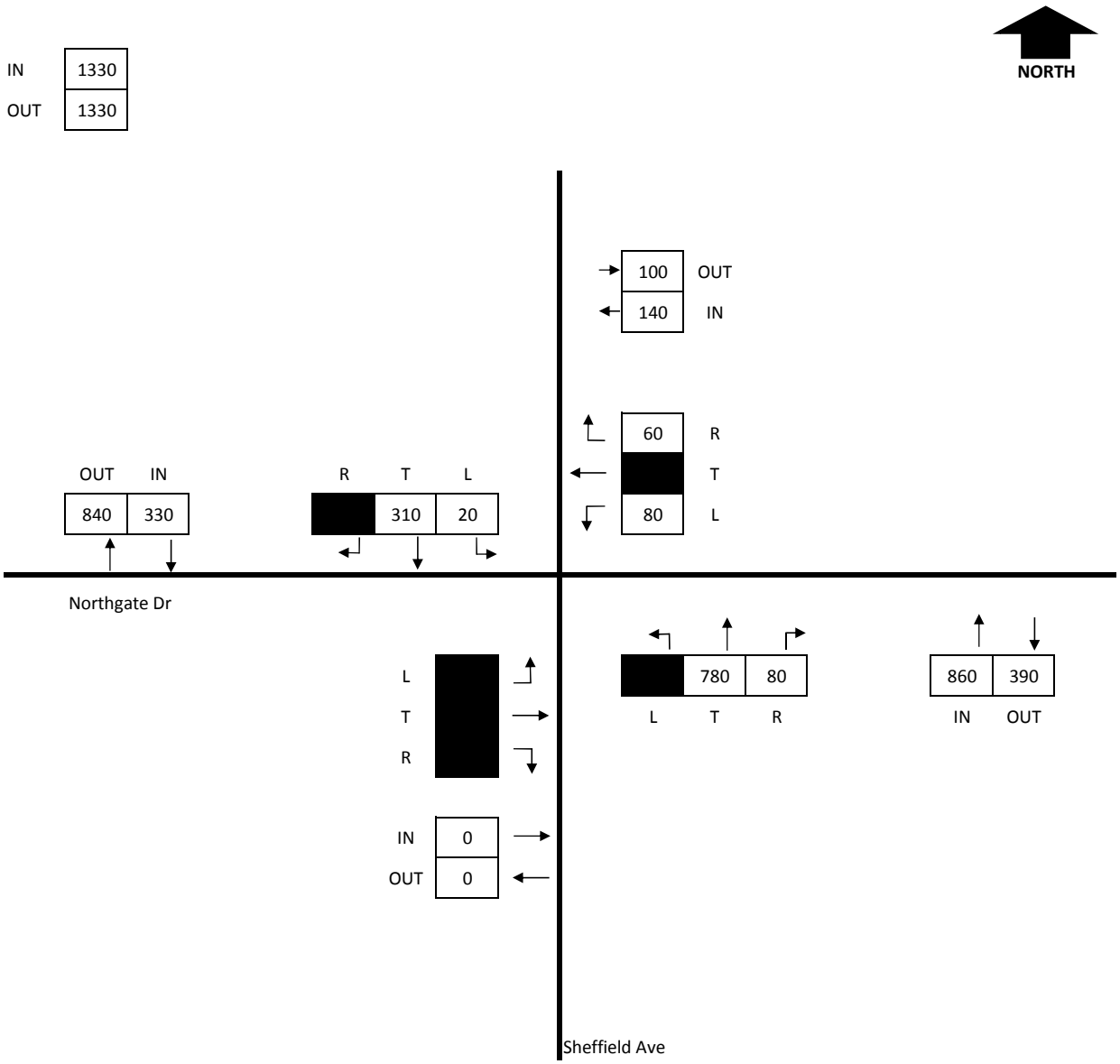
2040 SITE GENERATED TRIPS (AM)

MUNSTER/DYER MAIN STREET STATION

October 2017

TOTAL INTERSECTION

IN	1330
OUT	1330



CLASSIFICATION: ALL VEHICLES

SHEFFIELD AVE & NORTHGATE DR

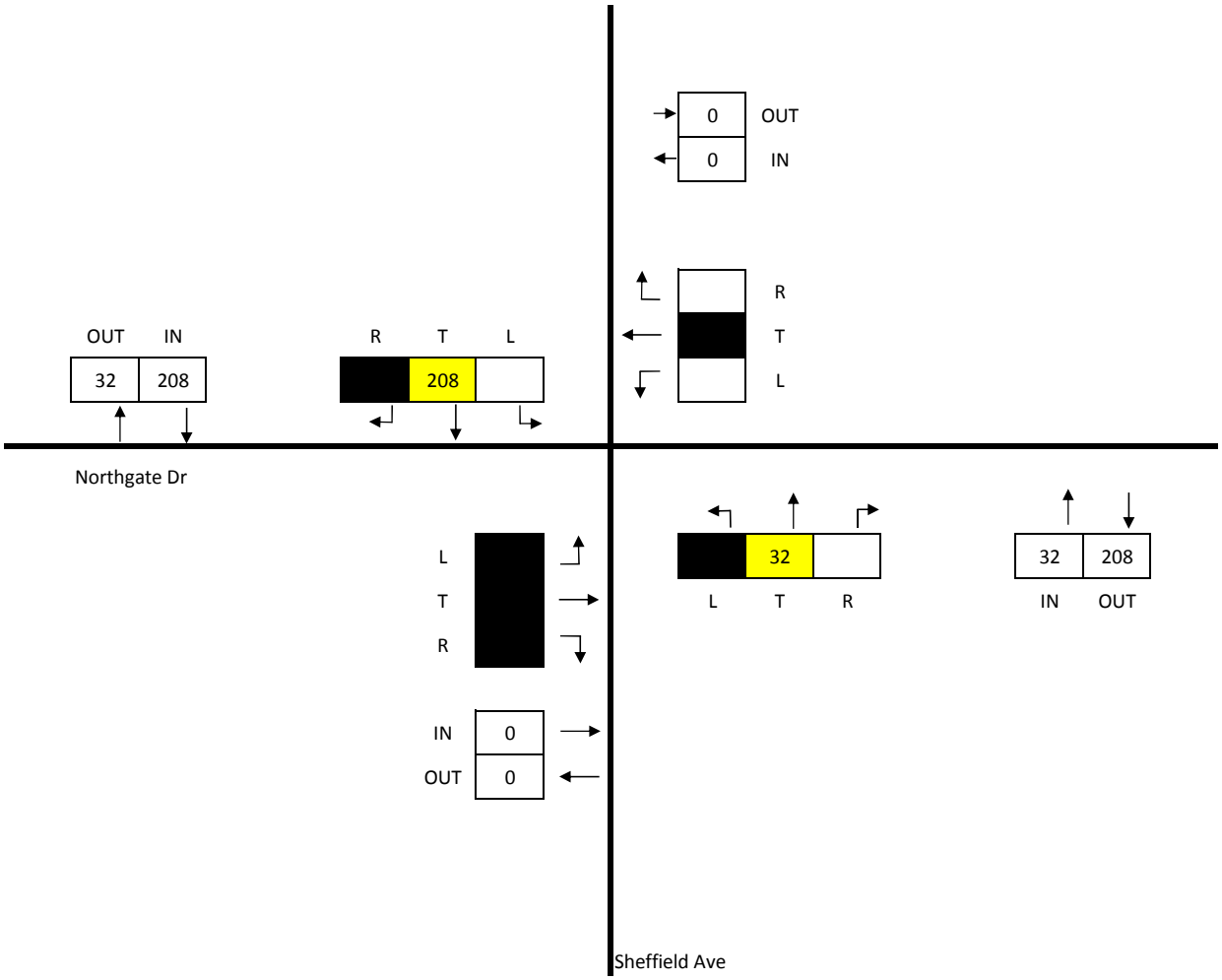
2040 BUILD TRAFFIC VOLUMES (AM)

MUNSTER/DYER MAIN STREET STATION

October 2017

TOTAL INTERSECTION

IN	240
OUT	240



CLASSIFICATION: ALL VEHICLES

NICTD

SHEFFIELD AVE & NORTHGATE DR

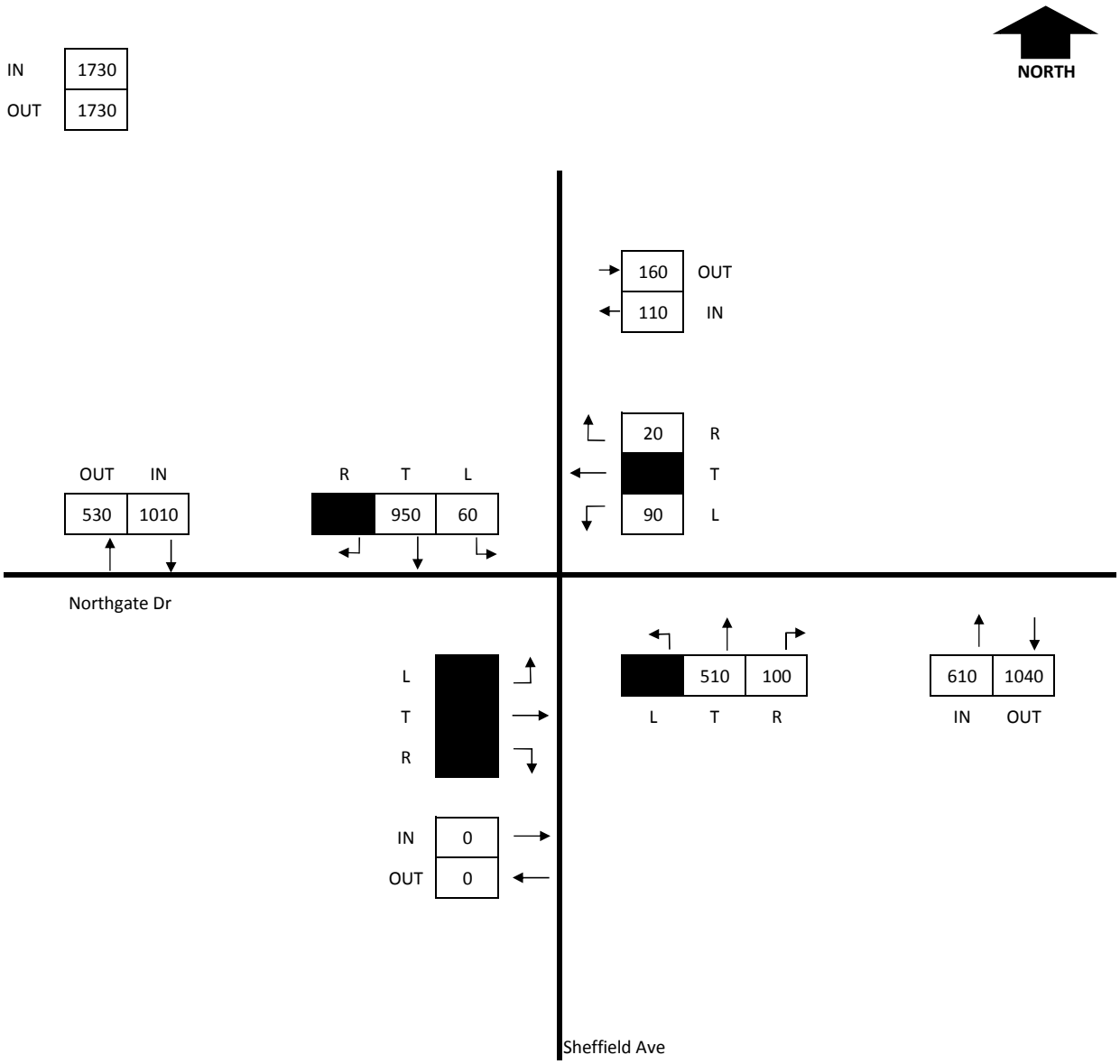
2040 SITE GENERATED TRIPS (PM)

MUNSTER/DYER MAIN STREET STATION

October 2017

TOTAL INTERSECTION

IN	1730
OUT	1730



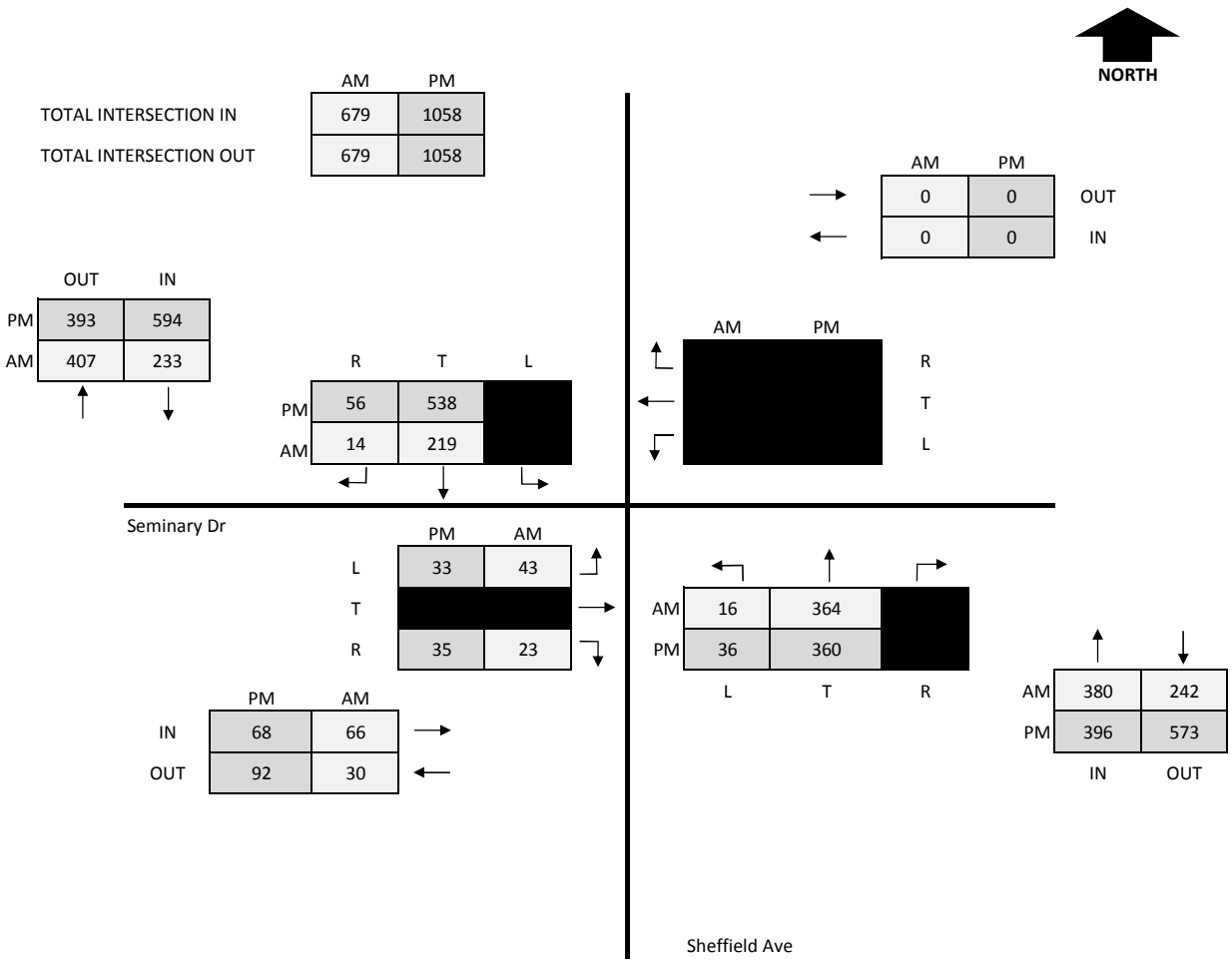
CLASSIFICATION: ALL VEHICLES

SHEFFIELD AVE & NORTHGATE DR

2040 BUILD TRAFFIC VOLUMES (PM)

MUNSTER/DYER MAIN STREET STATION

October 2017



CLASSIFICATION: ALL VEHICLES

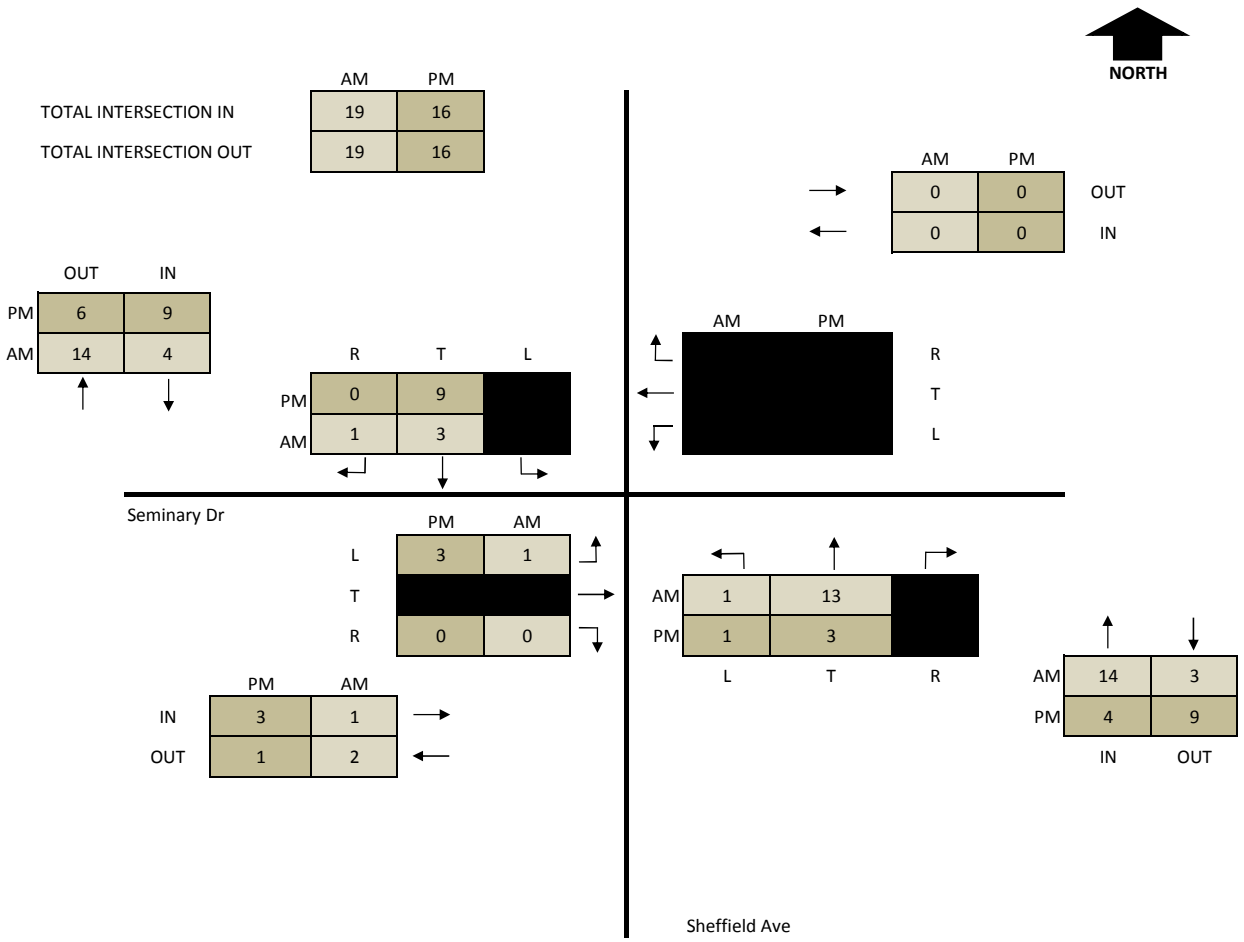
Traffic Counts from Quality Counts				
AM	11/4/2014	7:15 AM	to	8:15 AM
PM	11/4/2014	4:30 PM	to	5:30 PM

SHEFFIELD AVE & SEMINARY DR

EXISTING TRAFFIC VOLUMES (2014)

MUNSTER/DYER MAIN STREET STATION

October 2017



CLASSIFICATION: TRUCKS

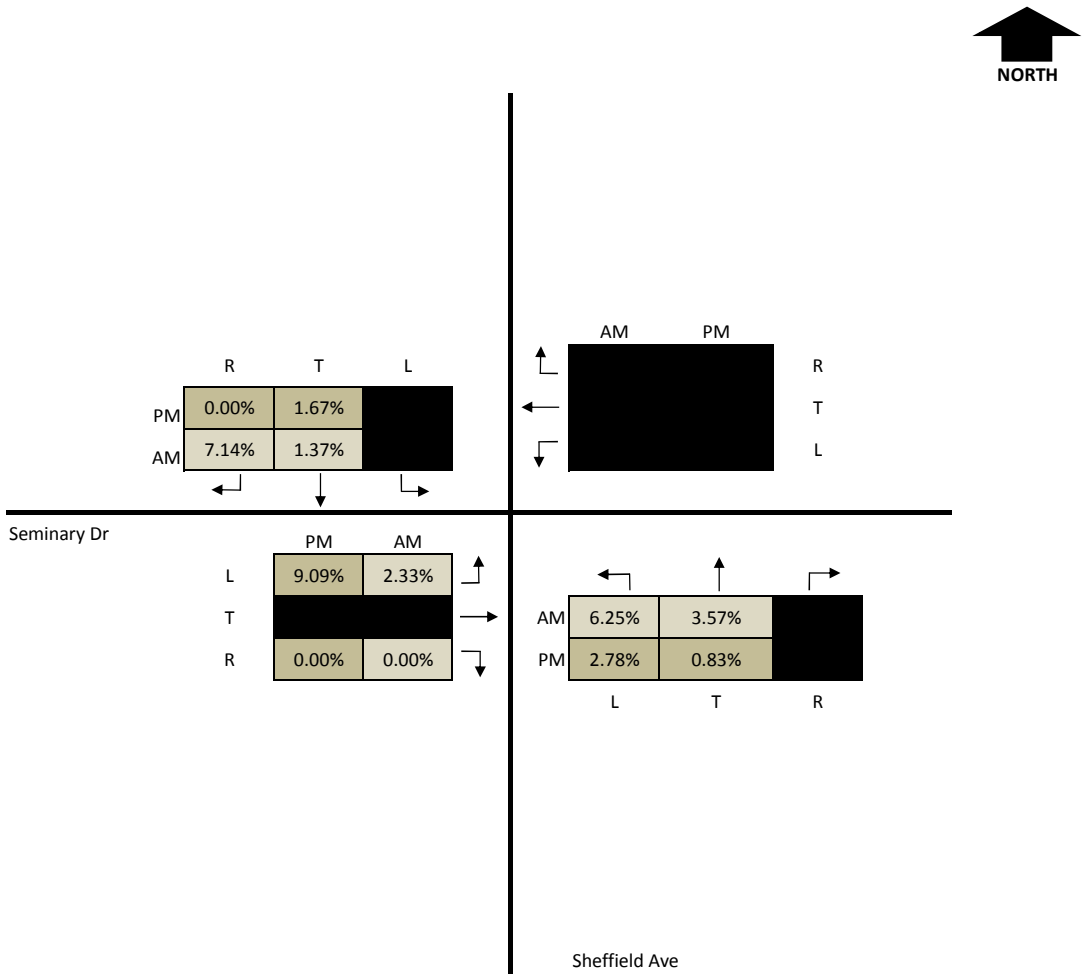
Traffic Counts from Quality Counts				
AM	11/4/2014	7:15 AM	to	8:15 AM
PM	11/4/2014	4:30 PM	to	5:30 PM

SHEFFIELD AVE & SEMINARY DR

EXISTING TRUCK VOLUMES (2014)

MUNSTER/DYER MAIN STREET STATION

October 2017



CLASSIFICATION: TRUCKS

Traffic Counts from Quality Counts				
AM	11/4/2014	7:15 AM	to	8:15 AM
PM	11/4/2014	4:30 PM	to	5:30 PM

SHEFFIELD AVE & SEMINARY DR

EXISTING TRUCK PERCENTAGE (2014)

MUNSTER/DYER MAIN STREET STATION

October 2017

TOTAL INTERSECTION

	2014	2022
IN	679	780
OUT	679	780

	2014	2022	
→	0	0	OUT
←	0	0	IN

	OUT	IN
2022	460	270
2014	407	233

	R	T	L
2022	20	250	
2014	14	219	

	2014	2022	
↰			R
←			T
↙			L

Seminary Dr

	2022	2014	
L	50	43	↑
T			→
R	30	23	↓

	2014	2022	↑	↑	↱
	16	20	364	410	
	L		T		R

	2015	2014	
IN	80	66	→
OUT	40	30	←

	2014	2022
↑	380	430
↓	242	280
	IN	OUT

Sheffield Ave

CLASSIFICATION: ALL VEHICLES

ANNUAL GROWTH RATE	
Northbound	1.3%
Southbound	1.5%
Eastbound	1.4%
Westbound	-
Years to Escalate: 2022	8

NICTD

SHEFFIELD AVE & SEMINARY DR

2022 PROJECTED TRAFFIC VOLUMES (AM)

MUNSTER/DYER MAIN STREET STATION

October 2017

TOTAL INTERSECTION

	2014	2022
IN	1058	1200
OUT	1058	1200

NORTH

	2014	2022	
→	0	0	OUT
←	0	0	IN

	OUT	IN
2022	440	680
2014	393	594

	R	T	L
2022	70	610	
2014	56	538	

	2014	2022	
↰			R
←			T
↙			L

Seminary Dr

	2022	2014	
L	40	33	↑
T			→
R	40	35	↓

	L	T	R
2014	36	360	
2022	40	400	

	2022	2014	
IN	80	68	→
OUT	110	92	←

	2014	2022
IN	396	573
OUT	440	650

Sheffield Ave

CLASSIFICATION: ALL VEHICLES

ANNUAL GROWTH RATE	
Northbound	1.3%
Southbound	1.5%
Eastbound	1.4%
Westbound	-
Years to Escalate: 2022	8

SHEFFIELD AVE & SEMINARY DR

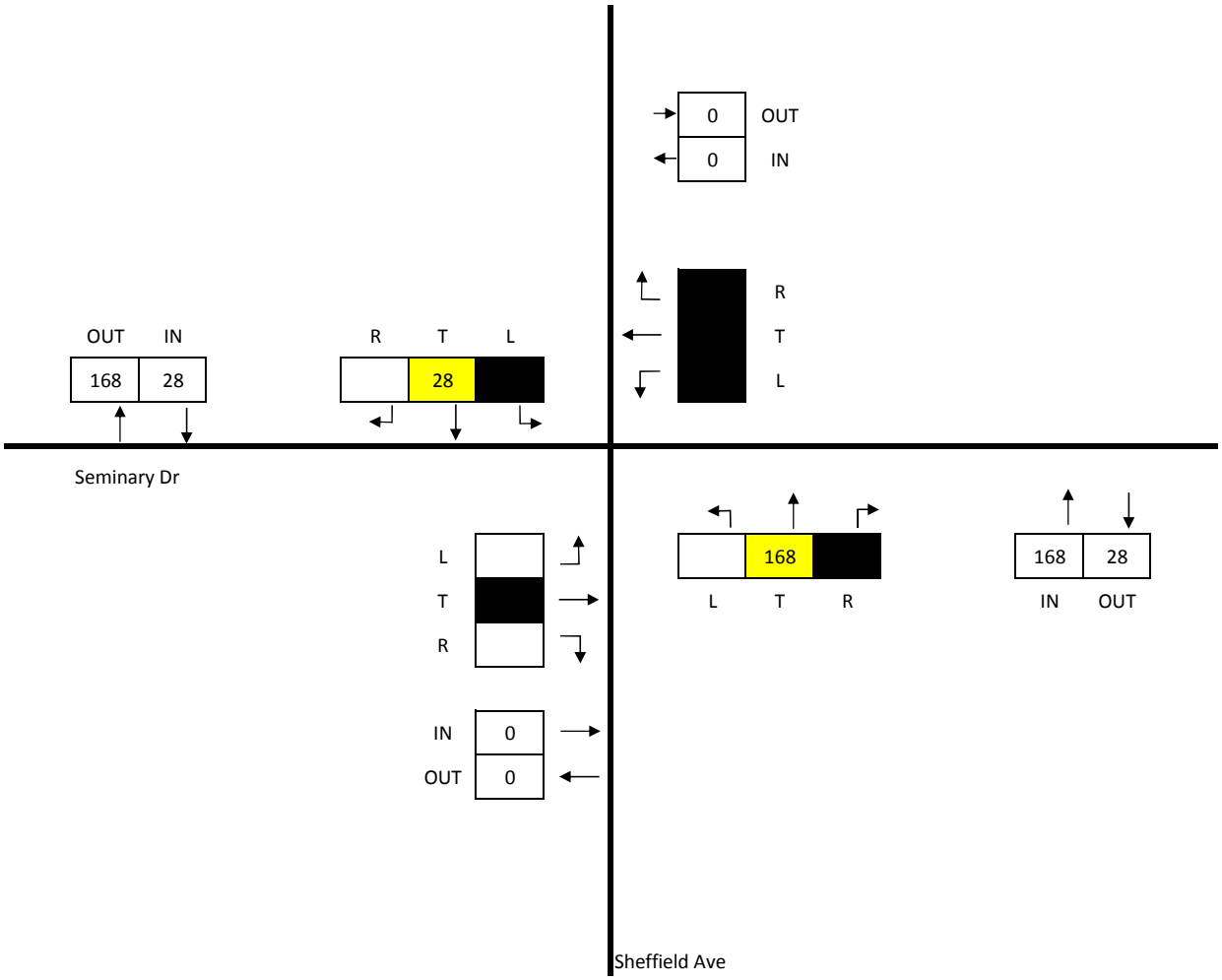
2022 PROJECTED TRAFFIC VOLUMES (PM)

MUNSTER/DYER MAIN STREET STATION

October 2017

TOTAL INTERSECTION

IN	196
OUT	196



CLASSIFICATION: ALL VEHICLES

NICTD

SHEFFIELD AVE & SEMINARY DR

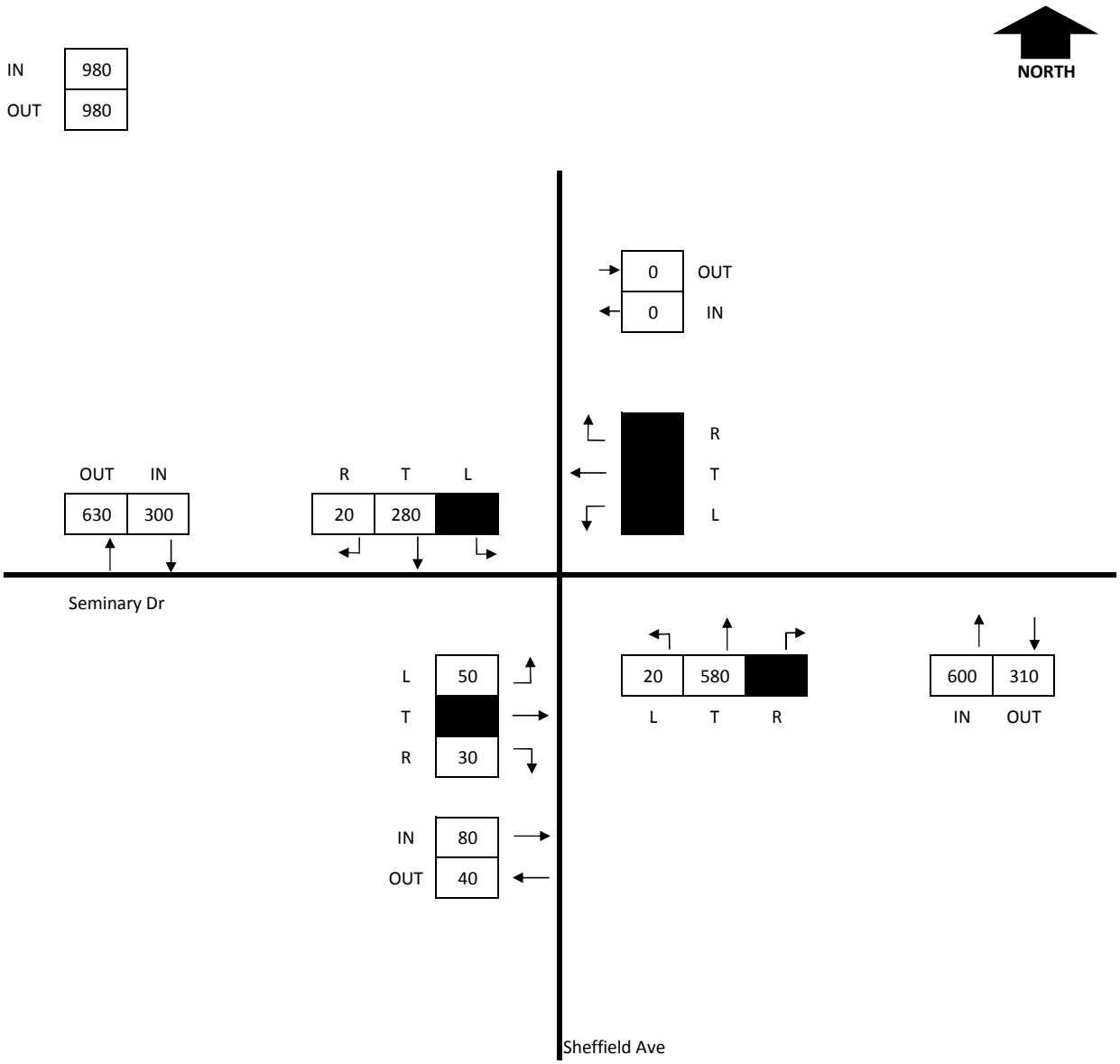
2022 SITE GENERATED TRIPS (AM)

MUNSTER/DYER MAIN STREET STATION

October 2017

TOTAL INTERSECTION

IN	980
OUT	980



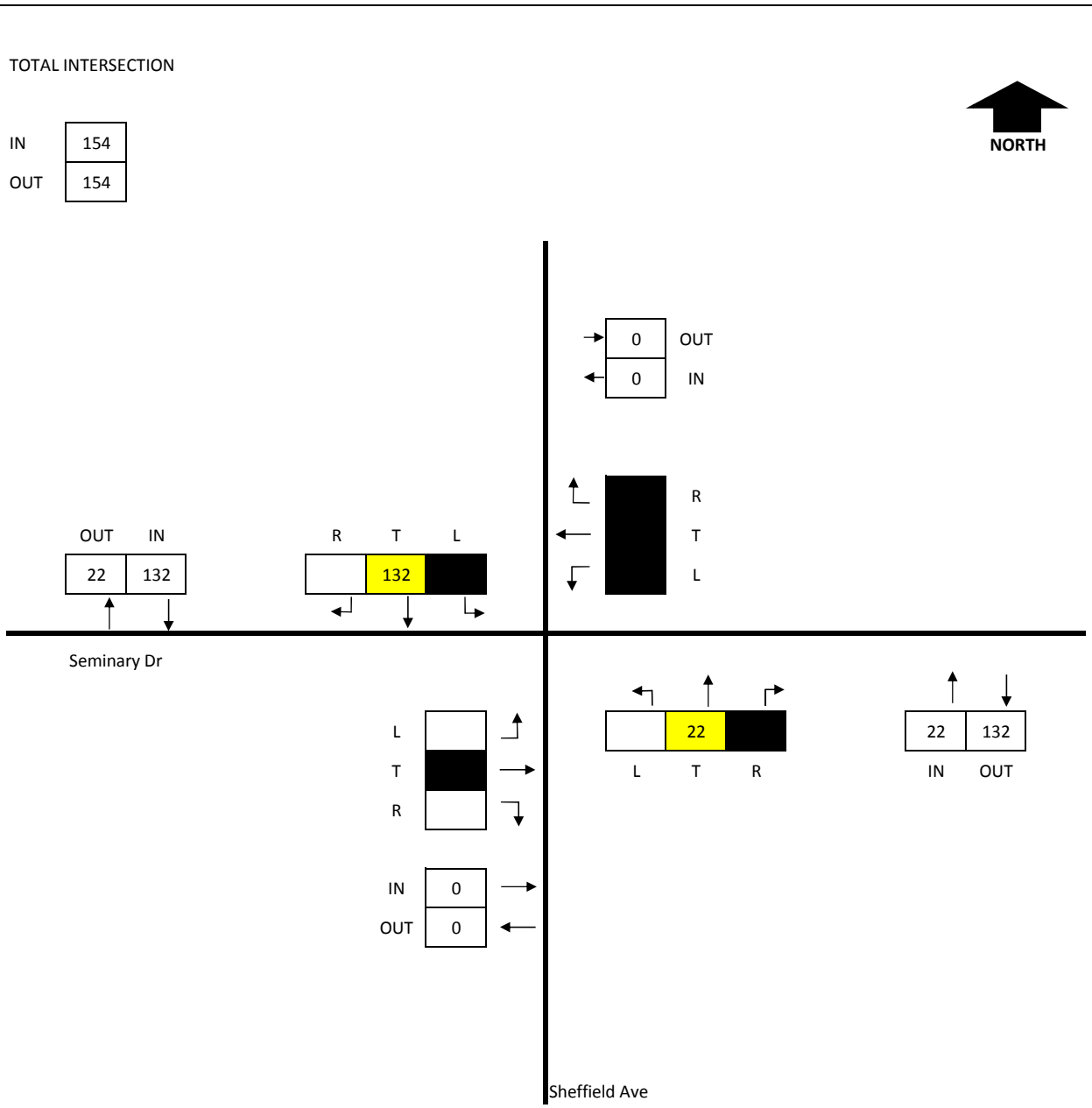
CLASSIFICATION: ALL VEHICLES

SHEFFIELD AVE & SEMINARY DR

2022 BUILD TRAFFIC VOLUMES (AM)

MUNSTER/DYER MAIN STREET STATION

October 2017



CLASSIFICATION: ALL VEHICLES

SHEFFIELD AVE & SEMINARY DR

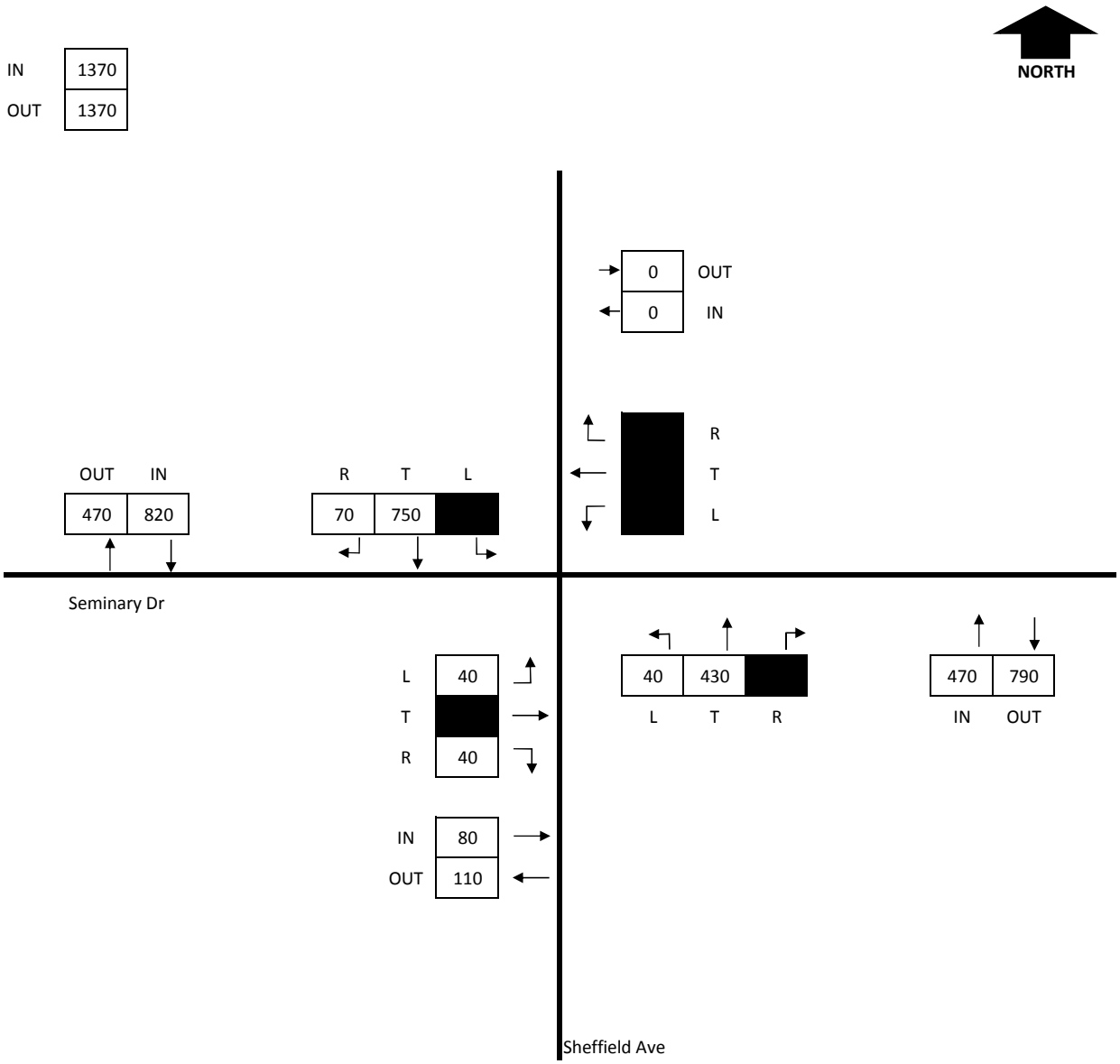
2022 SITE GENERATED TRIPS (PM)

MUNSTER/DYER MAIN STREET STATION

October 2017

TOTAL INTERSECTION

IN	1370
OUT	1370



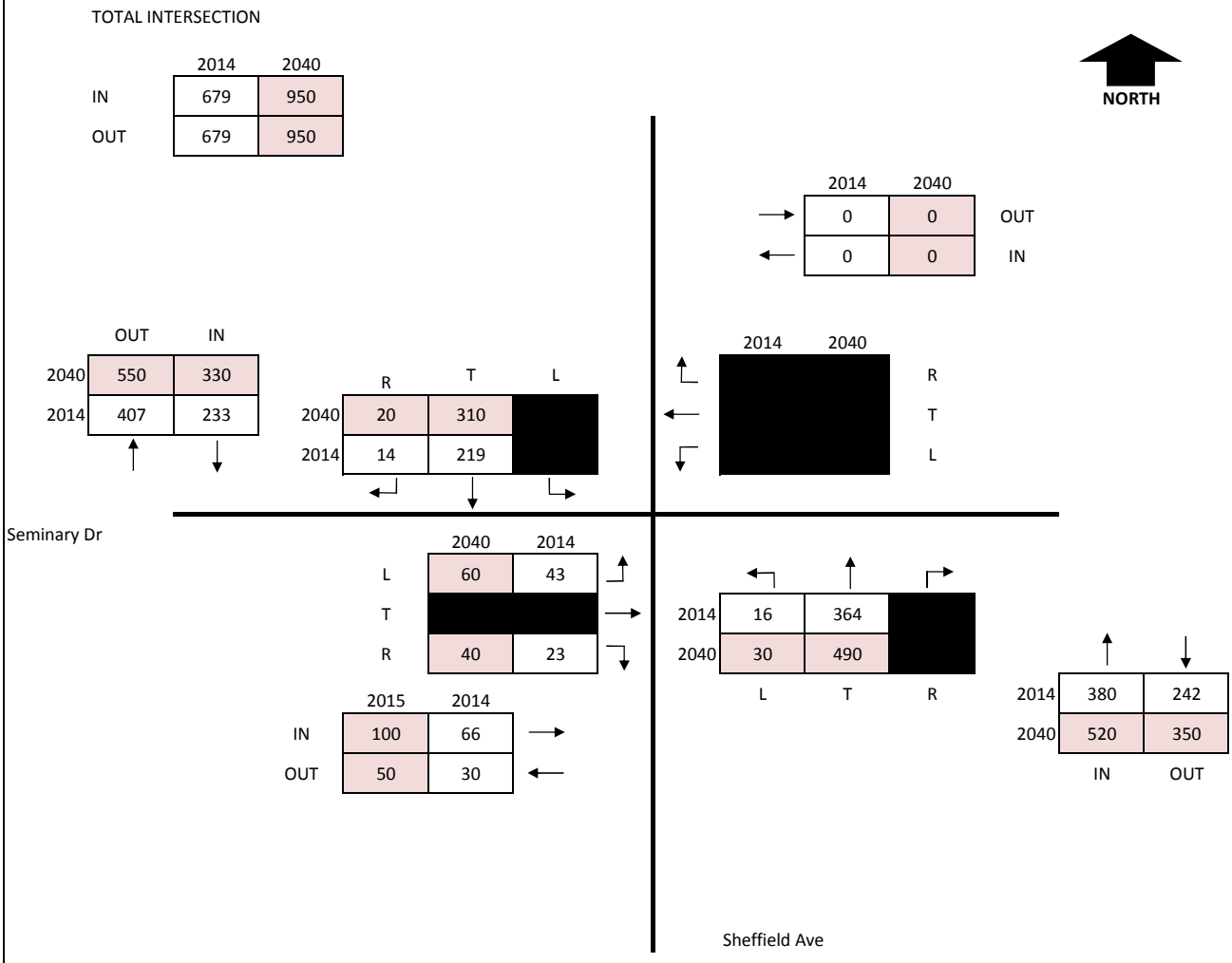
CLASSIFICATION: ALL VEHICLES

SHEFFIELD AVE & SEMINARY DR

2022 BUILD TRAFFIC VOLUMES (PM)

MUNSTER/DYER MAIN STREET STATION

October 2017



CLASSIFICATION: ALL VEHICLES

ANNUAL GROWTH RATE	
Northbound	1.3%
Southbound	1.5%
Eastbound	1.4%
Westbound	-
Years to Escalate: 2040	26

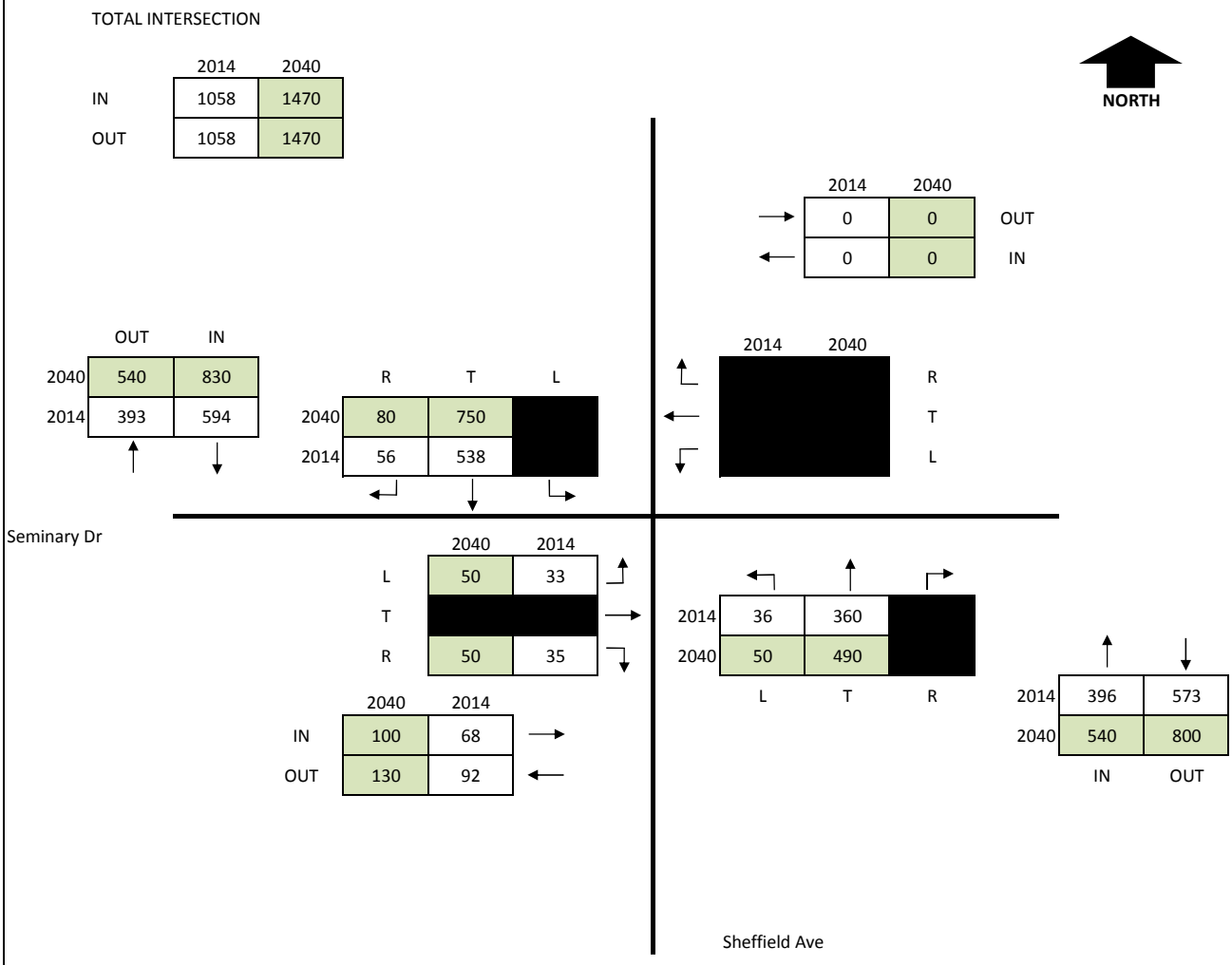
NICTD

SHEFFIELD AVE & SEMINARY DR

2040 PROJECTED TRAFFIC VOLUMES (AM)

MUNSTER/DYER MAIN STREET STATION

October 2017



CLASSIFICATION: ALL VEHICLES

ANNUAL GROWTH RATE	
Northbound	1.3%
Southbound	1.5%
Eastbound	1.4%
Westbound	-
Years to Escalate: 2040	26

SHEFFIELD AVE & SEMINARY DR

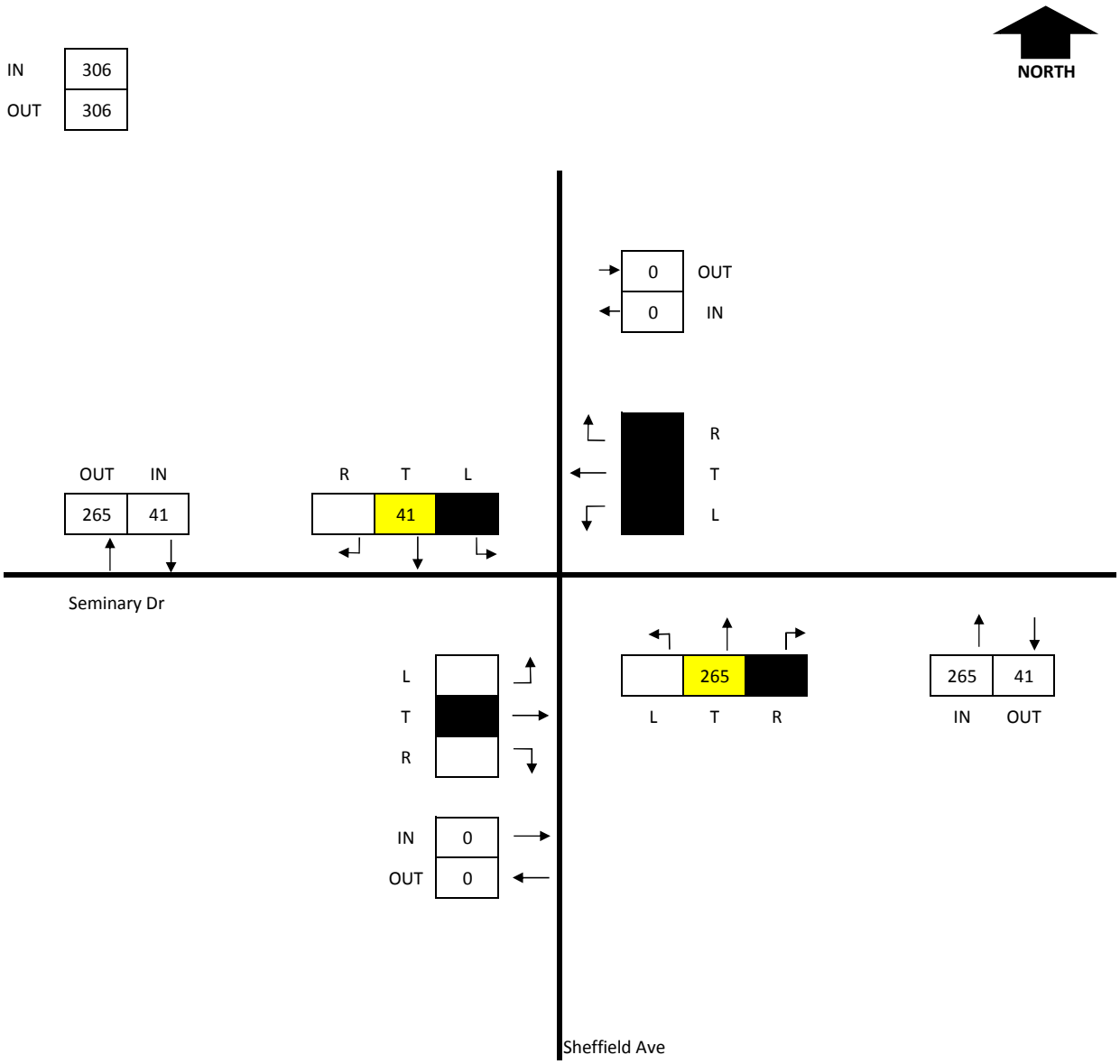
2040 PROJECTED TRAFFIC VOLUMES (PM)

MUNSTER/DYER MAIN STREET STATION

October 2017

TOTAL INTERSECTION

IN	306
OUT	306



CLASSIFICATION: ALL VEHICLES

SHEFFIELD AVE & SEMINARY DR

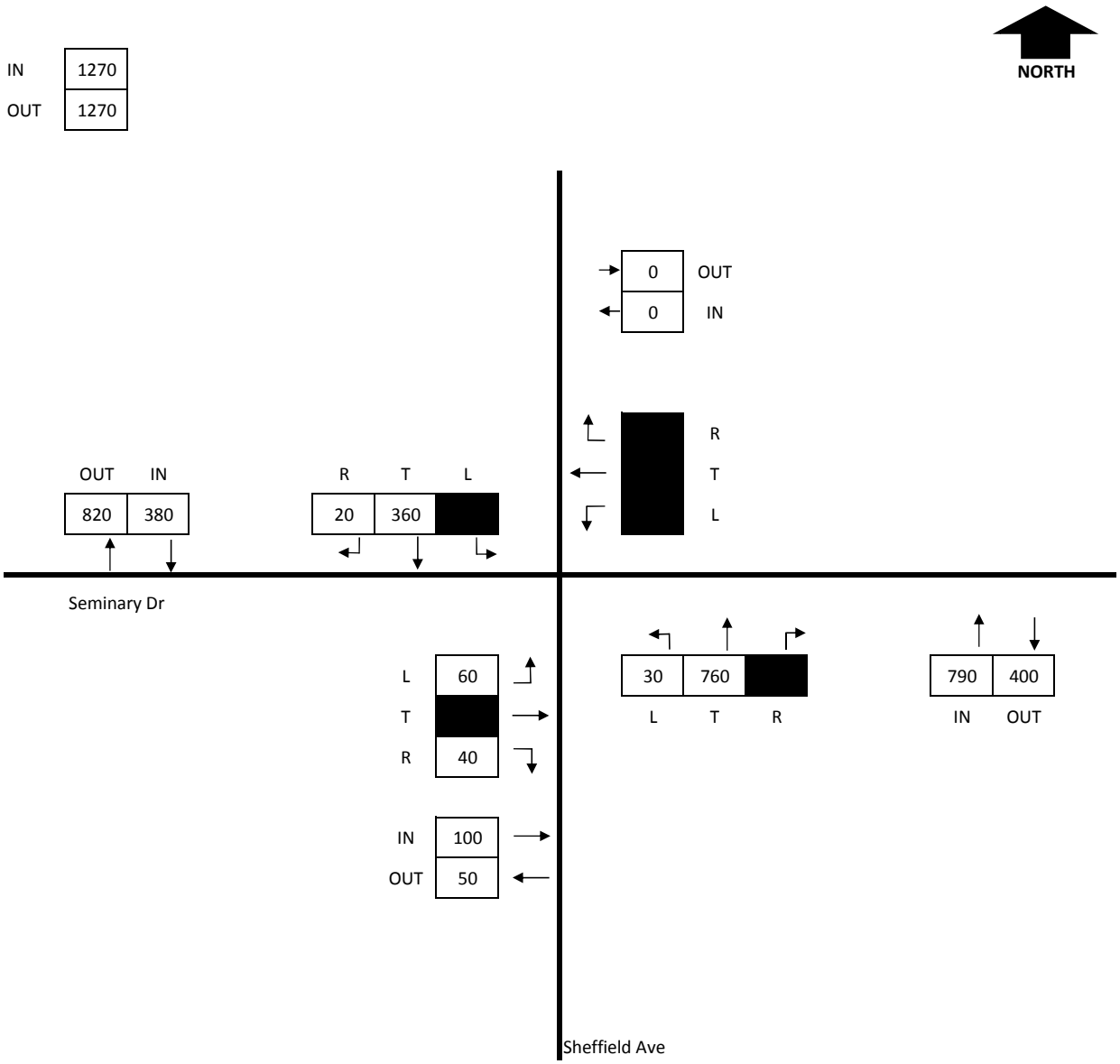
2040 SITE GENERATED TRIPS (AM)

MUNSTER/DYER MAIN STREET STATION

October 2017

TOTAL INTERSECTION

IN	1270
OUT	1270



CLASSIFICATION: ALL VEHICLES

NICTD

SHEFFIELD AVE & SEMINARY DR

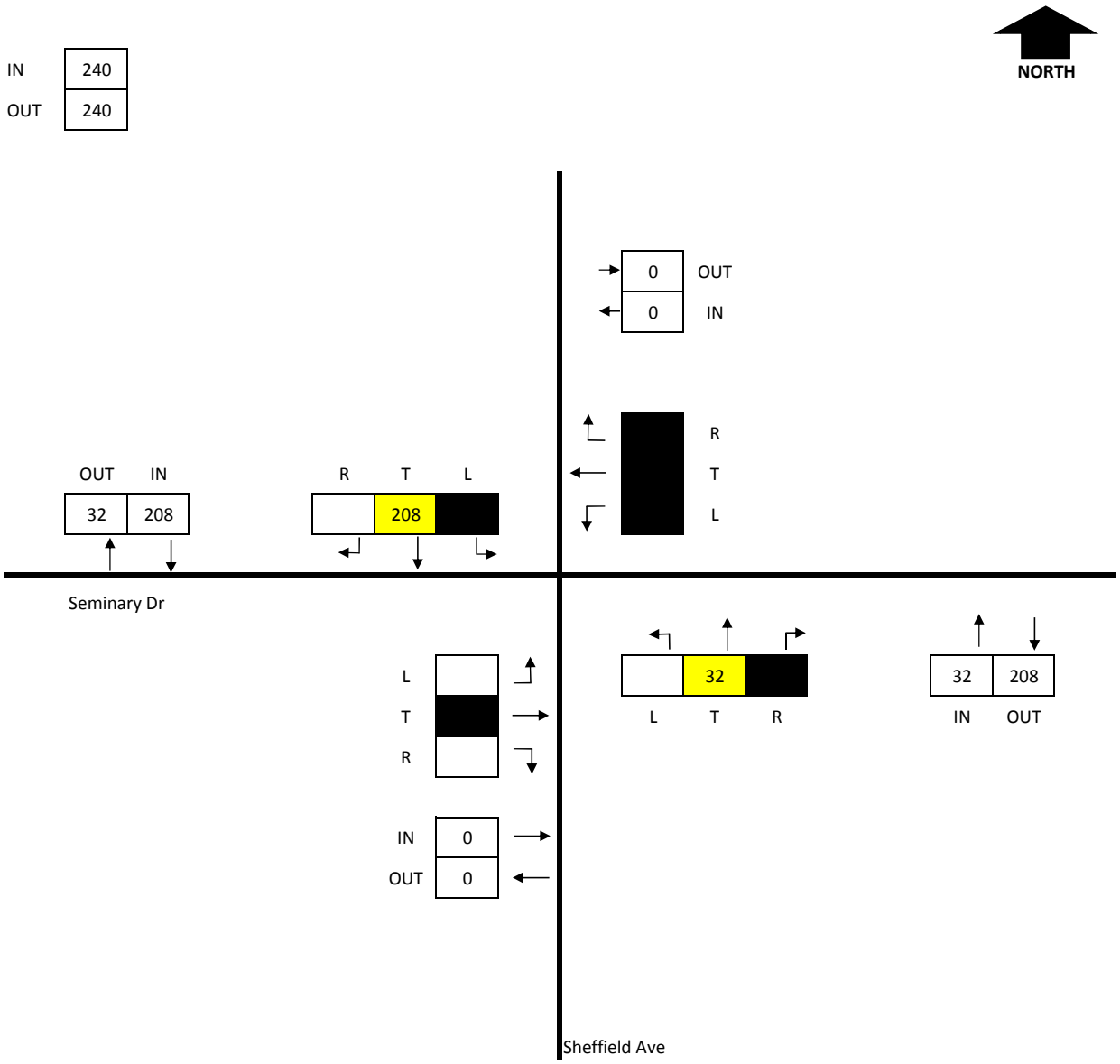
2040 BUILD TRAFFIC VOLUMES (AM)

MUNSTER/DYER MAIN STREET STATION

October 2017

TOTAL INTERSECTION

IN	240
OUT	240



CLASSIFICATION: ALL VEHICLES

SHEFFIELD AVE & SEMINARY DR

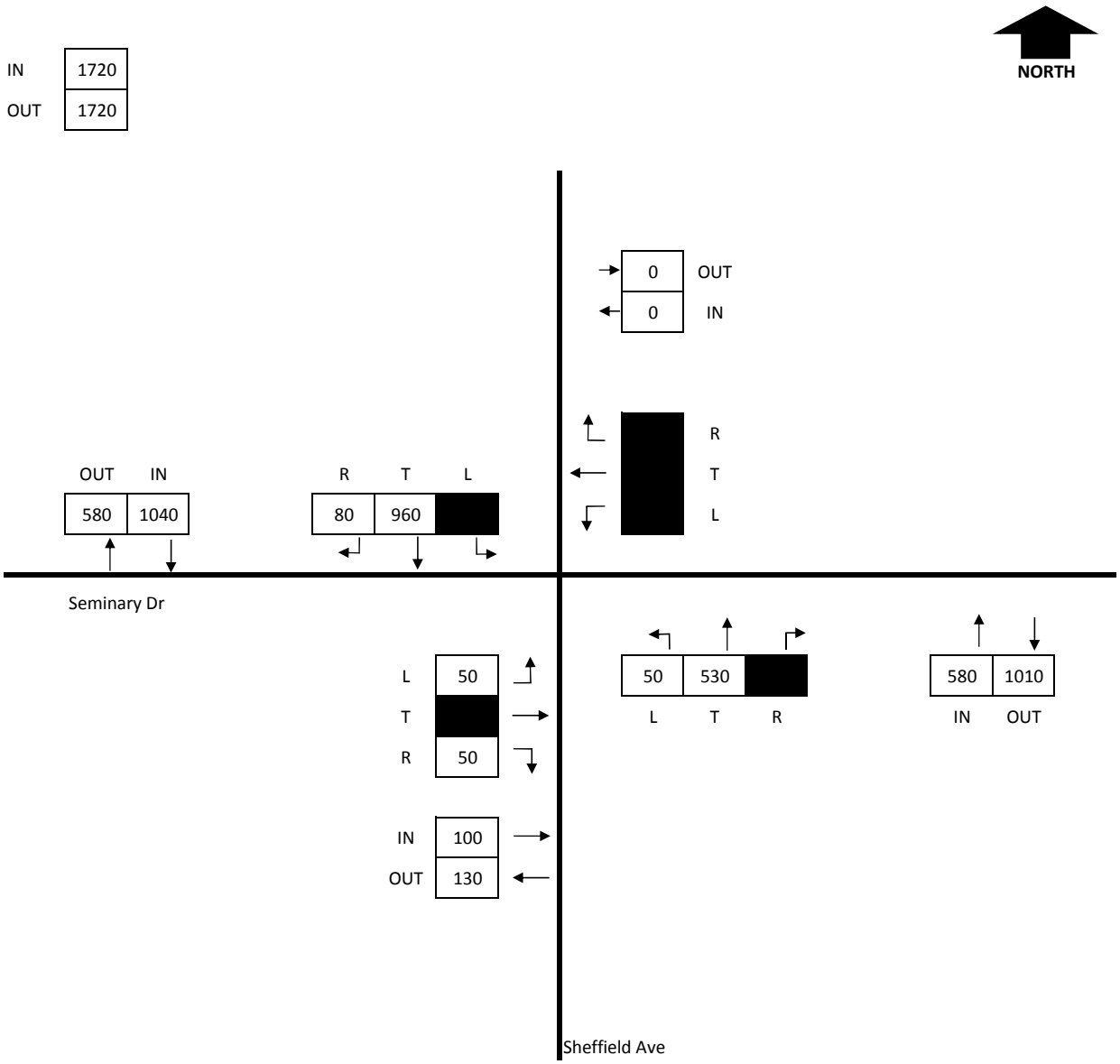
2040 SITE GENERATED TRIPS (PM)

MUNSTER/DYER MAIN STREET STATION

October 2017

TOTAL INTERSECTION

IN	1720
OUT	1720



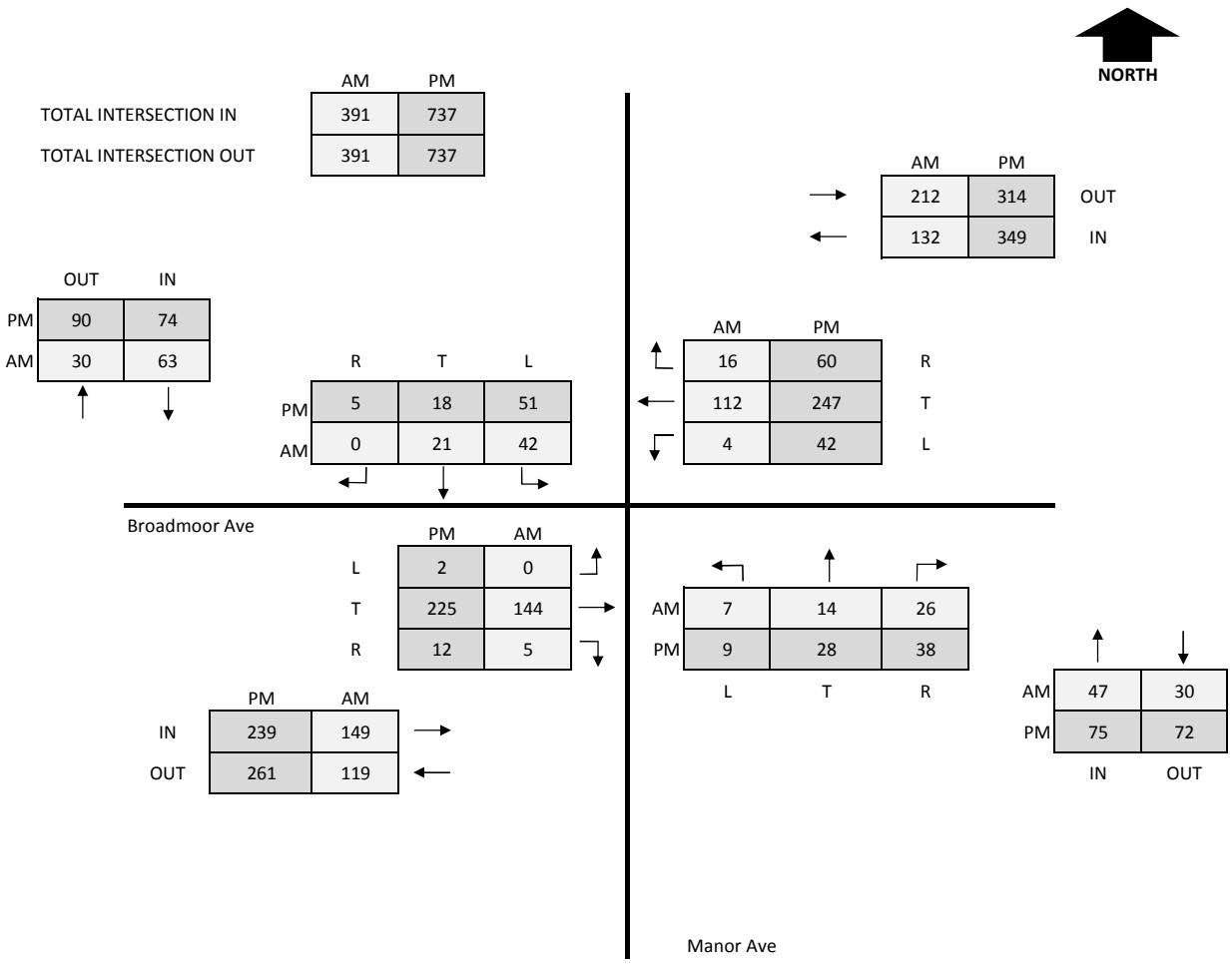
CLASSIFICATION: ALL VEHICLES

SHEFFIELD AVE & SEMINARY DR

2040 BUILD TRAFFIC VOLUMES (PM)

MUNSTER/DYER MAIN STREET STATION

October 2017



CLASSIFICATION: ALL VEHICLES

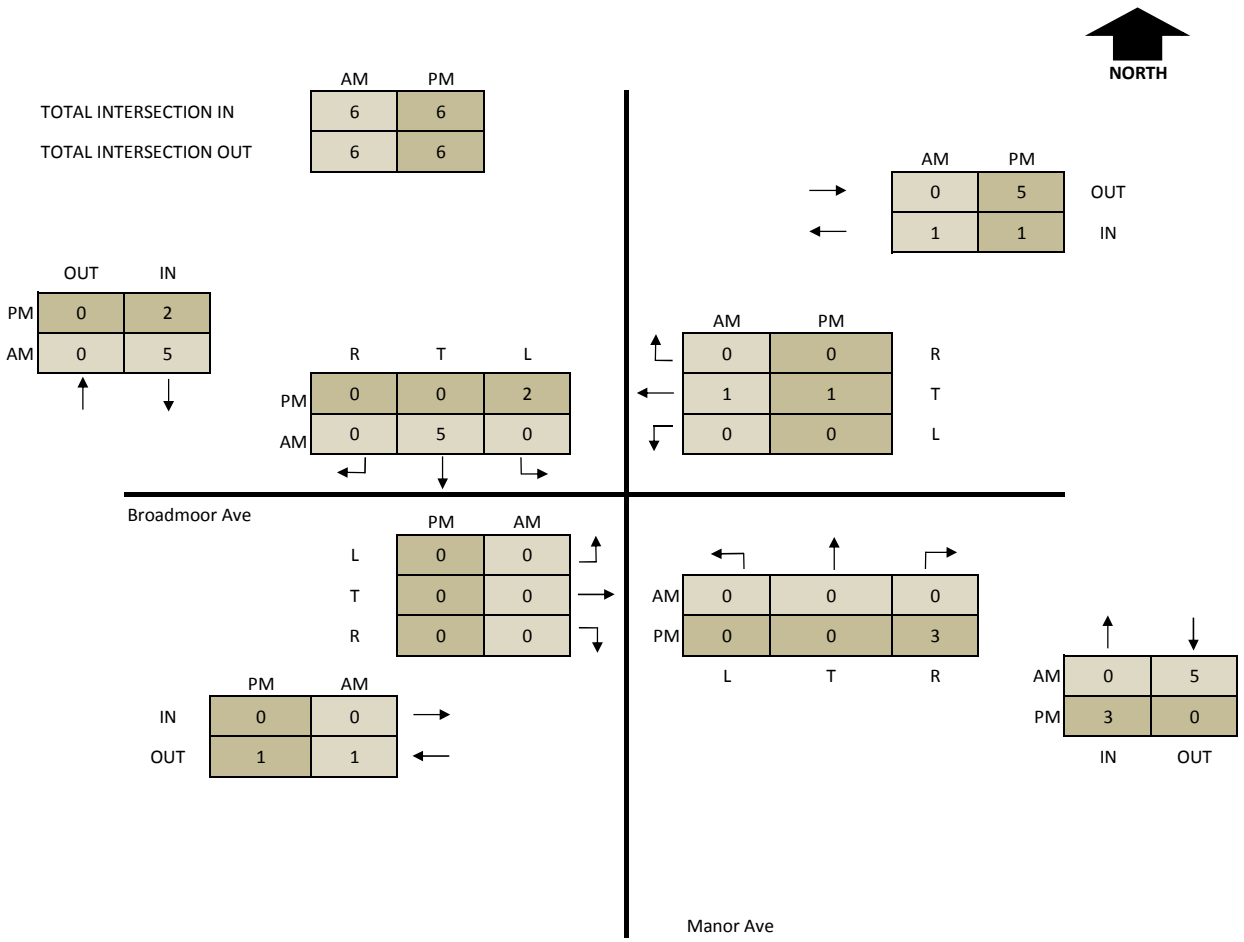
Traffic Counts from Quality Counts				
AM	11/4/2014	7:15 AM	to	8:15 AM
PM	11/4/2014	4:30 PM	to	5:30 PM

MANOR AVE & BROADMOOR AVE

EXISTING TRAFFIC VOLUMES (2014)

MUNSTER RIDGE ROAD STATION

October 2017



CLASSIFICATION: TRUCKS

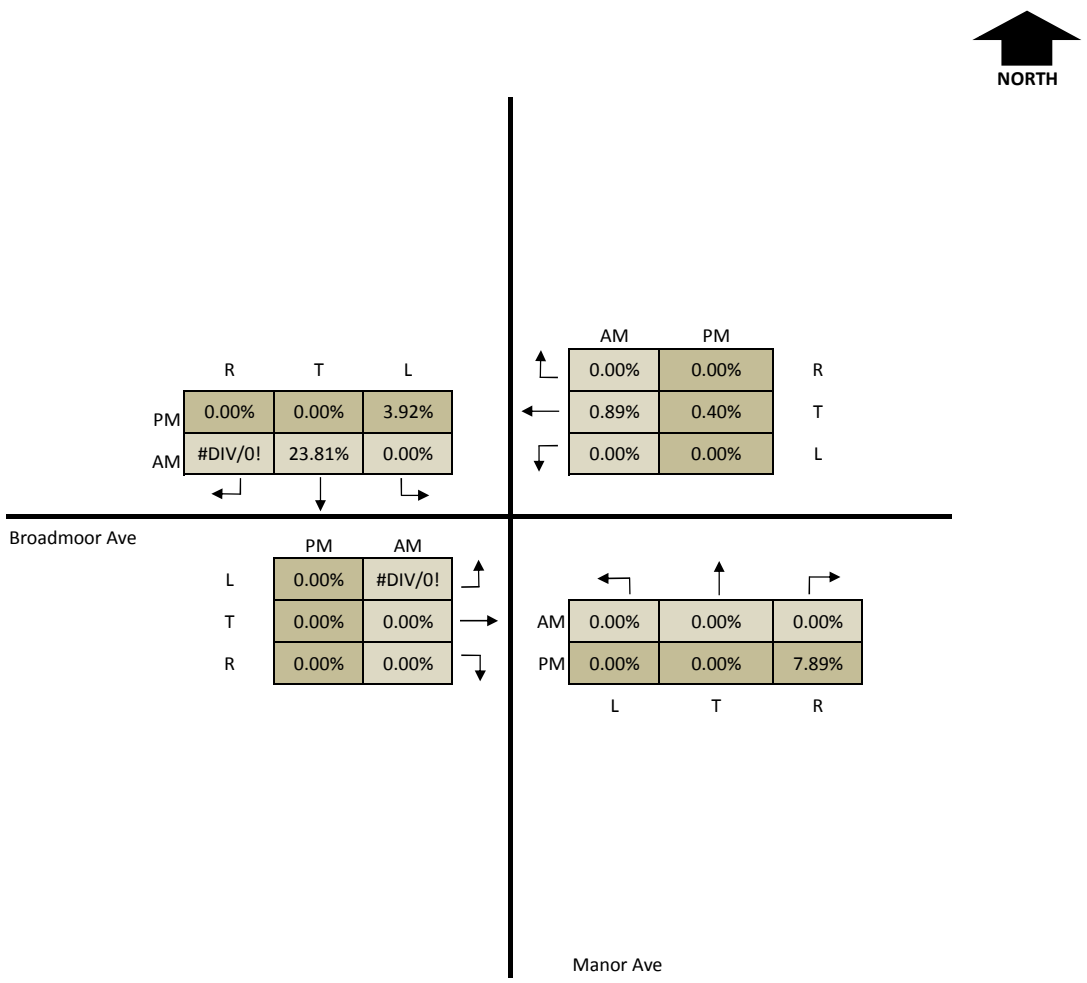
Traffic Counts from Quality Counts				
AM	11/4/2014	7:15 AM	to	8:15 AM
PM	11/4/2014	4:30 PM	to	5:30 PM

MANOR AVE & BROADMOOR AVE

EXISTING TRAFFIC VOLUMES (2014)

MUNSTER RIDGE ROAD STATION

October 2017



CLASSIFICATION: TRUCKS

Traffic Counts from Quality Counts				
AM	11/4/2014	7:15 AM	to	8:15 AM
PM	11/4/2014	4:30 PM	to	5:30 PM

MANOR AVE & BROADMOOR AVE

EXISTING TRAFFIC VOLUMES (2014)

MUNSTER RIDGE ROAD STATION

October 2017

TOTAL INTERSECTION

	2014	2022
IN	391	480
OUT	391	480

	2014	2022	
→	212	250	OUT
←	132	160	IN

	OUT	IN
2022	40	80
2014	30	63

	R	T	L
2022	0	30	50
2014	0	21	42

	2014	2022	
↱	16	20	R
←	112	130	T
↳	4	10	L

Broadmoor Ave

	2022	2014	
L	0	0	↰
T	170	144	→
R	10	5	↴

	2014	2022
IN	180	149 →
OUT	140	119 ←

	L	T	R
2014	7	14	26
2022	10	20	30

	2014	2022
↑	47	60
↓	30	50

IN OUT

Manor Ave

CLASSIFICATION: ALL VEHICLES

ANNUAL GROWTH RATE	
Northbound	1.7%
Southbound	1.7%
Eastbound	2.0%
Westbound	1.5%
Years to Escalate: 2040	8

MANOR AVE & BROADMOOR AVE

2022 PROJECTED TRAFFIC VOLUMES (AM)

MUNSTER RIDGE ROAD STATION

October 2017

TOTAL INTERSECTION

	2014	2022
IN	737	910
OUT	737	910

	2014	2022	
→	314	380	OUT
←	349	400	IN

	OUT	IN
2022	120	100
2014	90	74

	R	T	L
2022	10	30	60
2014	5	18	51

	2014	2022	
↱	60	70	R
←	247	280	T
↳	42	50	L

Broadmoor Ave

	2022	2014	
L	10	2	↰
T	270	225	→
R	20	12	↱

	2022	2014	
IN	300	239	→
OUT	310	261	←

	L	T	R
2014	9	28	38
2022	20	40	50

	IN	OUT
2014	75	72
2022	110	100

Manor Ave

CLASSIFICATION: ALL VEHICLES

ANNUAL GROWTH RATE	
Northbound	1.7%
Southbound	1.7%
Eastbound	2.0%
Westbound	1.5%
Years to Escalate: 2022	8

MANOR AVE & BROADMOOR AVE

2022 PROJECTED TRAFFIC VOLUMES (PM)

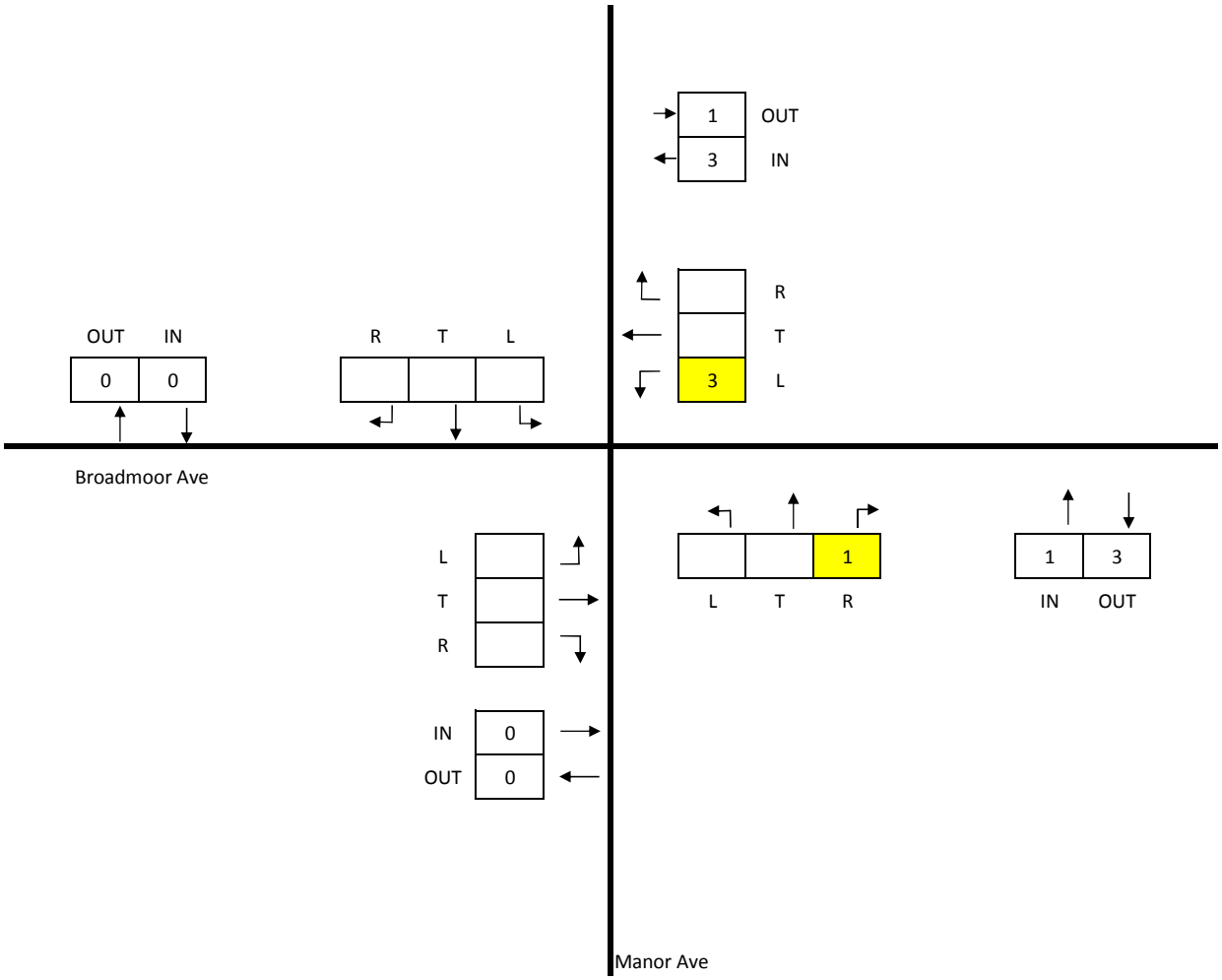
MUNSTER RIDGE ROAD STATION

October 2017

TOTAL INTERSECTION

IN	4
OUT	4

NORTH



CLASSIFICATION: ALL VEHICLES

MANOR AVE & BROADMOOR AVE

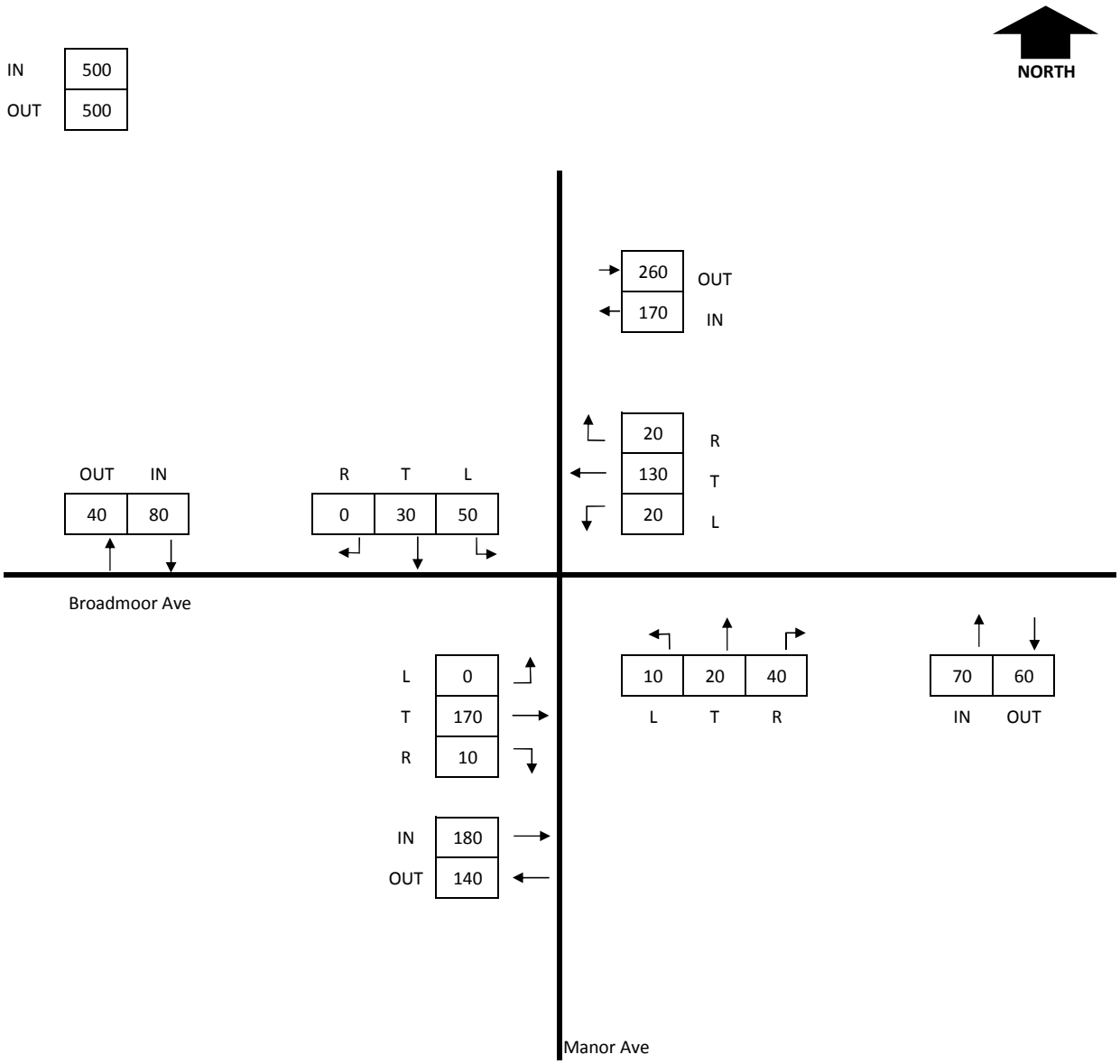
2022 SITE GENERATED TRIPS (AM)

MUNSTER RIDGE ROAD STATION

October 2017

TOTAL INTERSECTION

IN	500
OUT	500



CLASSIFICATION: ALL VEHICLES

MANOR AVE & BROADMOOR AVE

2022 BUILD TRAFFIC VOLUMES (AM)

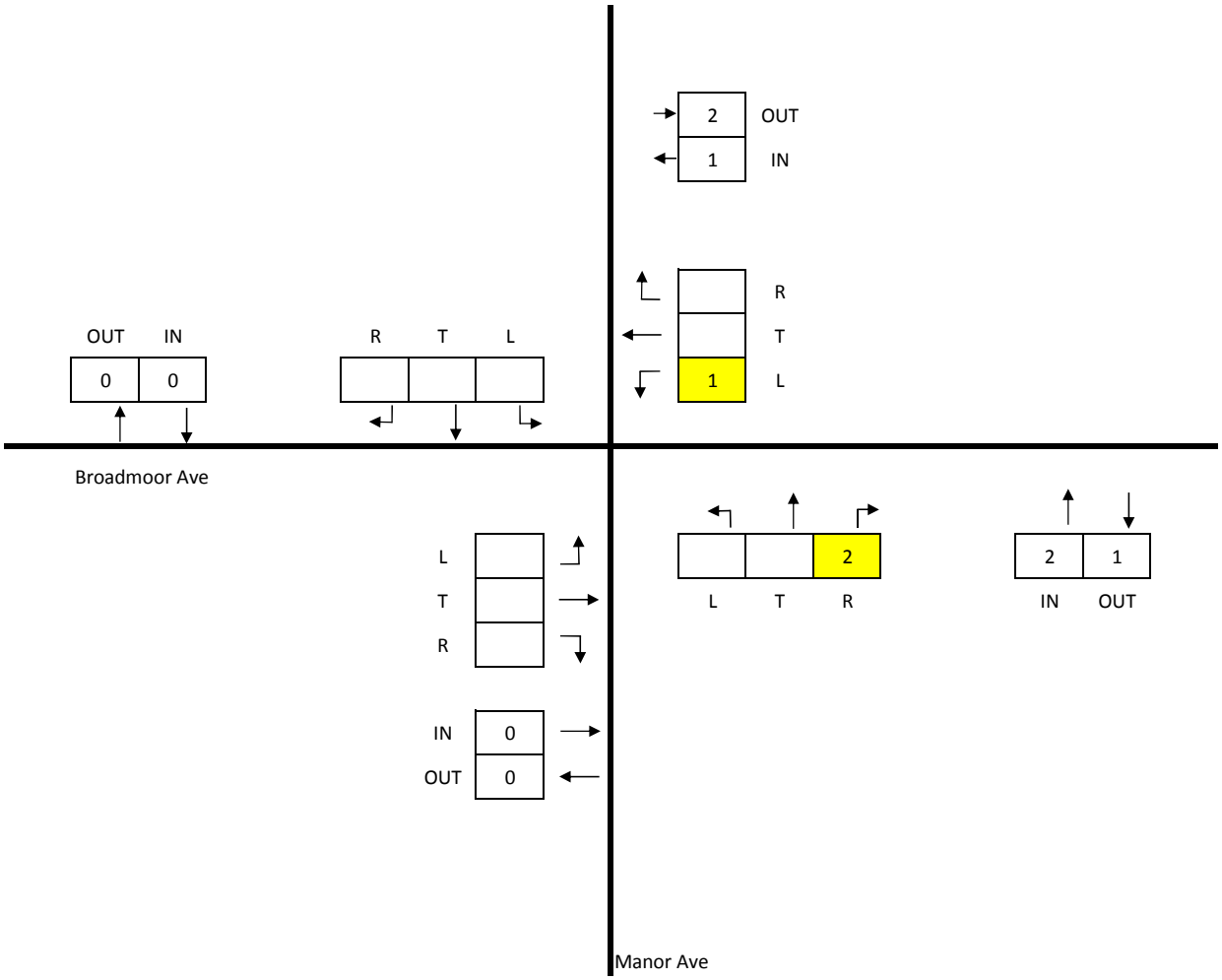
MUNSTER RIDGE ROAD STATION

October 2017

TOTAL INTERSECTION

IN	3
OUT	3

NORTH



CLASSIFICATION: ALL VEHICLES

MANOR AVE & BROADMOOR AVE

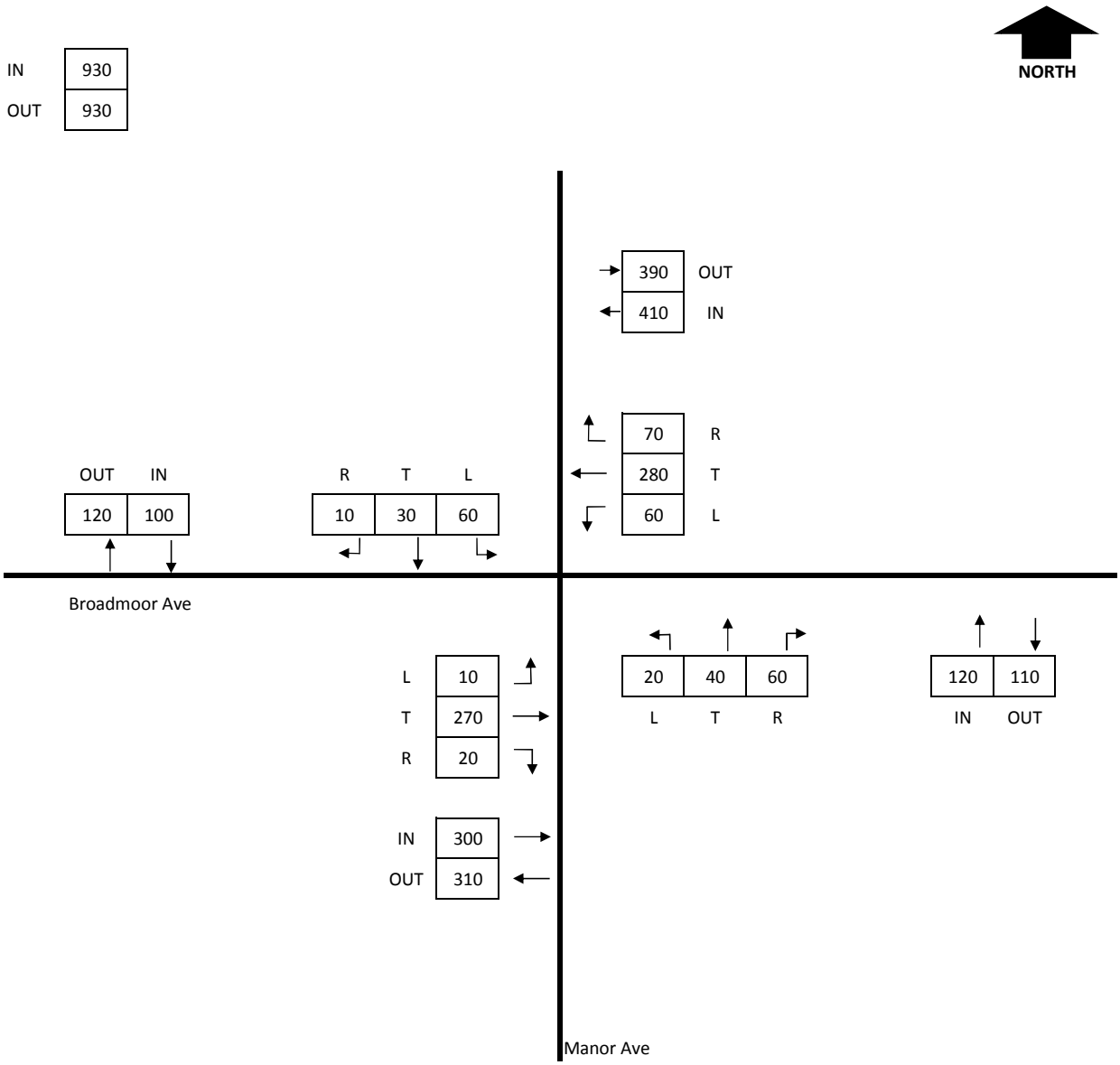
2022 SITE GENERATED TRIPS (PM)

MUNSTER RIDGE ROAD STATION

October 2017

TOTAL INTERSECTION

IN	930
OUT	930



CLASSIFICATION: ALL VEHICLES

MANOR AVE & BROADMOOR AVE

2022 BUILD TRAFFIC VOLUMES (PM)

MUNSTER RIDGE ROAD STATION

October 2017

TOTAL INTERSECTION

	2014	2040
IN	391	630
OUT	391	630

NORTH

	2014	2040	
→	212	330	OUT
←	132	200	IN

	OUT	IN
2040	60	110
2014	30	63

	R	T	L
2040	0	40	70
2014	0	21	42

	2014	2040	
↰	16	30	R
←	112	160	T
↙	4	10	L

Broadmoor Ave

	2040	2014	
L	0	0	↰
T	220	144	→
R	10	5	↘

	2040	2014	
IN	230	149	→
OUT	180	119	←

	L	T	R
2014	7	14	26
2040	20	30	40

	IN	OUT
2014	47	30
2040	90	60

Manor Ave

CLASSIFICATION: ALL VEHICLES

ANNUAL GROWTH RATE	
Northbound	1.7%
Southbound	1.7%
Eastbound	2.0%
Westbound	1.5%
Years to Escalate: 2040	26

MANOR AVE & BROADMOOR AVE

2040 PROJECTED TRAFFIC VOLUMES (AM)

MUNSTER RIDGE ROAD STATION

October 2017

TOTAL INTERSECTION

	2014	2040
IN	737	1130
OUT	737	1130

	2014	2040	
→	314	490	OUT
←	349	500	IN

	OUT	IN
2040	150	120
2014	90	74

	R	T	L
2040	10	30	80
2014	5	18	51

	2014	2040	
↰	60	90	R
←	247	350	T
↙	42	60	L

Broadmoor Ave

	2040	2014	
L	10	2	↰
T	350	225	→
R	20	12	↘

	2040	2014	
IN	380	239	→
OUT	380	261	←

	L	T	R
2014	9	28	38
2040	20	50	60

	2014	2040
2014	75	72
2040	130	110
	IN	OUT

Manor Ave

CLASSIFICATION: ALL VEHICLES

ANNUAL GROWTH RATE	
Northbound	1.7%
Southbound	1.7%
Eastbound	2.0%
Westbound	1.5%
Years to Escalate: 2040	26

MANOR AVE & BROADMOOR AVE

2040 PROJECTED TRAFFIC VOLUMES (PM)

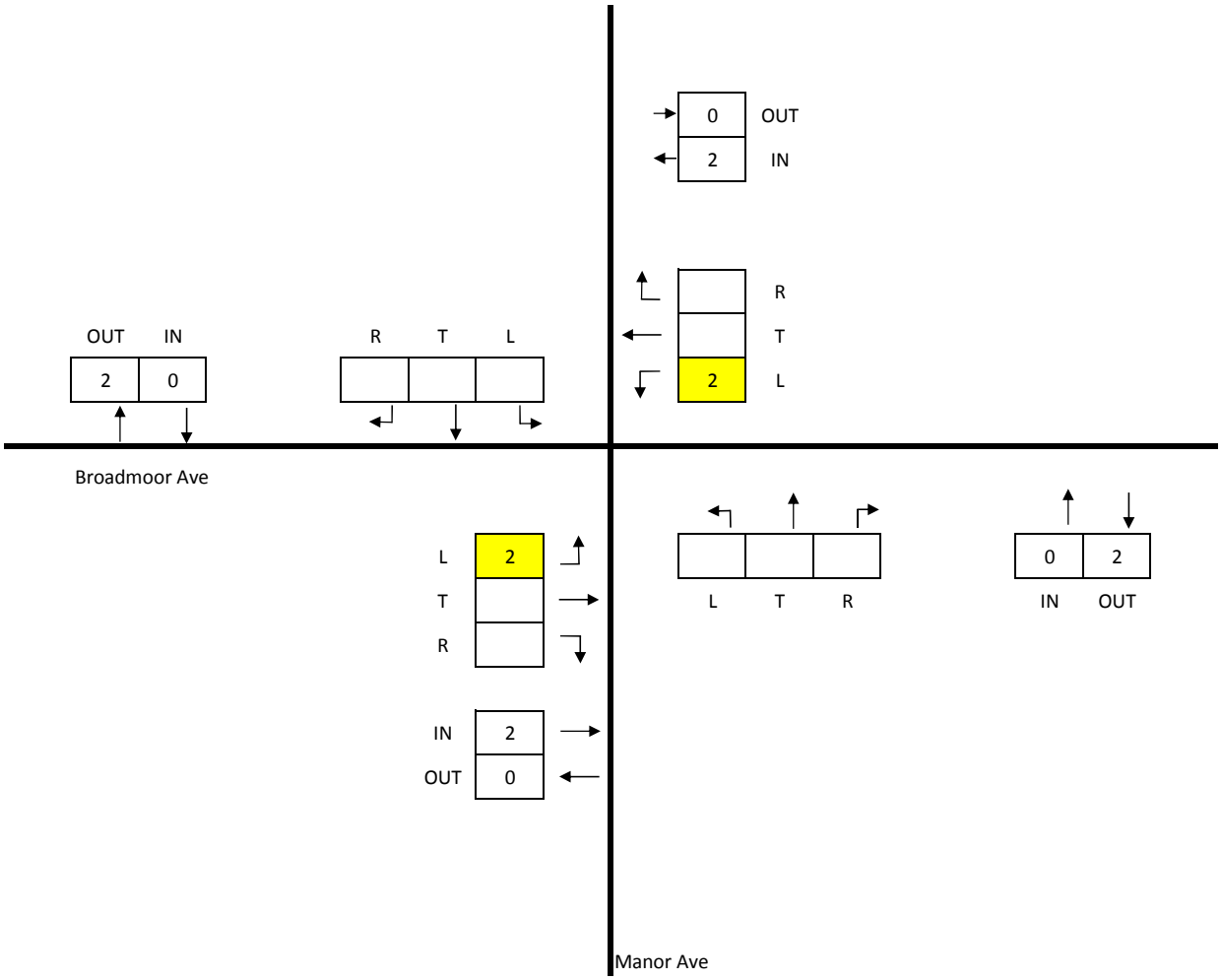
MUNSTER RIDGE ROAD STATION

October 2017

TOTAL INTERSECTION

IN	4
OUT	4

NORTH



CLASSIFICATION: ALL VEHICLES

MANOR AVE & BROADMOOR AVE

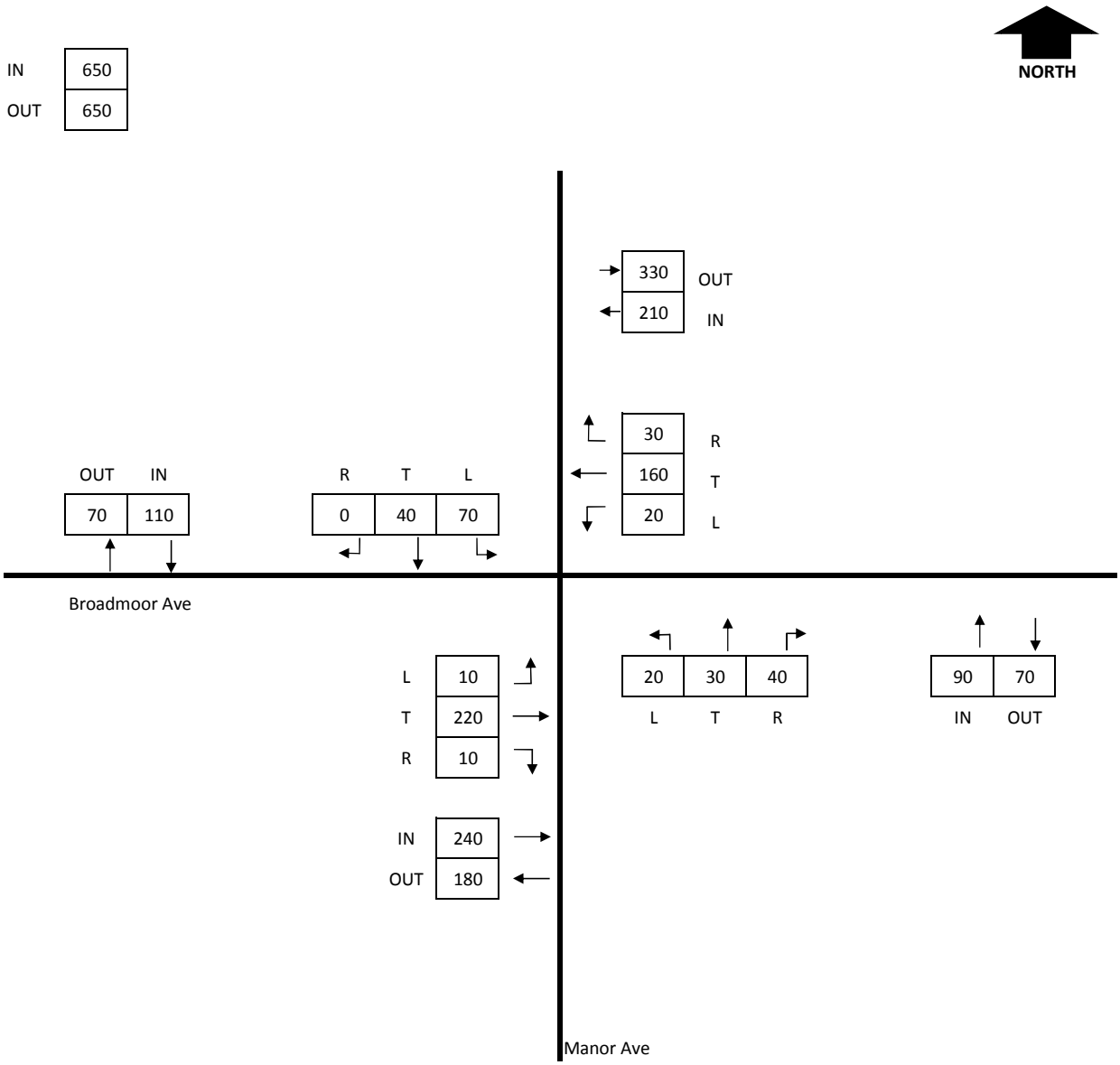
2040 SITE GENERATED TRIPS (AM)

MUNSTER RIDGE ROAD STATION

October 2017

TOTAL INTERSECTION

IN	650
OUT	650



CLASSIFICATION: ALL VEHICLES

MANOR AVE & BROADMOOR AVE

2040 BUILD TRAFFIC VOLUMES (AM)

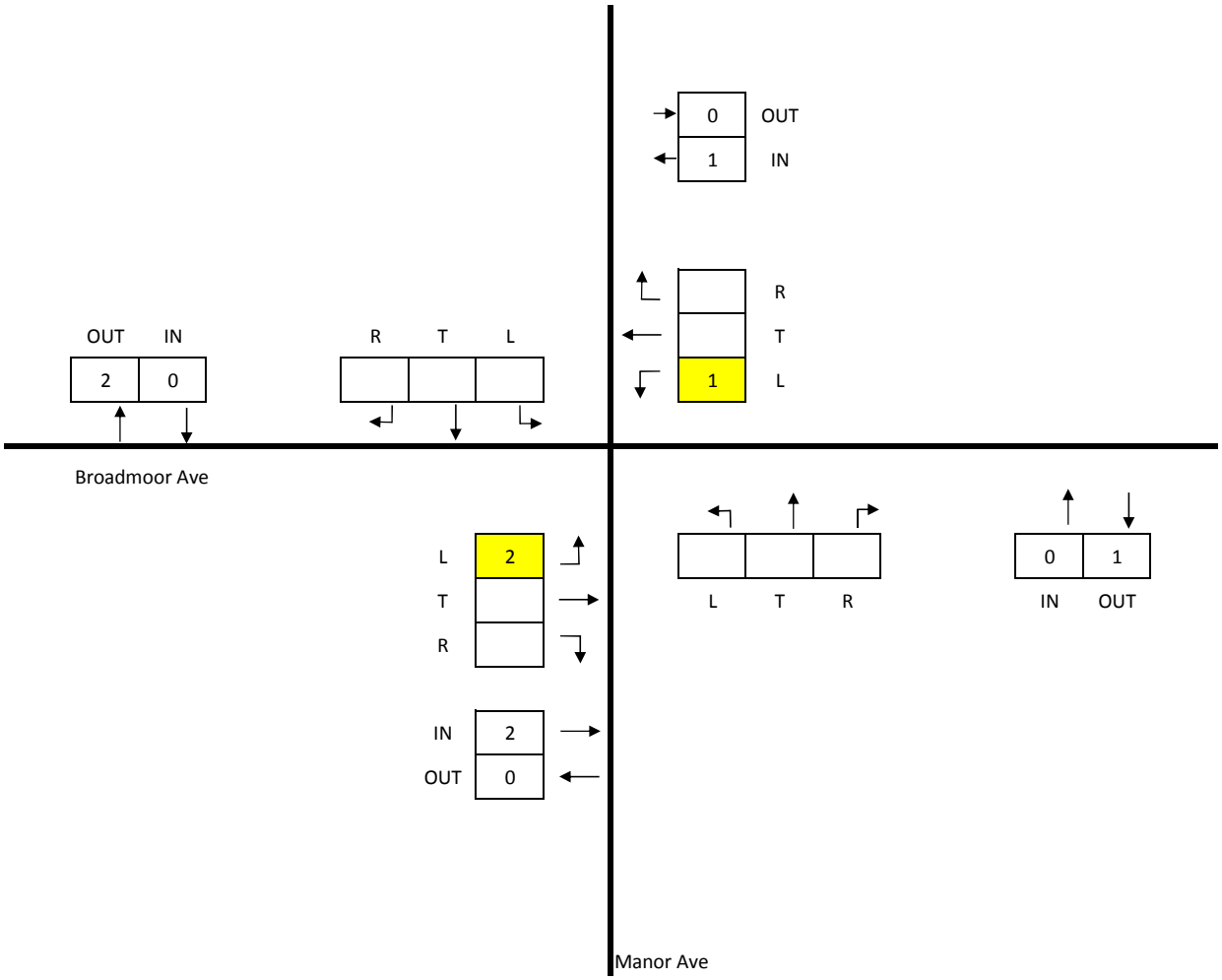
MUNSTER RIDGE ROAD STATION

October 2017

TOTAL INTERSECTION

IN	3
OUT	3

NORTH



CLASSIFICATION: ALL VEHICLES

MANOR AVE & BROADMOOR AVE

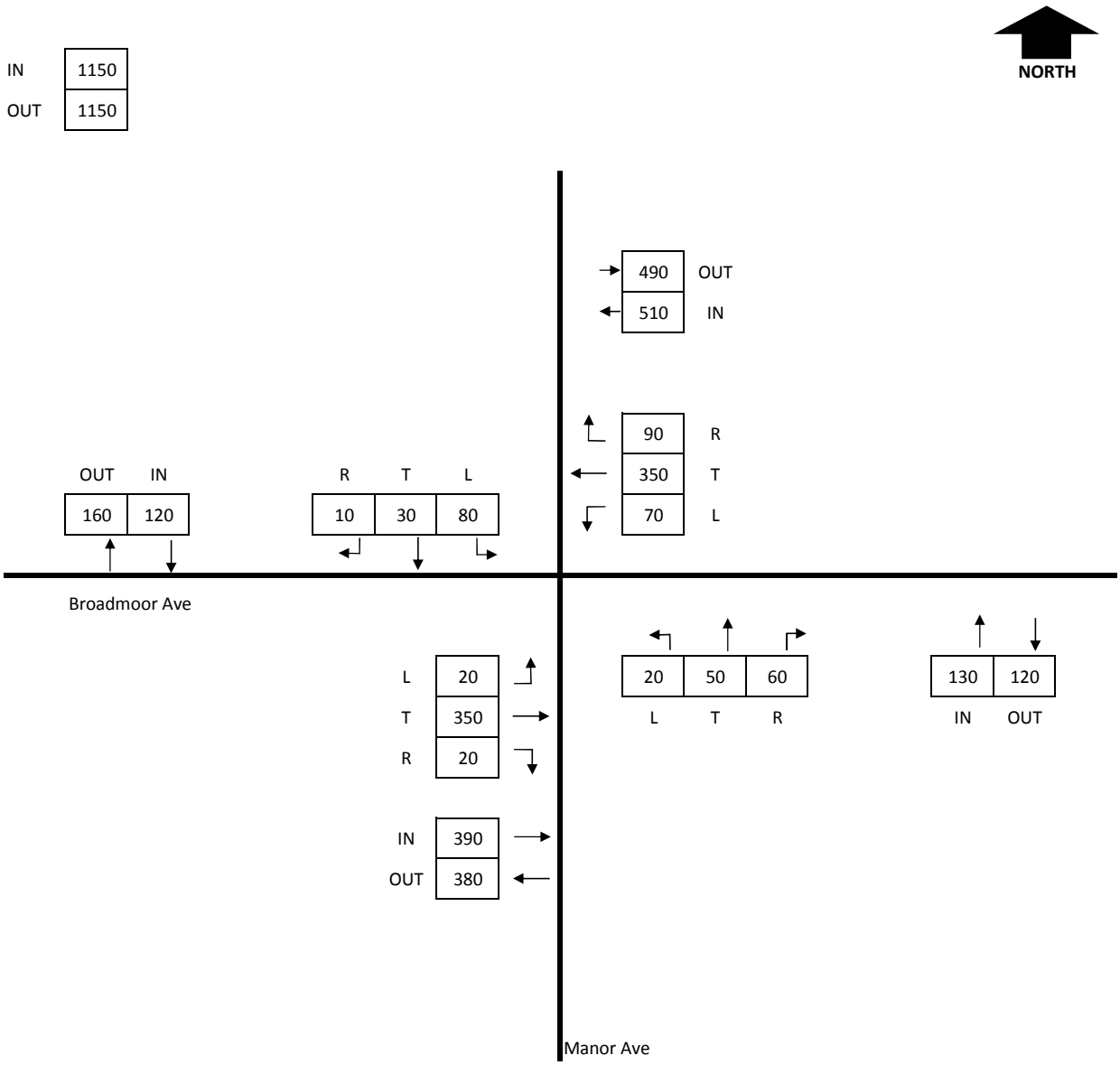
2040 SITE GENERATED TRIPS (PM)

MUNSTER RIDGE ROAD STATION

October 2017

TOTAL INTERSECTION

IN	1150
OUT	1150



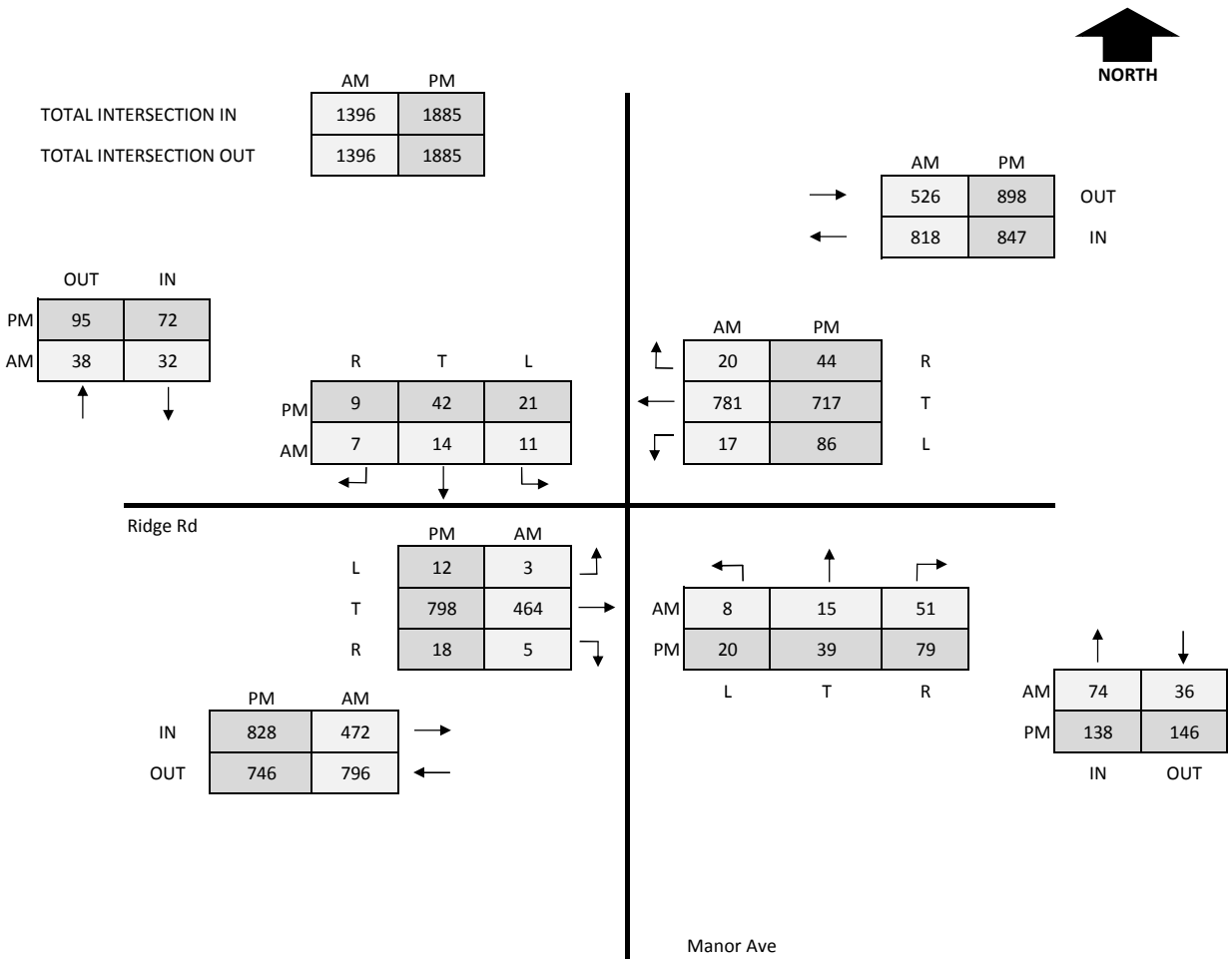
CLASSIFICATION: ALL VEHICLES

MANOR AVE & BROADMOOR AVE

2040 BUILD TRAFFIC VOLUMES (PM)

MUNSTER RIDGE ROAD STATION

October 2017



CLASSIFICATION: ALL VEHICLES

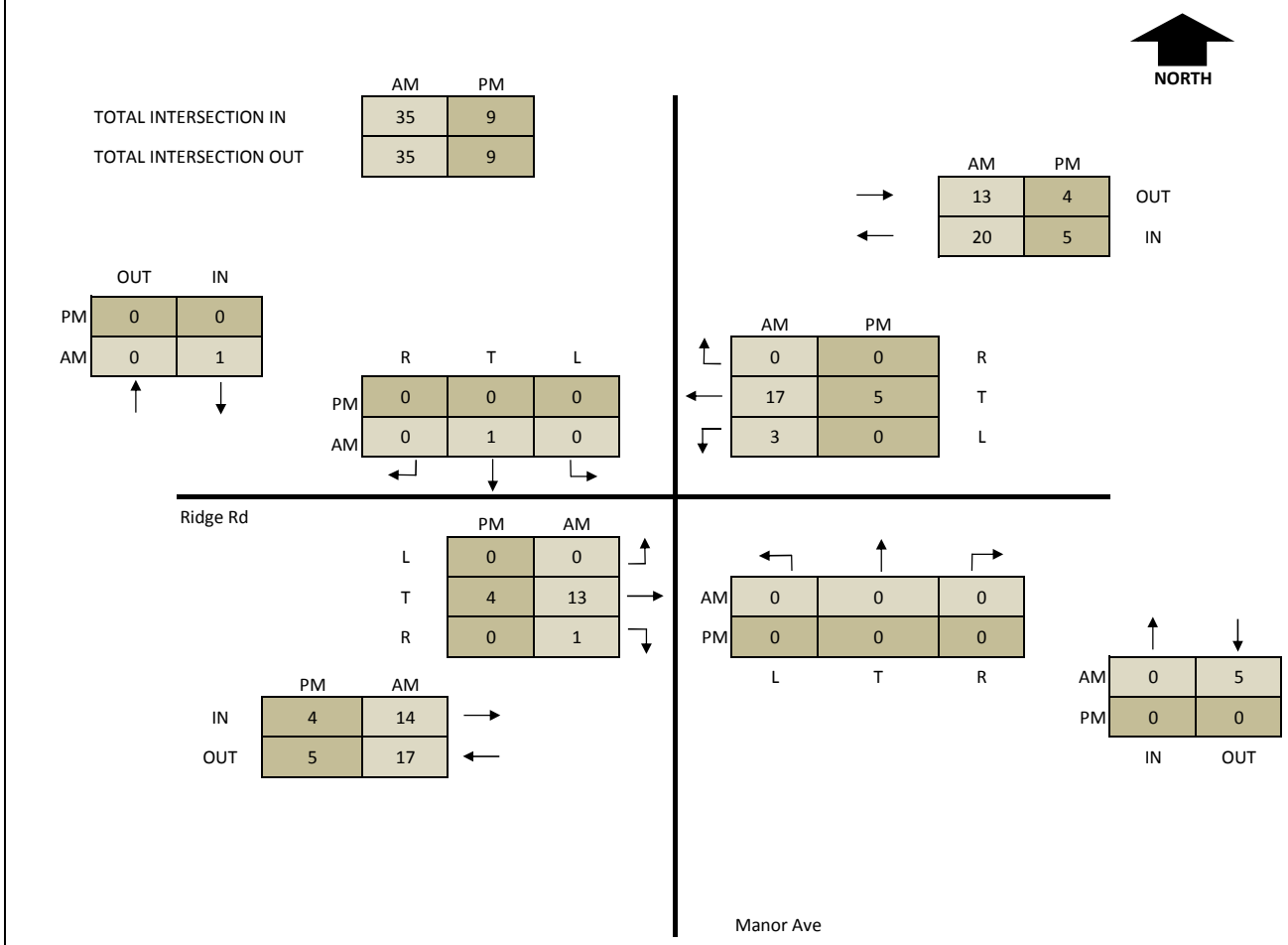
Traffic Counts from Quality Counts				
AM	11/4/2014	7:15 AM	to	8:15 AM
PM	11/4/2014	4:30 PM	to	5:30 PM

MANOR AVE & RIDGE RD

EXISTING TRAFFIC VOLUMES (2014)

MUNSTER RIDGE ROAD STATION

October 2017



CLASSIFICATION: TRUCKS

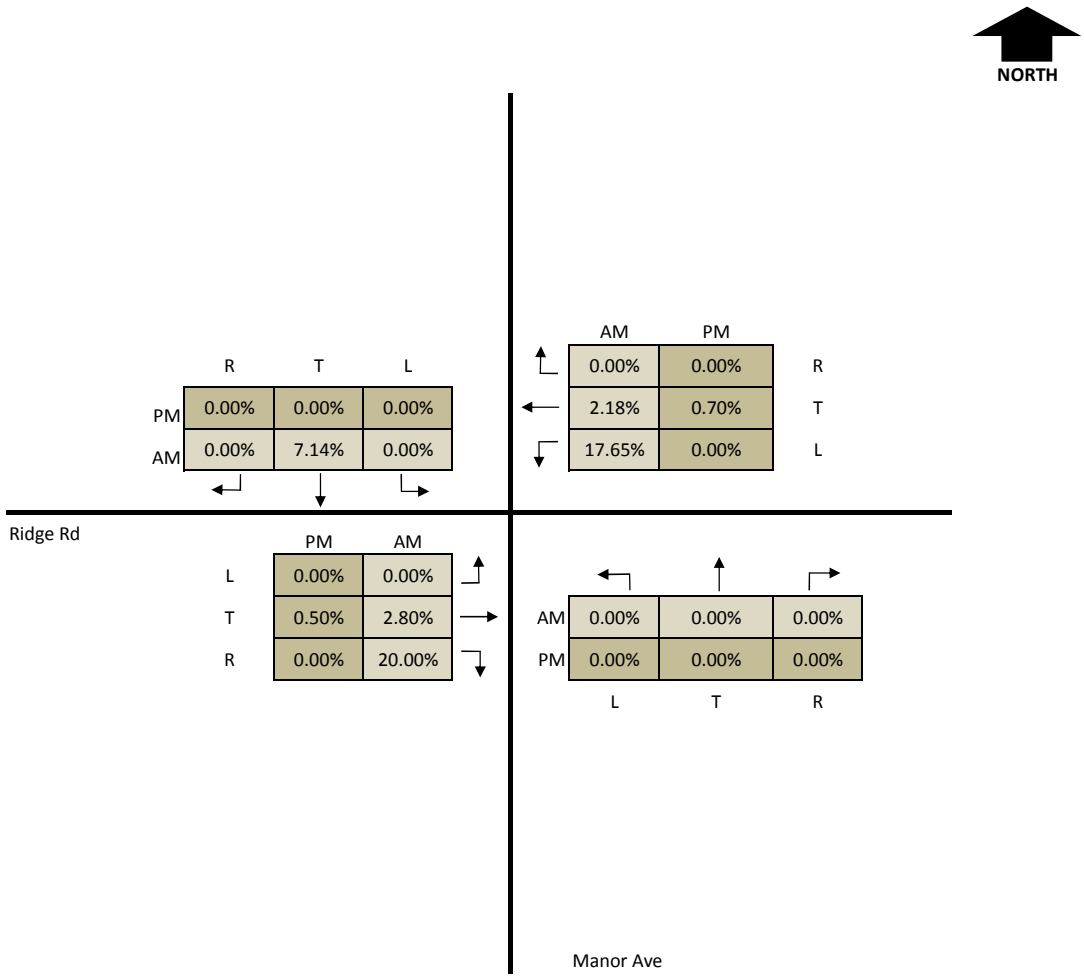
Traffic Counts from Quality Counts				
AM	11/4/2014	7:15 AM	to	8:15 AM
PM	11/4/2014	4:30 PM	to	5:30 PM

MANOR AVE & RIDGE RD

EXISTING TRAFFIC VOLUMES (2014)

MUNSTER RIDGE ROAD STATION

October 2017



CLASSIFICATION: TRUCKS

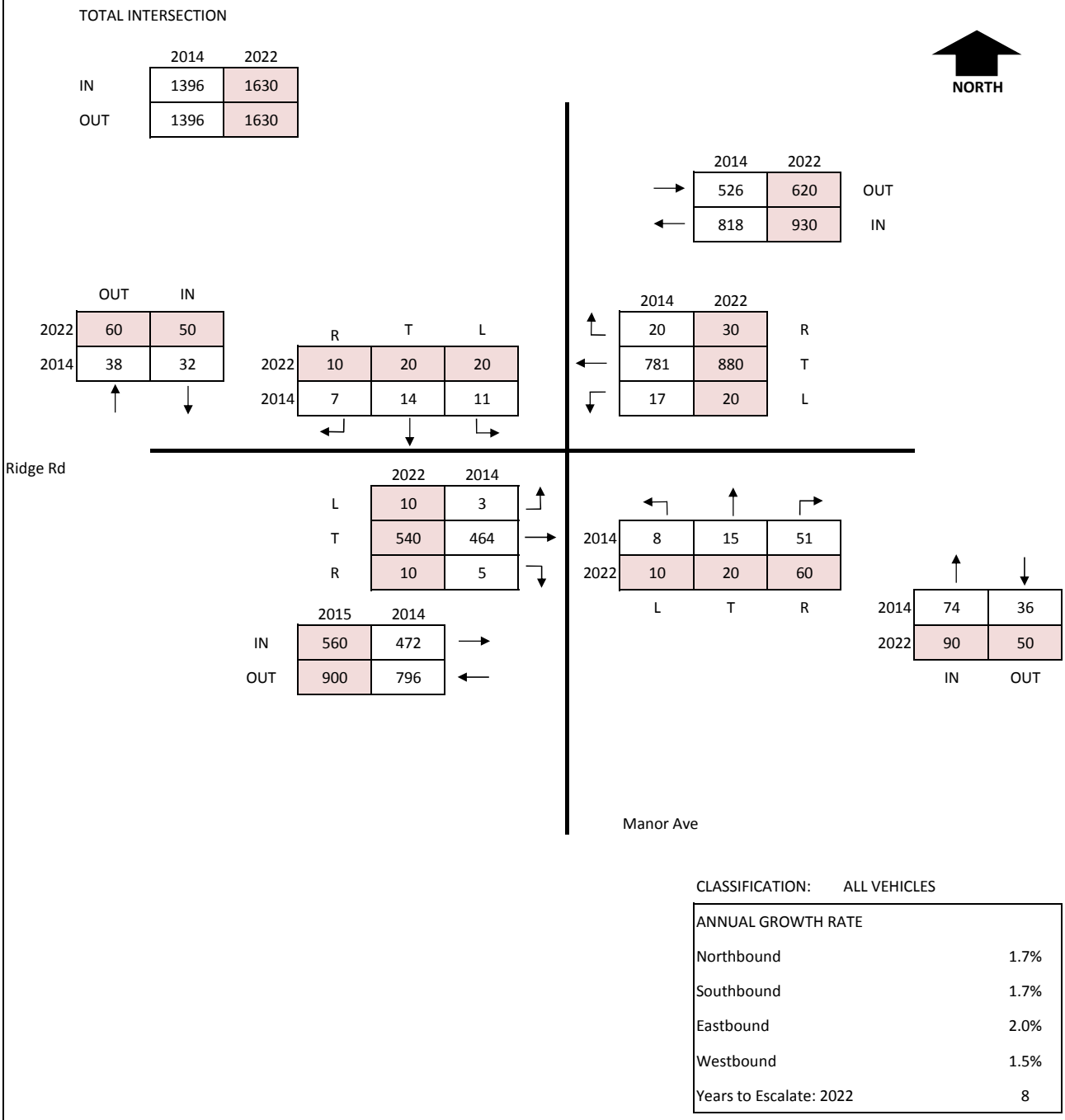
Traffic Counts from Quality Counts				
AM	11/4/2014	7:15 AM	to	8:15 AM
PM	11/4/2014	4:30 PM	to	5:30 PM

MANOR AVE & RIDGE RD

EXISTING TRAFFIC VOLUMES (2014)

MUNSTER RIDGE ROAD STATION

October 2017



CLASSIFICATION: ALL VEHICLES

ANNUAL GROWTH RATE	
Northbound	1.7%
Southbound	1.7%
Eastbound	2.0%
Westbound	1.5%
Years to Escalate: 2022	8

MANOR AVE & RIDGE RD

2022 PROJECTED TRAFFIC VOLUMES (AM)

MUNSTER RIDGE ROAD STATION

October 2017

TOTAL INTERSECTION

	2014	2022
IN	1885	2210
OUT	1885	2210

	2014	2022	
→	898	1050	OUT
←	847	960	IN

	OUT	IN
2022	120	100
2014	95	72

	R	T	L
2022	20	50	30
2014	9	42	21

	2014	2022	
↰	44	50	R
←	717	810	T
↙	86	100	L

Ridge Rd

	2022	2014	
L	20	12	↰
T	930	798	→
R	30	18	↘

	2014	2022
IN	980	828
OUT	860	746

	↰	↑	↱
2014	20	39	79
2022	30	50	90
	L	T	R

	↑	↓
2014	138	146
2022	170	180
	IN	OUT

Manor Ave

CLASSIFICATION: ALL VEHICLES

ANNUAL GROWTH RATE	
Northbound	1.7%
Southbound	1.7%
Eastbound	2.0%
Westbound	1.5%
Years to Escalate: 2022	8

NJTPA

MANOR AVE & RIDGE RD

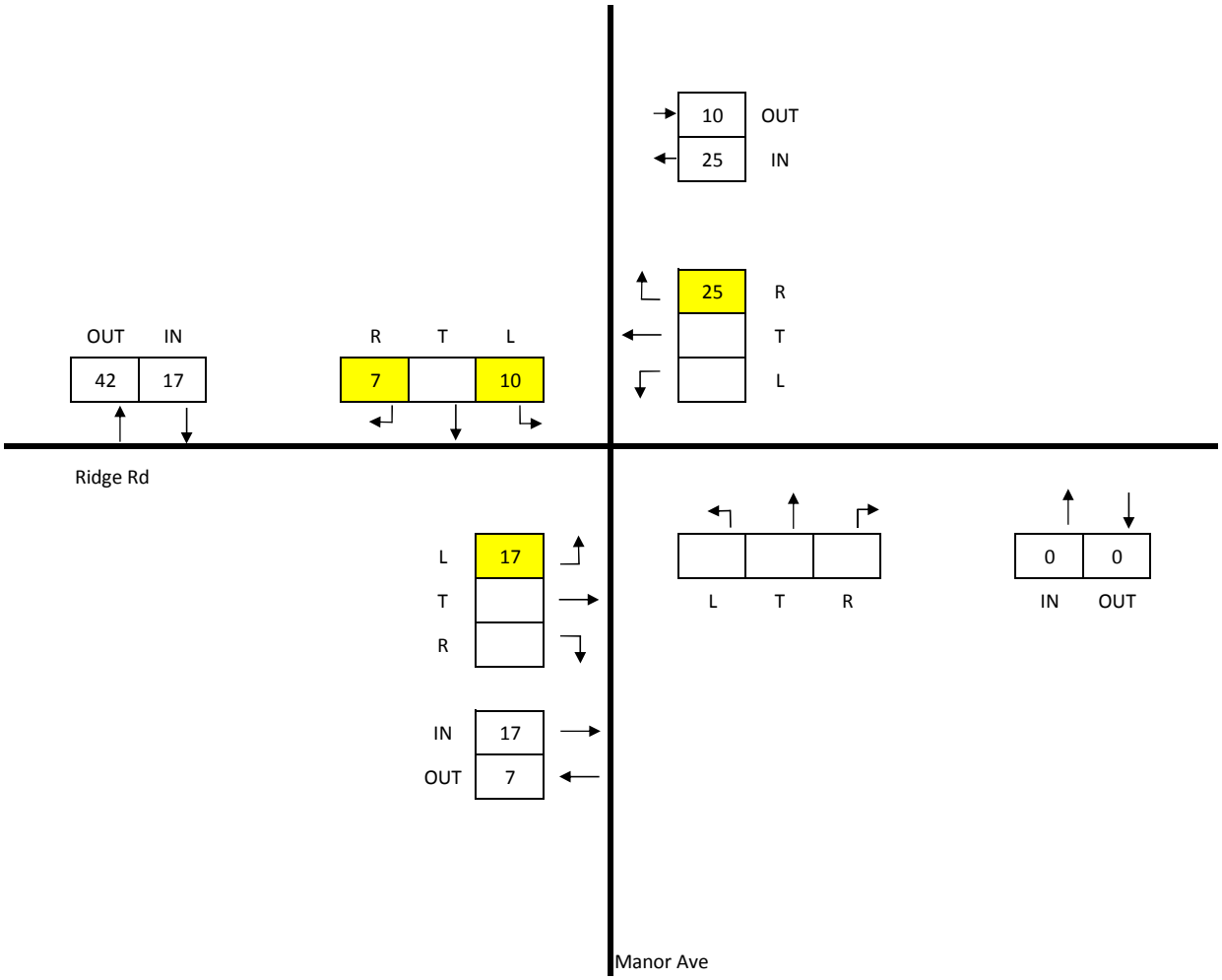
2022 PROJECTED TRAFFIC VOLUMES (PM)

MUNSTER RIDGE ROAD STATION

October 2017

TOTAL INTERSECTION

IN	59
OUT	59



CLASSIFICATION: ALL VEHICLES

MANOR AVE & RIDGE RD

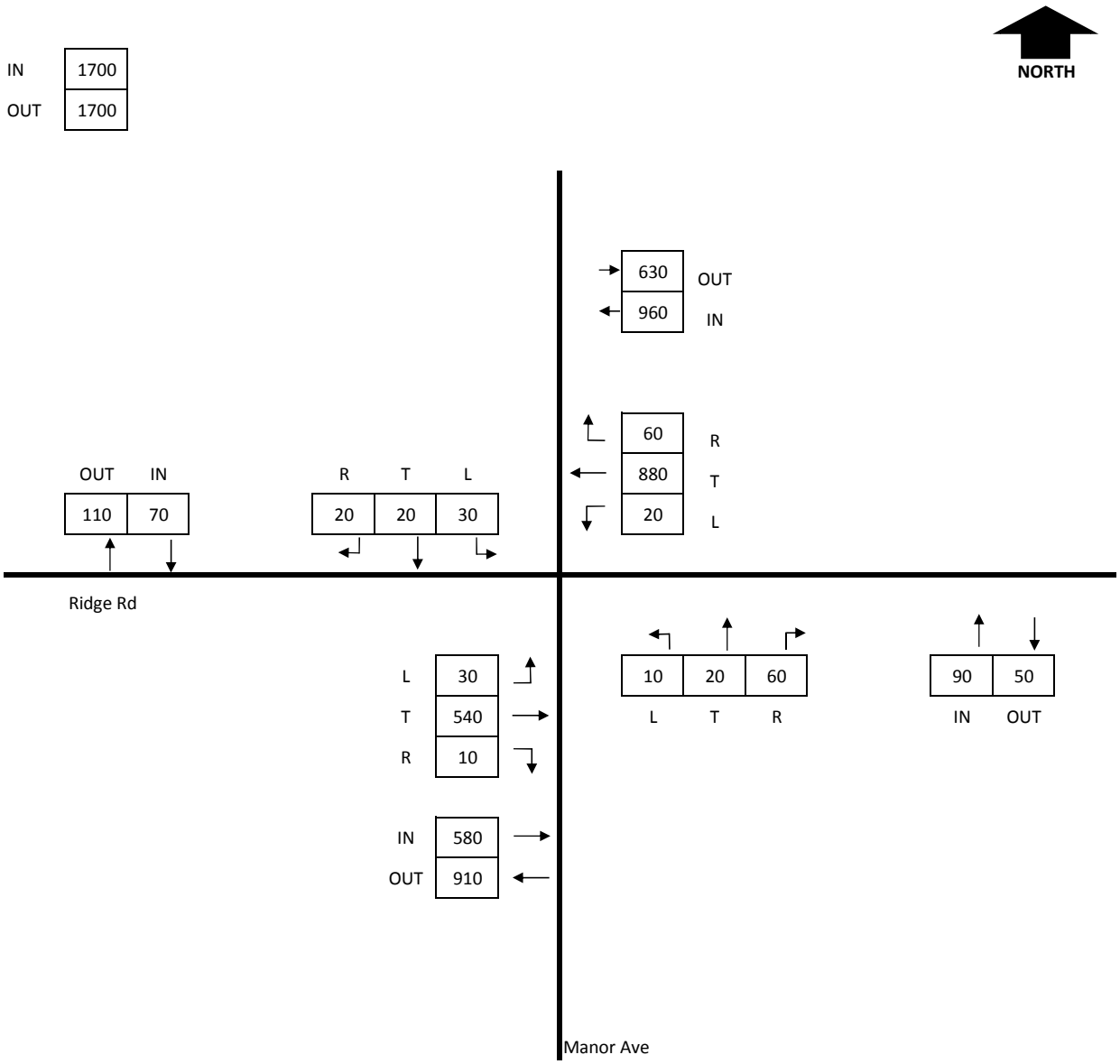
2022 SITE GENERATED TRIPS (AM)

MUNSTER RIDGE ROAD STATION

October 2017

TOTAL INTERSECTION

IN	1700
OUT	1700



CLASSIFICATION: ALL VEHICLES

MANOR AVE & RIDGE RD

2022 BUILD TRAFFIC VOLUMES (AM)

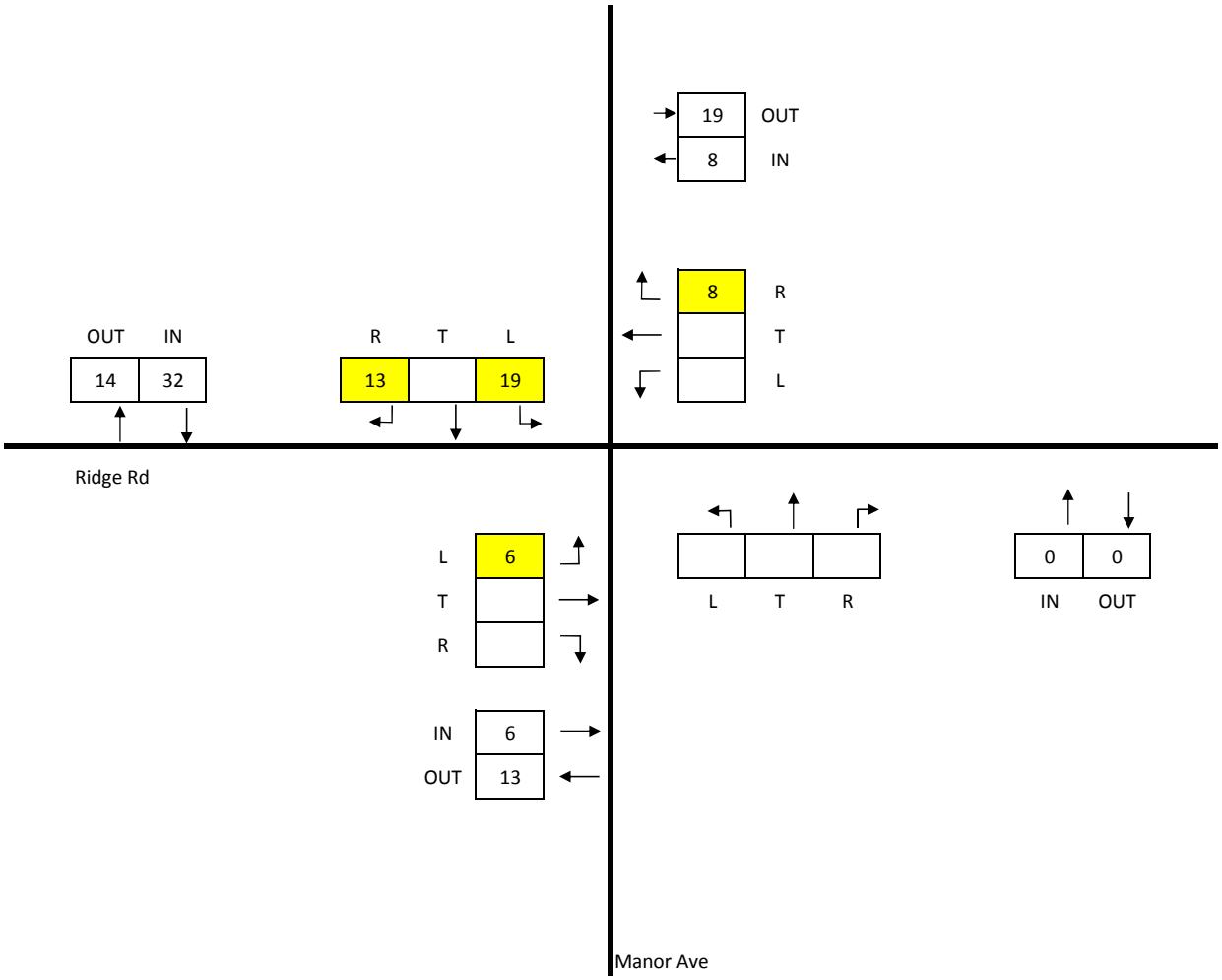
MUNSTER RIDGE ROAD STATION

October 2017

TOTAL INTERSECTION

IN	46
OUT	46

NORTH



CLASSIFICATION: ALL VEHICLES

MANOR AVE & RIDGE RD

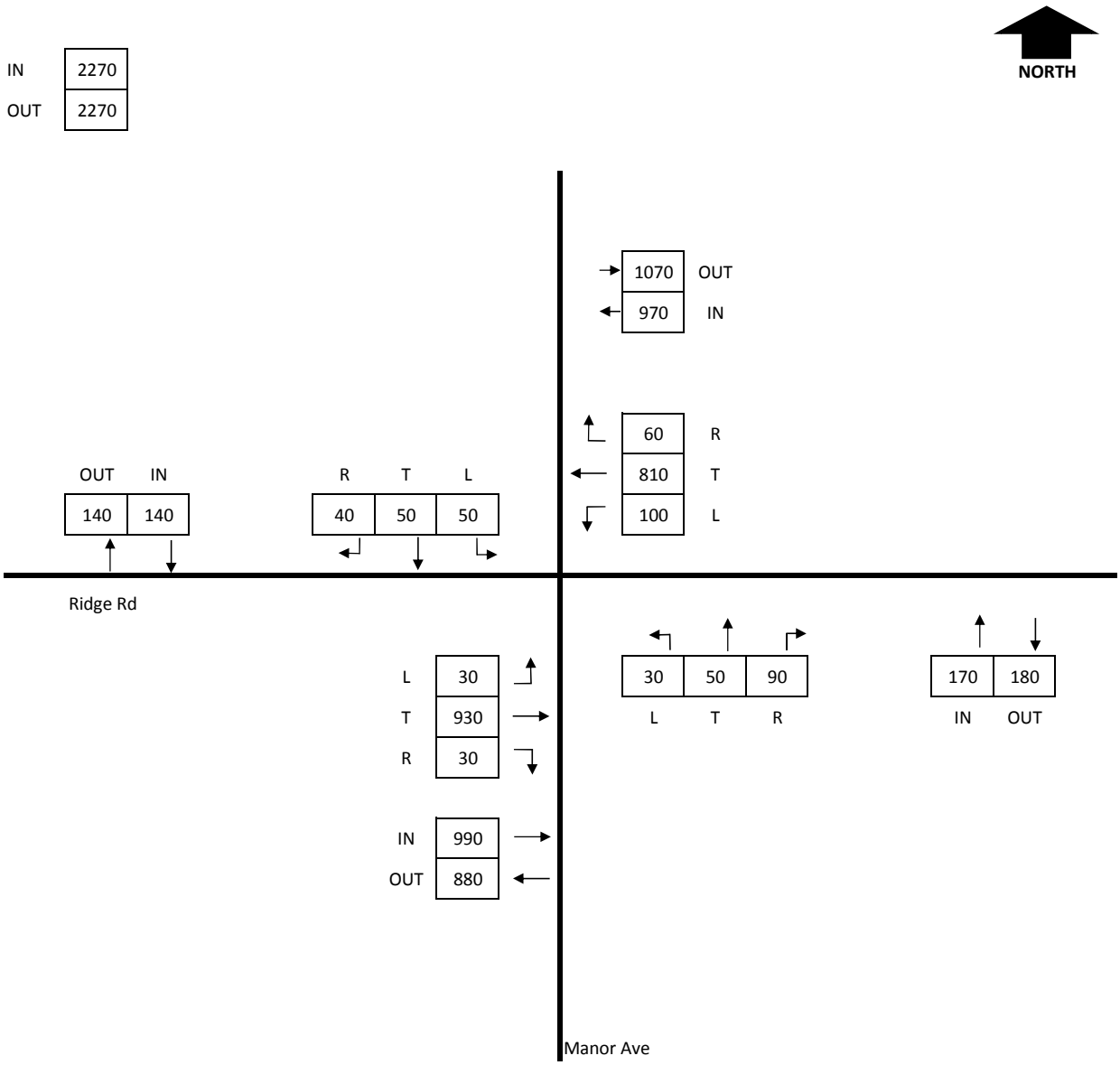
2022 SITE GENERATED TRIPS (PM)

MUNSTER RIDGE ROAD STATION

October 2017

TOTAL INTERSECTION

IN	2270
OUT	2270



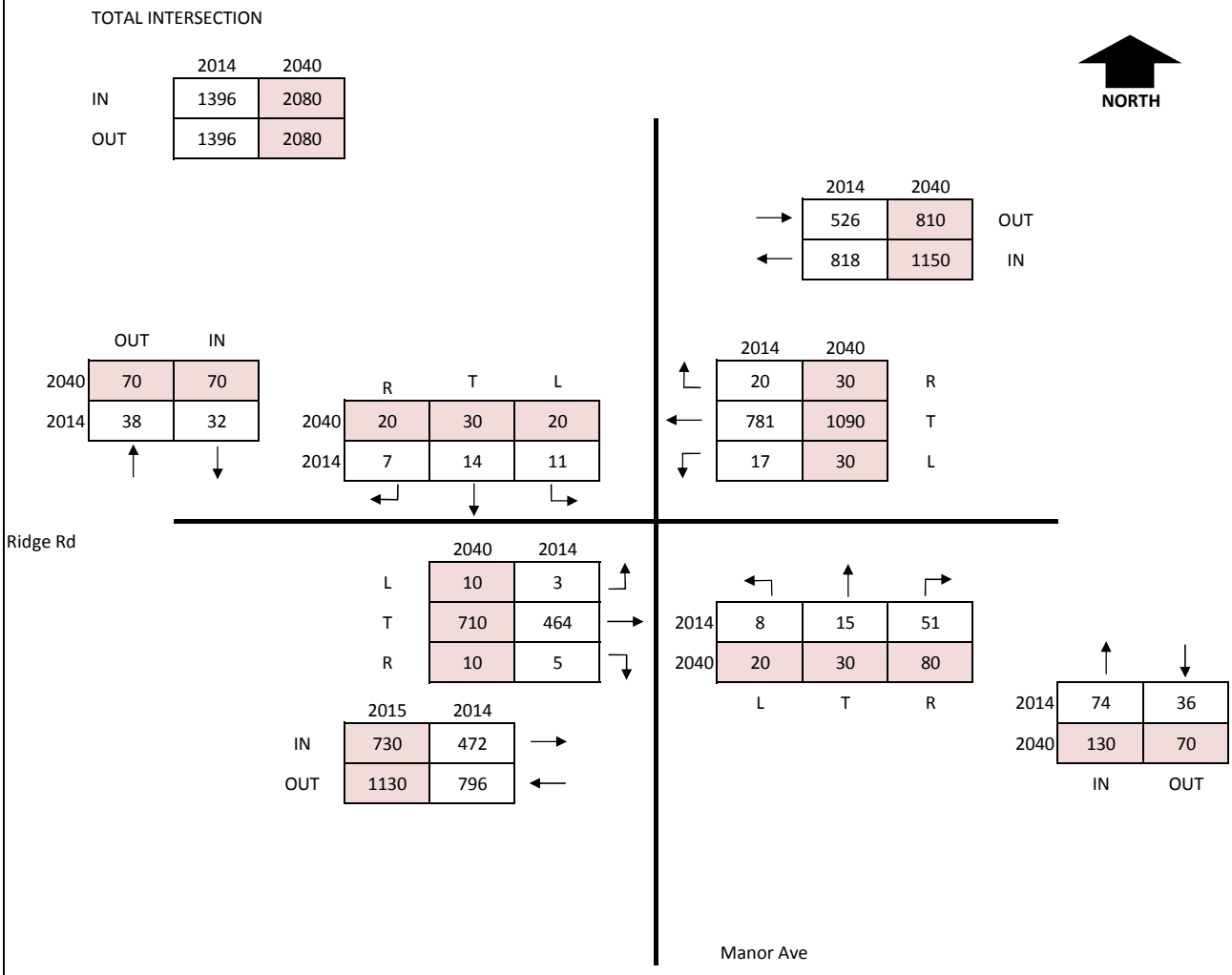
CLASSIFICATION: ALL VEHICLES

MANOR AVE & RIDGE RD

2022 BUILD TRAFFIC VOLUMES (PM)

MUNSTER RIDGE ROAD STATION

October 2017



CLASSIFICATION: ALL VEHICLES

ANNUAL GROWTH RATE	
Northbound	1.7%
Southbound	1.7%
Eastbound	2.0%
Westbound	1.5%
Years to Escalate: 2040	26

MANOR AVE & RIDGE RD

2040 PROJECTED TRAFFIC VOLUMES (AM)

MUNSTER RIDGE ROAD STATION

October 2017

TOTAL INTERSECTION

	2014	2040
IN	1885	2800
OUT	1885	2800

NORTH

	2014	2040	
→	898	1380	OUT
←	847	1190	IN

	OUT	IN
2040	150	130
2014	95	72

	R	T	L
2040	20	70	40
2014	9	42	21

	2014	2040	
↰	44	70	R
←	717	1000	T
↙	86	120	L

Ridge Rd

	2040	2014	
L	20	12	↰
T	1220	798	→
R	30	18	↘

	2040	2014	
IN	1270	828	→
OUT	1050	746	←

	↰	↑	↱
2014	20	39	79
2040	30	60	120
	L	T	R

	↑	↓
2014	138	146
2040	210	220
	IN	OUT

Manor Ave

CLASSIFICATION: ALL VEHICLES

ANNUAL GROWTH RATE	
Northbound	1.7%
Southbound	1.7%
Eastbound	2.0%
Westbound	1.5%
Years to Escalate: 2040	26

MANOR AVE & RIDGE RD

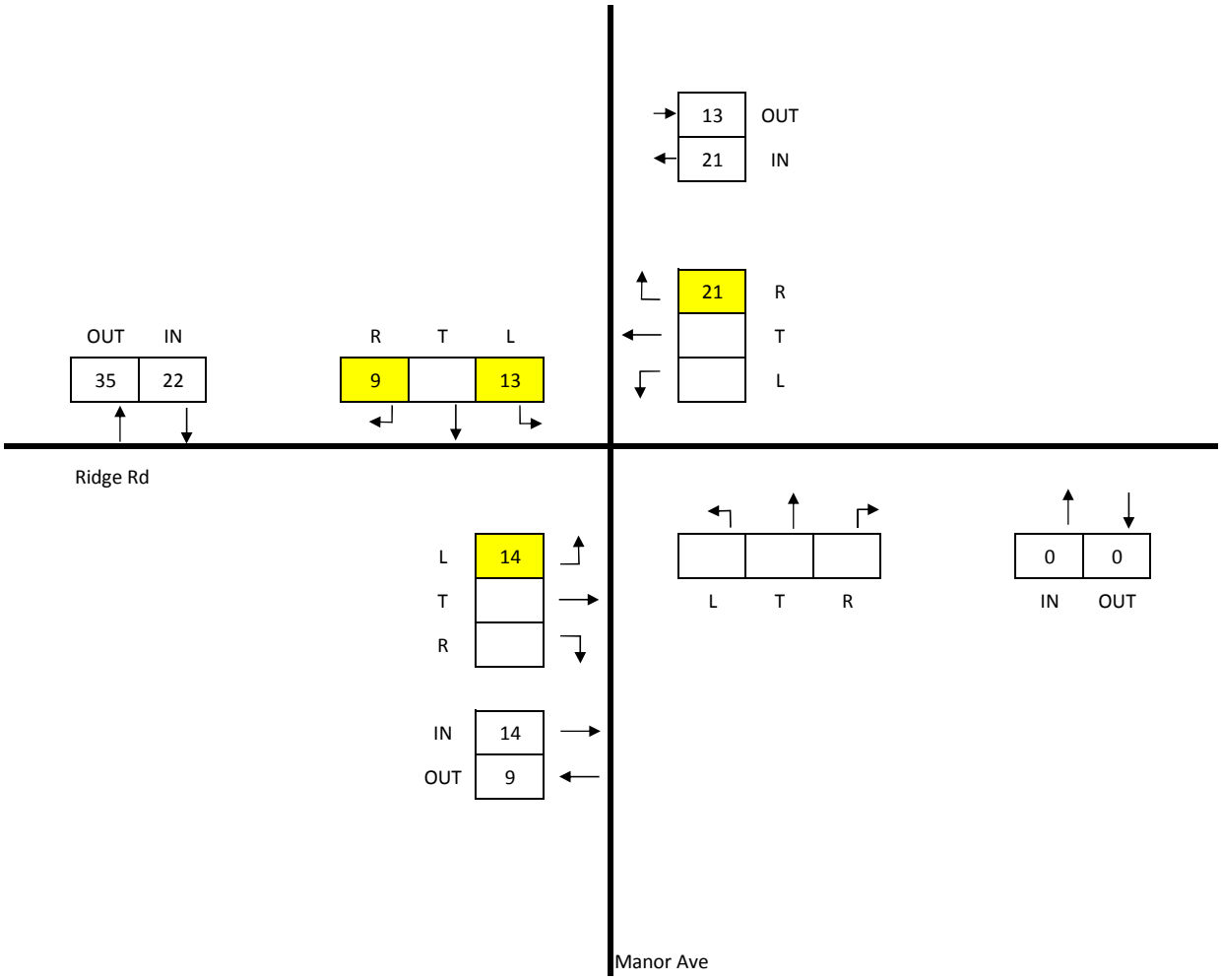
2040 PROJECTED TRAFFIC VOLUMES (PM)

MUNSTER RIDGE ROAD STATION

October 2017

TOTAL INTERSECTION

IN	57
OUT	57



CLASSIFICATION: ALL VEHICLES

MANOR AVE & RIDGE RD

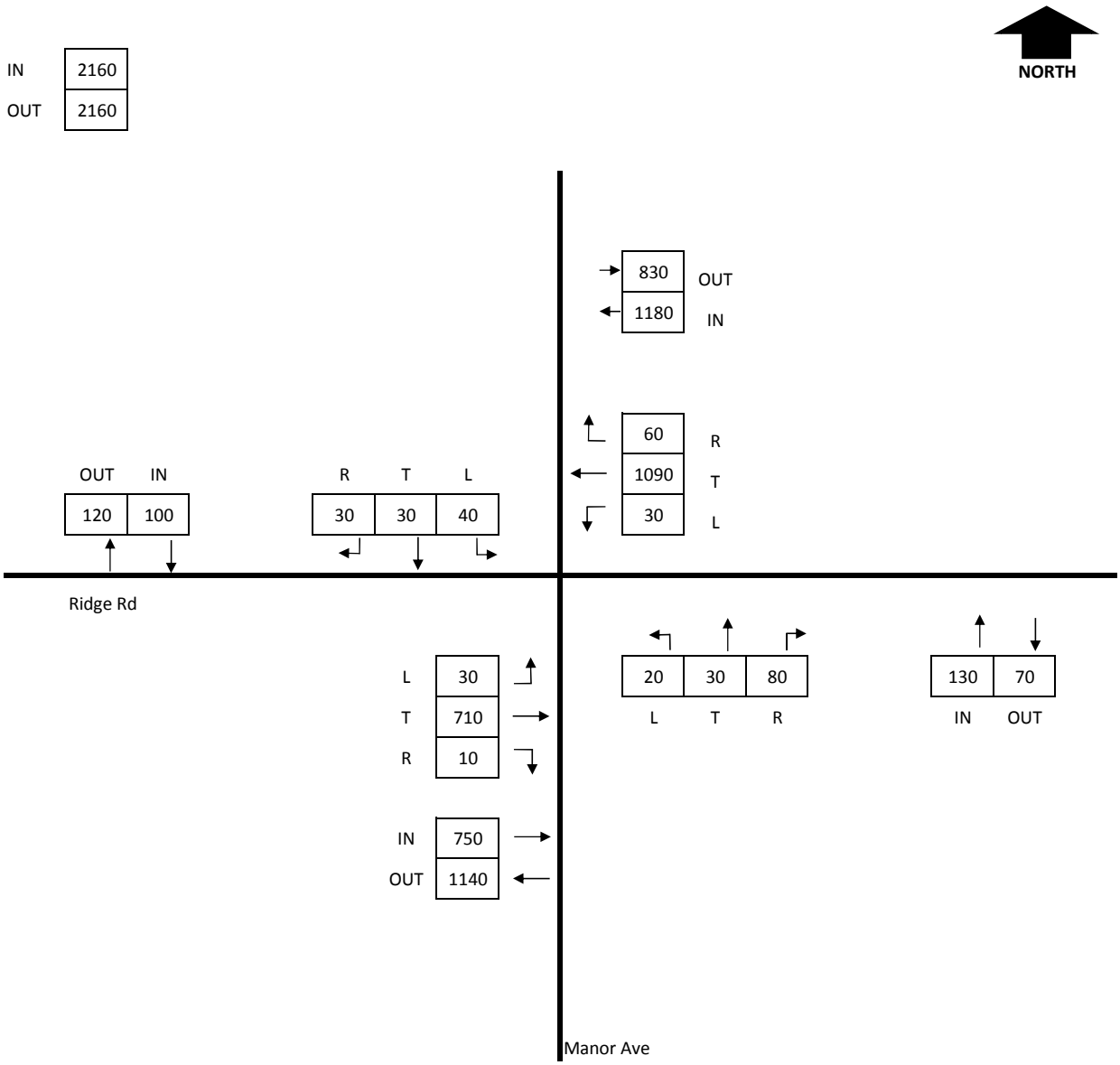
2040 SITE GENERATED TRIPS (AM)

MUNSTER RIDGE ROAD STATION

October 2017

TOTAL INTERSECTION

IN	2160
OUT	2160



CLASSIFICATION: ALL VEHICLES

MANOR AVE & RIDGE RD

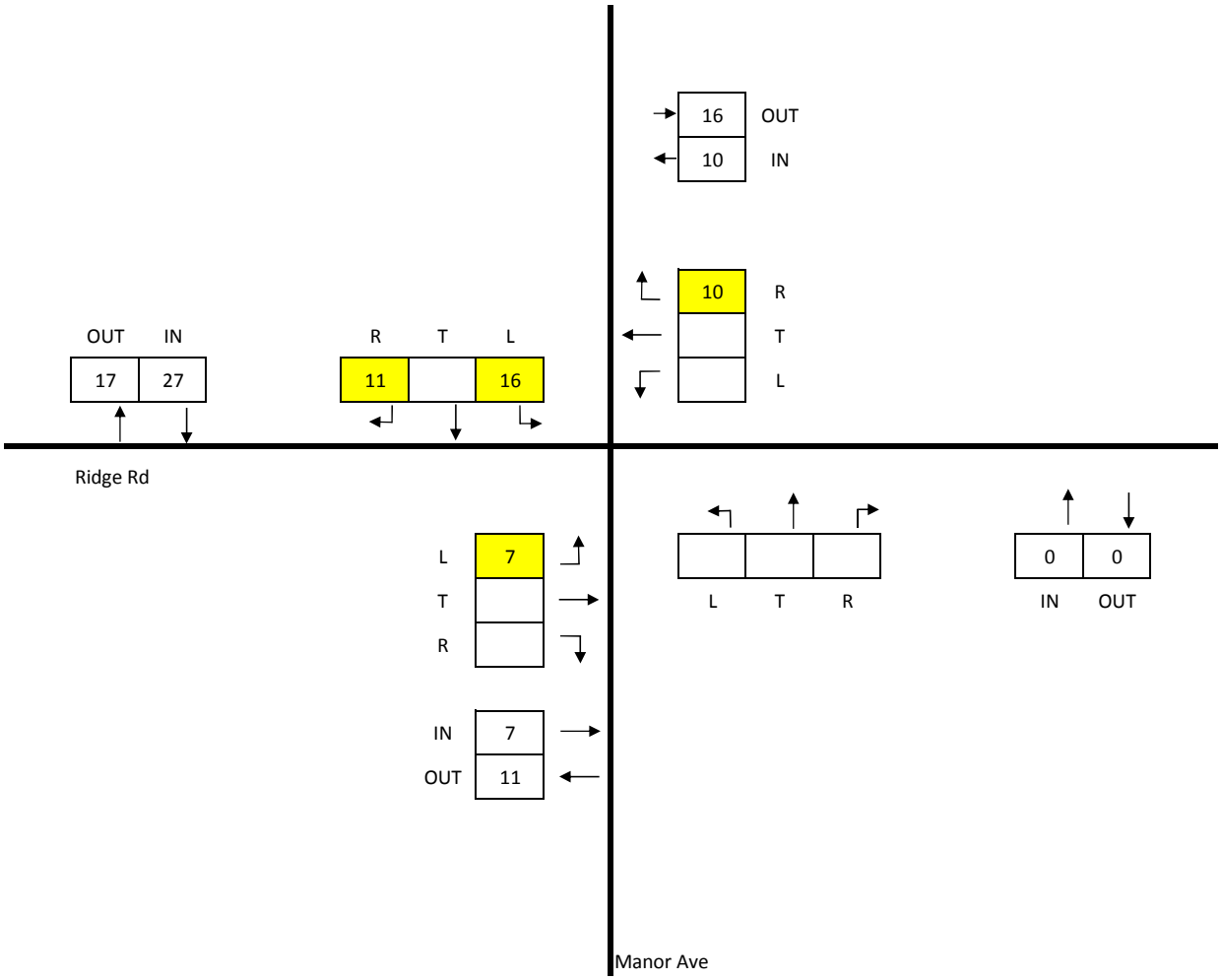
2040 BUILD TRAFFIC VOLUMES (AM)

MUNSTER RIDGE ROAD STATION

October 2017

TOTAL INTERSECTION

IN	44
OUT	44



CLASSIFICATION: ALL VEHICLES

MANOR AVE & RIDGE RD

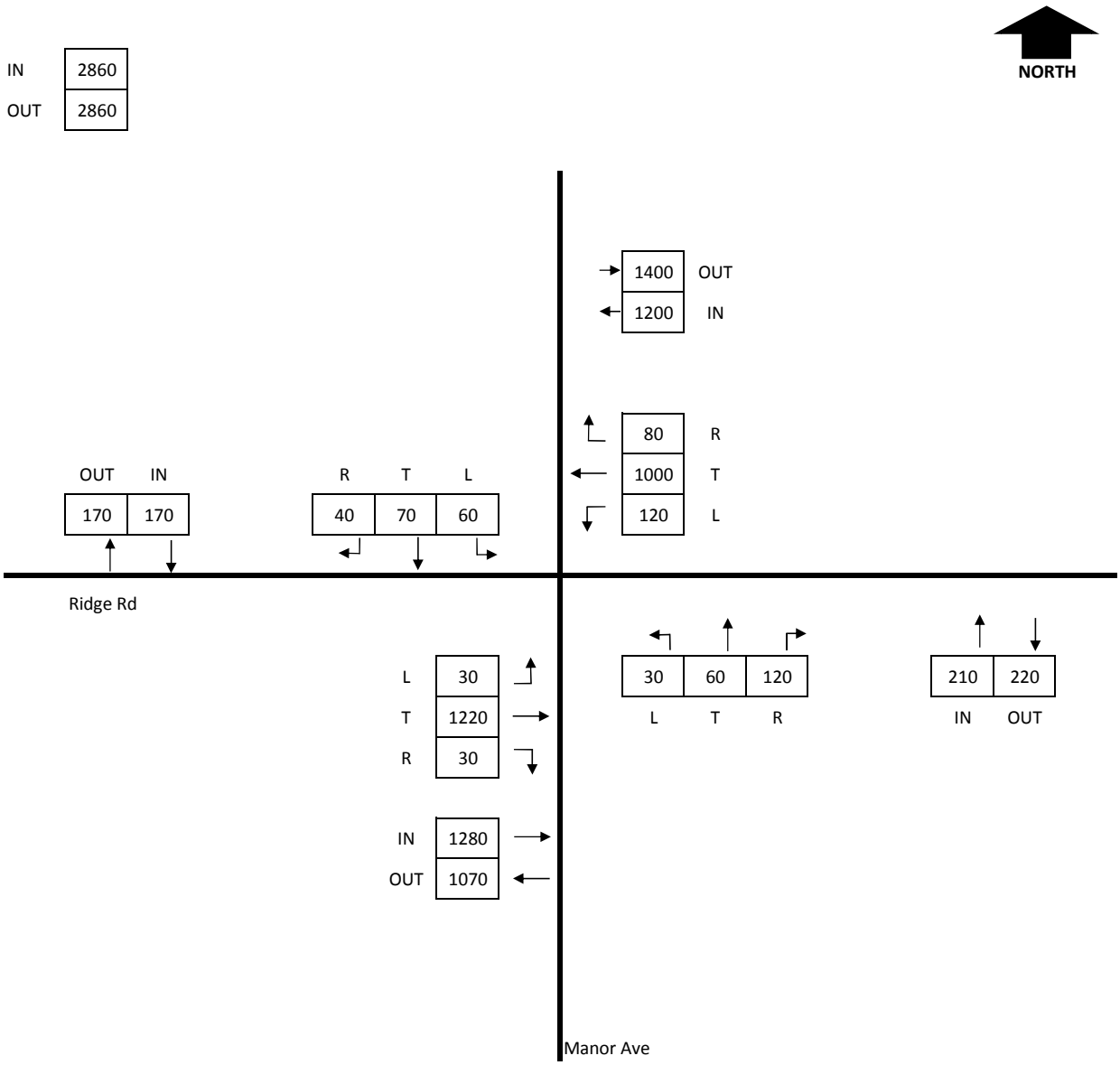
2040 SITE GENERATED TRIPS (PM)

MUNSTER RIDGE ROAD STATION

October 2017

TOTAL INTERSECTION

IN	2860
OUT	2860



CLASSIFICATION: ALL VEHICLES

MANOR AVE & RIDGE RD

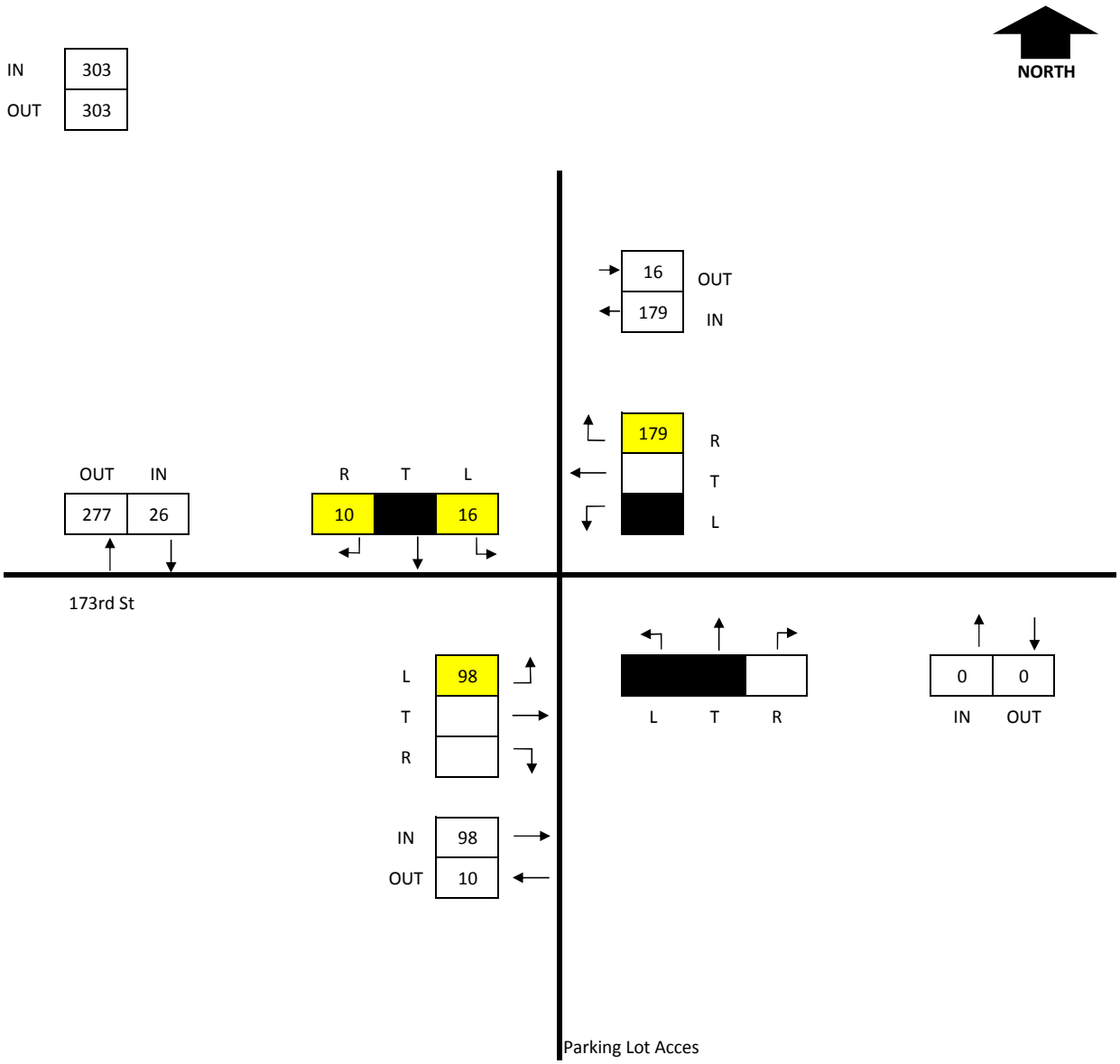
2040 BUILD TRAFFIC VOLUMES (PM)

MUNSTER RIDGE ROAD STATION

October 2017

TOTAL INTERSECTION

IN	303
OUT	303



CLASSIFICATION: ALL VEHICLES

PARKING ACCESS & 173RD ST

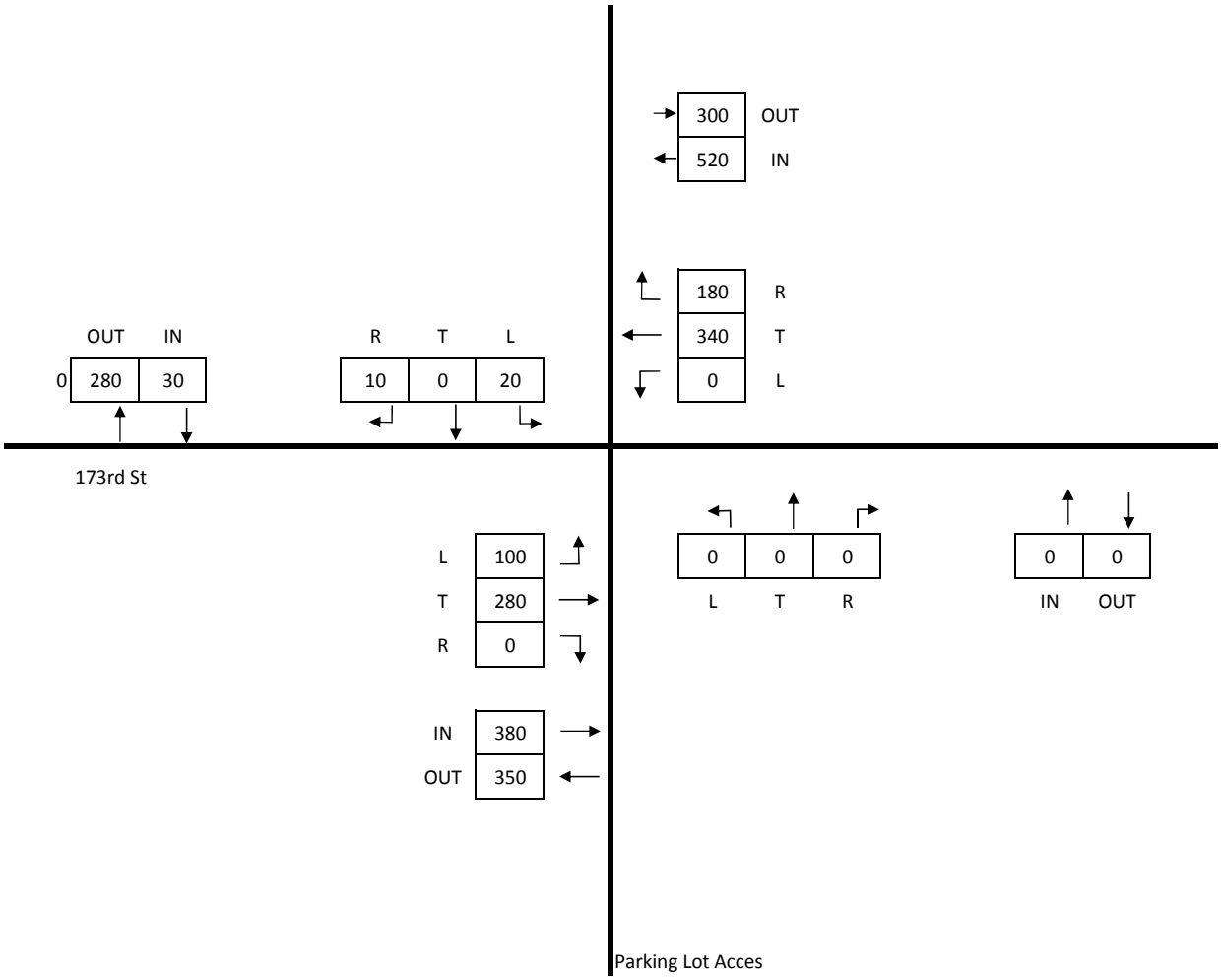
2022 SITE GENERATED TRIPS (AM)

SOUTH HAMMOND STATION

October 2017

TOTAL INTERSECTION

IN	930
OUT	930



CLASSIFICATION: ALL VEHICLES

PARKING ACCESS & 173RD ST

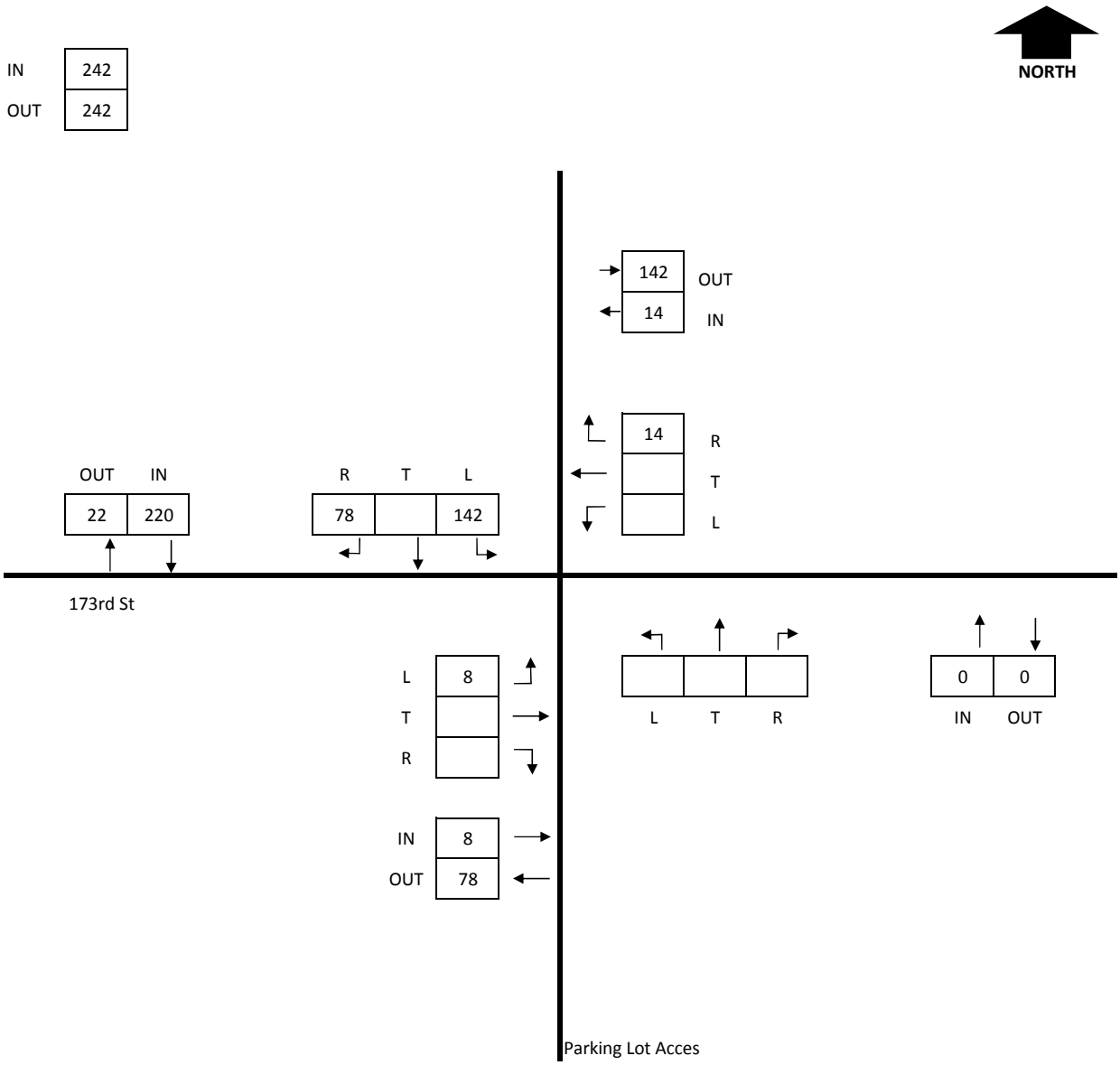
2022 BUILD TRAFFIC VOLUMES (AM)

SOUTH HAMMOND STATION

October 2017

TOTAL INTERSECTION

IN	242
OUT	242



CLASSIFICATION: ALL VEHICLES

PARKING ACCESS & 173RD ST

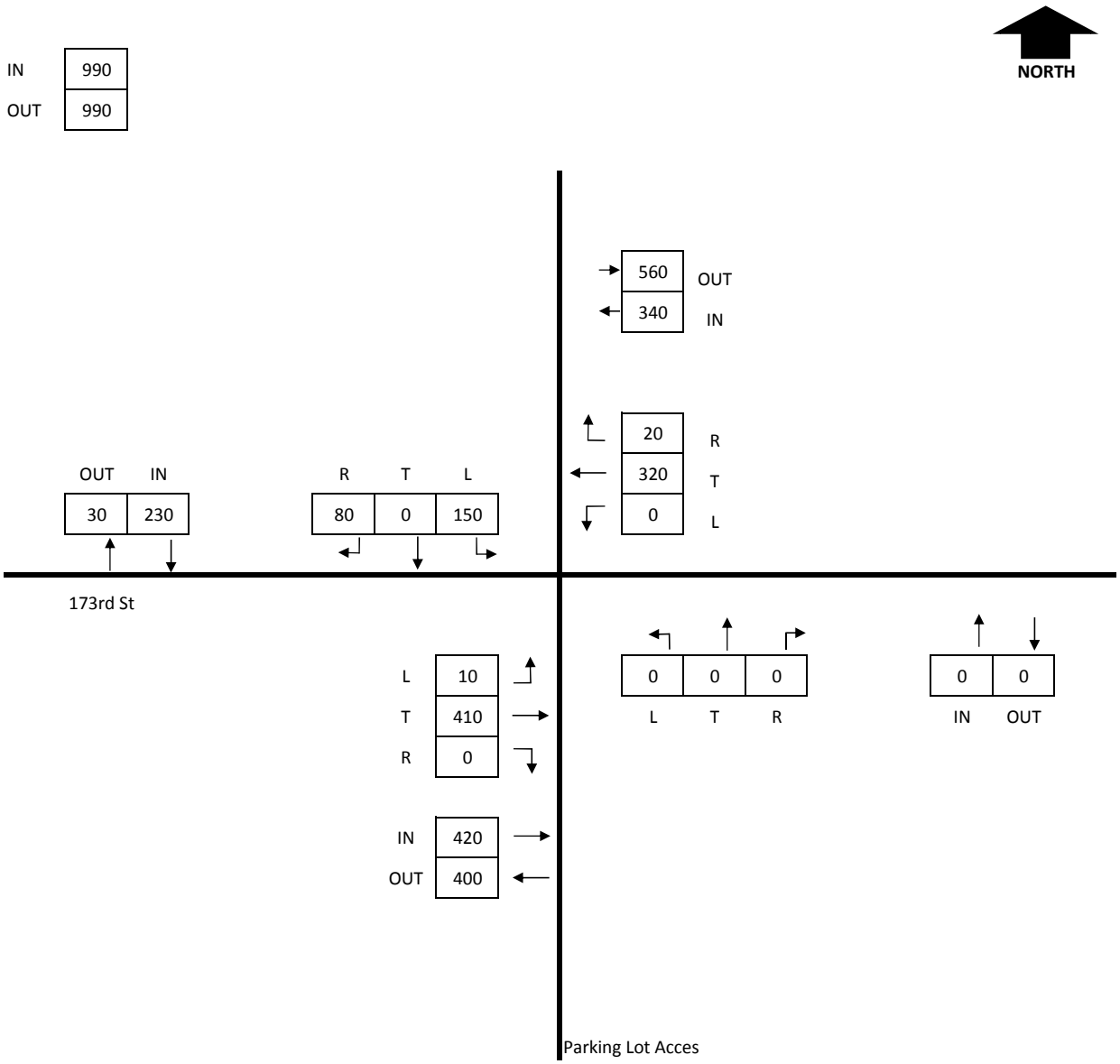
2022 SITE GENERATED TRIPS (PM)

SOUTH HAMMOND STATION

October 2017

TOTAL INTERSECTION

IN	990
OUT	990



CLASSIFICATION: ALL VEHICLES

PARKING ACCESS & 173RD ST

2022 BUILD TRAFFIC VOLUMES (PM)

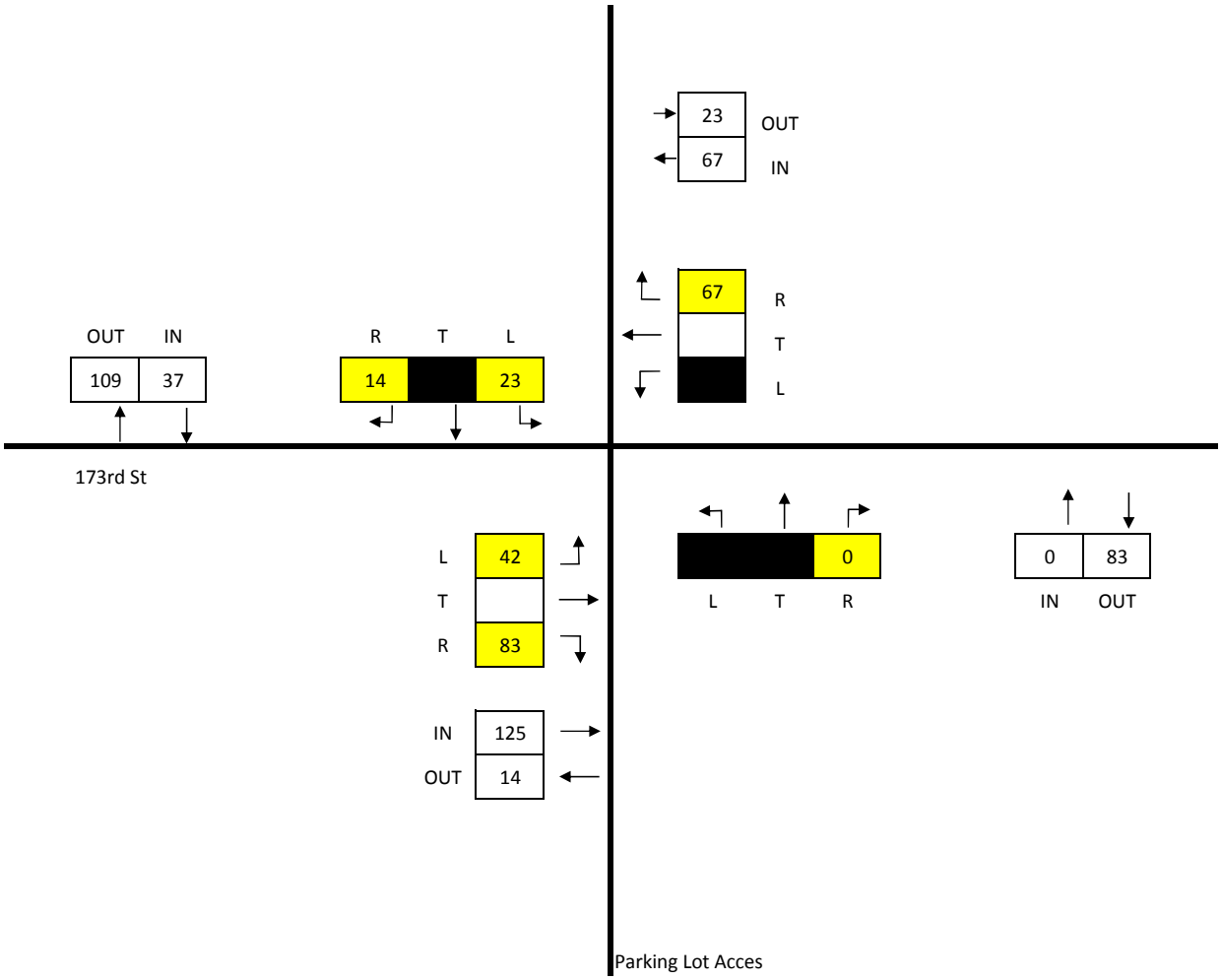
SOUTH HAMMOND STATION

October 2017

TOTAL INTERSECTION

IN	229
OUT	229

NORTH



CLASSIFICATION: ALL VEHICLES

PARKING ACCESS & 173RD ST

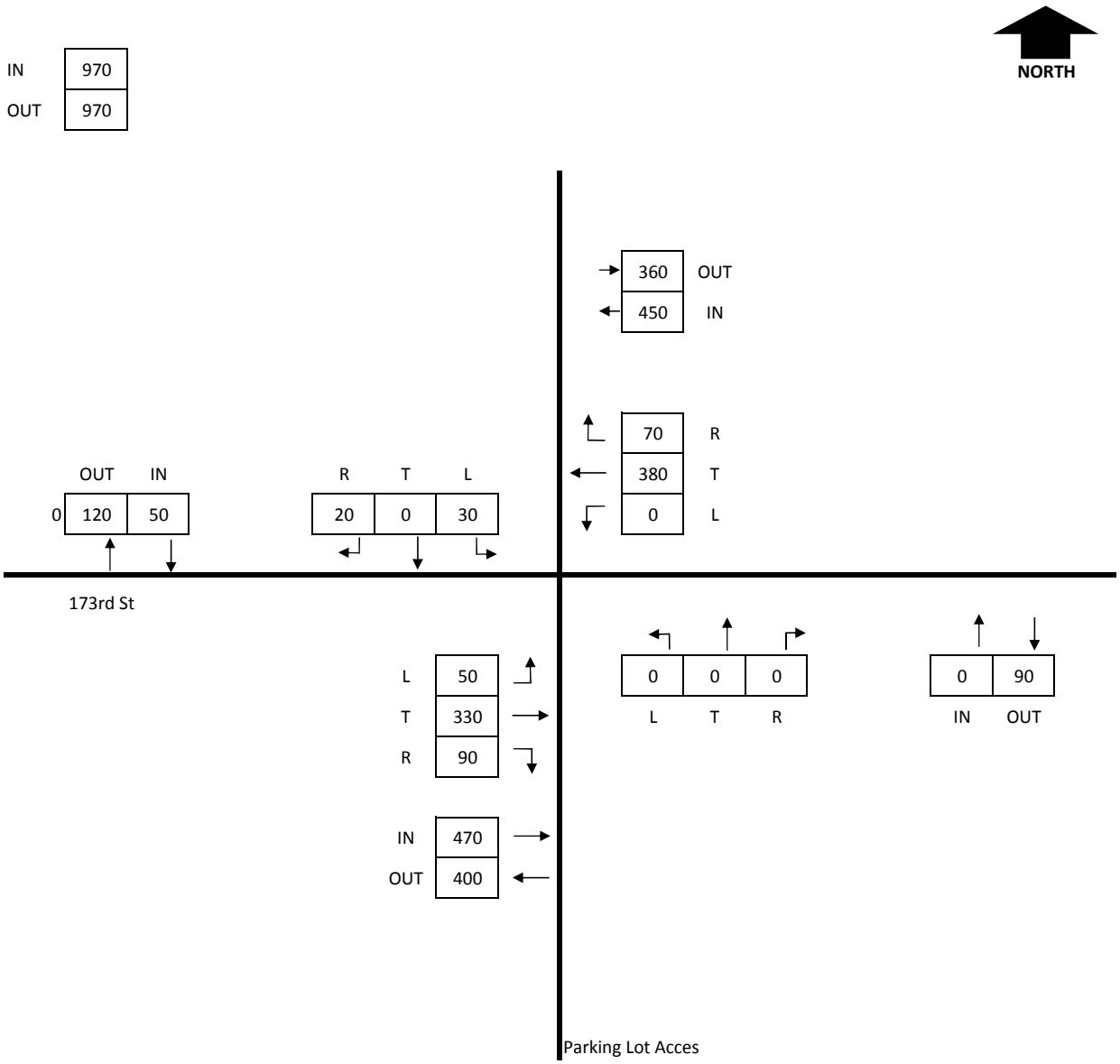
2040 SITE GENERATED TRIPS (AM)

SOUTH HAMMOND STATION

October 2017

TOTAL INTERSECTION

IN	970
OUT	970



CLASSIFICATION: ALL VEHICLES

PARKING ACCESS & 173RD ST

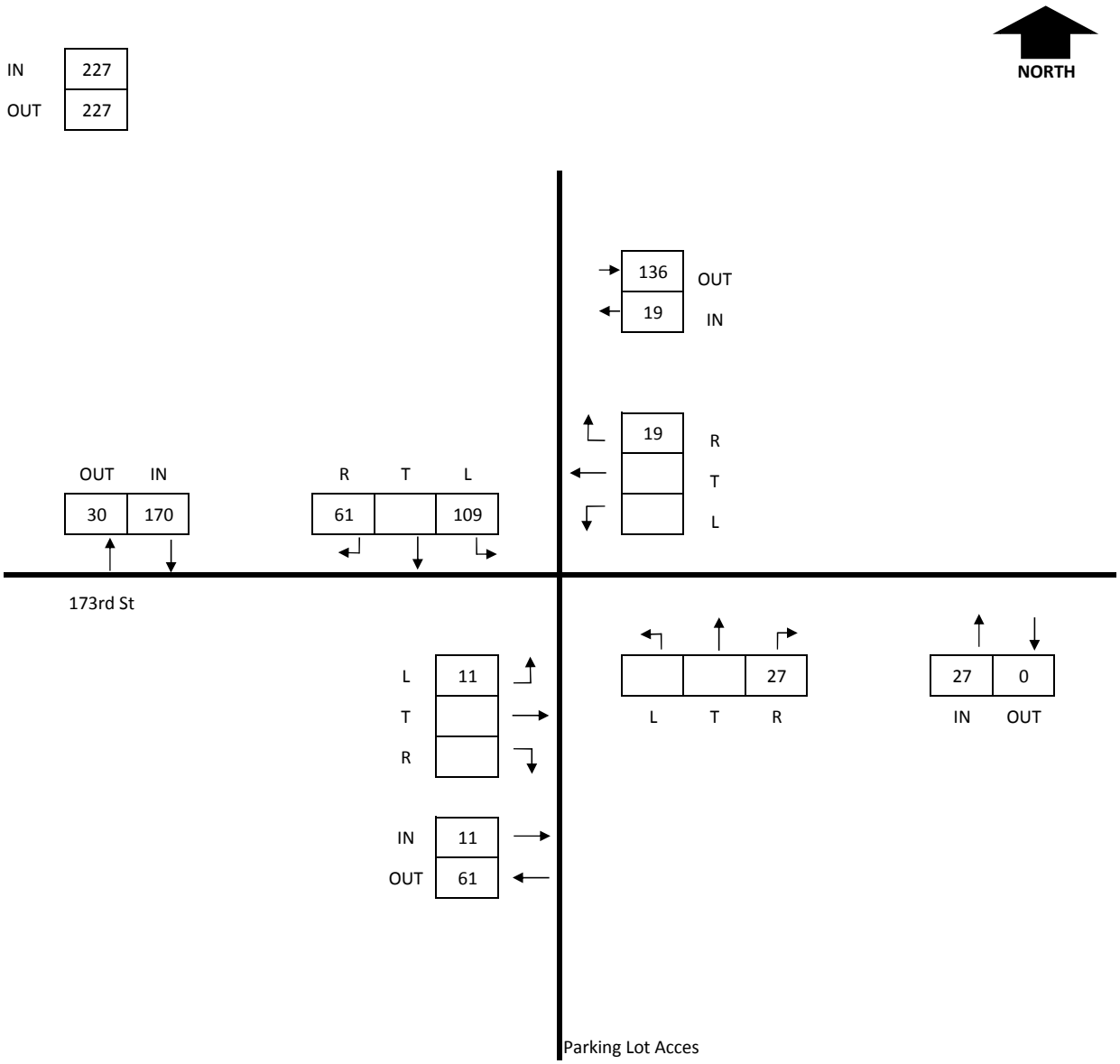
2040 BUILD TRAFFIC VOLUMES (AM)

SOUTH HAMMOND STATION

October 2017

TOTAL INTERSECTION

IN	227
OUT	227



CLASSIFICATION: ALL VEHICLES

PARKING ACCESS & 173RD ST

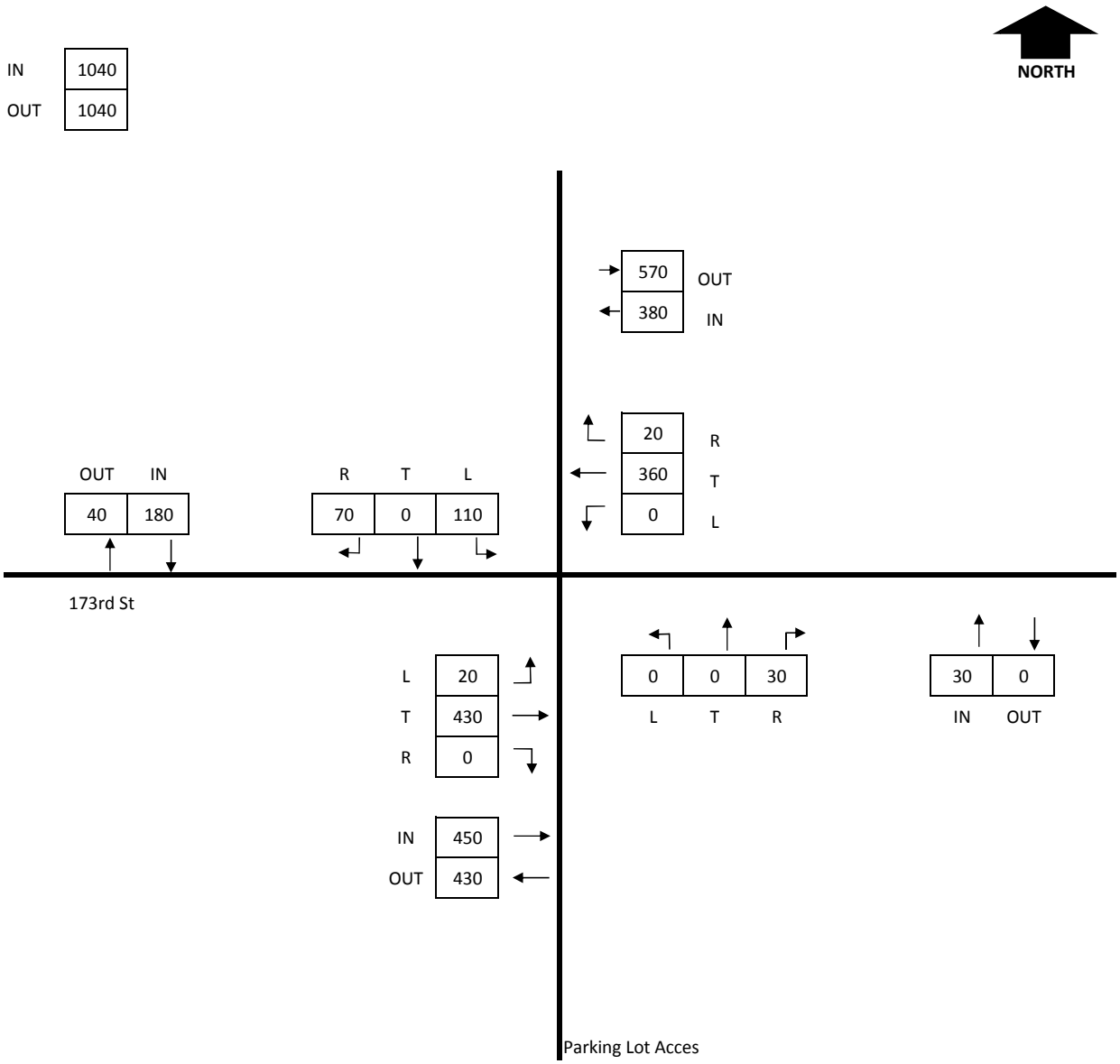
2040 SITE GENERATED TRIPS (PM)

SOUTH HAMMOND STATION

October 2017

TOTAL INTERSECTION

IN	1040
OUT	1040



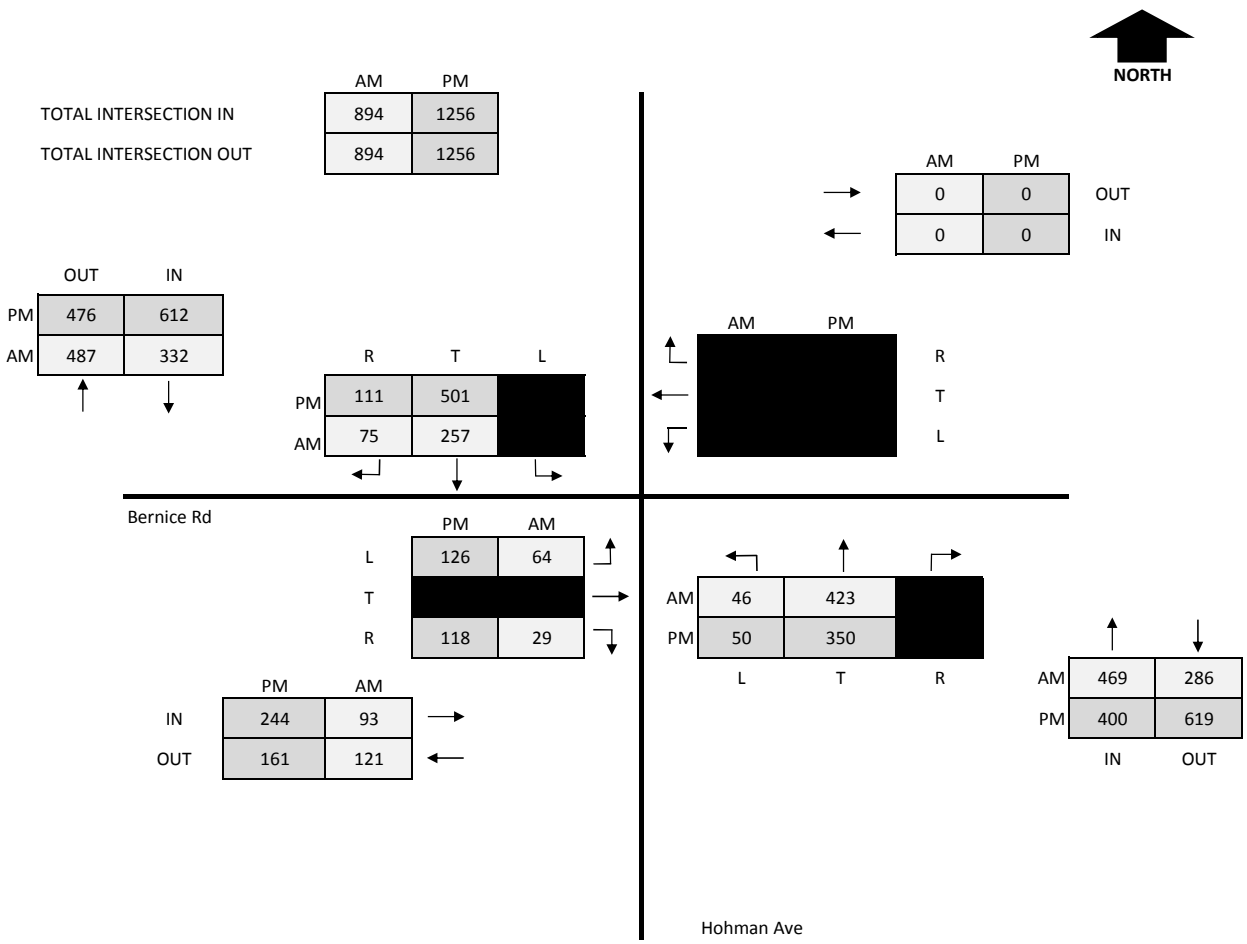
CLASSIFICATION: ALL VEHICLES

PARKING ACCESS & 173RD ST

2040 BUILD TRAFFIC VOLUMES (PM)

SOUTH HAMMOND STATION

October 2017



CLASSIFICATION: ALL VEHICLES

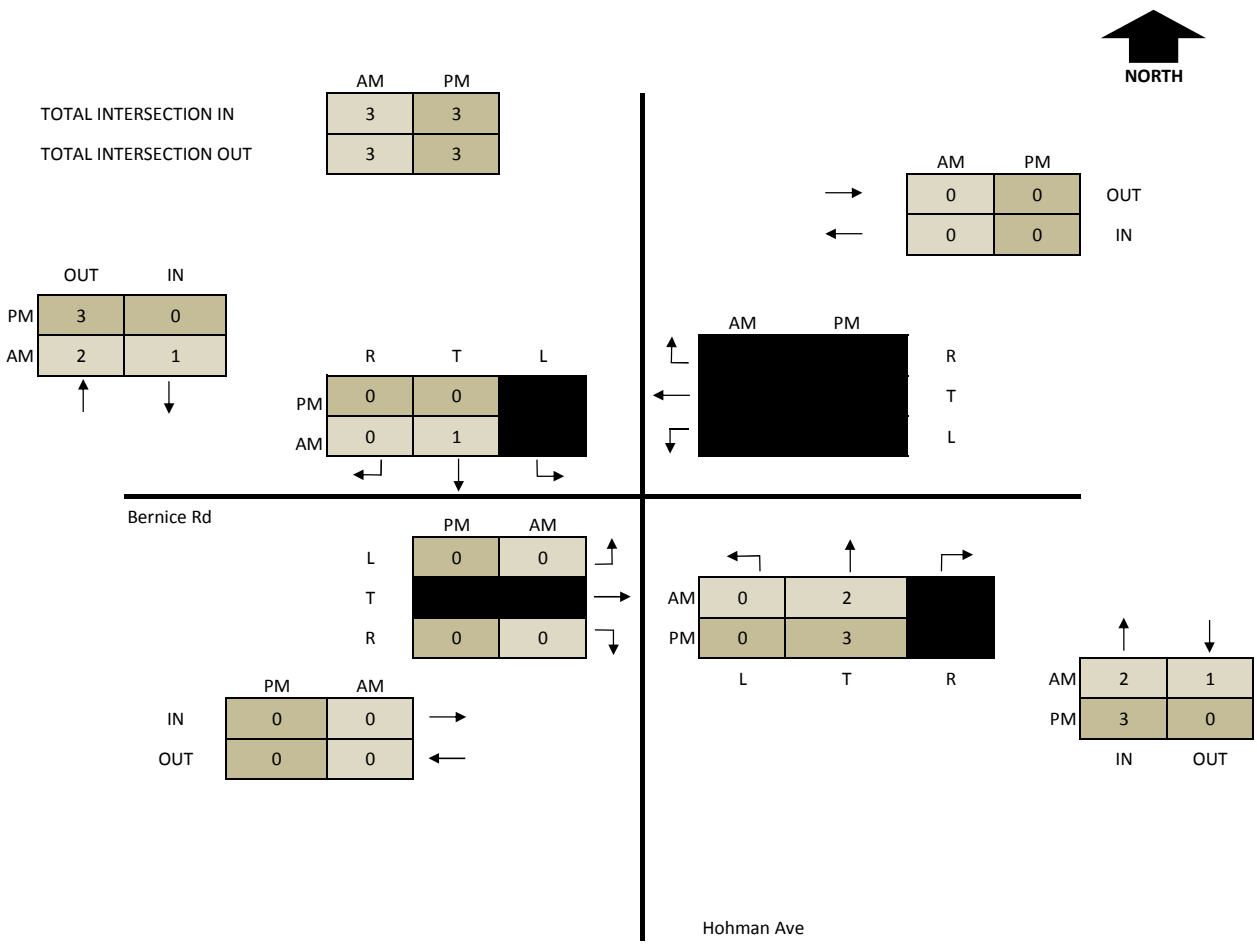
Traffic Counts				
AM	5/9/2017	7:15 AM	to	8:15 AM
PM	5/9/2017	4:30 PM	to	5:30 PM

HOHMAN AVE & BERNICE RD

EXISTING TRAFFIC VOLUMES (2017)

SOUTH HAMMOND STATION

October 2017



CLASSIFICATION: TRUCKS

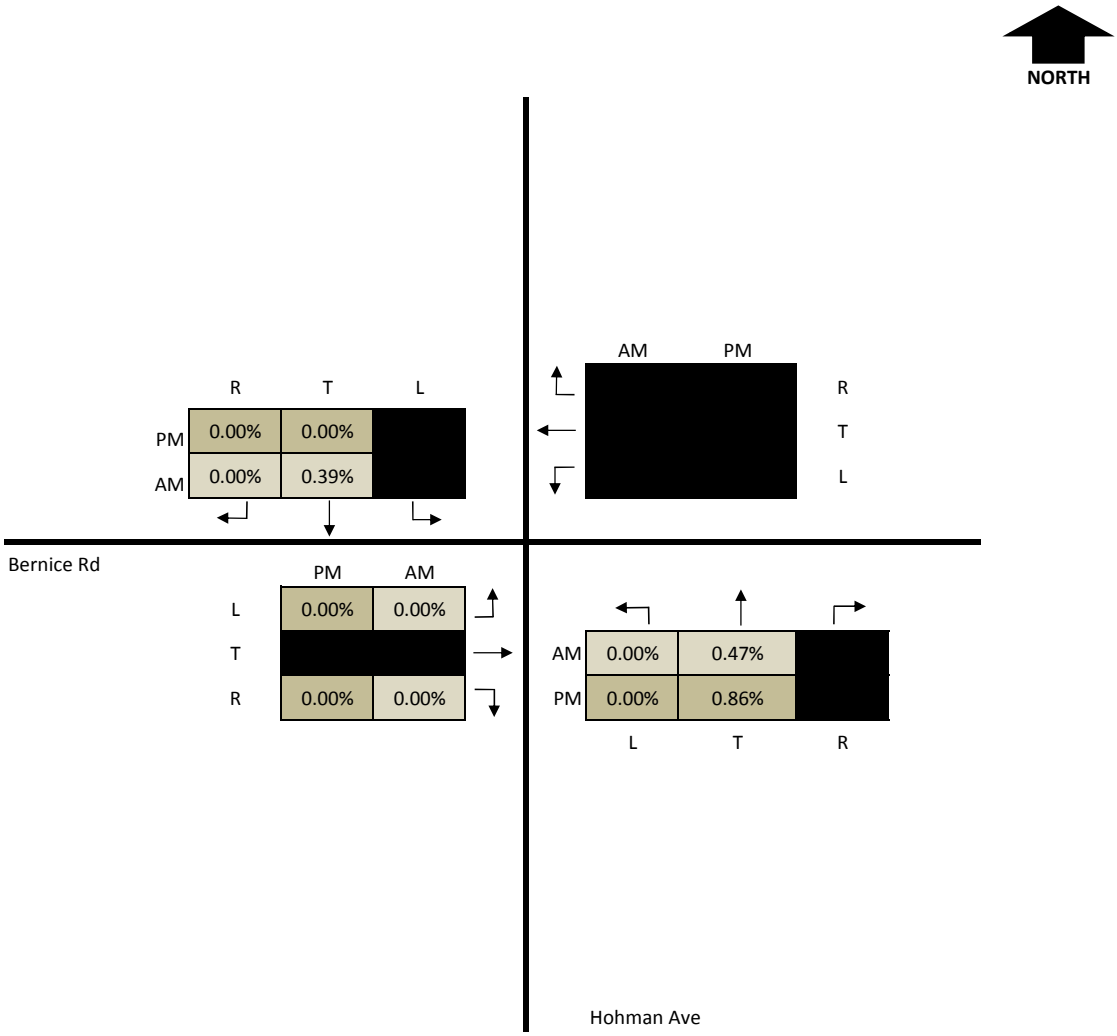
Traffic Counts				
AM	5/9/2017	7:15 AM	to	8:15 AM
PM	5/9/2017	4:30 PM	to	5:30 PM

HOHMAN AVE & BERNICE RD

EXISTING TRAFFIC VOLUMES (2017)

SOUTH HAMMOND STATION

October 2017



CLASSIFICATION: TRUCKS

Traffic Counts				
AM	5/9/2017	7:15 AM	to	8:15 AM
PM	5/9/2017	4:30 PM	to	5:30 PM

HOHMAN AVE & BERNICE RD

EXISTING TRAFFIC VOLUMES (2017)

SOUTH HAMMOND STATION

October 2017

TOTAL INTERSECTION

	2017	2022
IN	894	970
OUT	894	970

NORTH

	2017	2022	
→	0	0	OUT
←	0	0	IN

	OUT	IN
2022	520	360
2017	487	332

	R	T	L
2022	80	280	
2017	75	257	

	2017	2022	
↰			R
←			T
↲			L

Bernice Rd

	2022	2017	
L	70	64	↰
T			→
R	40	29	↳

	2017	2022
↰	46	50
↑	423	450
↱		
	L	T

	2040	2017	
IN	110	93	→
OUT	130	121	←

	2017	2022
↑	469	500
↓	286	320
	IN	OUT

Hohman Ave

CLASSIFICATION: ALL VEHICLES

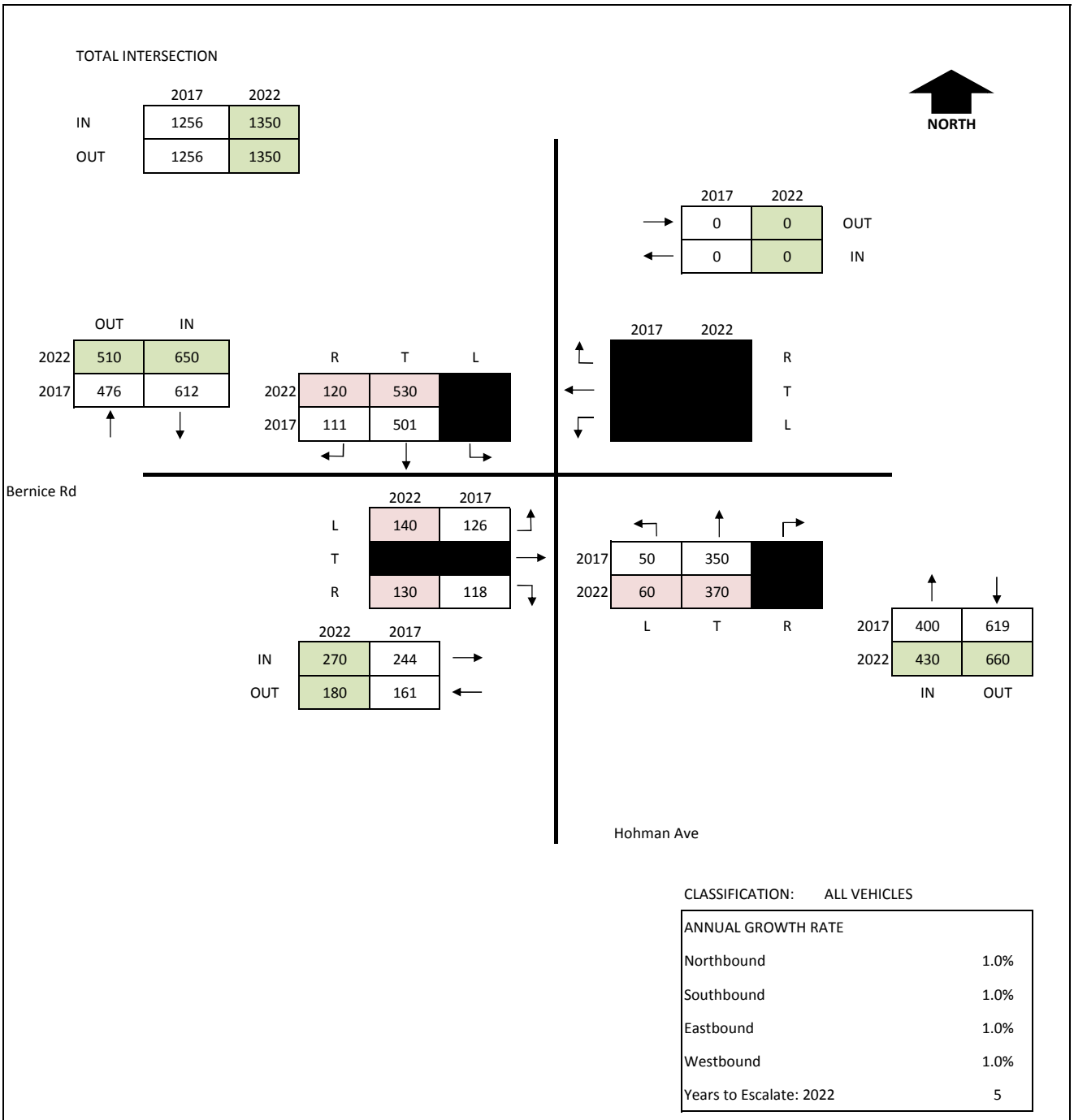
ANNUAL GROWTH RATE	
Northbound	1.0%
Southbound	1.0%
Eastbound	1.0%
Westbound	1.0%
Years to Escalate: 2022	5

HOHMAN AVE & BERNICE RD

2022 PROJECTED TRAFFIC VOLUMES (AM)

SOUTH HAMMOND STATION

October 2017



CLASSIFICATION: ALL VEHICLES

ANNUAL GROWTH RATE	
Northbound	1.0%
Southbound	1.0%
Eastbound	1.0%
Westbound	1.0%
Years to Escalate: 2022	5

HOHMAN AVE & BERNICE RD

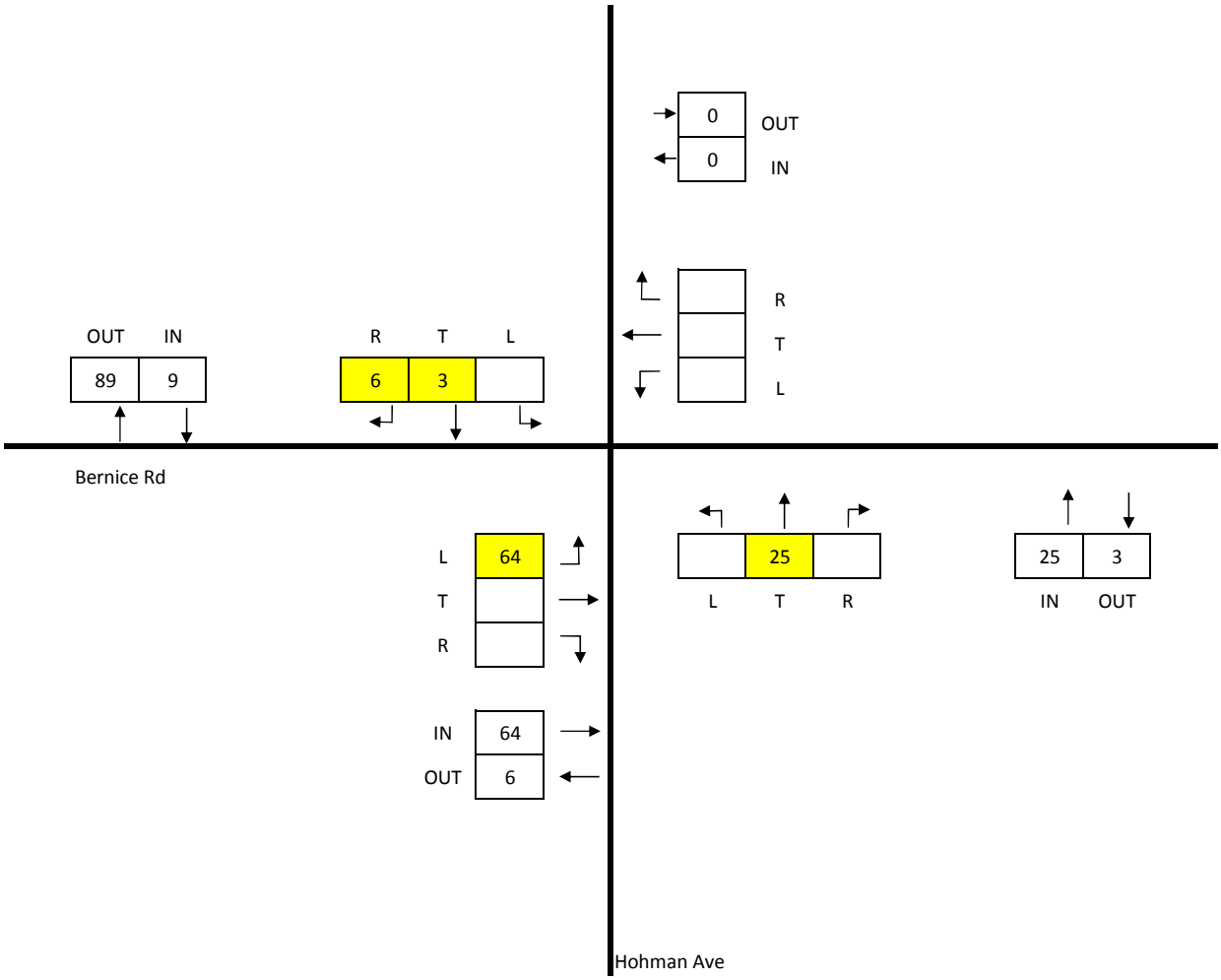
2022 PROJECTED TRAFFIC VOLUMES (PM)

SOUTH HAMMOND STATION

October 2017

TOTAL INTERSECTION

IN	98
OUT	98



CLASSIFICATION: ALL VEHICLES

HOHMAN AVE & BERNICE RD

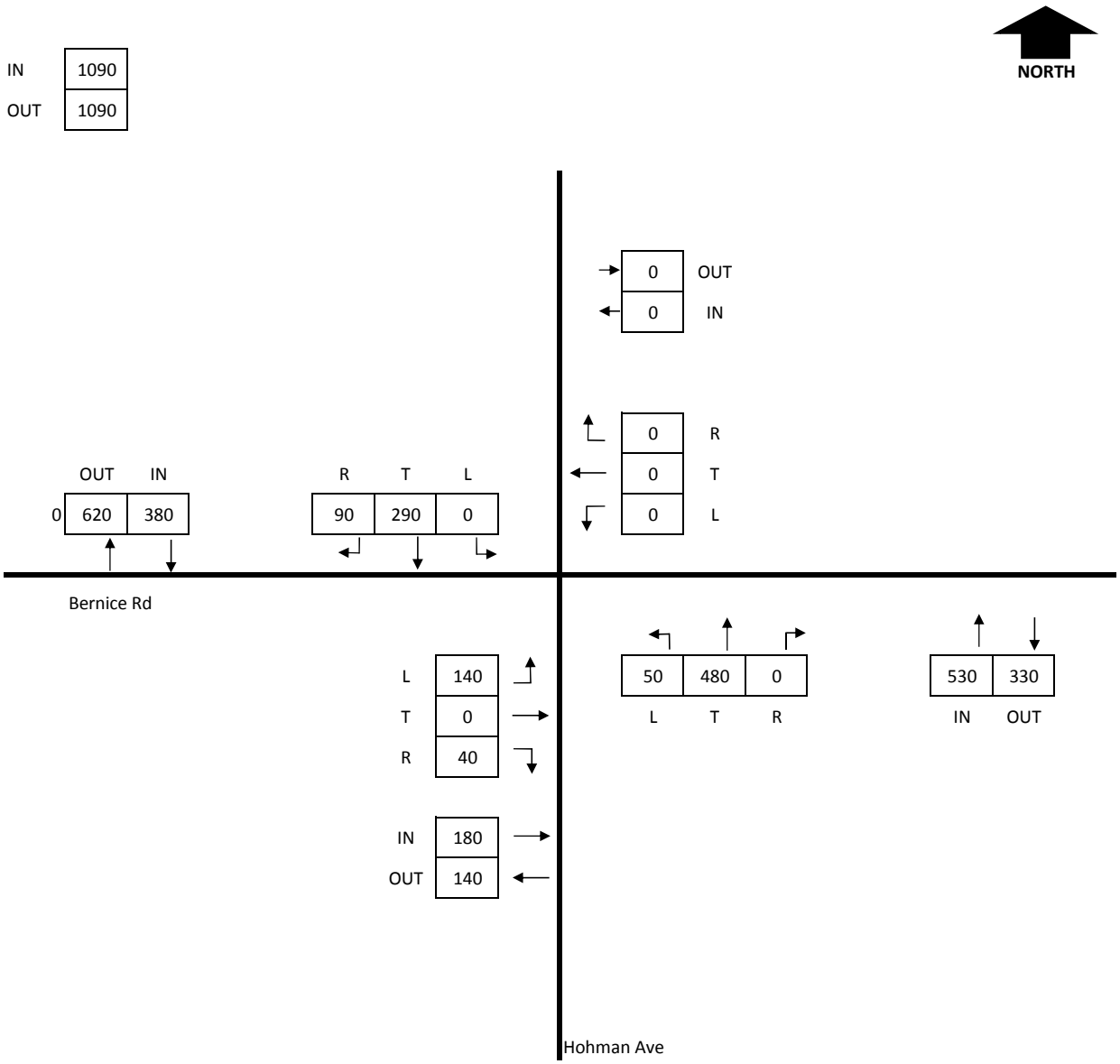
2022 SITE GENERATED TRIPS (AM)

SOUTH HAMMOND STATION

October 2017

TOTAL INTERSECTION

IN	1090
OUT	1090



CLASSIFICATION: ALL VEHICLES

HOHMAN AVE & BERNICE RD

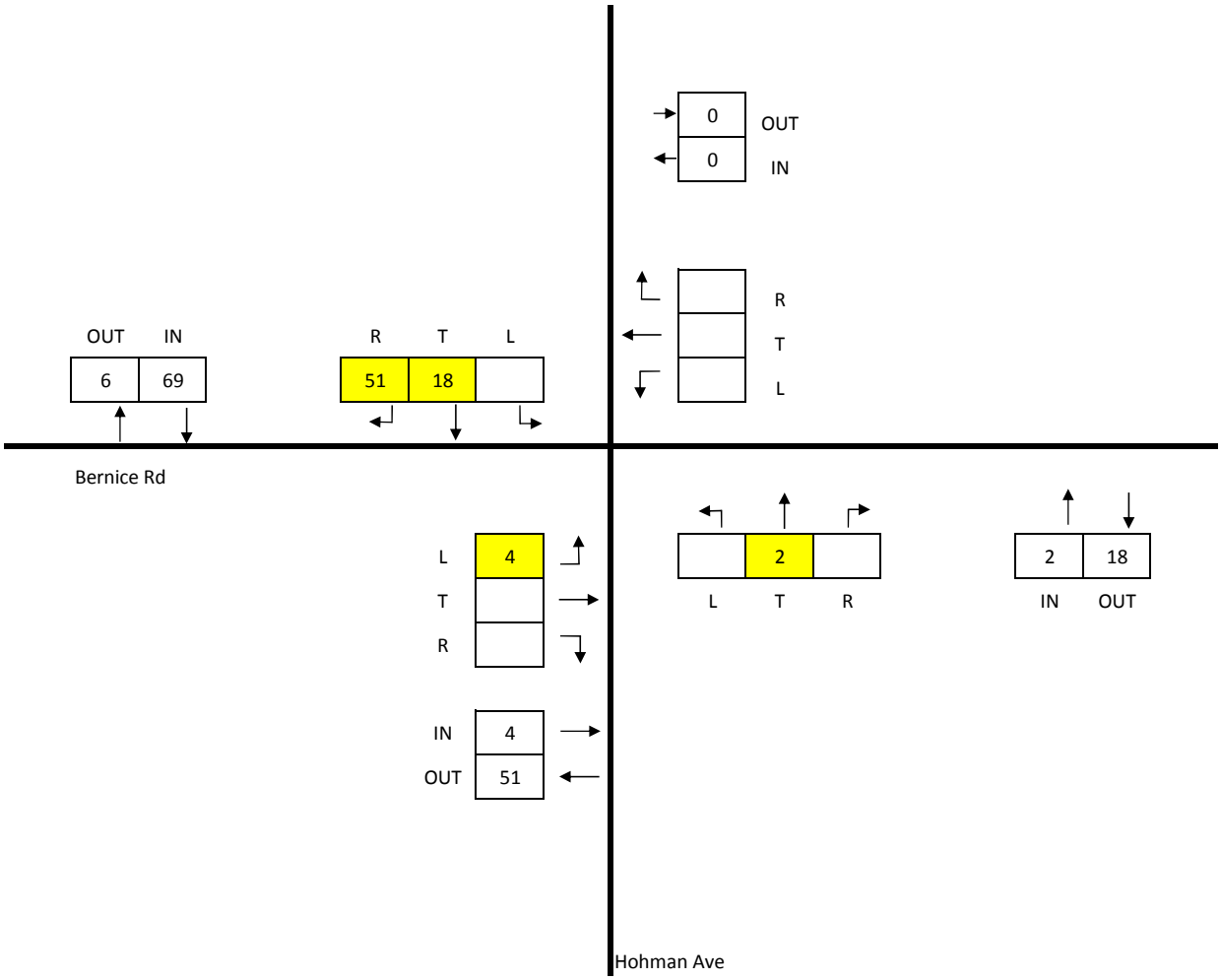
2022 BUILD TRAFFIC VOLUMES (AM)

SOUTH HAMMOND STATION

October 2017

TOTAL INTERSECTION

IN	75
OUT	75



CLASSIFICATION: ALL VEHICLES

HOHMAN AVE & BERNICE RD

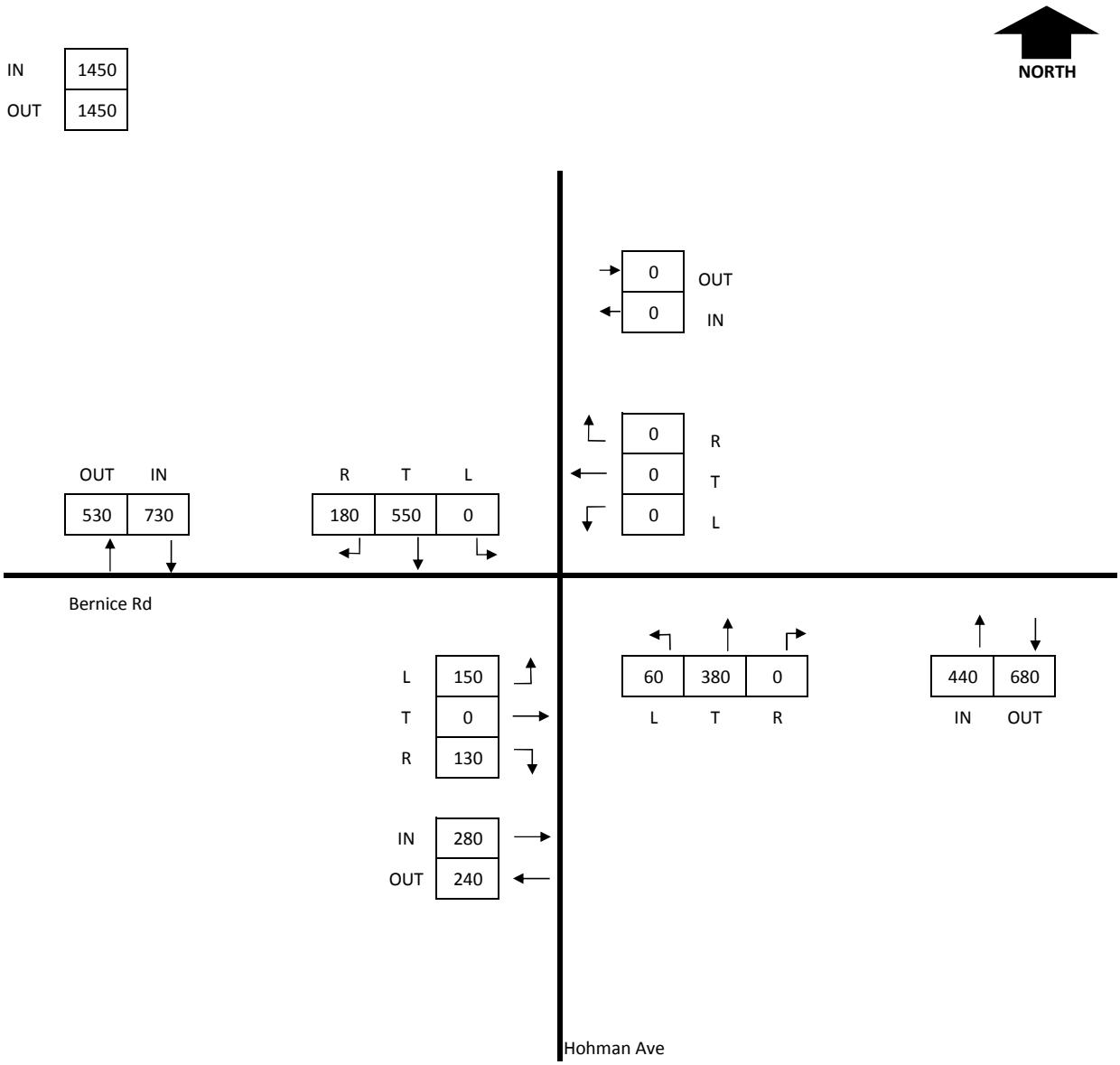
2022 SITE GENERATED TRIPS (PM)

SOUTH HAMMOND STATION

October 2017

TOTAL INTERSECTION

IN	1450
OUT	1450



CLASSIFICATION: ALL VEHICLES

HOHMAN AVE & BERNICE RD

2022 BUILD TRAFFIC VOLUMES (PM)

SOUTH HAMMOND STATION

October 2017

TOTAL INTERSECTION

	2017	2040
IN	894	1160
OUT	894	1160

	2017	2040	
→	0	0	OUT
←	0	0	IN

	OUT	IN
2040	630	430
2017	487	332

	R	T	L
2040	100	330	
2017	75	257	

	2017	2040	
↰			R
←			T
↲			L

Bernice Rd

	2040	2017	
L	90	64	↑
T			→
R	40	29	↓

	2017	2040
L	46	60
T	423	540
R		

	2017	2040
IN	469	600
OUT	286	370

	2040	2017
IN	130	93
OUT	160	121

Hohman Ave

CLASSIFICATION: ALL VEHICLES

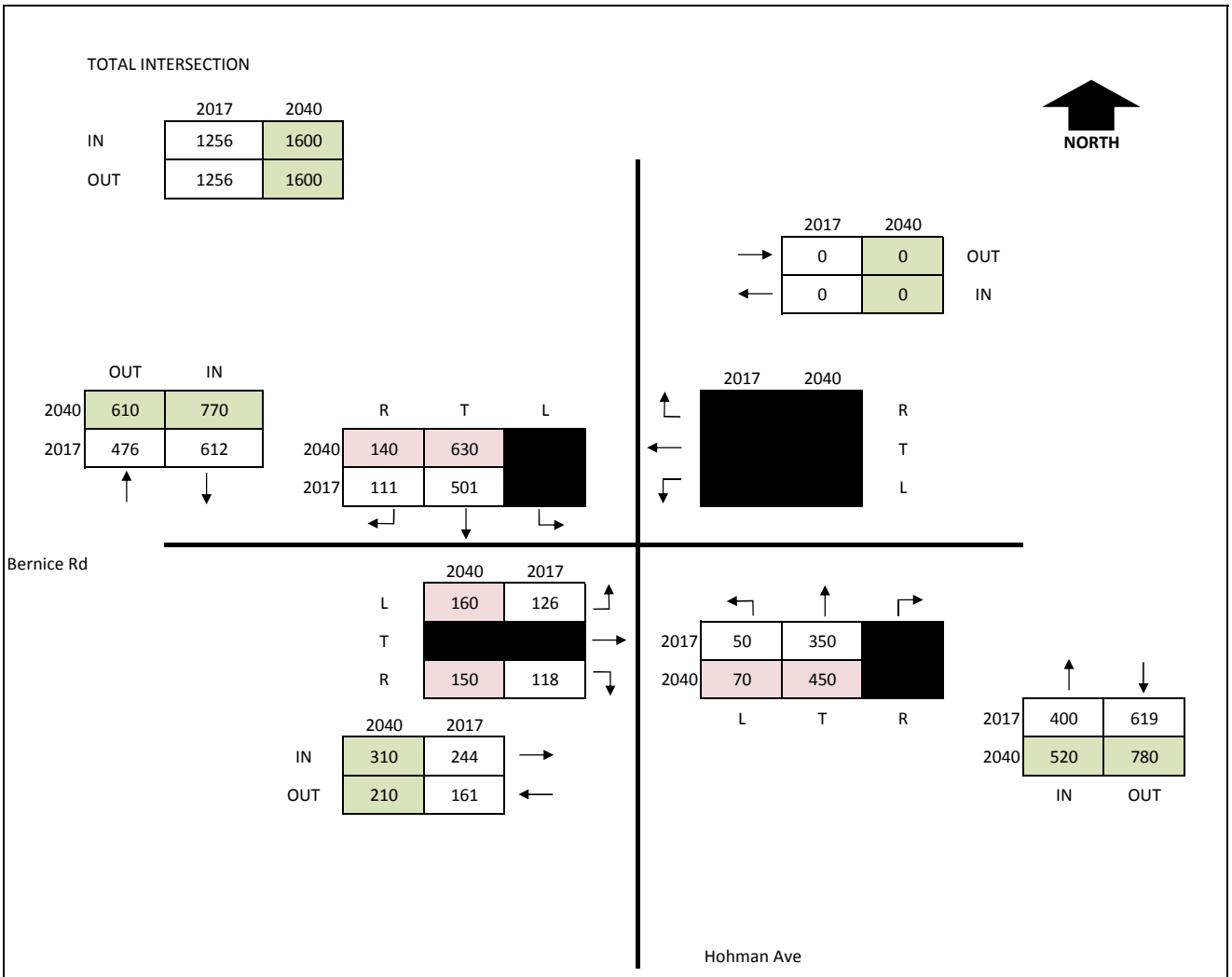
ANNUAL GROWTH RATE	
Northbound	1.0%
Southbound	1.0%
Eastbound	1.0%
Westbound	1.0%
Years to Escalate: 2040	23

HOHMAN AVE & BERNICE RD

2040 PROJECTED TRAFFIC VOLUMES (AM)

SOUTH HAMMOND STATION

October 2017



CLASSIFICATION: ALL VEHICLES

ANNUAL GROWTH RATE	
Northbound	1.0%
Southbound	1.0%
Eastbound	1.0%
Westbound	1.0%
Years to Escalate: 2040	23

HOHMAN AVE & BERNICE RD

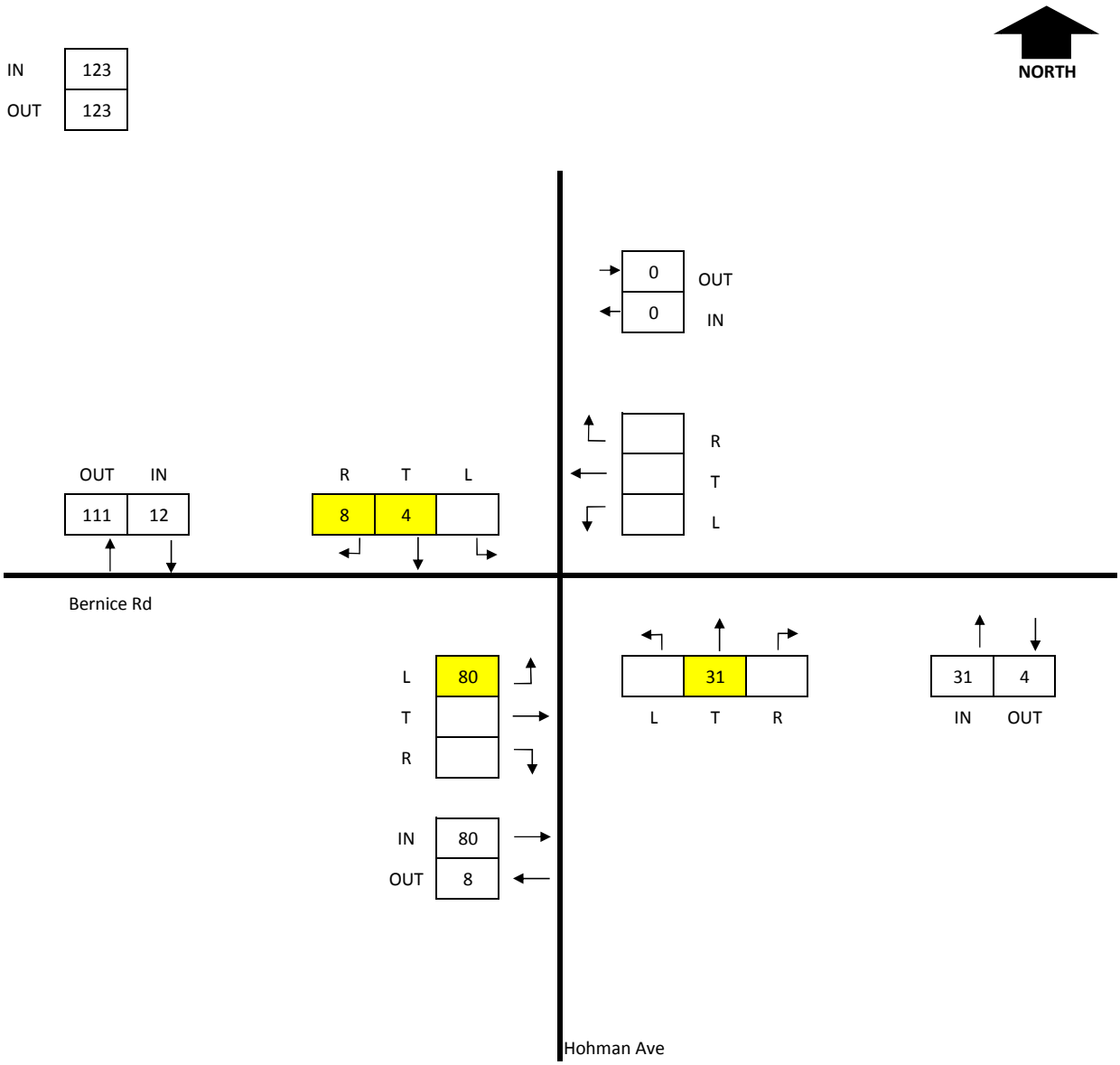
2040 PROJECTED TRAFFIC VOLUMES (PM)

SOUTH HAMMOND STATION

October 2017

TOTAL INTERSECTION

IN	123
OUT	123



CLASSIFICATION: ALL VEHICLES

HOHMAN AVE & BERNICE RD

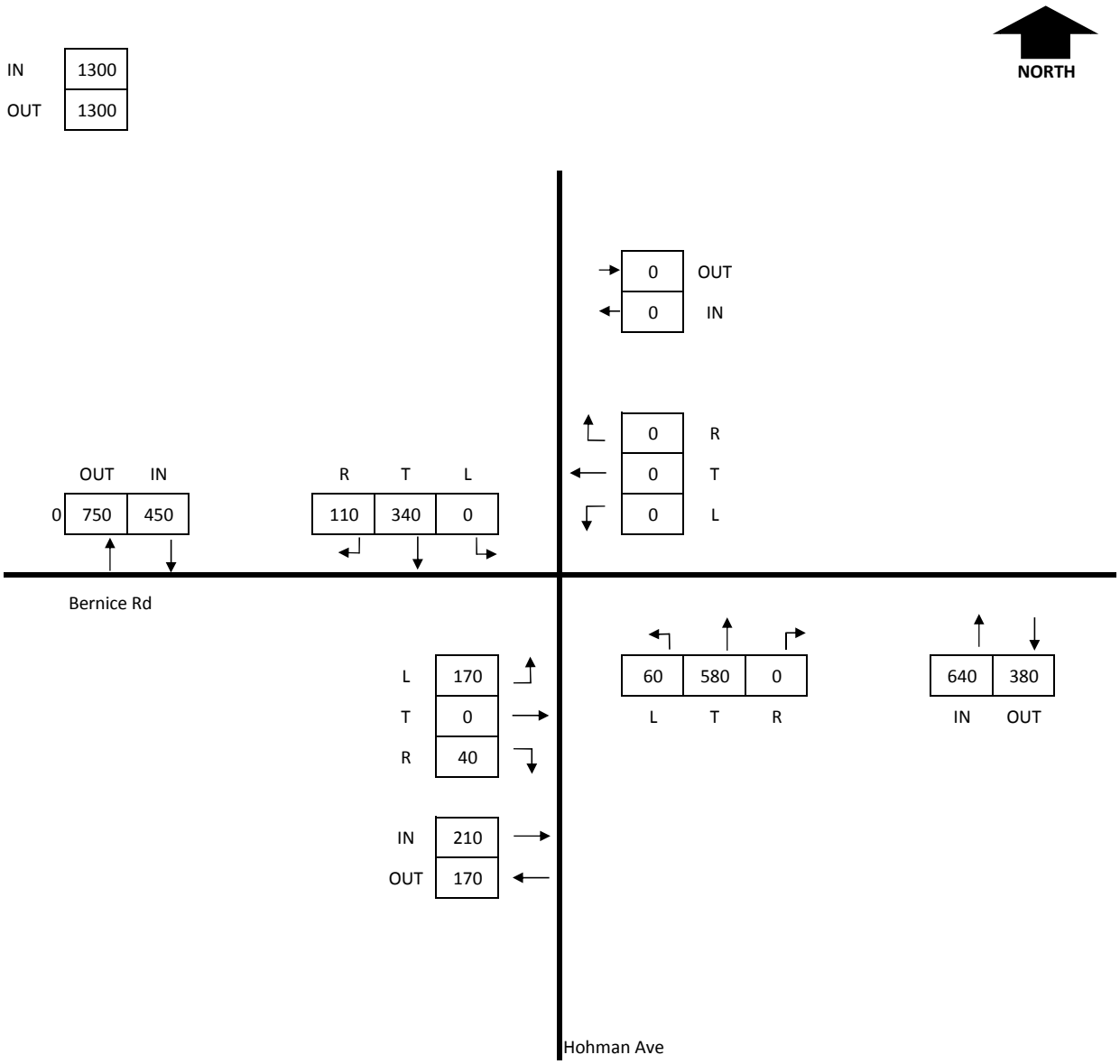
2040 SITE GENERATED TRIPS (AM)

SOUTH HAMMOND STATION

October 2017

TOTAL INTERSECTION

IN	1300
OUT	1300



CLASSIFICATION: ALL VEHICLES

CLASSIFICATION: ALL VEHICLES

HOHMAN AVE & BERNICE RD

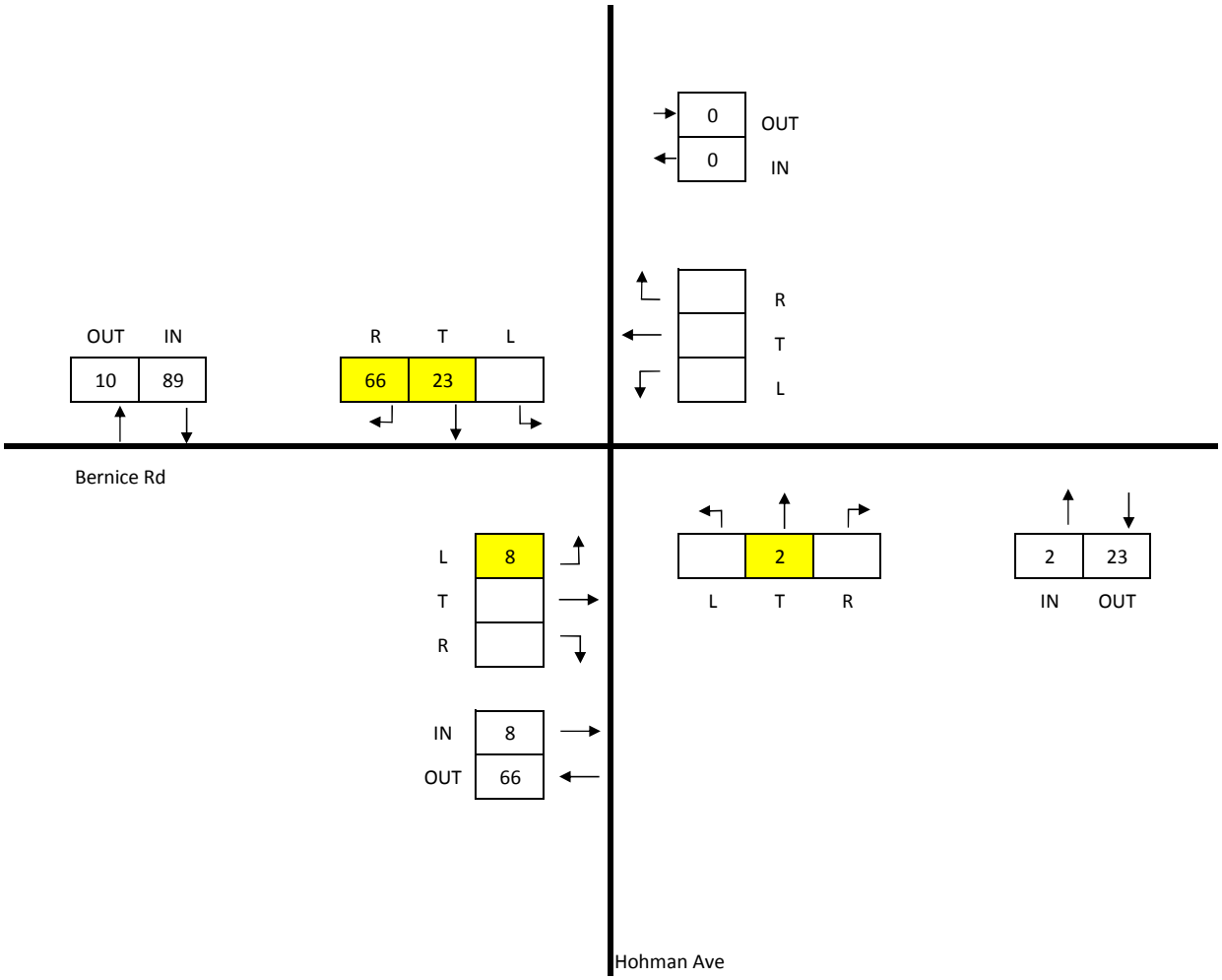
2040 BUILD TRAFFIC VOLUMES (AM)

SOUTH HAMMOND STATION

October 2017

TOTAL INTERSECTION

IN	99
OUT	99



CLASSIFICATION: ALL VEHICLES

HOHMAN AVE & BERNICE RD

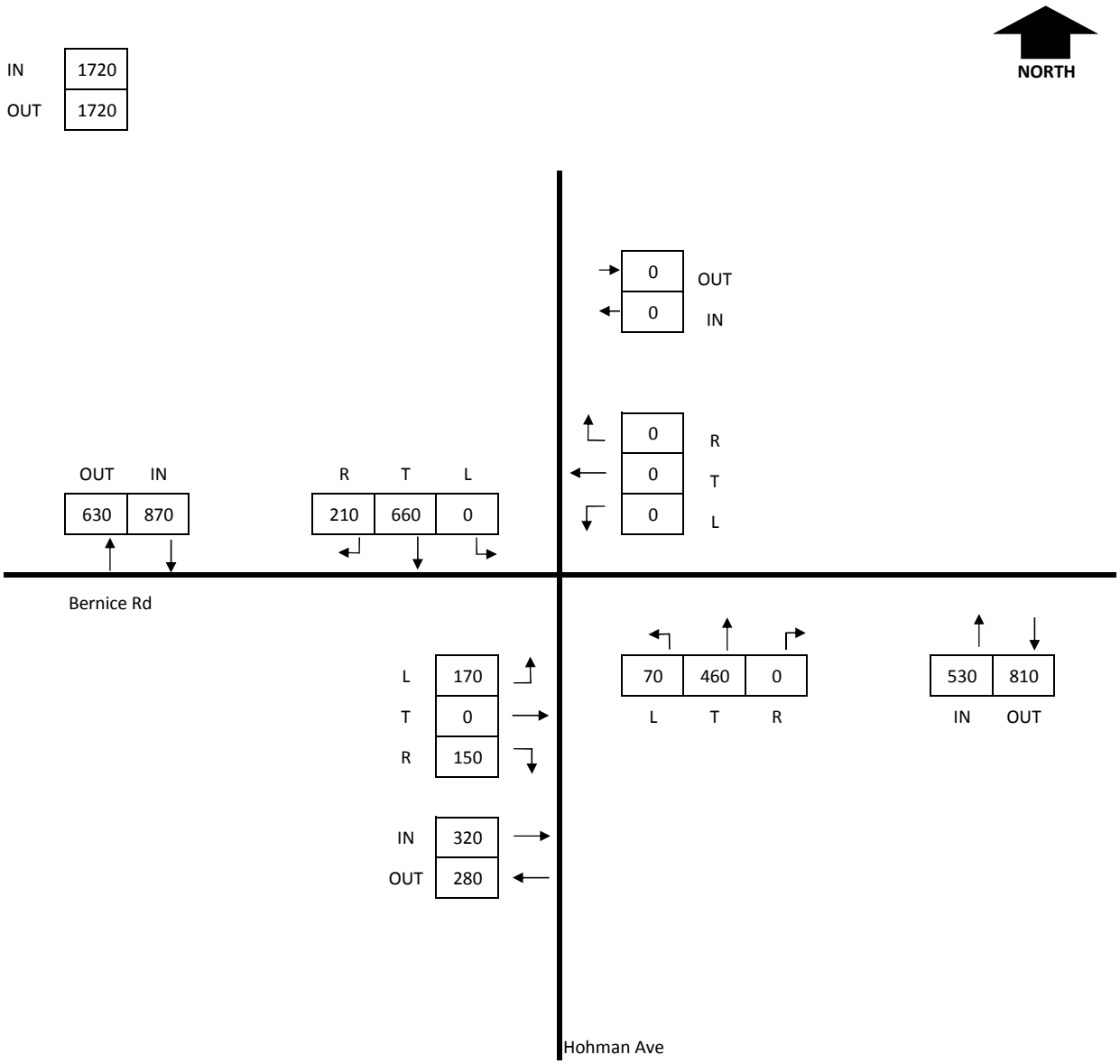
2040 SITE GENERATED TRIPS (PM)

SOUTH HAMMOND STATION

October 2017

TOTAL INTERSECTION

IN	1720
OUT	1720



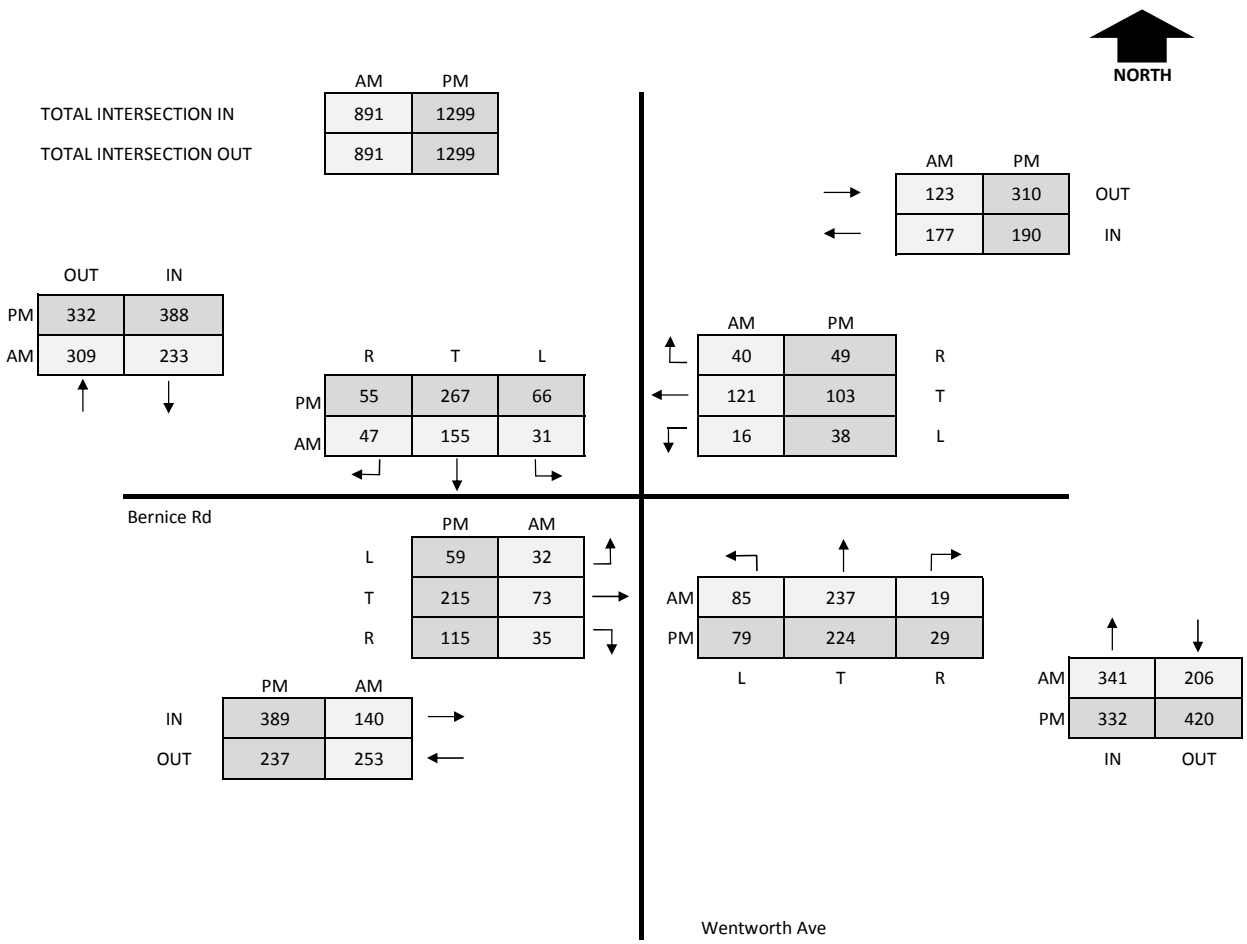
CLASSIFICATION: ALL VEHICLES

HOHMAN AVE & BERNICE RD

2040 BUILD TRAFFIC VOLUMES (PM)

SOUTH HAMMOND STATION

October 2017



CLASSIFICATION: ALL VEHICLES

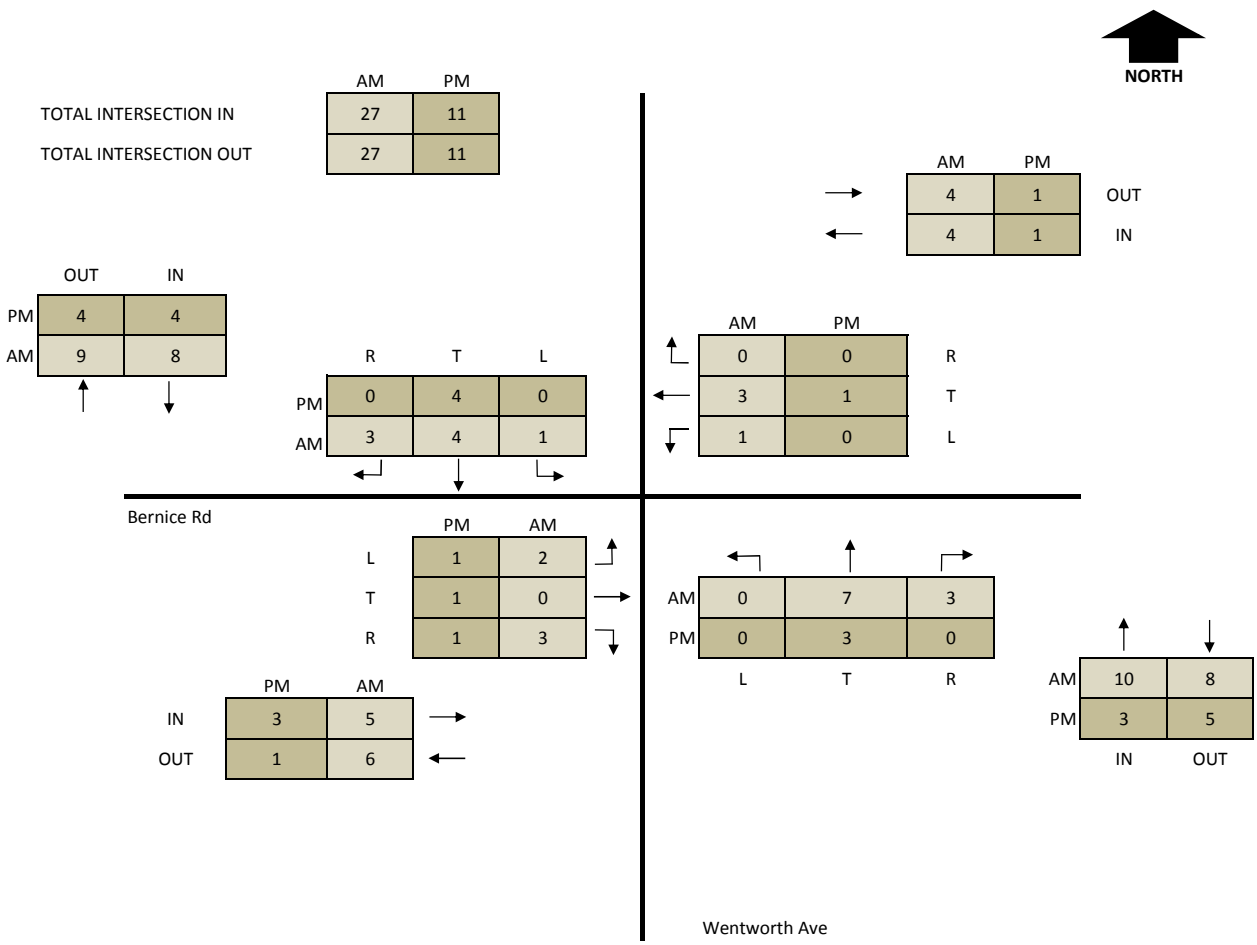
Traffic Counts from Quality Counts				
AM	5/9/2017	7:15 AM	to	8:15 AM
PM	5/9/2017	4:30 PM	to	5:30 PM

WENTWORTH AVE & BERNICE RD

EXISTING TRAFFIC VOLUMES (2017)

SOUTH HAMMOND STATION

October 2017



CLASSIFICATION: TRUCKS

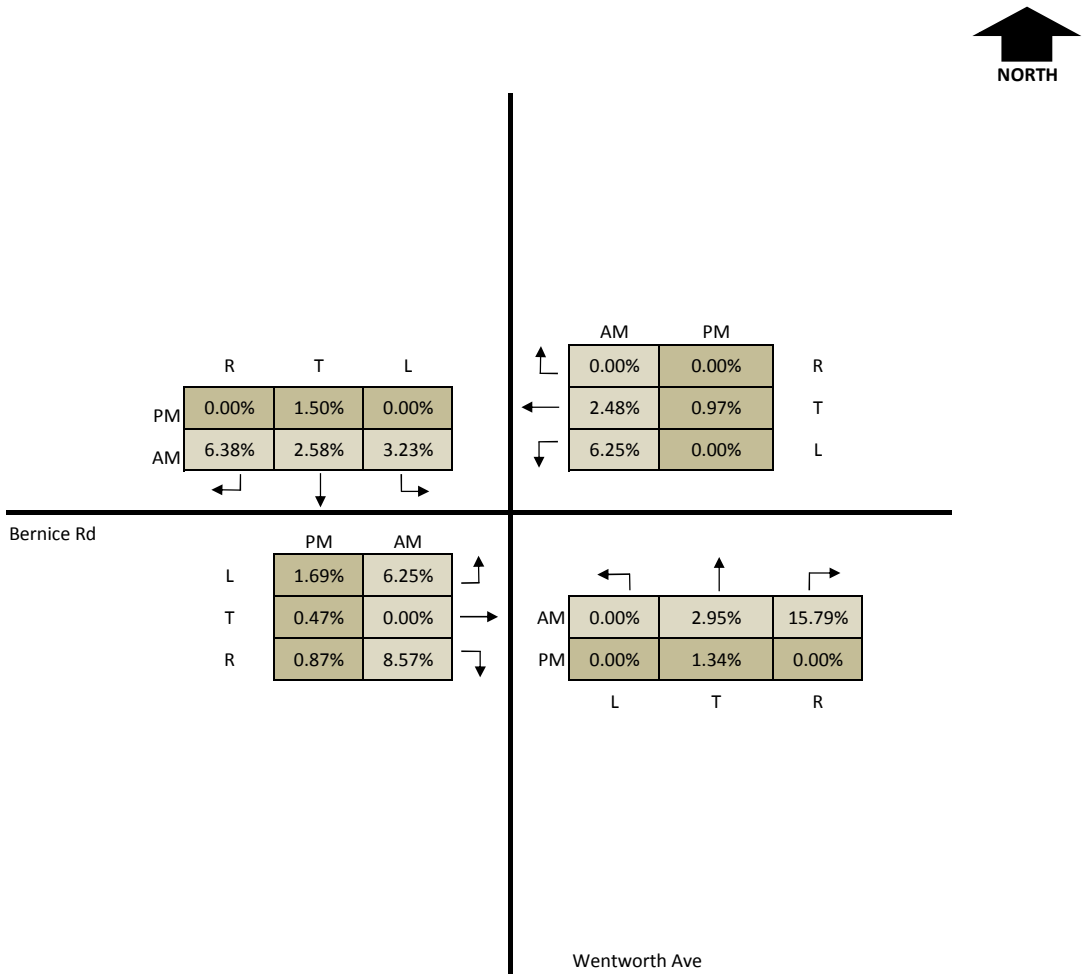
Traffic Counts from Quality Counts				
AM	5/9/2017	7:15 AM	to	8:15 AM
PM	5/9/2017	4:30 PM	to	5:30 PM

WENTWORTH AVE & BERNICE RD

EXISTING TRAFFIC VOLUMES (2017)

SOUTH HAMMOND STATION

October 2017



CLASSIFICATION: TRUCKS

Traffic Counts from Quality Counts				
AM	5/9/2017	7:15 AM	to	8:15 AM
PM	5/9/2017	4:30 PM	to	5:30 PM

WENTWORTH AVE & BERNICE RD

EXISTING TRAFFIC VOLUMES (2017)

SOUTH HAMMOND STATION

October 2017

TOTAL INTERSECTION

	2017	2022
IN	891	980
OUT	891	980

NORTH

	2017	2022	
→	123	140	OUT
←	177	200	IN

	OUT	IN
2022	340	260
2017	309	233

	R	T	L
2022	50	170	40
2017	47	155	31

	2017	2022	
↰	40	50	R
←	121	130	T
↲	16	20	L

Bernice Rd

	2022	2017	
L	40	32	↑
T	80	73	→
R	40	35	↓

	2017	2022
IN	160	140
OUT	270	253

	↰	↑	↱
2017	85	237	19
2022	90	250	20
	L	T	R

	↑	↓
2017	341	206
2022	360	230
	IN	OUT

Wentworth Ave

CLASSIFICATION: ALL VEHICLES

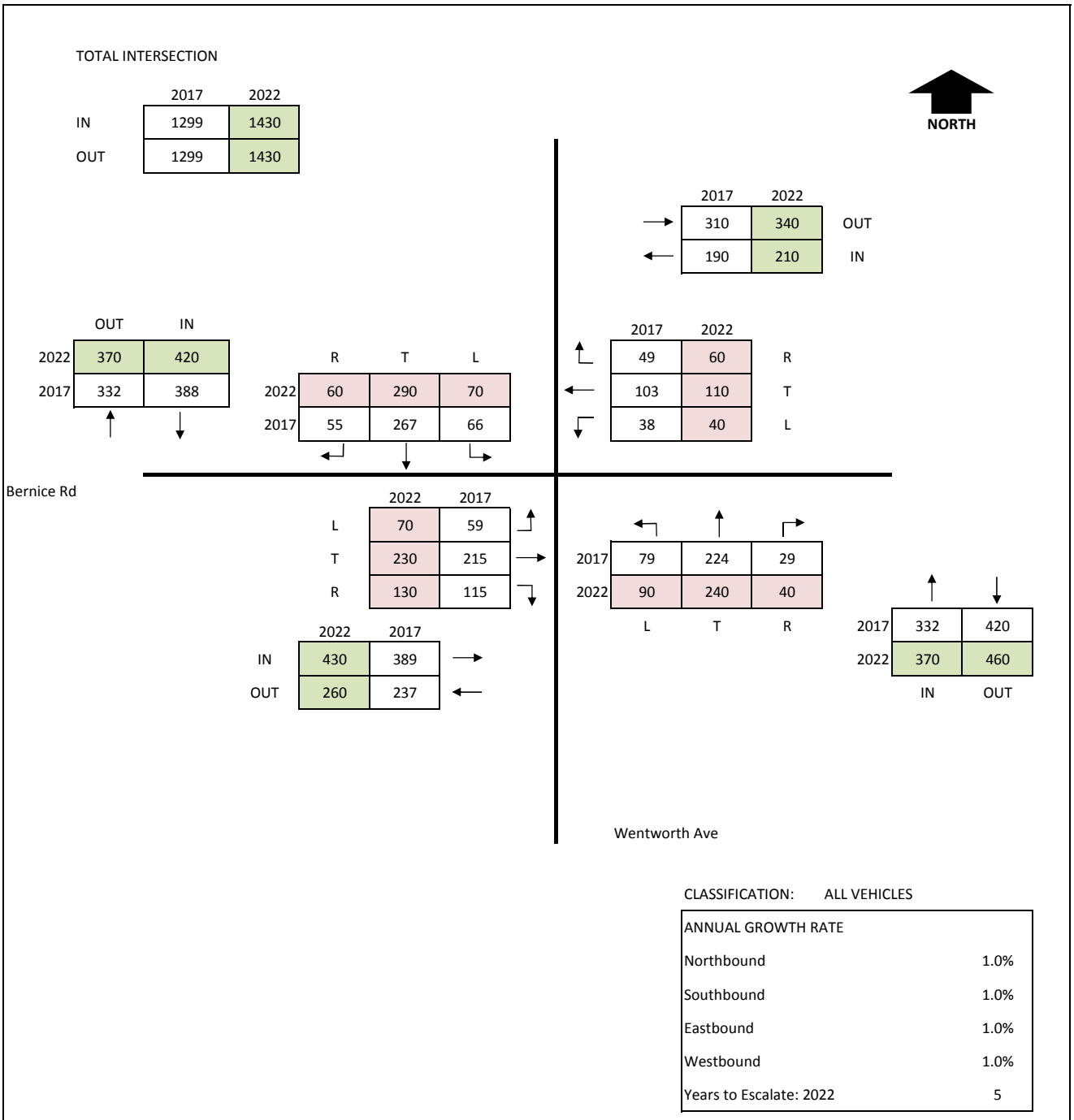
ANNUAL GROWTH RATE	
Northbound	1.0%
Southbound	1.0%
Eastbound	1.0%
Westbound	1.0%
Years to Escalate: 2022	5

WENTWORTH AVE & BERNICE RD

2022 PROJECTED TRAFFIC VOLUMES (AM)

SOUTH HAMMOND STATION

October 2017



CLASSIFICATION: ALL VEHICLES

ANNUAL GROWTH RATE	
Northbound	1.0%
Southbound	1.0%
Eastbound	1.0%
Westbound	1.0%
Years to Escalate: 2022	5

WENTWORTH AVE & BERNICE RD

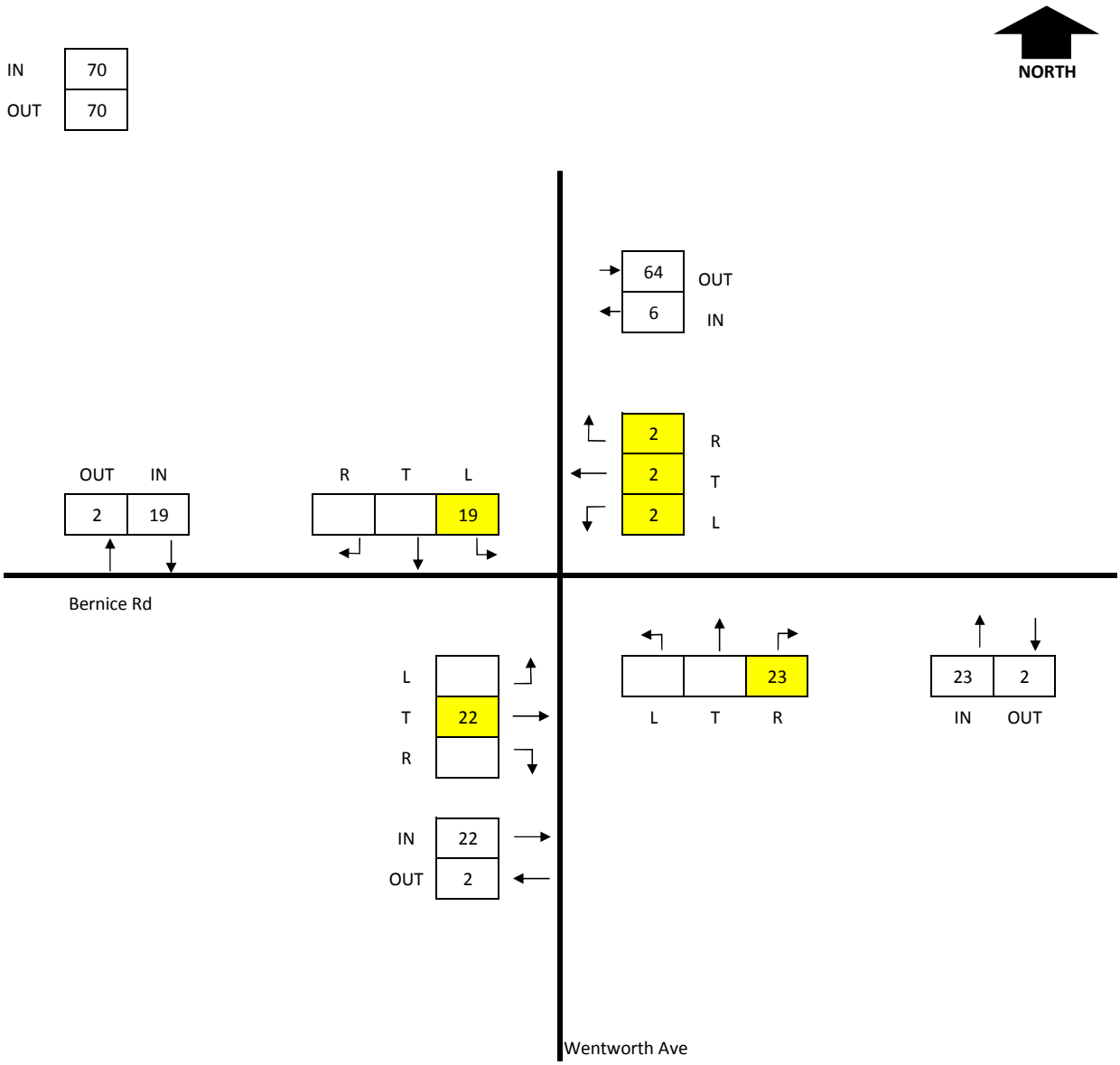
2022 PROJECTED TRAFFIC VOLUMES (PM)

SOUTH HAMMOND STATION

October 2017

TOTAL INTERSECTION

IN	70
OUT	70



WENTWORTH AVE & BERNICE RD

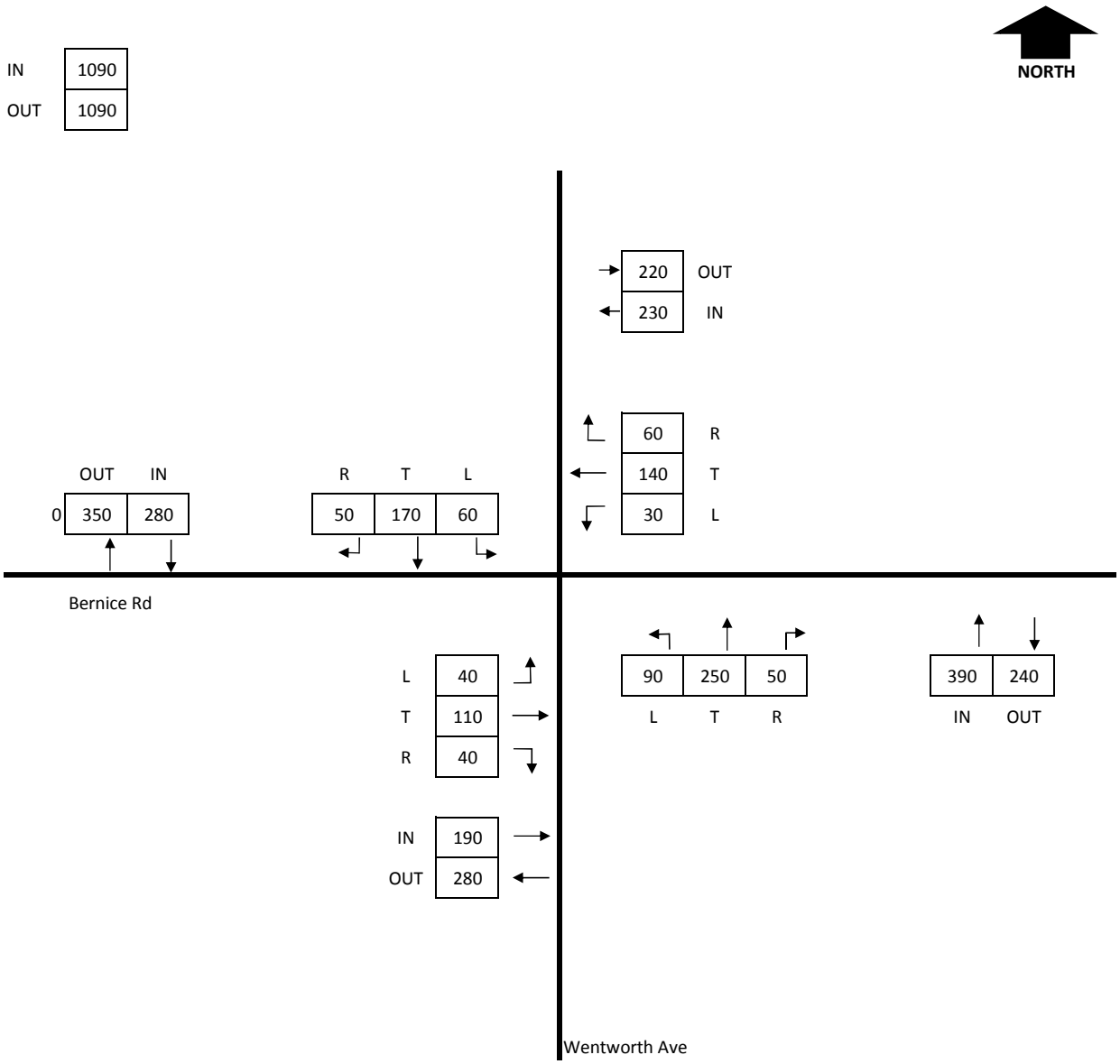
2022 SITE GENERATED TRIPS (AM)

SOUTH HAMMOND STATION

October 2017

TOTAL INTERSECTION

IN	1090
OUT	1090



WENTWORTH AVE & BERNICE RD

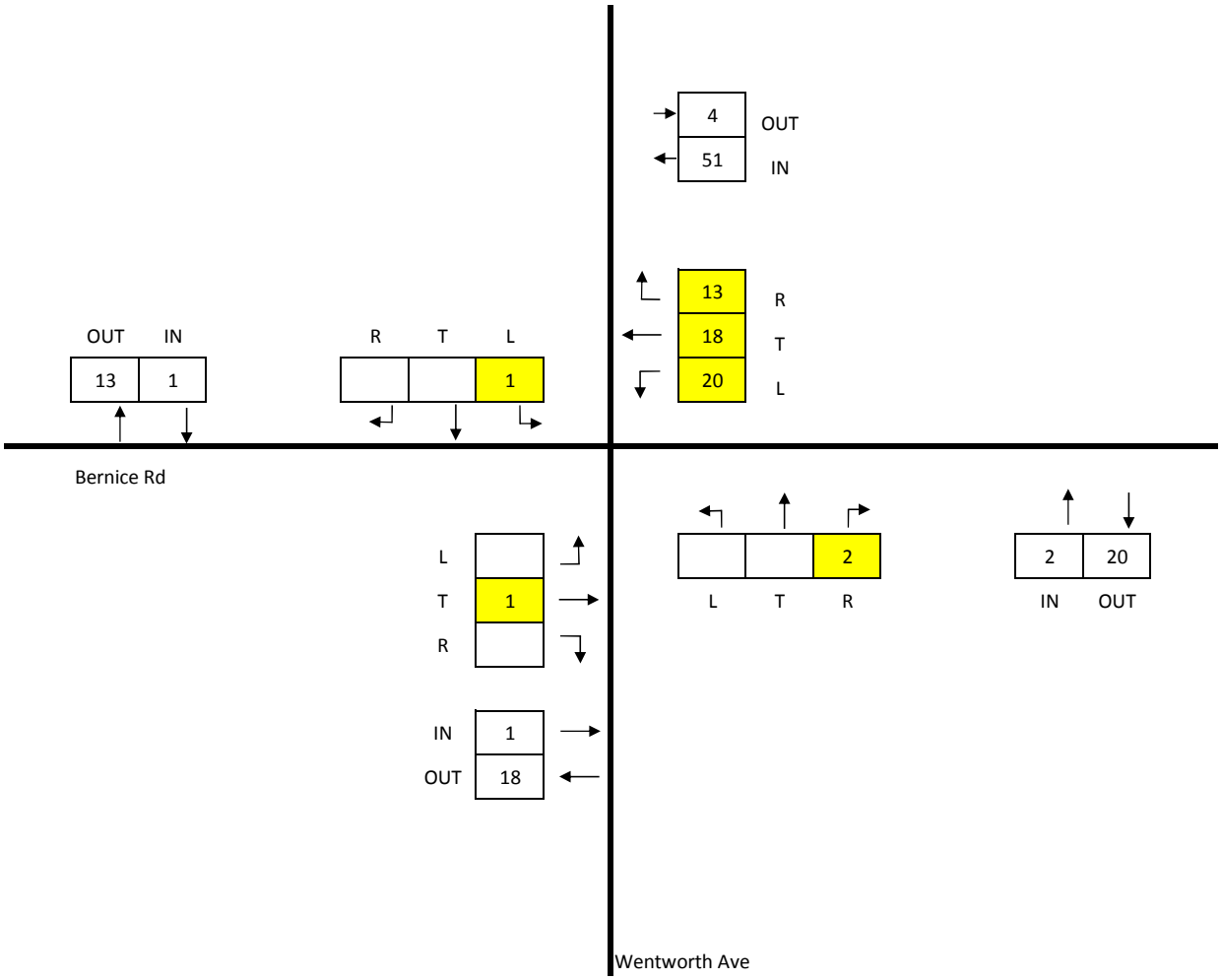
2022 BUILD TRAFFIC VOLUMES (AM)

SOUTH HAMMOND STATION

October 2017

TOTAL INTERSECTION

IN	55
OUT	55



WENTWORTH AVE & BERNICE RD

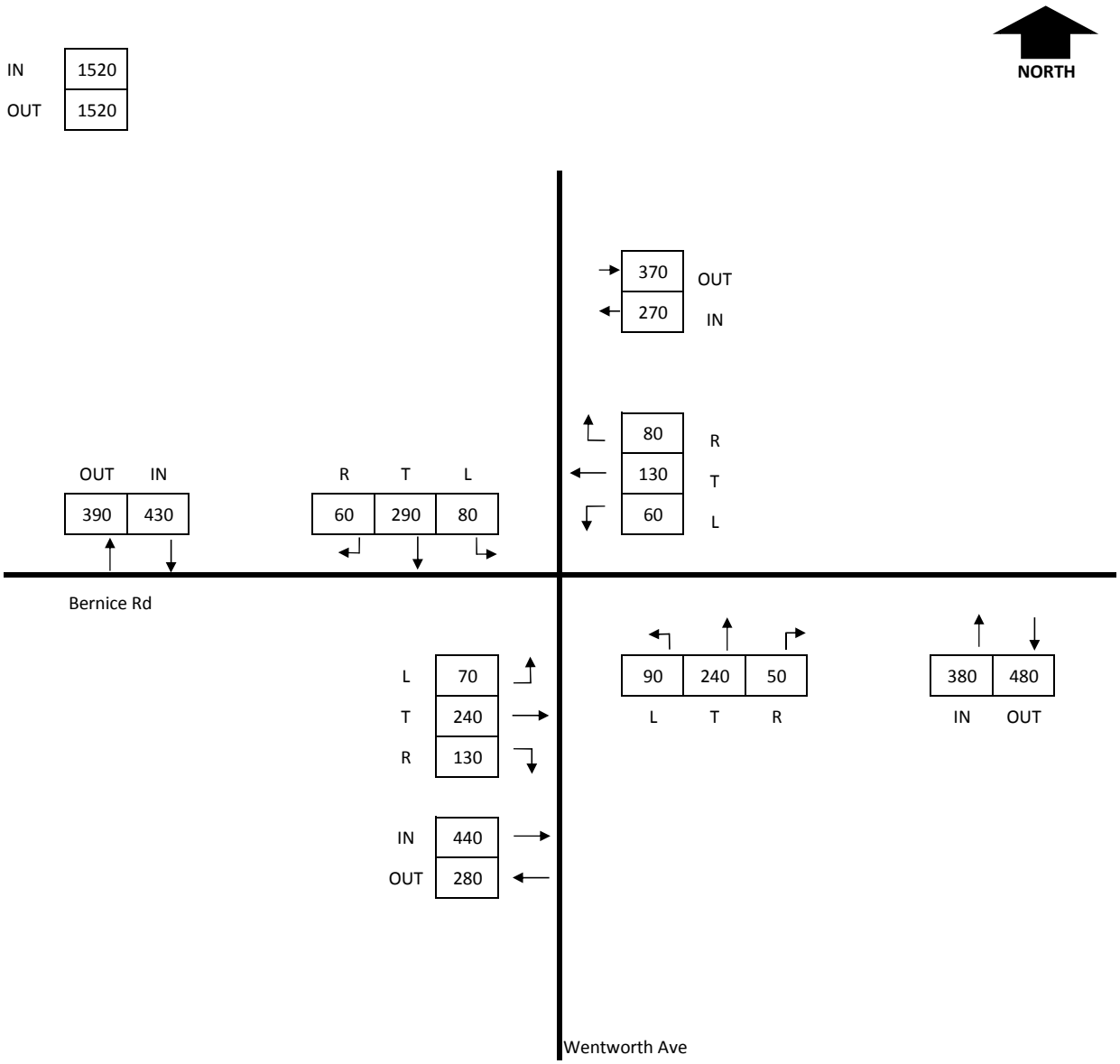
2022 SITE GENERATED TRIPS (PM)

SOUTH HAMMOND STATION

October 2017

TOTAL INTERSECTION

IN	1520
OUT	1520



WENTWORTH AVE & BERNICE RD

2022 BUILD TRAFFIC VOLUMES (PM)

SOUTH HAMMOND STATION

October 2017

TOTAL INTERSECTION

	2017	2040
IN	891	1190
OUT	891	1190

NORTH

	2017	2040	
→	123	170	OUT
←	177	250	IN

	OUT	IN
2040	410	300
2017	309	233

	R	T	L
2040	60	200	40
2017	47	155	31

	2017	2040	
↰	40	60	R
←	121	160	T
↲	16	30	L

Bernice Rd

	2040	2017	
L	50	32	↰
T	100	73	→
R	50	35	↱

	2040	2017	
IN	200	140	→
OUT	330	253	←

	L	T	R
2017	85	237	19
2040	110	300	30

	2017	2040
2017	341	206
2040	440	280
	IN	OUT

Wentworth Ave

CLASSIFICATION: ALL VEHICLES

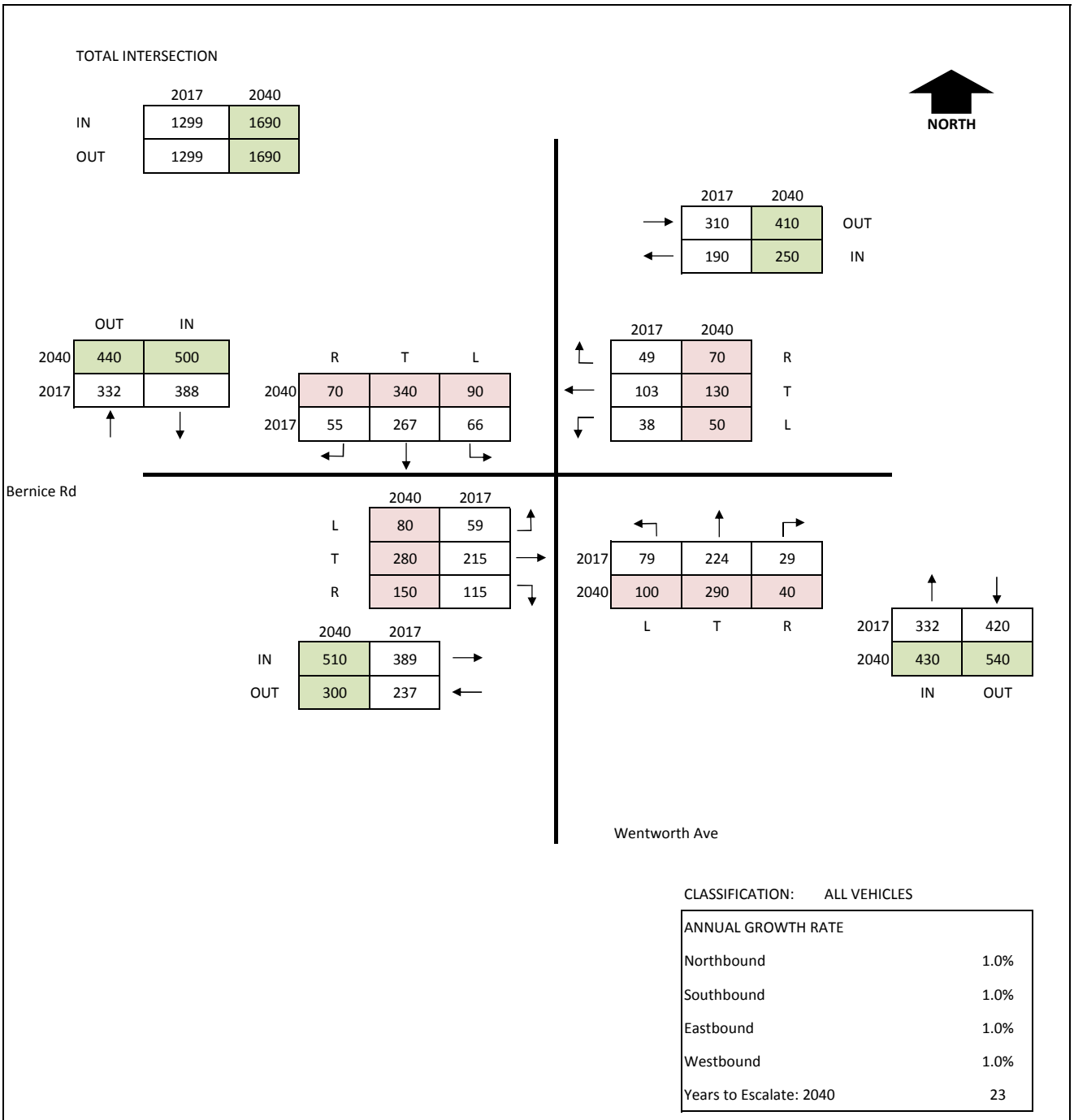
ANNUAL GROWTH RATE	
Northbound	1.0%
Southbound	1.0%
Eastbound	1.0%
Westbound	1.0%
Years to Escalate: 2040	23

WENTWORTH AVE & BERNICE RD

2040 PROJECTED TRAFFIC VOLUMES (AM)

SOUTH HAMMOND STATION

October 2017



CLASSIFICATION: ALL VEHICLES

ANNUAL GROWTH RATE	
Northbound	1.0%
Southbound	1.0%
Eastbound	1.0%
Westbound	1.0%
Years to Escalate: 2040	23

WENTWORTH AVE & BERNICE RD

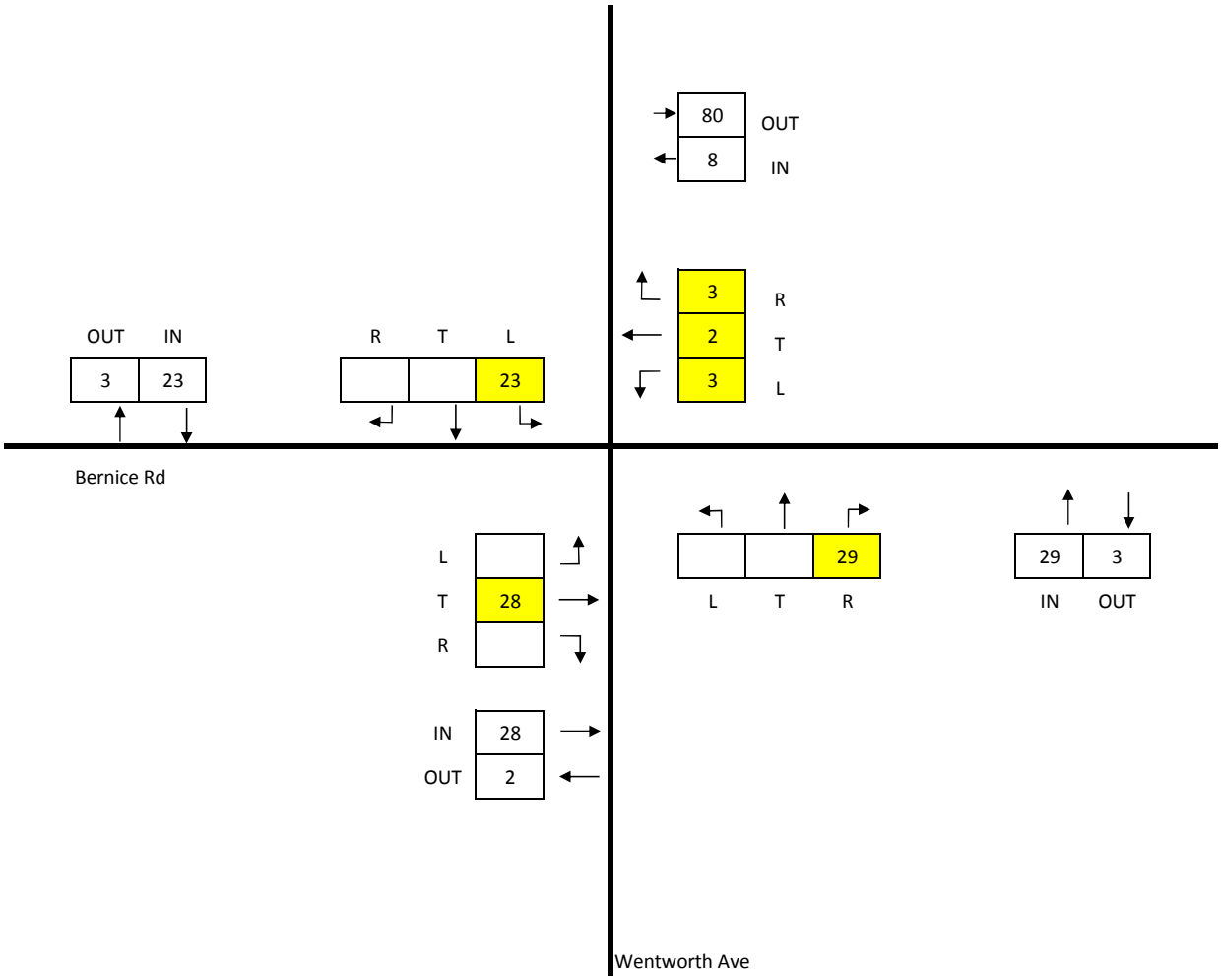
2040 PROJECTED TRAFFIC VOLUMES (PM)

SOUTH HAMMOND STATION

October 2017

TOTAL INTERSECTION

IN	88
OUT	88



CLASSIFICATION: ALL VEHICLES

WENTWORTH AVE & BERNICE RD

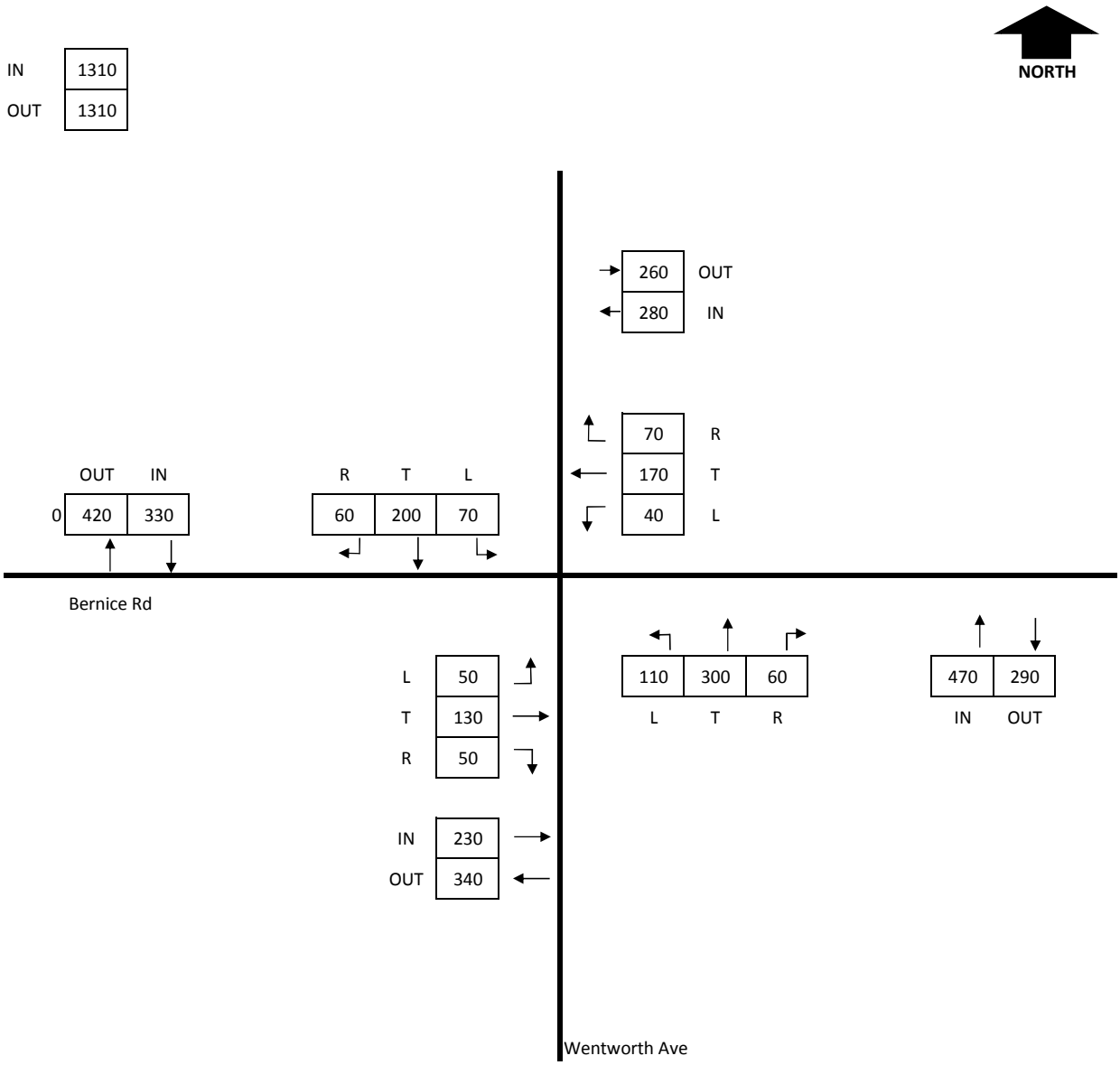
2040 SITE GENERATED TRIPS (AM)

SOUTH HAMMOND STATION

October 2017

TOTAL INTERSECTION

IN	1310
OUT	1310



CLASSIFICATION: ALL VEHICLES

WENTWORTH AVE & BERNICE RD

2040 BUILD TRAFFIC VOLUMES (AM)

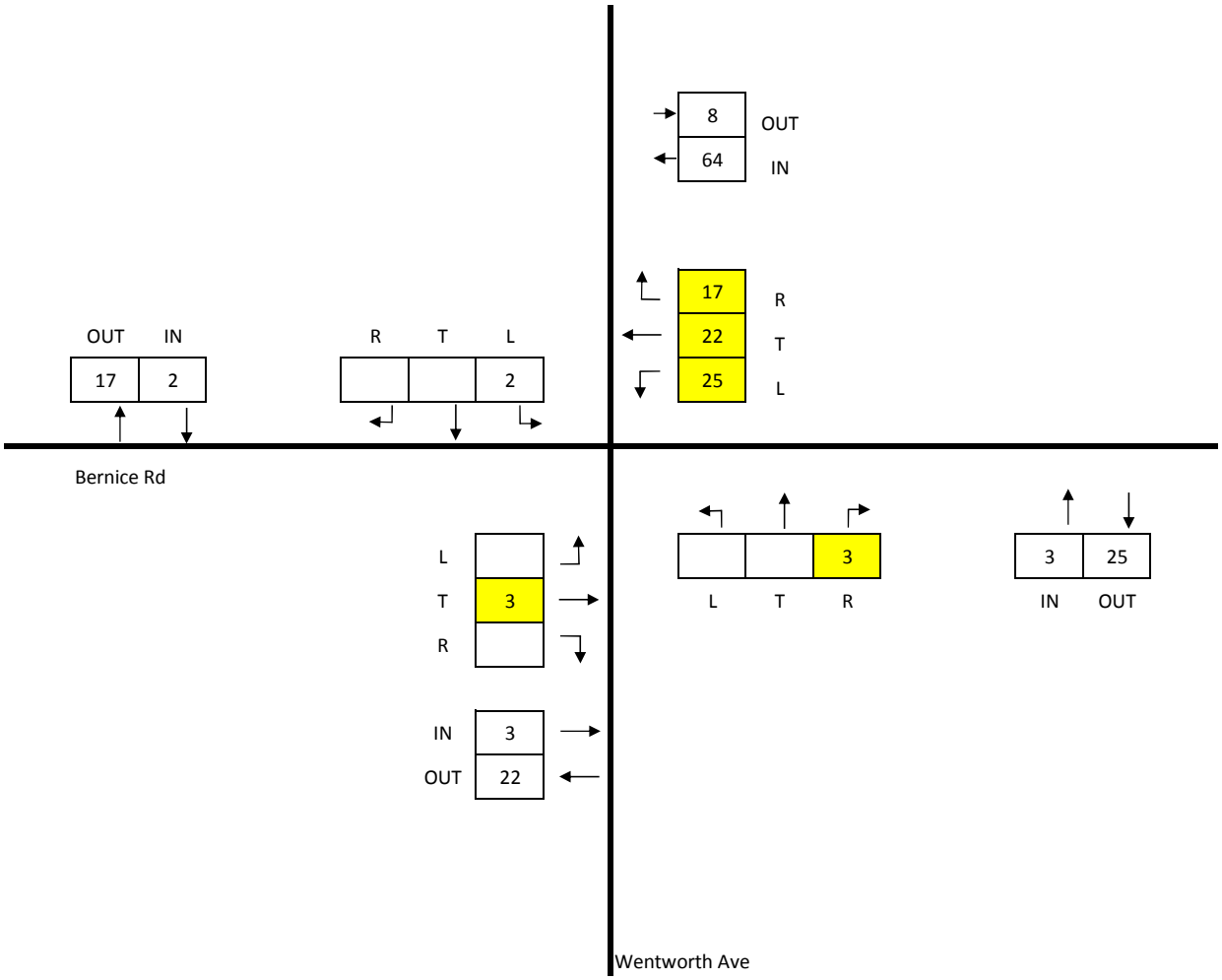
SOUTH HAMMOND STATION

October 2017

TOTAL INTERSECTION

IN	72
OUT	72

NORTH



CLASSIFICATION: ALL VEHICLES

WENTWORTH AVE & BERNICE RD

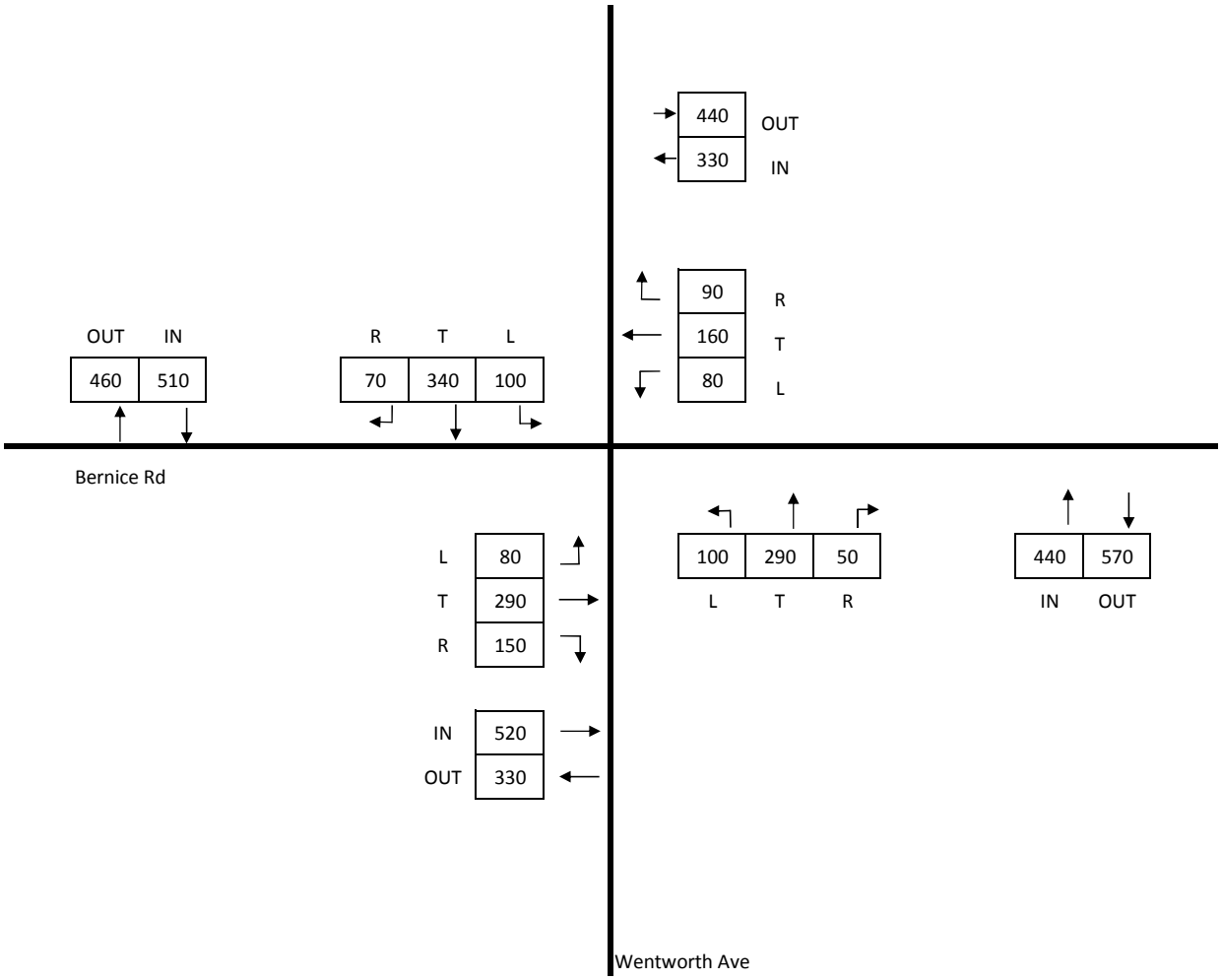
2040 SITE GENERATED TRIPS (PM)

SOUTH HAMMOND STATION

October 2017

TOTAL INTERSECTION

IN	1800
OUT	1800



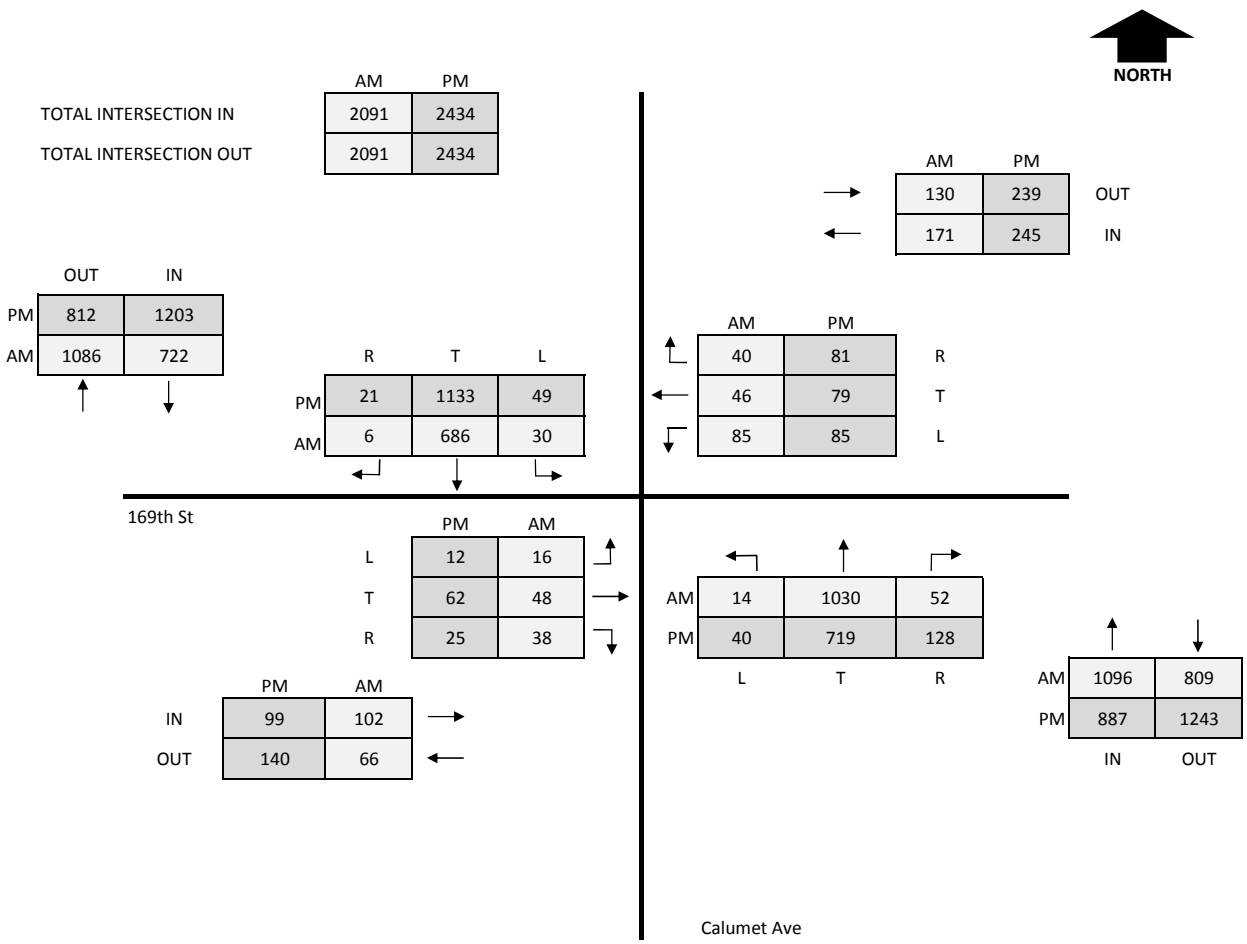
CLASSIFICATION: ALL VEHICLES

WENTWORTH AVE & BERNICE RD

2040 BUILD TRAFFIC VOLUMES (PM)

SOUTH HAMMOND STATION

October 2017



CLASSIFICATION: ALL VEHICLES

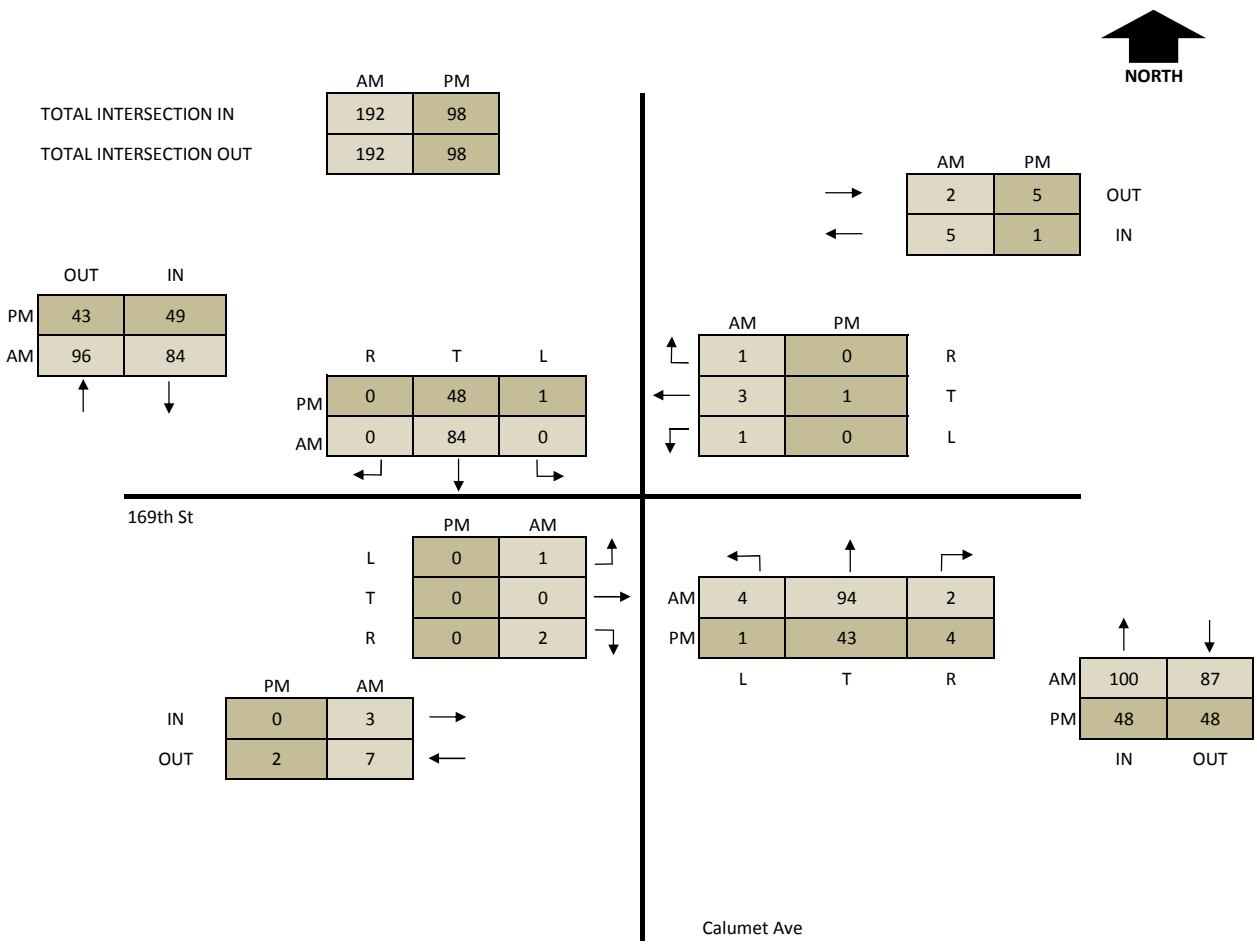
Traffic Counts from Quality Counts				
AM	4/4/2017	7:15 AM	to	8:15 AM
PM	4/4/2017	4:30 PM	to	5:30 PM

CALUMET AVE & 169TH ST

EXISTING TRAFFIC VOLUMES (2017)

SOUTH HAMMOND STATION

October 2017



CLASSIFICATION: TRUCKS

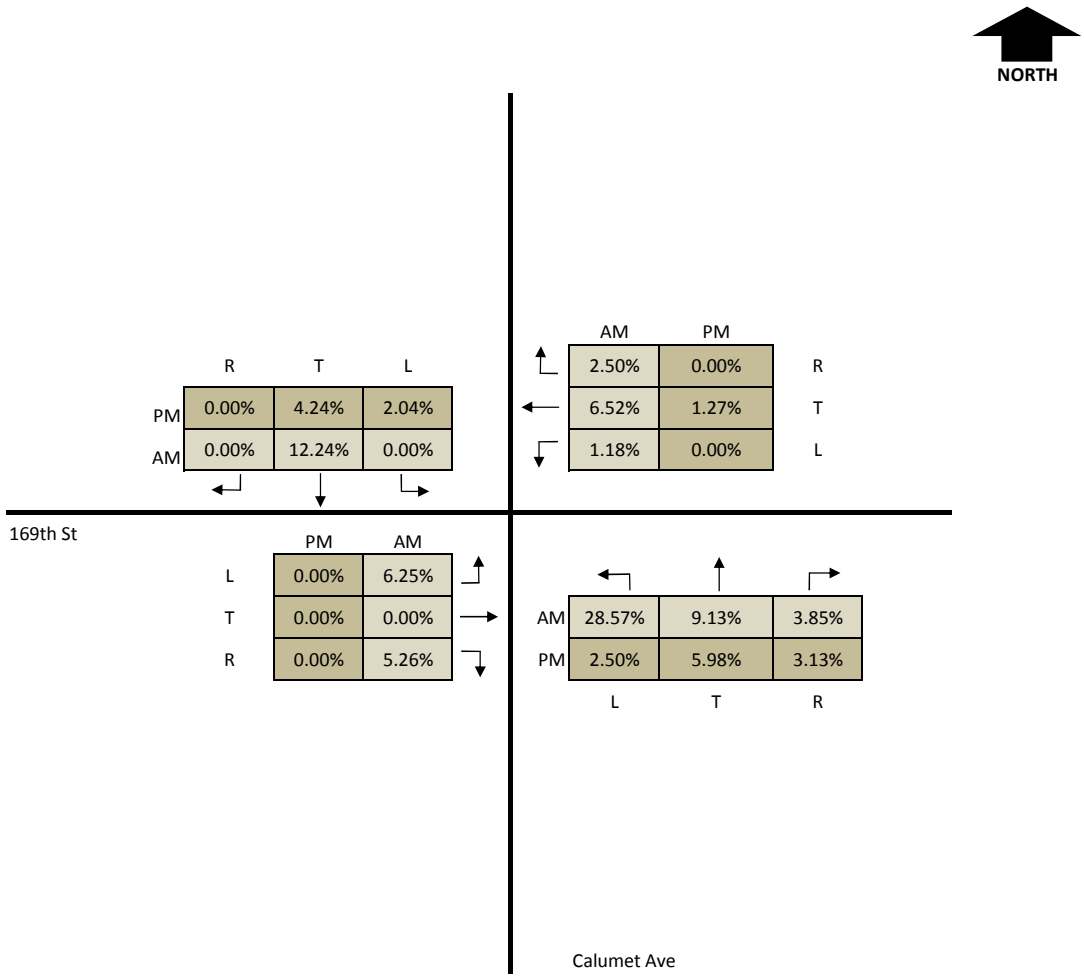
Traffic Counts from Quality Counts				
AM	4/4/2017	7:15 AM	to	8:15 AM
PM	4/4/2017	4:30 PM	to	5:30 PM

CALUMET AVE & 169TH ST

EXISTING TRAFFIC VOLUMES (2017)

SOUTH HAMMOND STATION

October 2017



CLASSIFICATION: TRUCKS

Traffic Counts from Quality Counts				
AM	4/4/2017	7:15 AM	to	8:15 AM
PM	4/4/2017	4:30 PM	to	5:30 PM

CALUMET AVE & 169TH ST

EXISTING TRAFFIC VOLUMES (2017)

SOUTH HAMMOND STATION

October 2017

TOTAL INTERSECTION

	2017	2022
IN	2091	2260
OUT	2091	2260

	2017	2022	
→	130	160	OUT
←	171	190	IN

	OUT	IN
2022	1160	780
2017	1086	722

	R	T	L
2022	10	730	40
2017	6	686	30

	2017	2022	
↰	40	50	R
←	46	50	T
↙	85	90	L

169th St

	2022	2017	
L	20	16	↑
T	60	48	→
R	40	38	↓

	2017	1030	52
2022	20	1090	60
	L	T	R

	2017	1096	809
2022		1170	860
		IN	OUT

	2040	2017	
IN	120	102	→
OUT	80	66	←

Calumet Ave

CLASSIFICATION: ALL VEHICLES

ANNUAL GROWTH RATE	
Northbound	1.0%
Southbound	1.0%
Eastbound	1.0%
Westbound	1.0%
Years to Escalate: 2022	5

CALUMET AVE & 169TH ST

2022 PROJECTED TRAFFIC VOLUMES (AM)

SOUTH HAMMOND STATION

October 2017

TOTAL INTERSECTION

	2017	2022
IN	2434	2630
OUT	2434	2630

	2017	2022	
→	239	270	OUT
←	245	270	IN

	OUT	IN
2022	870	1290
2017	812	1203

	R	T	L
2022	30	1200	60
2017	21	1133	49

	2017	2022	
↰	81	90	R
←	79	90	T
↙	85	90	L

169th St

	2022	2017	
L	20	12	↑
T	70	62	→
R	30	25	↓

	2022	2017	
IN	120	99	→
OUT	170	140	←

	↰	↑	↱
2017	40	719	128
2022	50	760	140
	L	T	R

	↑	↓
2017	887	1243
2022	950	1320
	IN	OUT

Calumet Ave

CLASSIFICATION: ALL VEHICLES

ANNUAL GROWTH RATE	
Northbound	1.0%
Southbound	1.0%
Eastbound	1.0%
Westbound	1.0%
Years to Escalate: 2022	5

NICTD

CALUMET AVE & 169TH ST

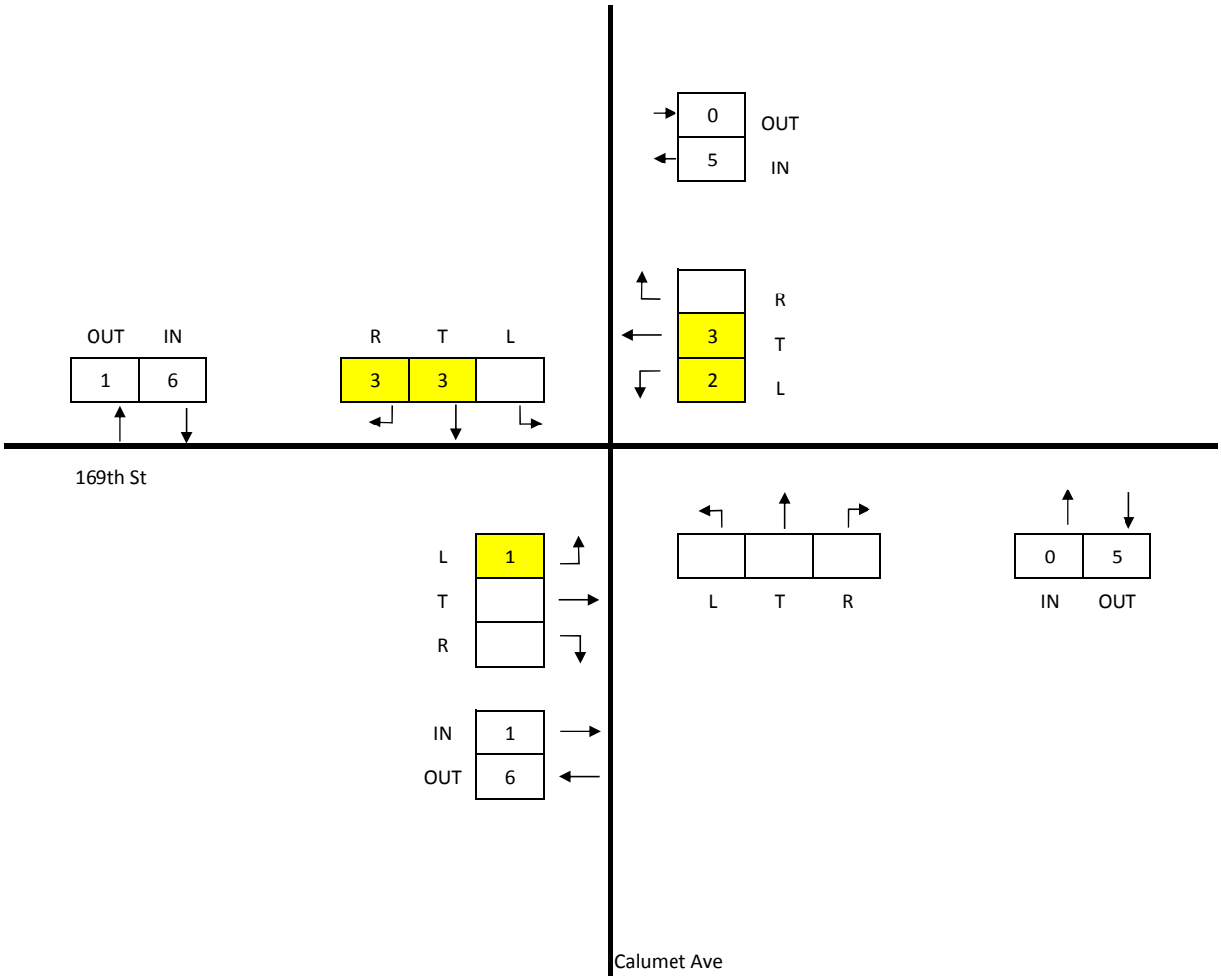
2022 PROJECTED TRAFFIC VOLUMES (PM)

SOUTH HAMMOND STATION

October 2017

TOTAL INTERSECTION

IN	12
OUT	12



CLASSIFICATION: ALL VEHICLES

CALUMET AVE & 169TH ST

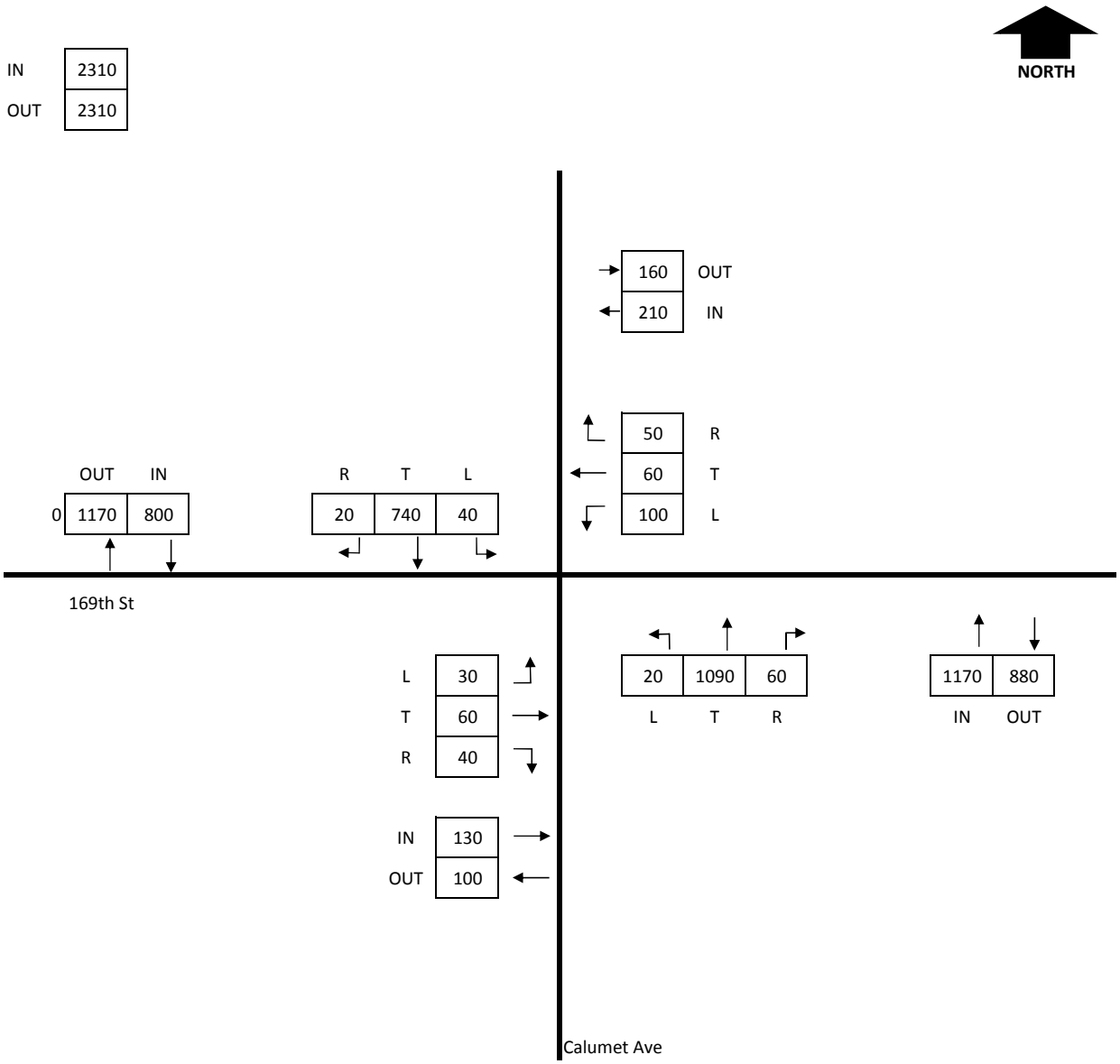
2022 SITE GENERATED TRIPS (AM)

SOUTH HAMMOND STATION

October 2017

TOTAL INTERSECTION

IN	2310
OUT	2310



CLASSIFICATION: ALL VEHICLES

CALUMET AVE & 169TH ST

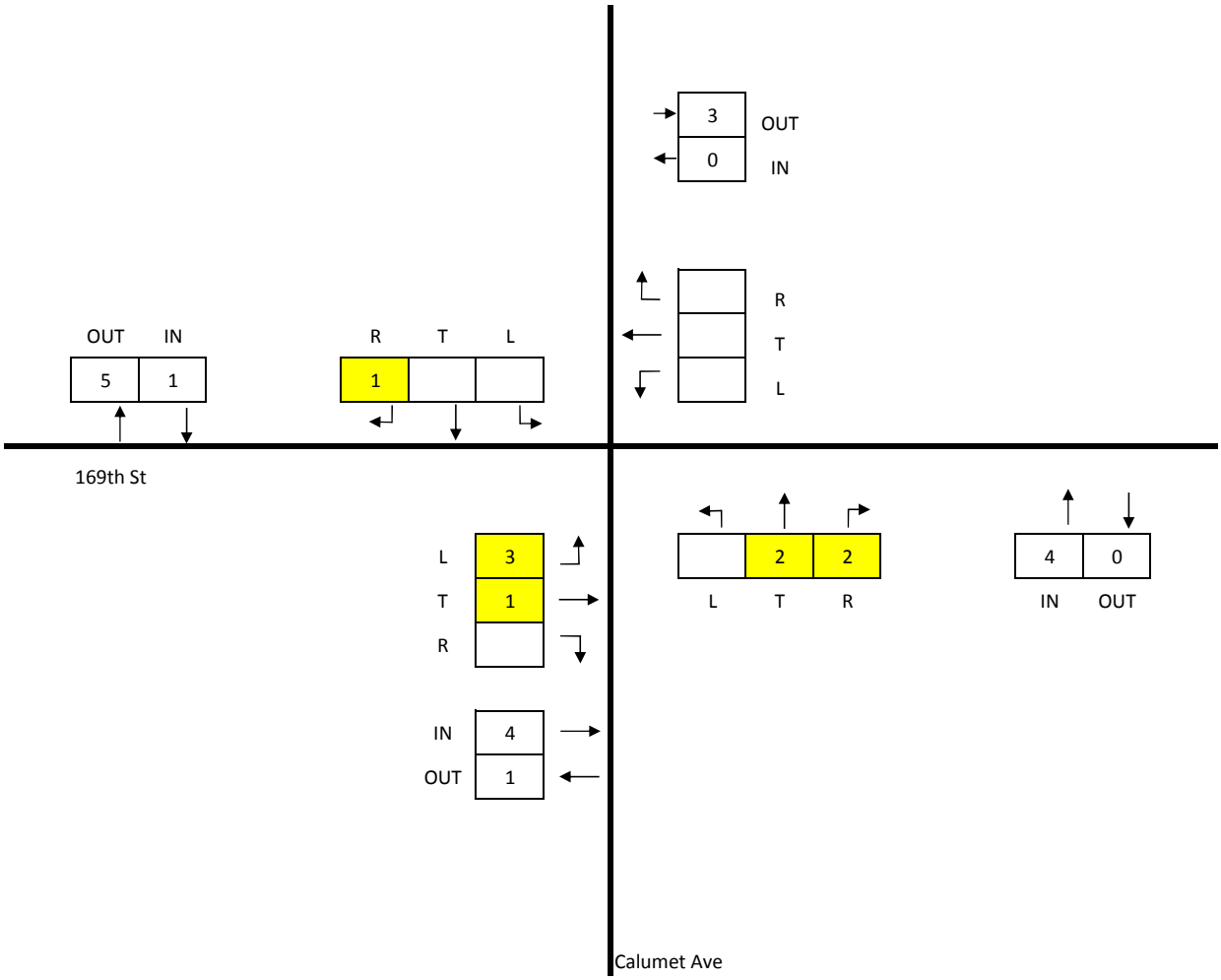
2022 BUILD TRAFFIC VOLUMES (AM)

SOUTH HAMMOND STATION

October 2017

TOTAL INTERSECTION

IN	9
OUT	9



CLASSIFICATION: ALL VEHICLES

CALUMET AVE & 169TH ST

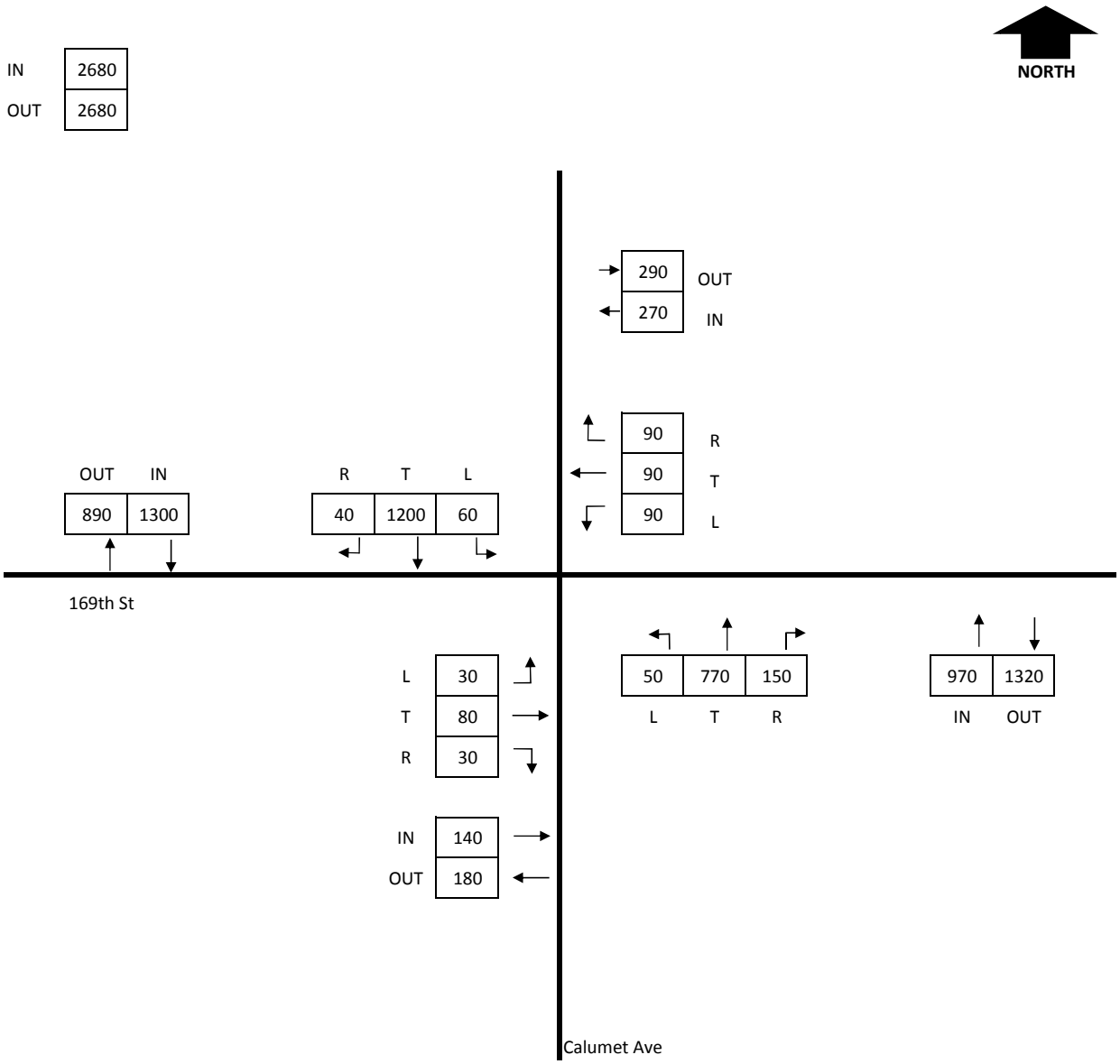
2022 SITE GENERATED TRIPS (PM)

SOUTH HAMMOND STATION

October 2017

TOTAL INTERSECTION

IN	2680
OUT	2680



CLASSIFICATION: ALL VEHICLES

CALUMET AVE & 169TH ST

2022 BUILD TRAFFIC VOLUMES (PM)

SOUTH HAMMOND STATION

October 2017

TOTAL INTERSECTION

	2017	2040
IN	2091	2690
OUT	2091	2690

NORTH

	2017	2040	
→	130	180	OUT
←	171	230	IN

	OUT	IN
2040	1390	920
2017	1086	722

	R	T	L
2040	10	870	40
2017	6	686	30

	2017	2040	
↰	40	60	R
←	46	60	T
↙	85	110	L

169th St

	2040	2017	
L	30	16	↑
T	70	48	→
R	50	38	↓

	L	T	R
2017	14	1030	52
2040	20	1300	70

	2040	2017	
IN	150	102	→
OUT	90	66	←

	2017	2040
2017	1096	809
2040	1390	1030
	IN	OUT

Calumet Ave

CLASSIFICATION: ALL VEHICLES

ANNUAL GROWTH RATE	
Northbound	1.0%
Southbound	1.0%
Eastbound	1.0%
Westbound	1.0%
Years to Escalate: 2040	23

CALUMET AVE & 169TH ST

2040 PROJECTED TRAFFIC VOLUMES (AM)

SOUTH HAMMOND STATION

October 2017

TOTAL INTERSECTION

	2014	2040
IN	2434	3130
OUT	2434	3130

NORTH

	2014	2040	
→	239	320	OUT
←	245	320	IN

	OUT	IN
2040	1040	1530
2014	812	1203

	R	T	L
2040	30	1430	70
2014	21	1133	49

	2014	2040	
↰	81	110	R
←	79	100	T
↙	85	110	L

169th St

	2040	2014	
L	20	12	↑
T	80	62	→
R	40	25	↓

	↖	↑	↗
2014	40	719	128
2040	60	910	170
	L	T	R

	↑	↓
2014	887	1243
2040	1140	1580
	IN	OUT

	2040	2014	
IN	140	99	→
OUT	190	140	←

Calumet Ave

CLASSIFICATION: ALL VEHICLES

ANNUAL GROWTH RATE	
Northbound	1.0%
Southbound	1.0%
Eastbound	1.0%
Westbound	1.0%
Years to Escalate: 2040	23

CALUMET AVE & 169TH ST

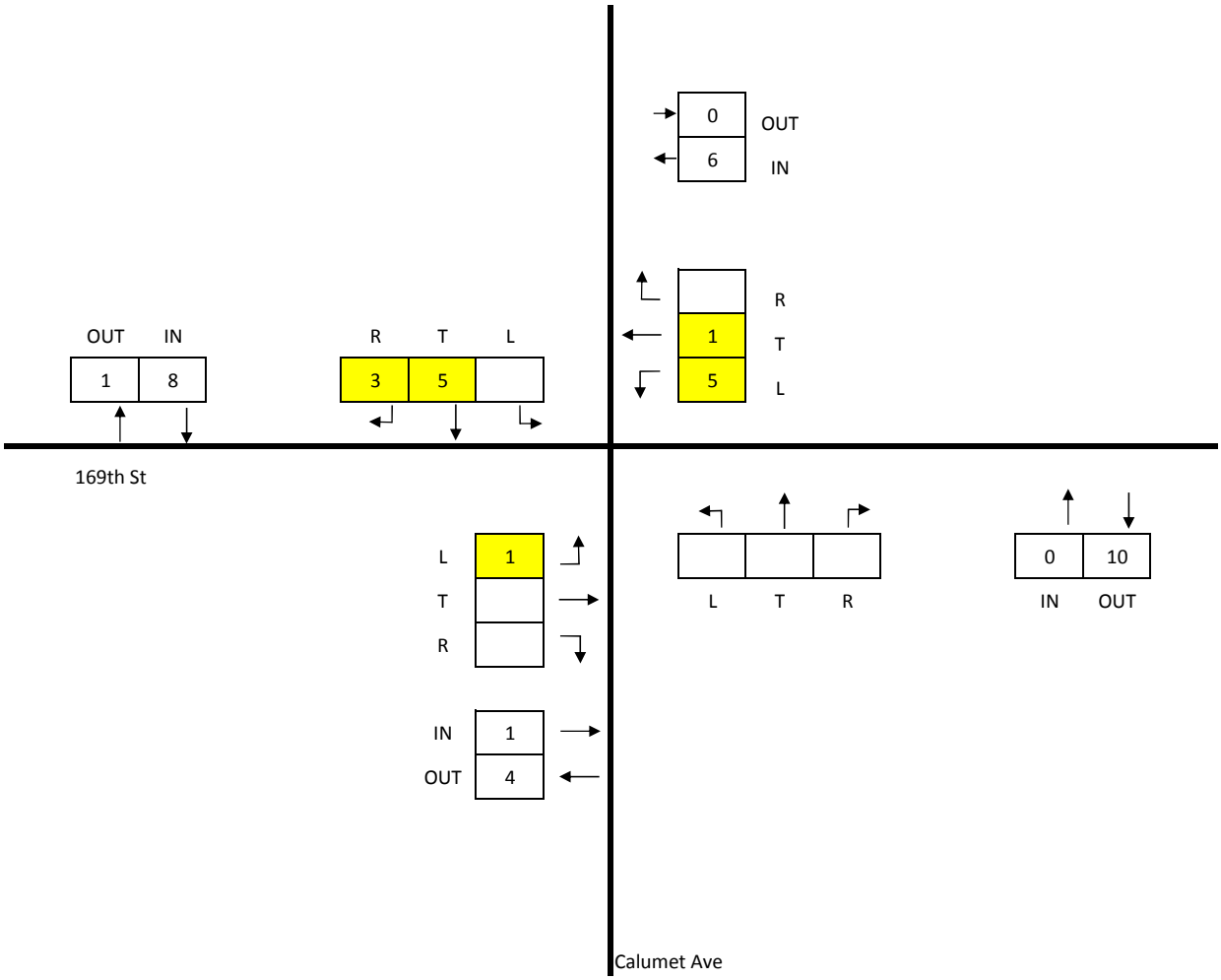
2040 PROJECTED TRAFFIC VOLUMES (PM)

SOUTH HAMMOND STATION

October 2017

TOTAL INTERSECTION

IN	15
OUT	15



CLASSIFICATION: ALL VEHICLES

CALUMET AVE & 169TH ST

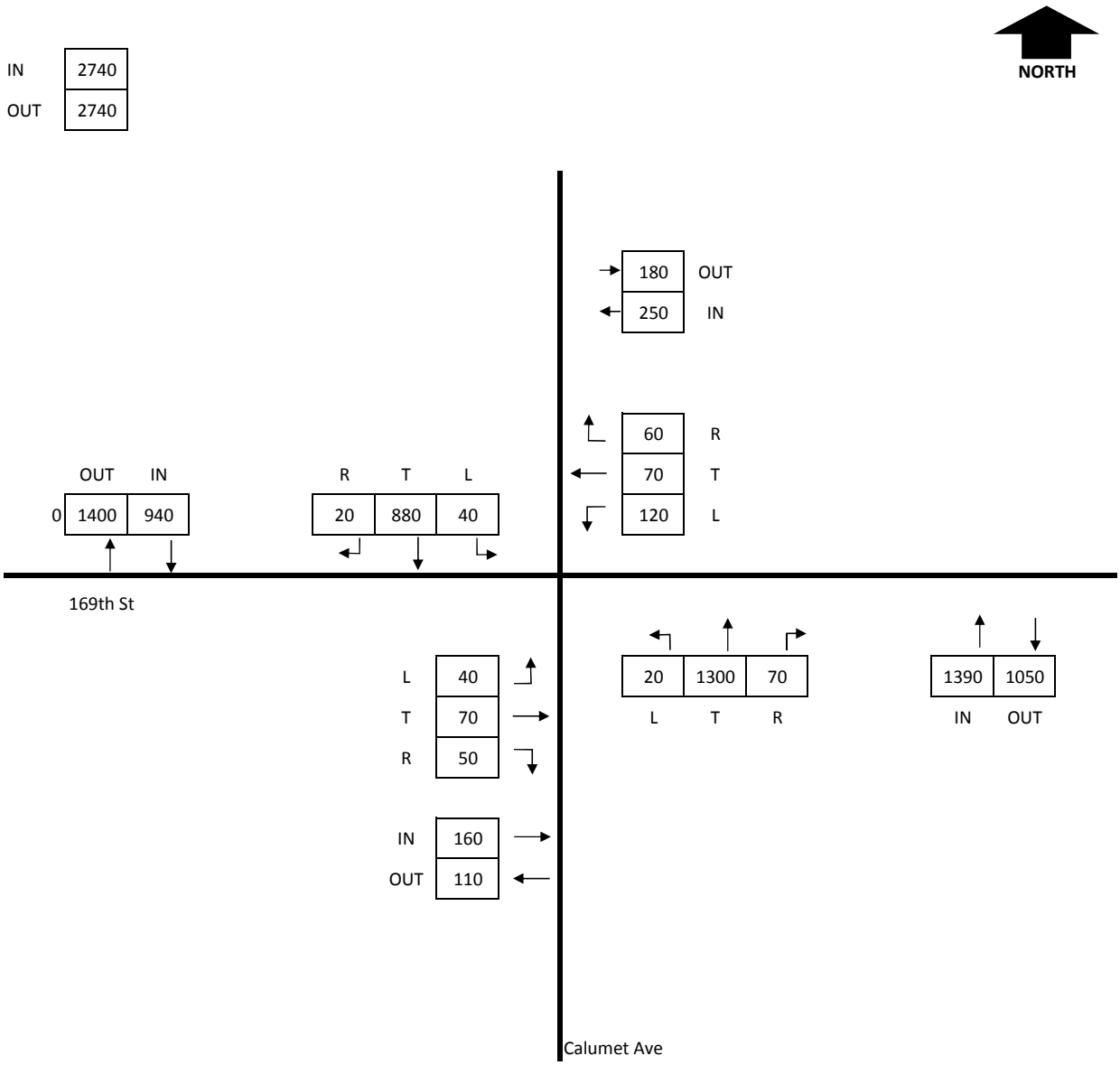
2040 SITE GENERATED TRIPS (AM)

SOUTH HAMMOND STATION

October 2017

TOTAL INTERSECTION

IN	2740
OUT	2740



CLASSIFICATION: ALL VEHICLES

CALUMET AVE & 169TH ST

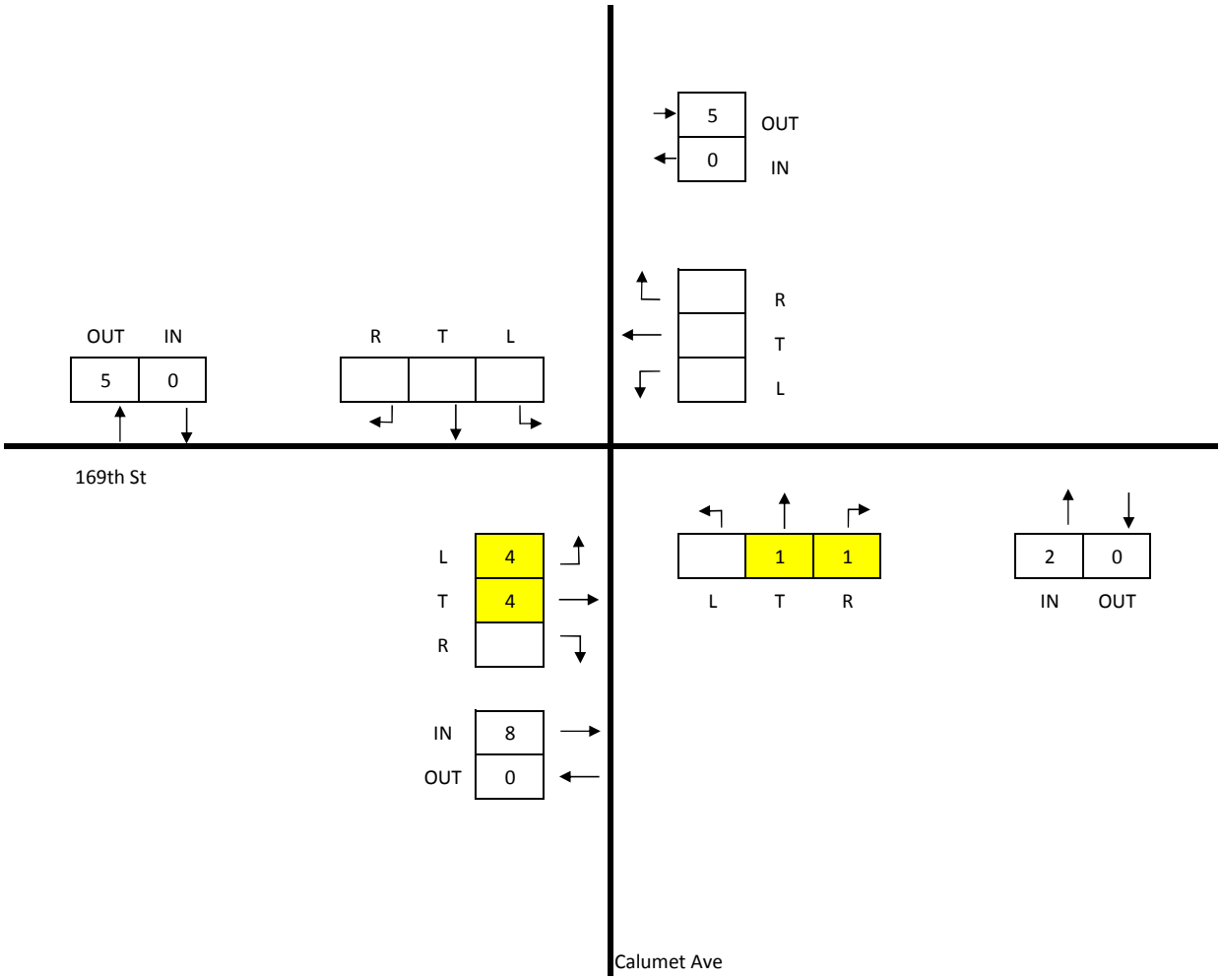
2040 BUILD TRAFFIC VOLUMES (AM)

SOUTH HAMMOND STATION

October 2017

TOTAL INTERSECTION

IN	10
OUT	10



CLASSIFICATION: ALL VEHICLES

CALUMET AVE & 169TH ST

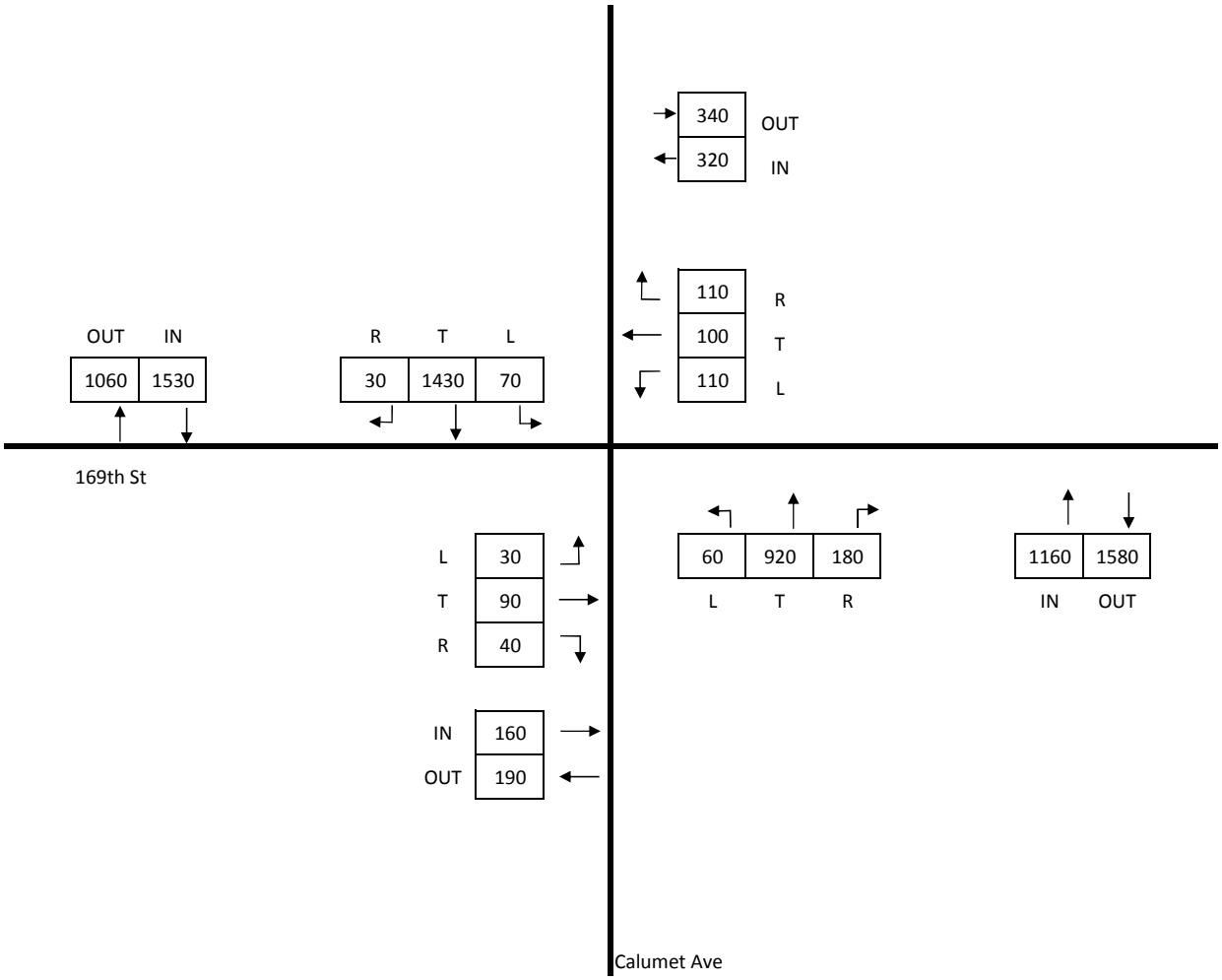
2040 SITE GENERATED TRIPS (PM)

SOUTH HAMMOND STATION

October 2017

TOTAL INTERSECTION

IN	3170
OUT	3170



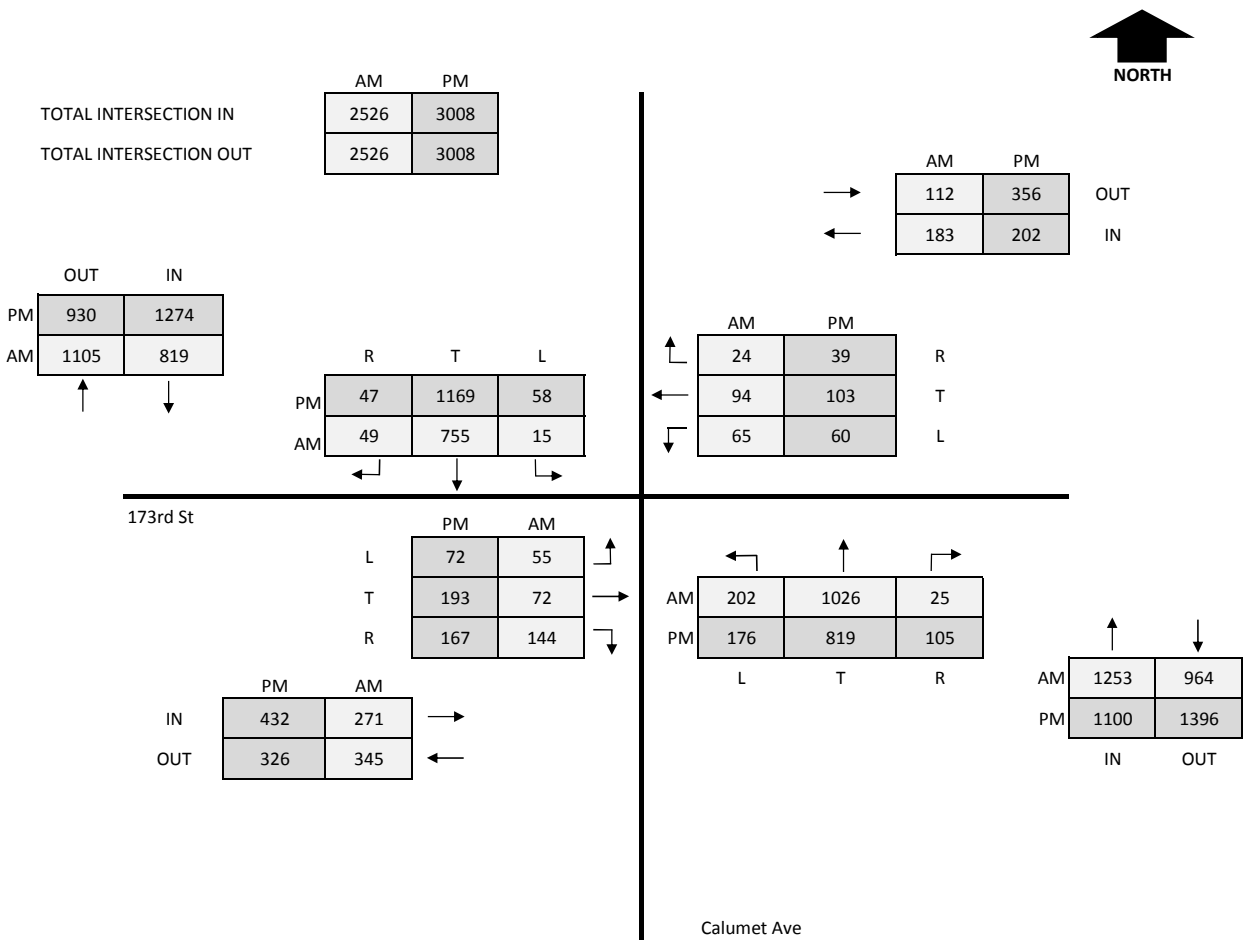
CLASSIFICATION: ALL VEHICLES

CALUMET AVE & 169TH ST

2040 BUILD TRAFFIC VOLUMES (PM)

SOUTH HAMMOND STATION

October 2017



Traffic Counts from Quality Counts				
AM	4/4/2017	7:15 AM	to	8:15 AM
PM	4/4/2017	4:30 PM	to	5:30 PM

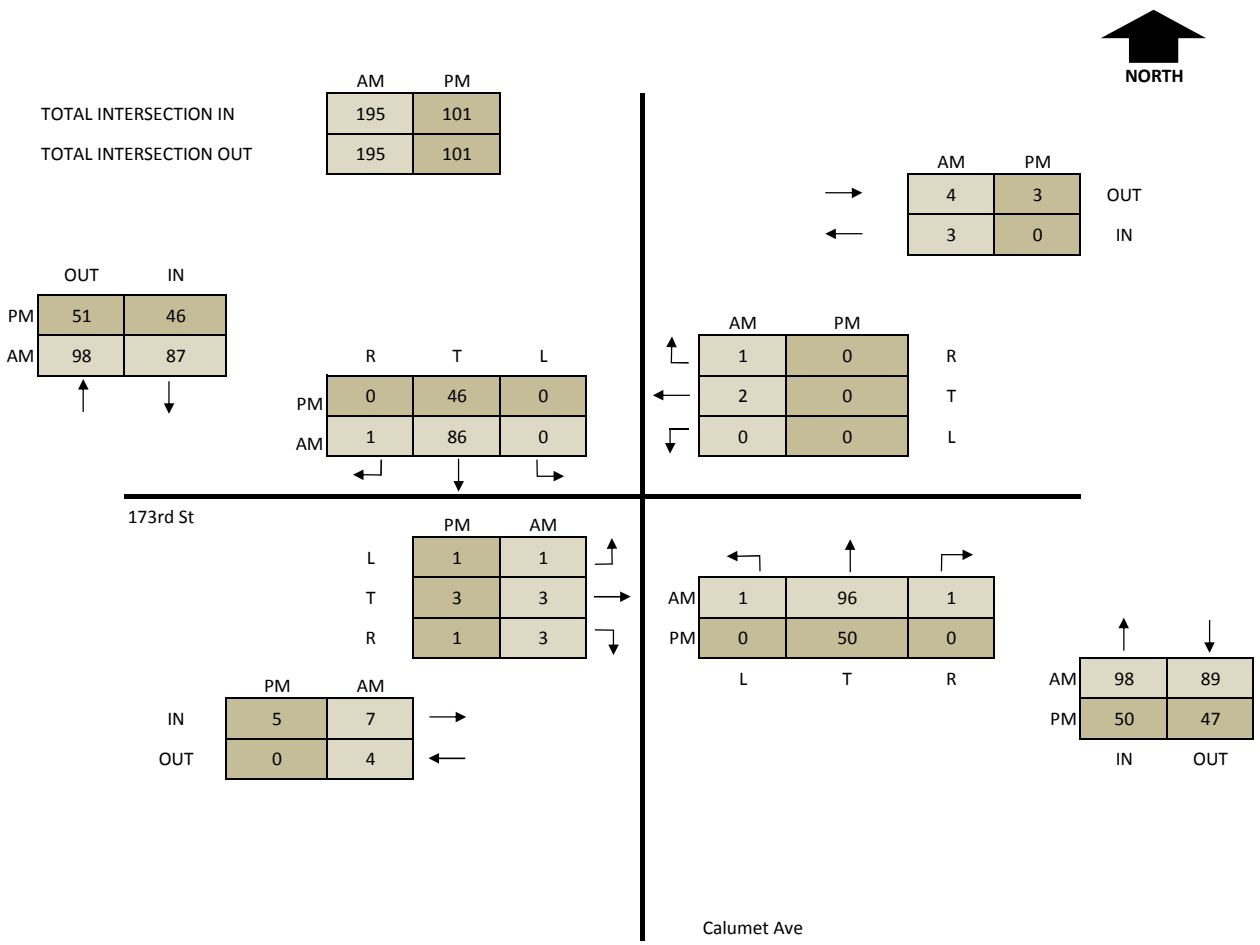
NICTD

CALUMET AVE & 173RD ST

EXISTING TRAFFIC VOLUMES (2017)

SOUTH HAMMOND STATION

October 2017



CLASSIFICATION: TRUCKS

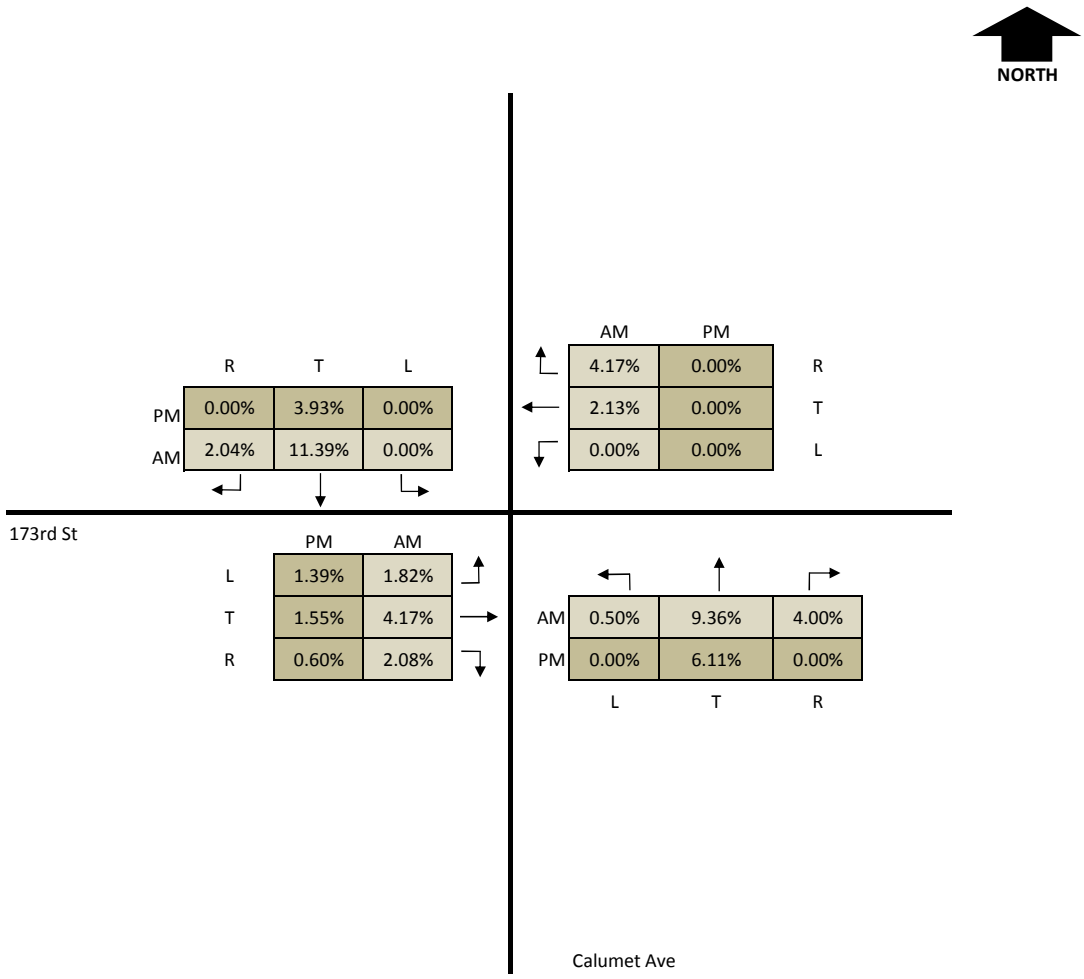
Traffic Counts from Quality Counts				
AM	4/4/2017	7:15 AM	to	8:15 AM
PM	4/4/2017	4:30 PM	to	5:30 PM

CALUMET AVE & 173RD ST

EXISTING TRAFFIC VOLUMES (2017)

SOUTH HAMMOND STATION

October 2017



CLASSIFICATION: TRUCKS

Traffic Counts from Quality Counts				
AM	4/4/2017	7:15 AM	to	8:15 AM
PM	4/4/2017	4:30 PM	to	5:30 PM

CALUMET AVE & 173RD ST

EXISTING TRAFFIC VOLUMES (2017)

SOUTH HAMMOND STATION

October 2017

TOTAL INTERSECTION

	2017	2022
IN	2526	2710
OUT	2526	2710

	2017	2022	
→	112	130	OUT
←	183	200	IN

	OUT	IN
2022	1170	880
2017	1105	819

	R	T	L
2022	60	800	20
2017	49	755	15

	2017	2022	
↰	24	30	R
←	94	100	T
↙	65	70	L

173rd St

	2022	2017
L	60	55
T	80	72
R	160	144

	2017	2022
IN	300	271
OUT	380	345

	L	T	R
2017	202	1026	25
2022	220	1080	30

	2017	2022
	1253	964
	1330	1030
	IN	OUT

Calumet Ave

CLASSIFICATION: ALL VEHICLES

ANNUAL GROWTH RATE	
Northbound	1.0%
Southbound	1.0%
Eastbound	1.0%
Westbound	1.0%
Years to Escalate: 2022	5

CALUMET AVE & 173RD ST

2022 PROJECTED TRAFFIC VOLUMES (AM)

SOUTH HAMMOND STATION

October 2017

TOTAL INTERSECTION

	2014	2022
IN	3008	3230
OUT	3008	3230

	2014	2022	
→	356	400	OUT
←	202	230	IN

	OUT	IN
2022	1000	1350
2014	930	1274

	R	T	L
2022	50	1230	70
2014	47	1169	58

	2014	2022	
↰	39	50	R
←	103	110	T
↙	60	70	L

173rd St

	2022	2014	
L	80	72	↑
T	210	193	→
R	180	167	↓

	2022	2014	
IN	470	432	→
OUT	350	326	←

	L	T	R
2014	176	819	105
2022	190	870	120

	2014	2022
↑	1100	1180
↓	1396	1480
	IN	OUT

Calumet Ave

CLASSIFICATION: ALL VEHICLES

ANNUAL GROWTH RATE	
Northbound	1.0%
Southbound	1.0%
Eastbound	1.0%
Westbound	1.0%
Years to Escalate: 2022	5

NICTD

CALUMET AVE & 173RD ST

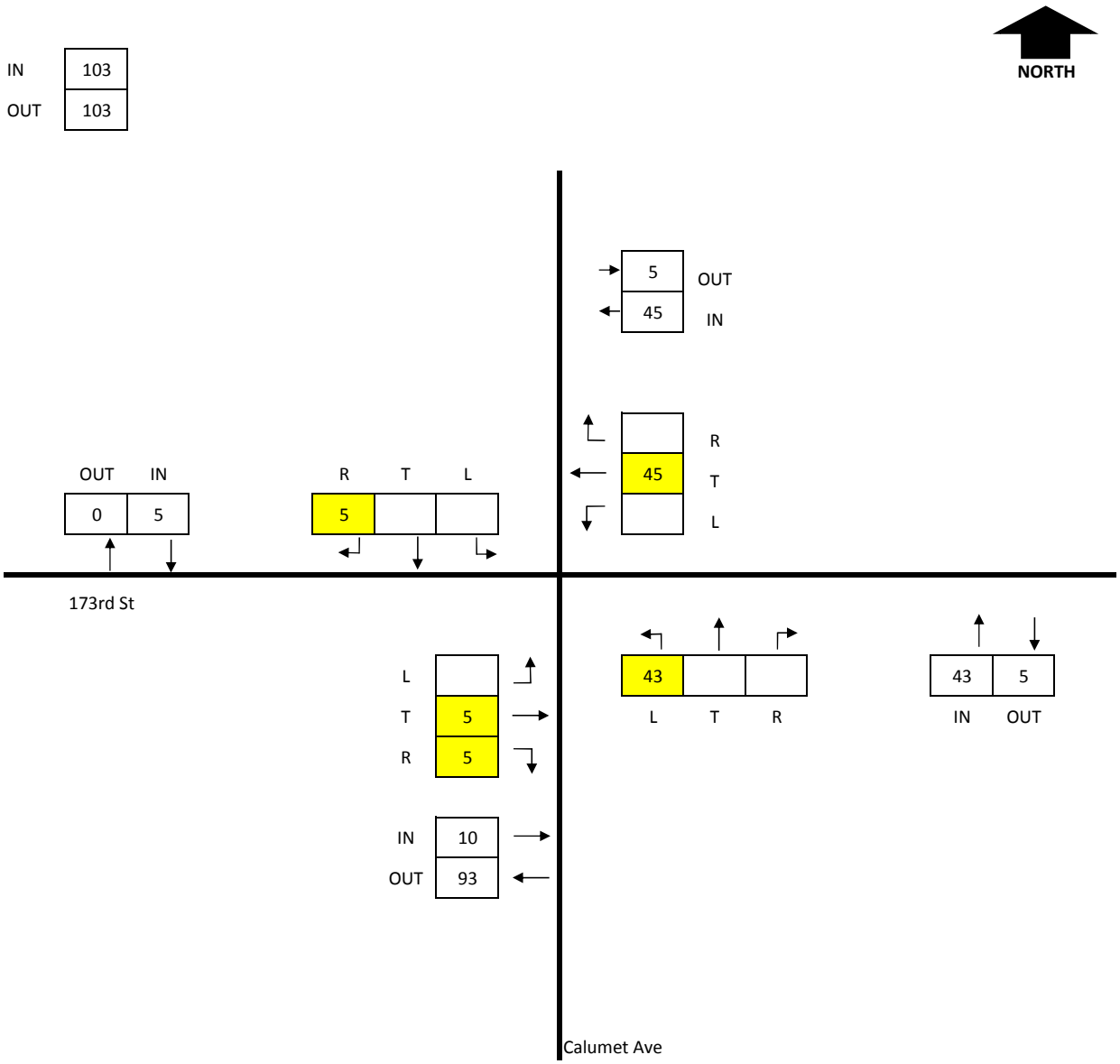
2022 PROJECTED TRAFFIC VOLUMES (PM)

SOUTH HAMMOND STATION

October 2017

TOTAL INTERSECTION

IN	103
OUT	103



CLASSIFICATION: ALL VEHICLES

CALUMET AVE & 173RD ST

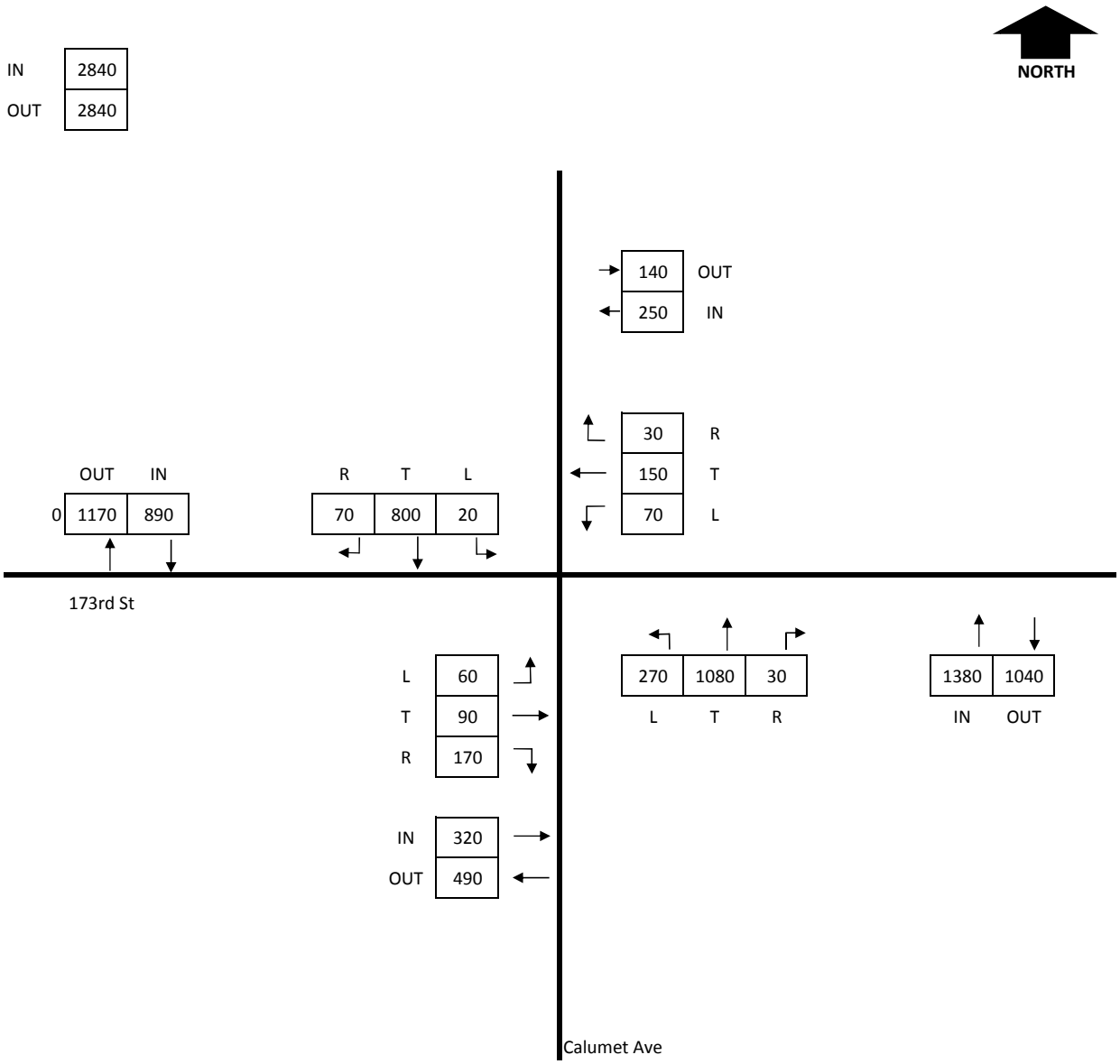
2022 SITE GENERATED TRIPS (AM)

SOUTH HAMMOND STATION

October 2017

TOTAL INTERSECTION

IN	2840
OUT	2840



CLASSIFICATION: ALL VEHICLES

CALUMET AVE & 173RD ST

2022 BUILD TRAFFIC VOLUMES (AM)

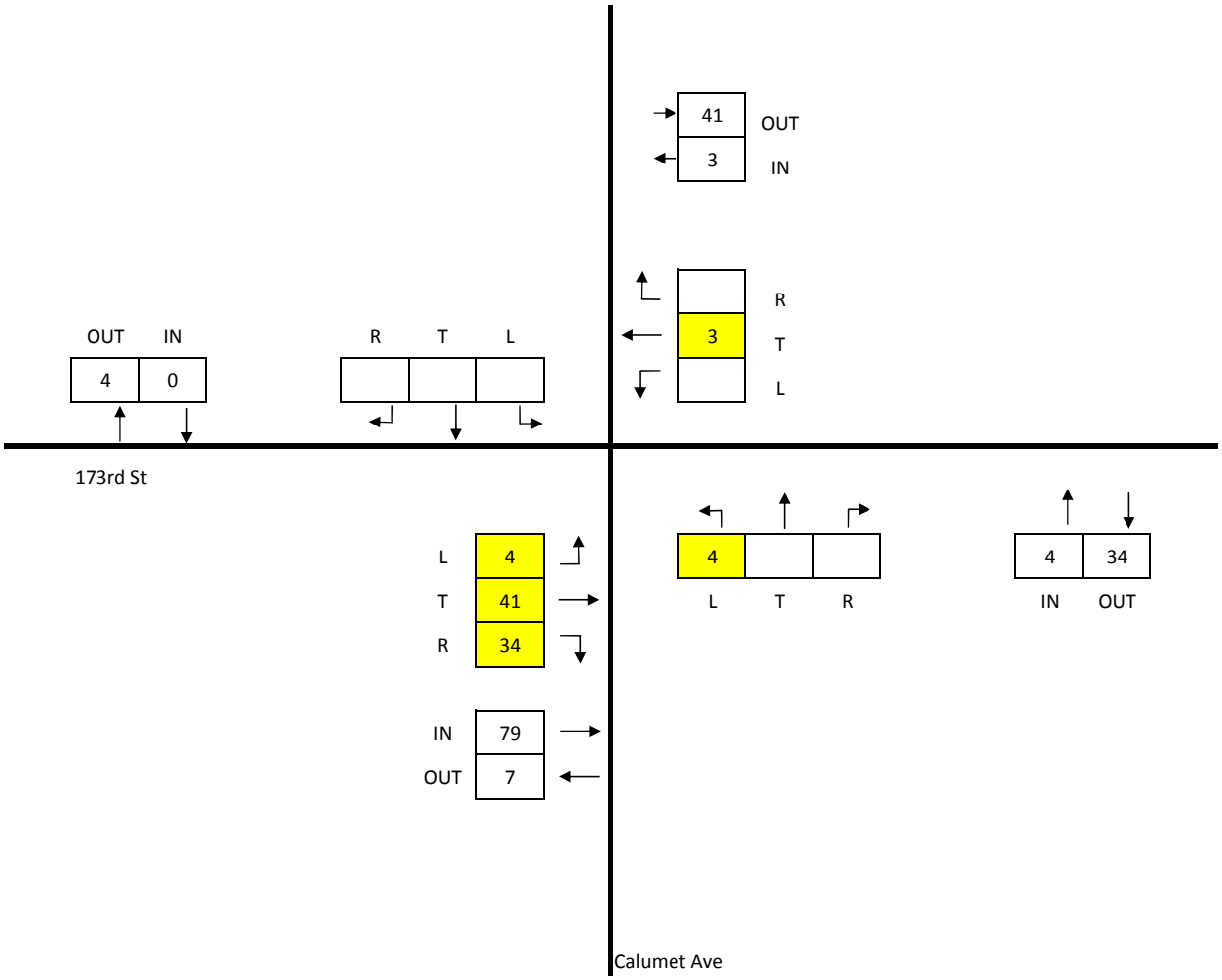
SOUTH HAMMOND STATION

October 2017

TOTAL INTERSECTION

IN	86
OUT	86

NORTH



CLASSIFICATION: ALL VEHICLES

CALUMET AVE & 173RD ST

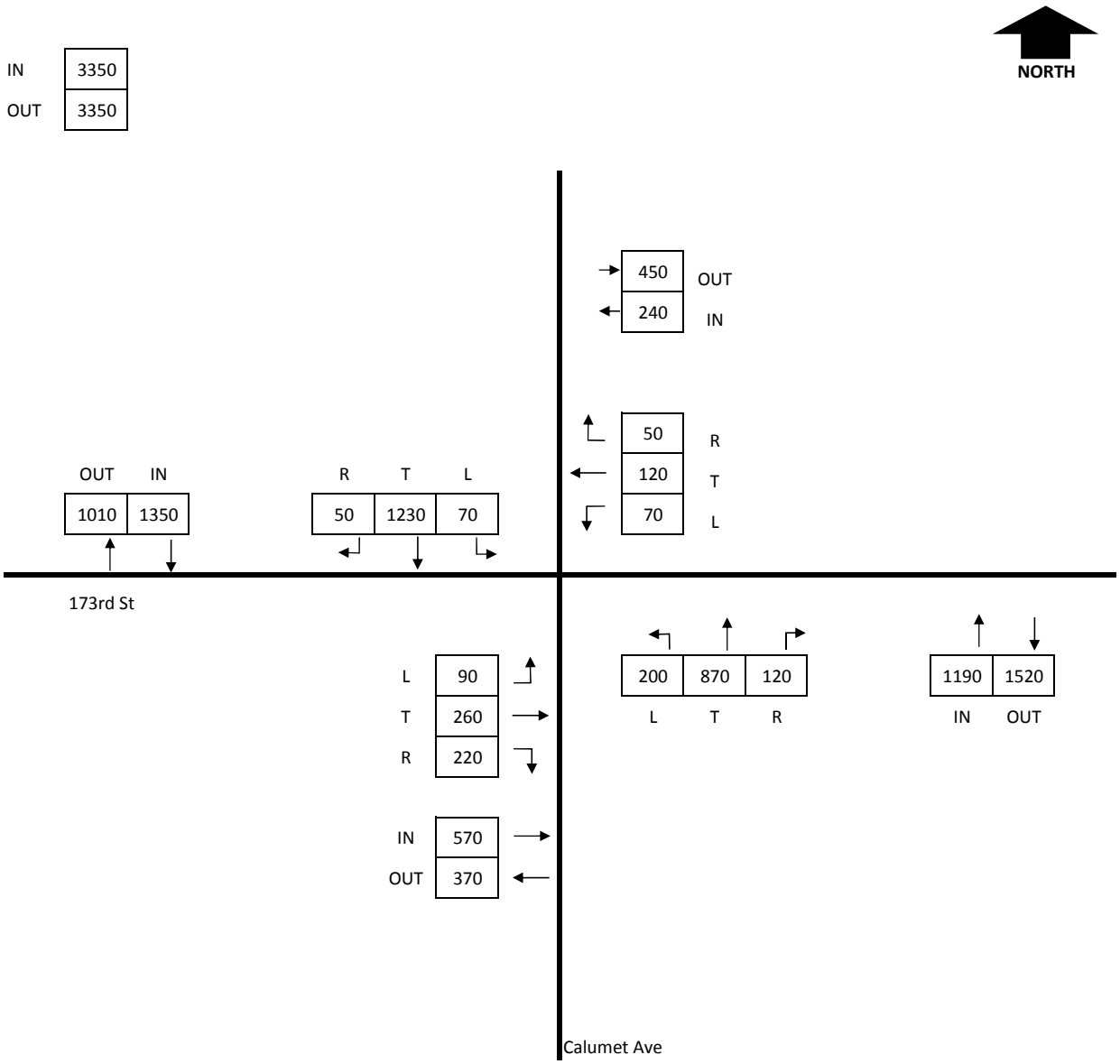
2022 SITE GENERATED TRIPS (PM)

SOUTH HAMMOND STATION

October 2017

TOTAL INTERSECTION

IN	3350
OUT	3350



CLASSIFICATION: ALL VEHICLES

CALUMET AVE & 173RD ST

2022 BUILD TRAFFIC VOLUMES (PM)

SOUTH HAMMOND STATION

October 2017

TOTAL INTERSECTION

	2017	2040
IN	2526	3240
OUT	2526	3240

	2017	2040	
→	112	160	OUT
←	183	250	IN

	OUT	IN
2040	1400	1040
2017	1105	819

	R	T	L
2040	70	950	20
2017	49	755	15

	2017	2040	
↰	24	40	R
←	94	120	T
↙	65	90	L

173rd St

	2040	2017	
L	70	55	↑
T	100	72	→
R	190	144	↓

	2017	2040
IN	360	271 →
OUT	450	345 ←

	↰ L	↑ T	↱ R
2017	202	1026	25
2040	260	1290	40

	↑ IN	↓ OUT
2017	1253	964
2040	1590	1230

Calumet Ave

CLASSIFICATION: ALL VEHICLES

ANNUAL GROWTH RATE	
Northbound	1.0%
Southbound	1.0%
Eastbound	1.0%
Westbound	1.0%
Years to Escalate: 2040	23

CALUMET AVE & 173RD ST

2040 PROJECTED TRAFFIC VOLUMES (AM)

SOUTH HAMMOND STATION

October 2017

TOTAL INTERSECTION

	2014	2040
IN	3008	3830
OUT	3008	3830

	2014	2040	
→	356	470	OUT
←	202	260	IN

	OUT	IN
2040	1180	1610
2014	930	1274

	R	T	L
2040	60	1470	80
2014	47	1169	58

	2014	2040	
↰	39	50	R
←	103	130	T
↙	60	80	L

173rd St

	2040	2014	
L	100	72	↑
T	250	193	→
R	210	167	↓

	↰	↑	↱
2014	176	819	105
2040	230	1030	140
	L	T	R

	2040	2014
IN	560	432
OUT	420	326

	↑	↓
2014	1100	1396
2040	1400	1760
	IN	OUT

Calumet Ave

CLASSIFICATION: ALL VEHICLES

ANNUAL GROWTH RATE	
Northbound	1.0%
Southbound	1.0%
Eastbound	1.0%
Westbound	1.0%
Years to Escalate: 2040	23

CALUMET AVE & 173RD ST

2040 PROJECTED TRAFFIC VOLUMES (PM)

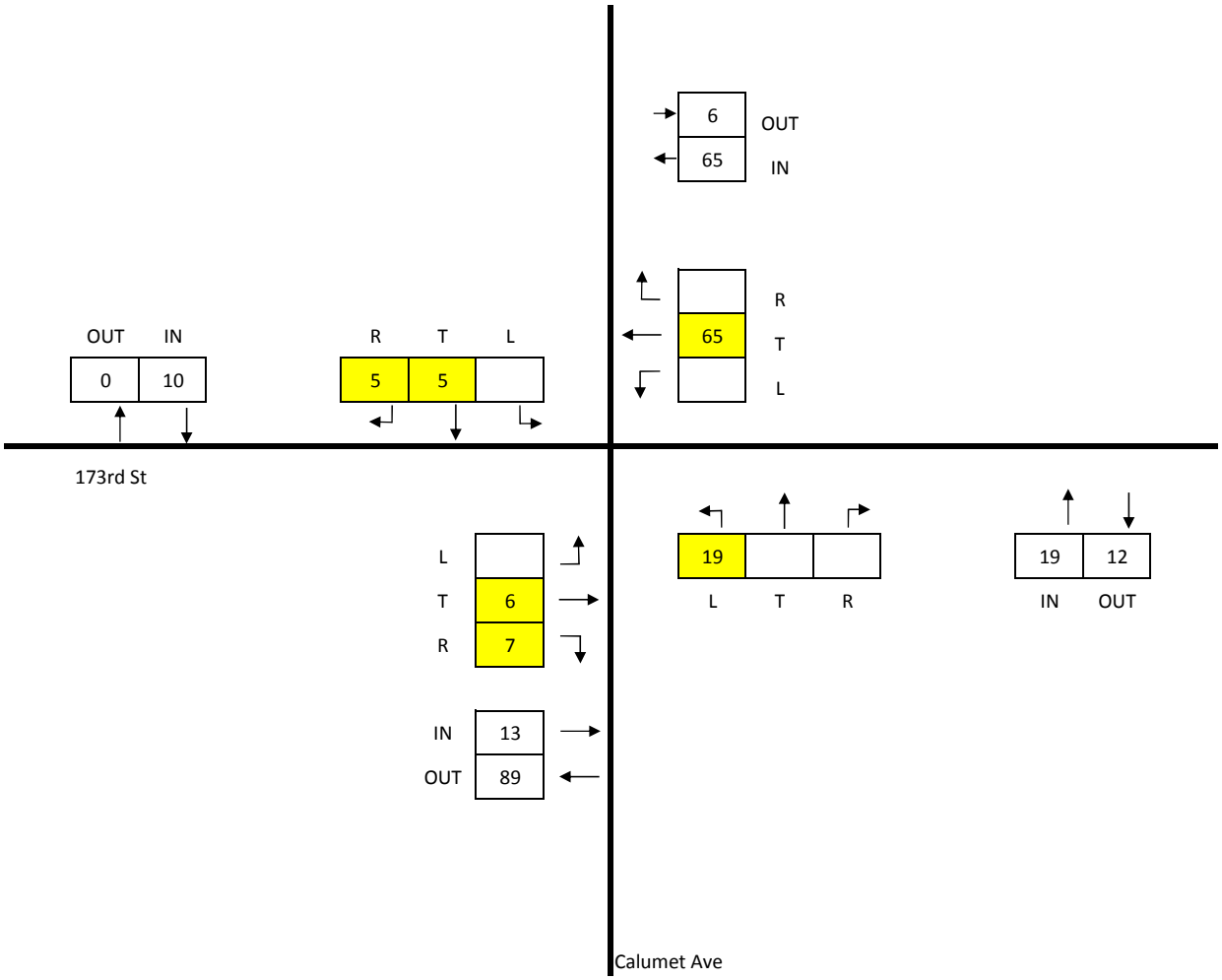
SOUTH HAMMOND STATION

October 2017

TOTAL INTERSECTION

IN	107
OUT	107

NORTH



CLASSIFICATION: ALL VEHICLES

CALUMET AVE & 173RD ST

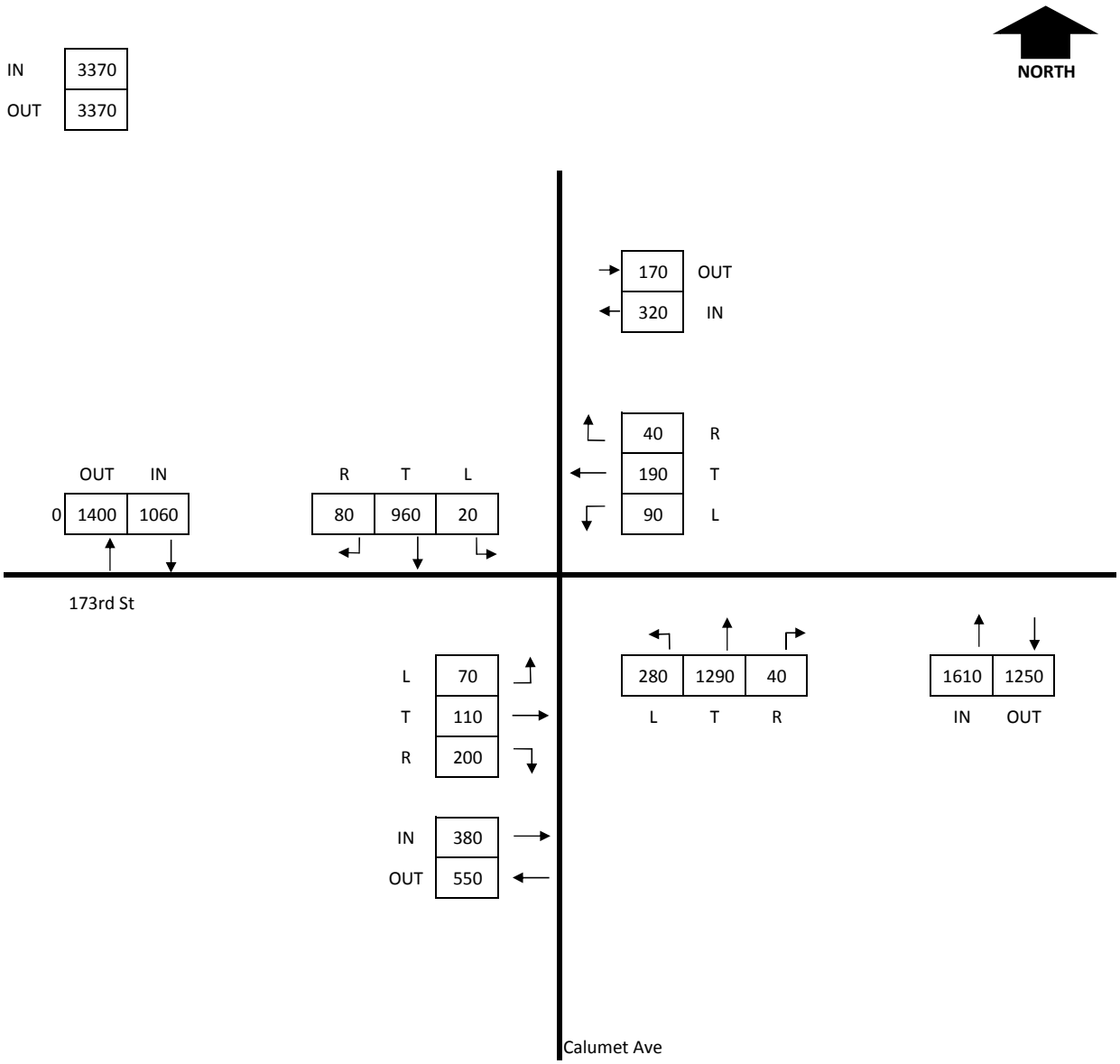
2040 SITE GENERATED TRIPS (AM)

SOUTH HAMMOND STATION

October 2017

TOTAL INTERSECTION

IN	3370
OUT	3370



CLASSIFICATION: ALL VEHICLES

CALUMET AVE & 173RD ST

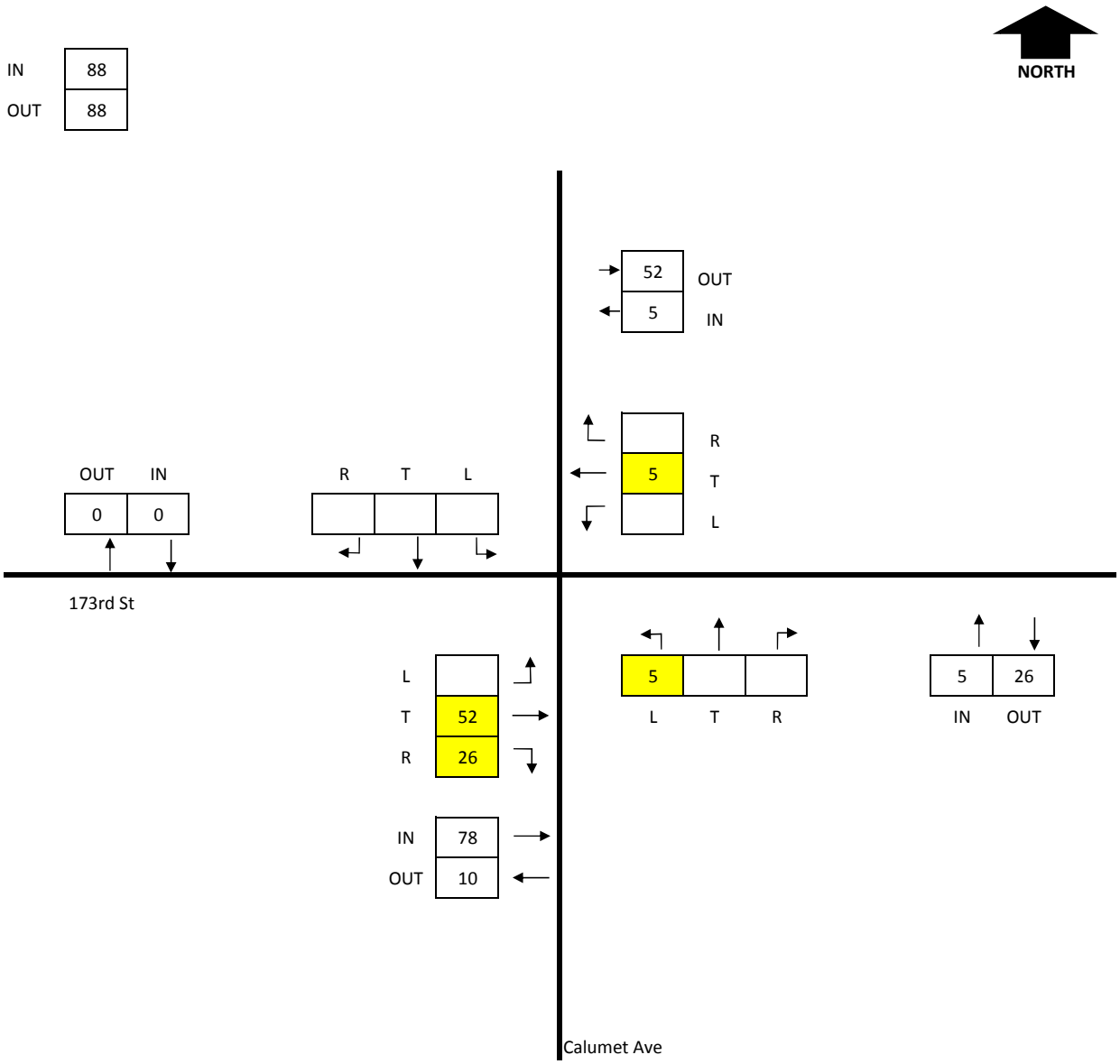
2040 BUILD TRAFFIC VOLUMES (AM)

SOUTH HAMMOND STATION

October 2017

TOTAL INTERSECTION

IN	88
OUT	88



CLASSIFICATION: ALL VEHICLES

CALUMET AVE & 173RD ST

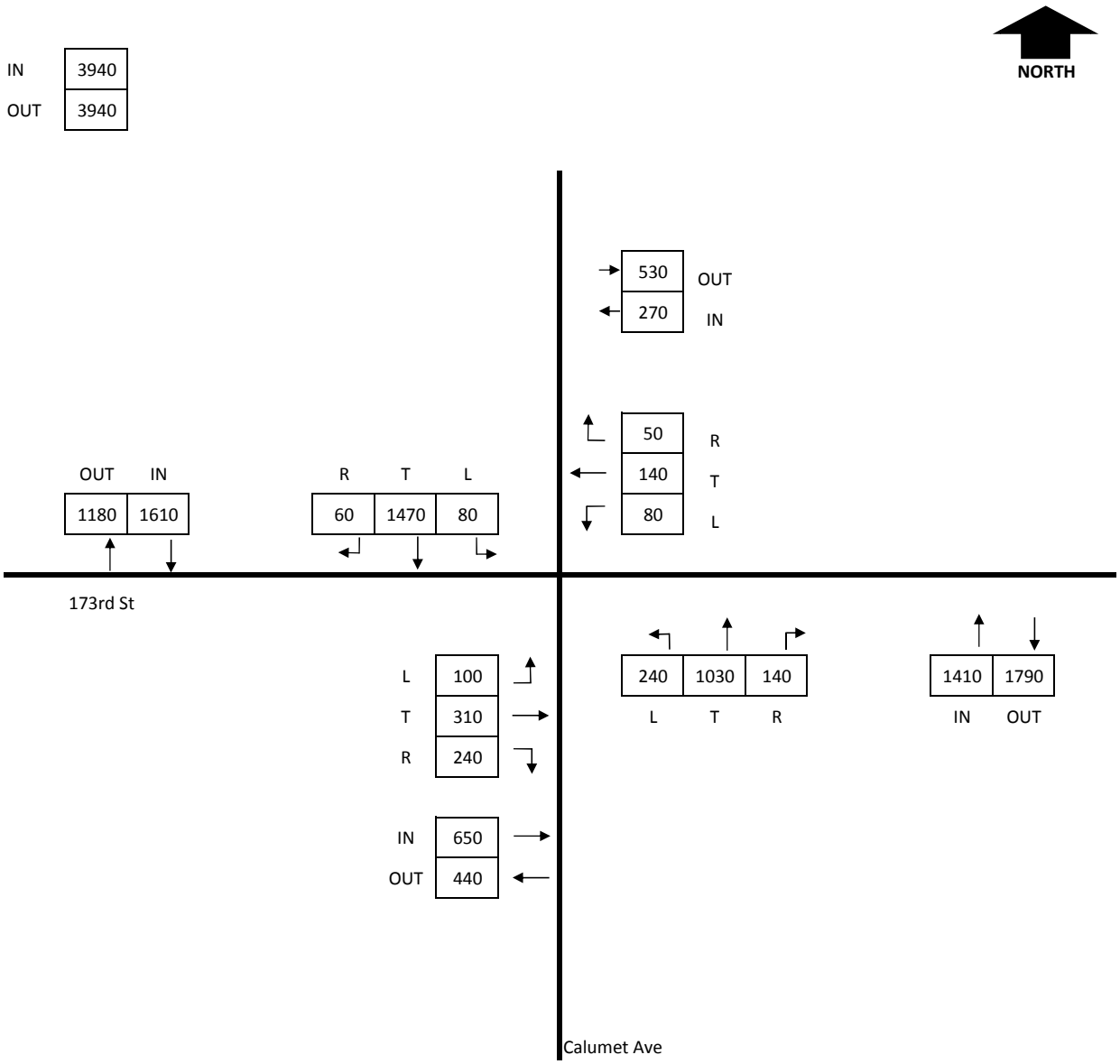
2040 SITE GENERATED TRIPS (PM)

SOUTH HAMMOND STATION

October 2017

TOTAL INTERSECTION

IN	3940
OUT	3940



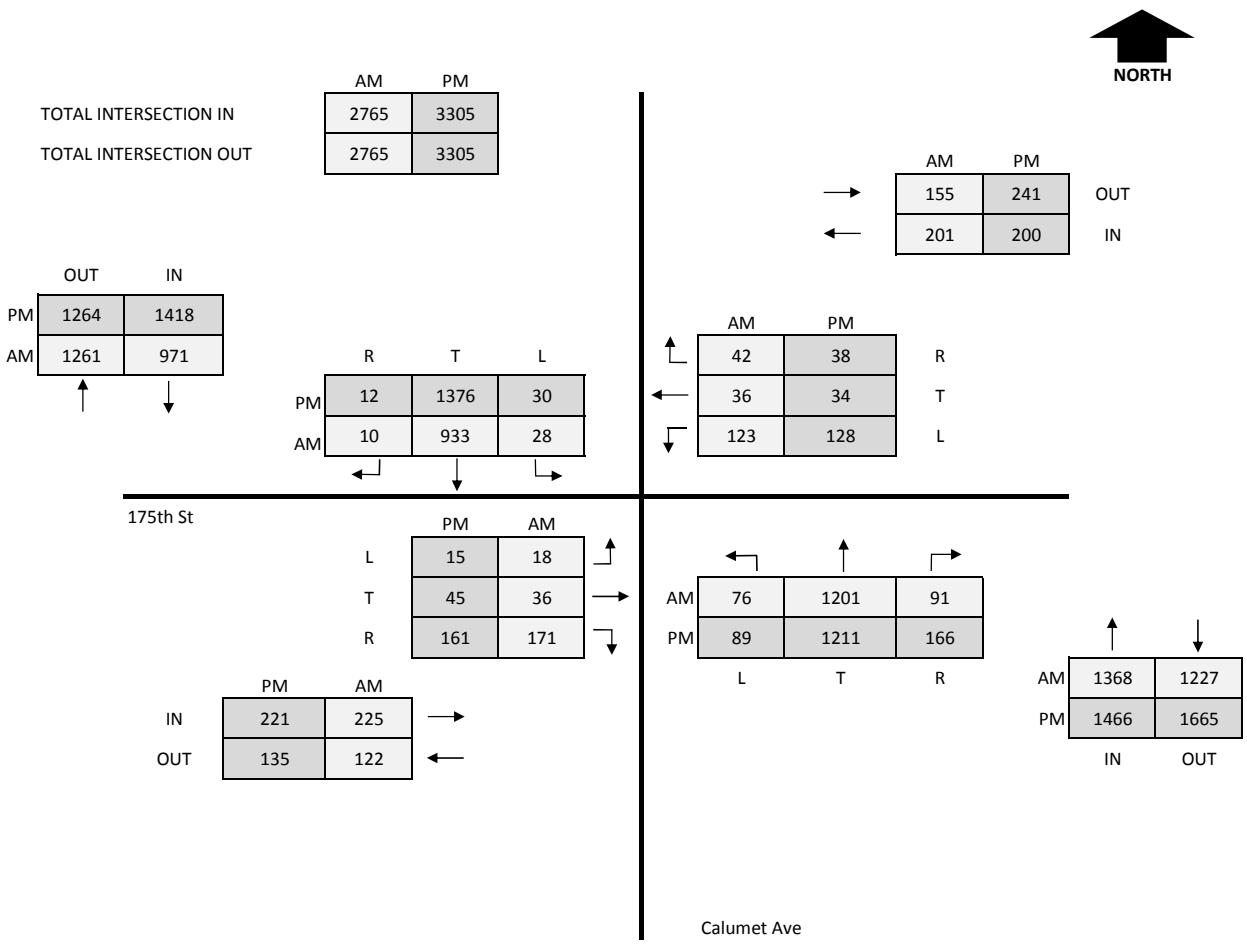
CLASSIFICATION: ALL VEHICLES

CALUMET AVE & 173RD ST

2040 BUILD TRAFFIC VOLUMES (PM)

SOUTH HAMMOND STATION

October 2017



CLASSIFICATION: ALL VEHICLES

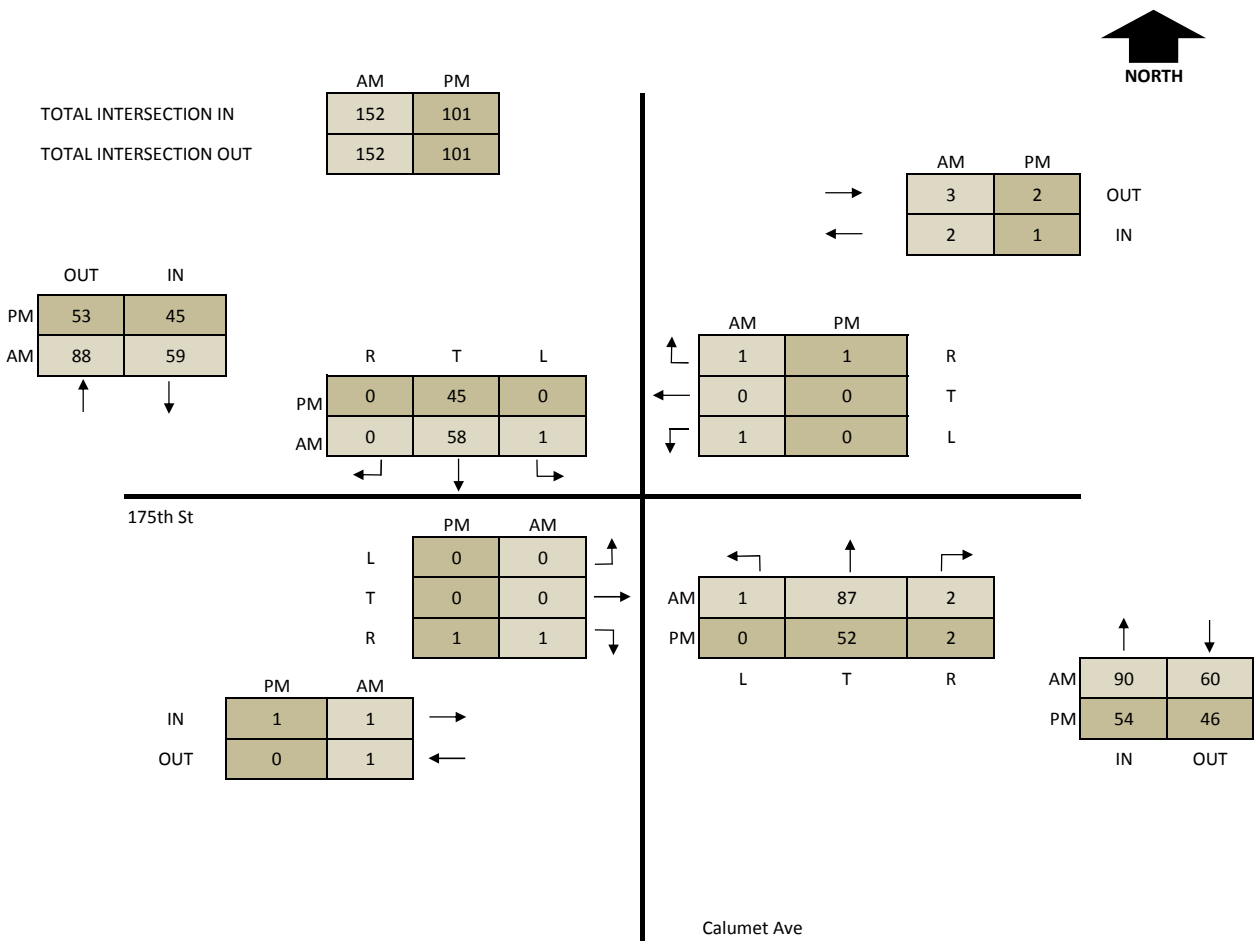
Traffic Counts from Quality Counts				
AM	5/9/2017	7:15 AM	to	8:15 AM
PM	5/9/2017	4:30 PM	to	5:30 PM

CALUMET AVE & 175TH ST

EXISTING TRAFFIC VOLUMES (2017)

SOUTH HAMMOND STATION

October 2017



CLASSIFICATION: TRUCKS

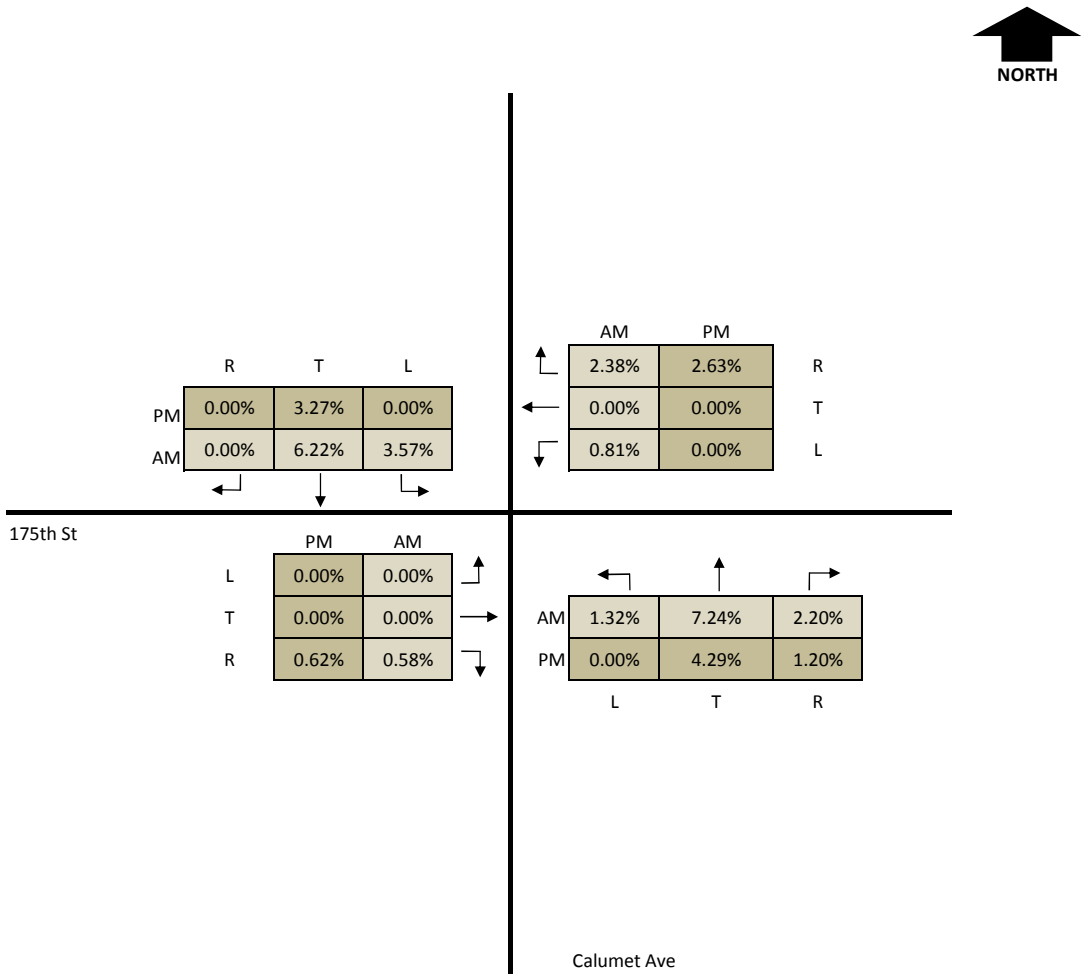
Traffic Counts from Quality Counts				
AM	5/9/2017	7:15 AM	to	8:15 AM
PM	5/9/2017	4:30 PM	to	5:30 PM

CALUMET AVE & 175TH ST

EXISTING TRAFFIC VOLUMES (2017)

SOUTH HAMMOND STATION

October 2017



CLASSIFICATION: TRUCKS

Traffic Counts from Quality Counts				
AM	5/9/2017	7:15 AM	to	8:15 AM
PM	5/9/2017	4:30 PM	to	5:30 PM

CALUMET AVE & 175TH ST

EXISTING TRAFFIC VOLUMES (2017)

SOUTH HAMMOND STATION

October 2017

TOTAL INTERSECTION

	2017	2022
IN	2765	2950
OUT	2765	2950

	2017	2022	
→	155	170	OUT
←	201	220	IN

	OUT	IN
2022	1340	1040
2017	1261	971

	R	T	L
2022	20	990	30
2017	10	933	28

	2017	2022	
↰	42	50	R
←	36	40	T
↙	123	130	L

175th St

	2022	2017
L	20	18
T	40	36
R	180	171

	2017	2022
IN	240	225
OUT	140	122

	L	T	R
2017	76	1201	91
2022	80	1270	100

	2017	2022
2017	1368	1227
2022	1450	1300
	IN	OUT

Calumet Ave

CLASSIFICATION: ALL VEHICLES

ANNUAL GROWTH RATE	
Northbound	1.0%
Southbound	1.0%
Eastbound	1.0%
Westbound	1.0%
Years to Escalate: 2022	5

CALUMET AVE & 175TH ST

2022 PROJECTED TRAFFIC VOLUMES (AM)

SOUTH HAMMOND STATION

October 2017

TOTAL INTERSECTION

	2017	2022
IN	3305	3530
OUT	3305	3530

NORTH

	2017	2022	
→	241	270	OUT
←	200	220	IN

	OUT	IN
2022	1340	1510
2017	1264	1418

	R	T	L
2022	20	1450	40
2017	12	1376	30

	2017	2022	
↰	38	40	R
←	34	40	T
↙	128	140	L

175th St

	2022	2017	
L	20	15	↑
T	50	45	→
R	170	161	↓

	2017	1211	166
	89		
2022	100	1280	180
	L	T	R

	2022	2017	
IN	240	221	→
OUT	160	135	←

	2017	2022
	1466	1665
	1560	1760
	IN	OUT

Calumet Ave

CLASSIFICATION: ALL VEHICLES

ANNUAL GROWTH RATE	
Northbound	1.0%
Southbound	1.0%
Eastbound	1.0%
Westbound	1.0%
Years to Escalate: 2022	5

NICTD

CALUMET AVE & 175TH ST

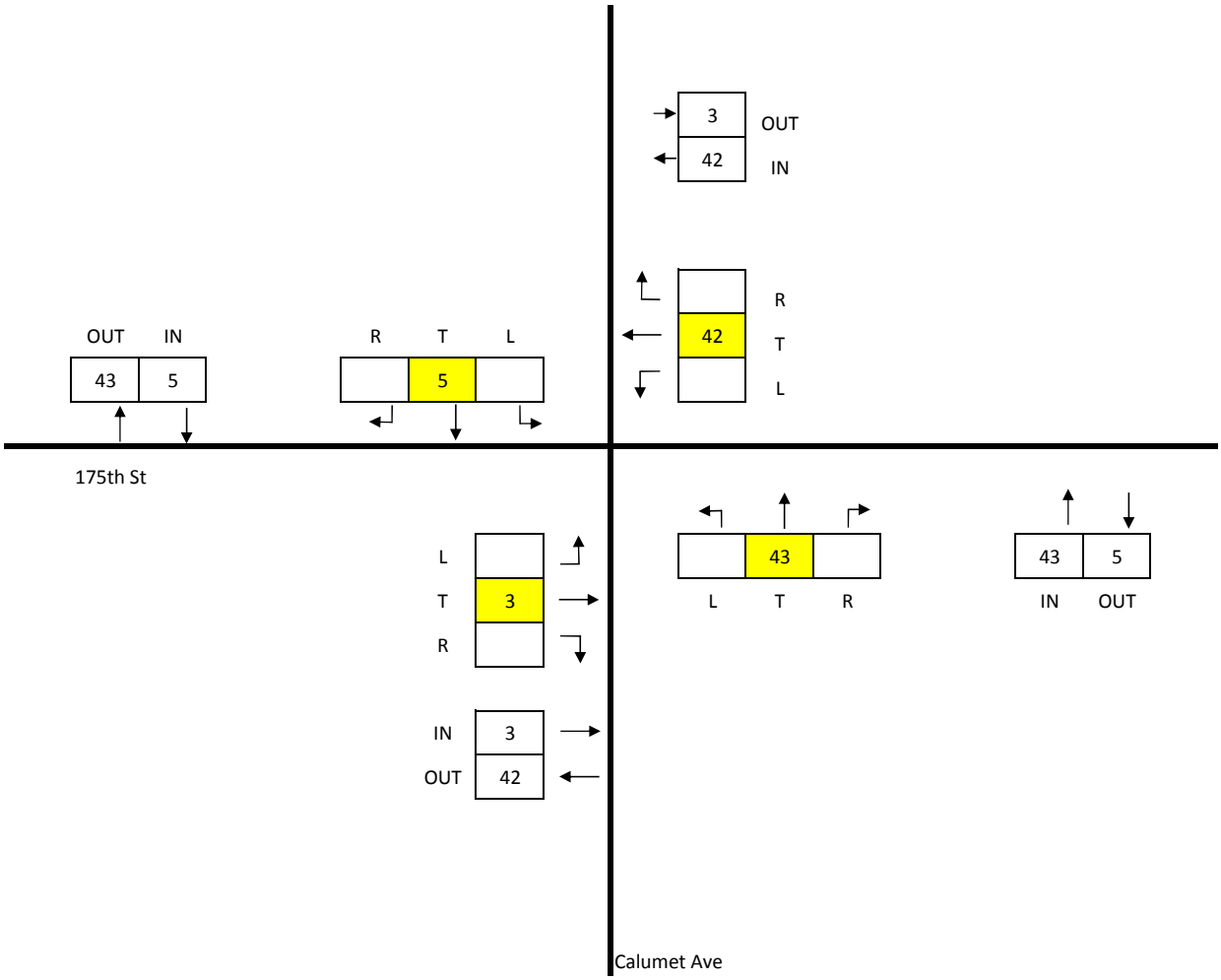
2022 PROJECTED TRAFFIC VOLUMES (PM)

SOUTH HAMMOND STATION

October 2017

TOTAL INTERSECTION

IN	93
OUT	93



CLASSIFICATION: ALL VEHICLES

CALUMET AVE & 175TH ST

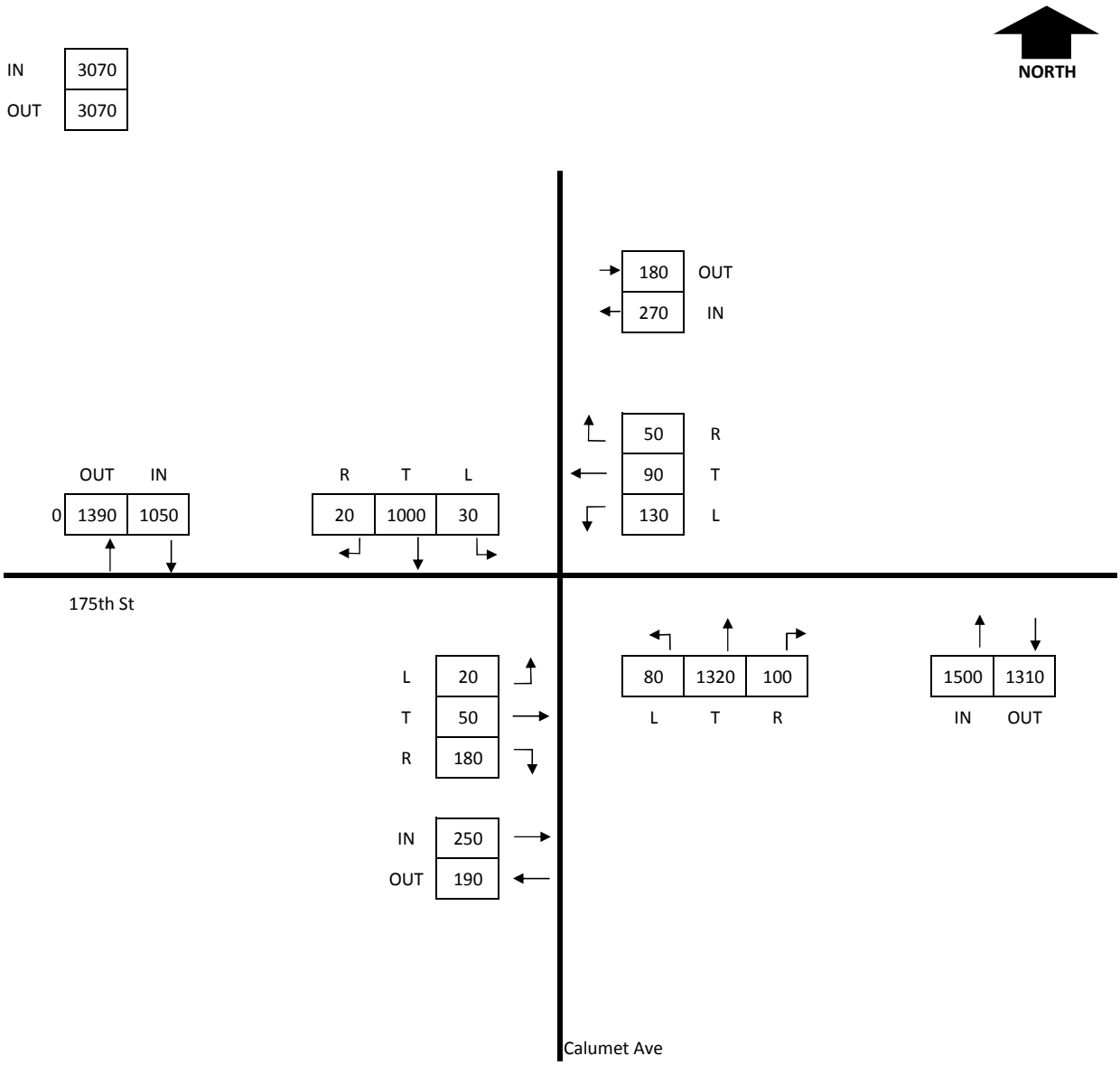
2022 SITE GENERATED TRIPS (AM)

SOUTH HAMMOND STATION

October 2017

TOTAL INTERSECTION

IN	3070
OUT	3070



CLASSIFICATION: ALL VEHICLES

CALUMET AVE & 175TH ST

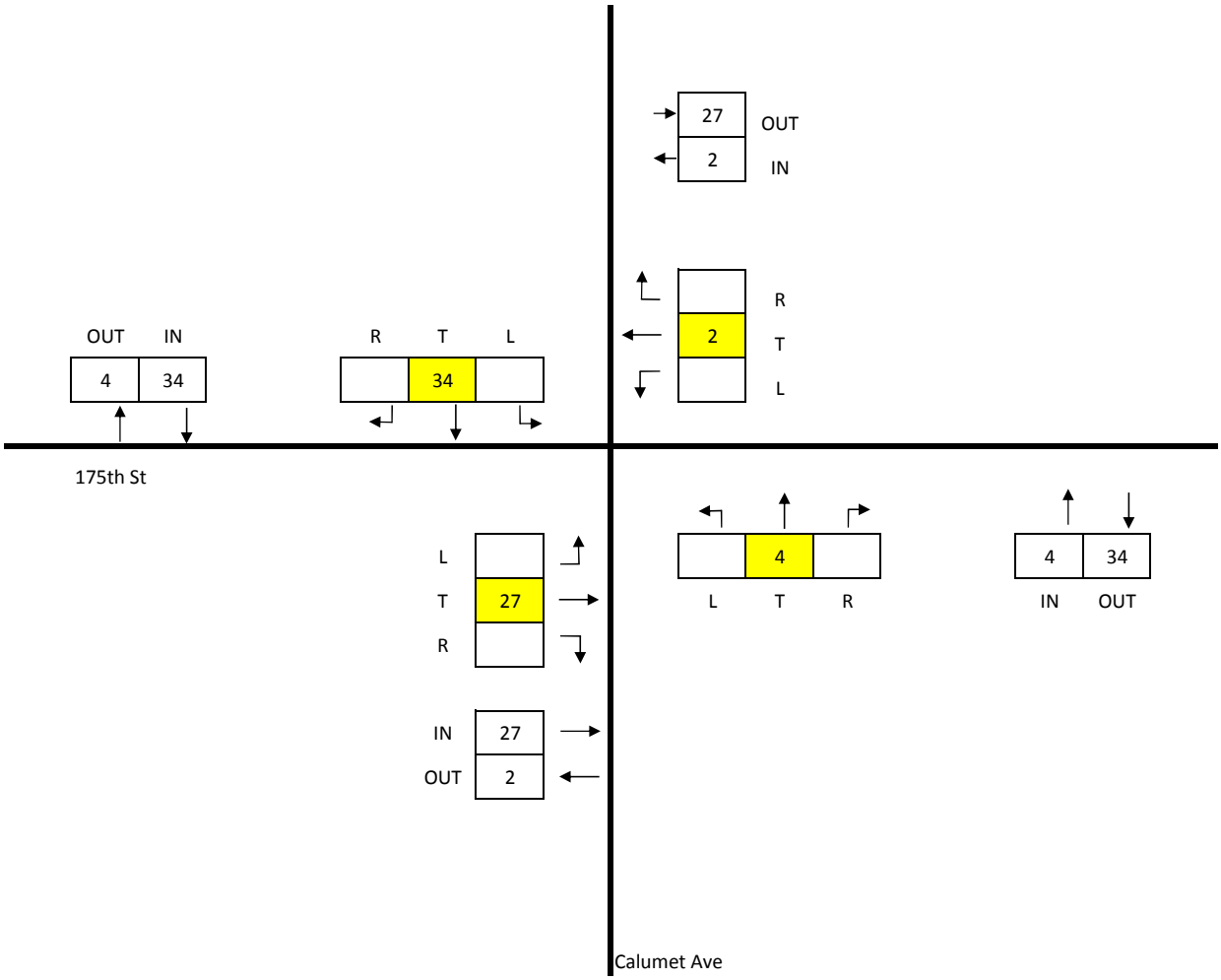
2022 BUILD TRAFFIC VOLUMES (AM)

SOUTH HAMMOND STATION

October 2017

TOTAL INTERSECTION

IN	67
OUT	67



CLASSIFICATION: ALL VEHICLES

CALUMET AVE & 175TH ST

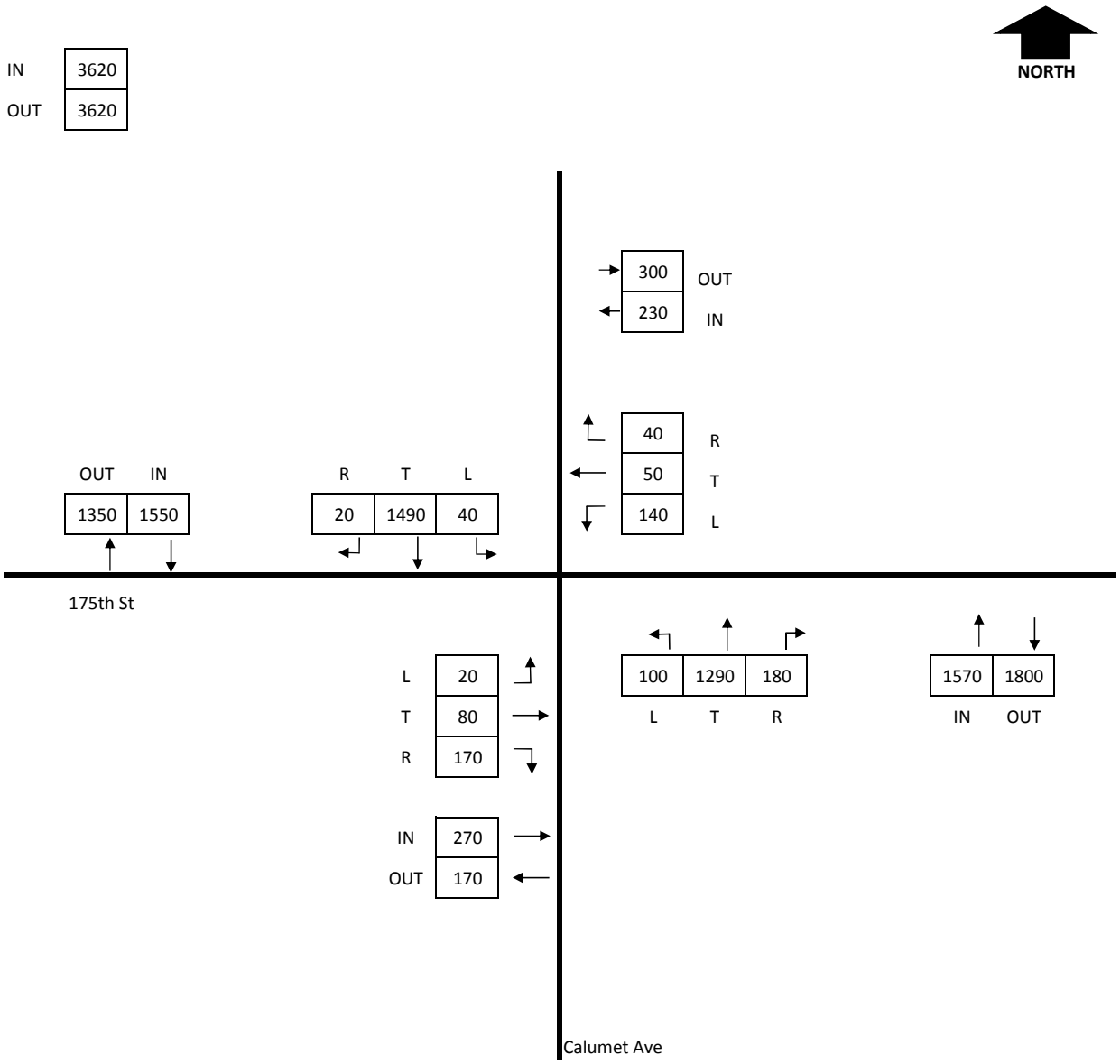
2022 SITE GENERATED TRIPS (PM)

SOUTH HAMMOND STATION

October 2017

TOTAL INTERSECTION

IN	3620
OUT	3620



CLASSIFICATION: ALL VEHICLES

CALUMET AVE & 175TH ST

2022 BUILD TRAFFIC VOLUMES (PM)

SOUTH HAMMOND STATION

October 2017

TOTAL INTERSECTION

	2017	2040
IN	2765	3540
OUT	2765	3540

	2017	2040	
→	155	210	OUT
←	201	270	IN

	OUT	IN
2040	1600	1240
2017	1261	971

	R	T	L
2040	20	1180	40
2017	10	933	28

	2017	2040	
↰	42	60	R
←	36	50	T
↙	123	160	L

175th St

	2040	2017	
L	30	18	↰
T	50	36	→
R	220	171	↘

	2040	2017	
IN	300	225	→
OUT	170	122	←

	L	T	R
2017	76	1201	91
2040	100	1510	120

	2017	2040
↑	1368	1730
↓	1227	1560
	IN	OUT

Calumet Ave

CLASSIFICATION: ALL VEHICLES

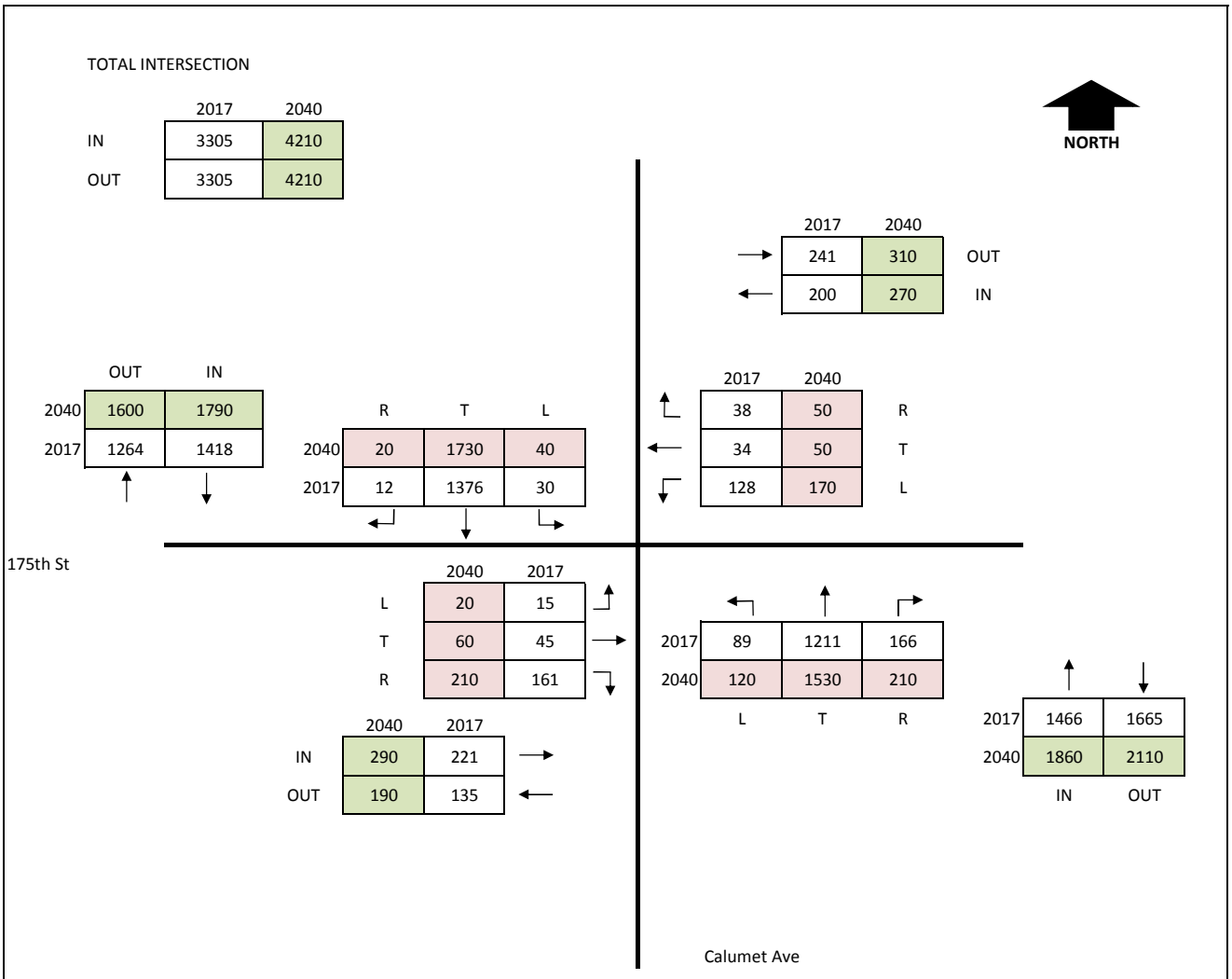
ANNUAL GROWTH RATE	
Northbound	1.0%
Southbound	1.0%
Eastbound	1.0%
Westbound	1.0%
Years to Escalate: 2040	23

CALUMET AVE & 175TH ST

2040 PROJECTED TRAFFIC VOLUMES (AM)

SOUTH HAMMOND STATION

October 2017



CLASSIFICATION: ALL VEHICLES

ANNUAL GROWTH RATE	
Northbound	1.0%
Southbound	1.0%
Eastbound	1.0%
Westbound	1.0%
Years to Escalate: 2040	23

CALUMET AVE & 175TH ST

2040 PROJECTED TRAFFIC VOLUMES (PM)

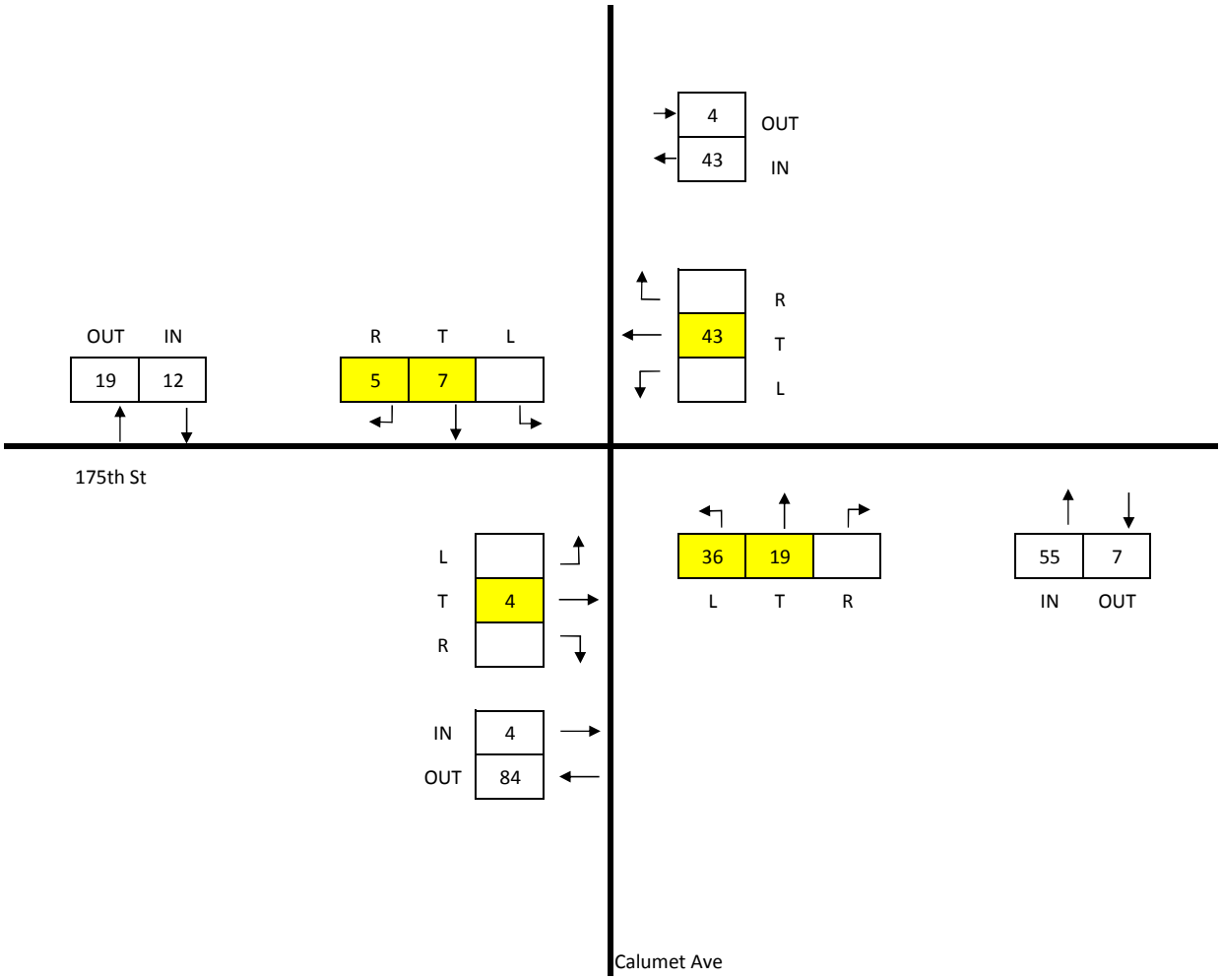
SOUTH HAMMOND STATION

October 2017

TOTAL INTERSECTION

IN	114
OUT	114

NORTH



CLASSIFICATION: ALL VEHICLES

CALUMET AVE & 175TH ST

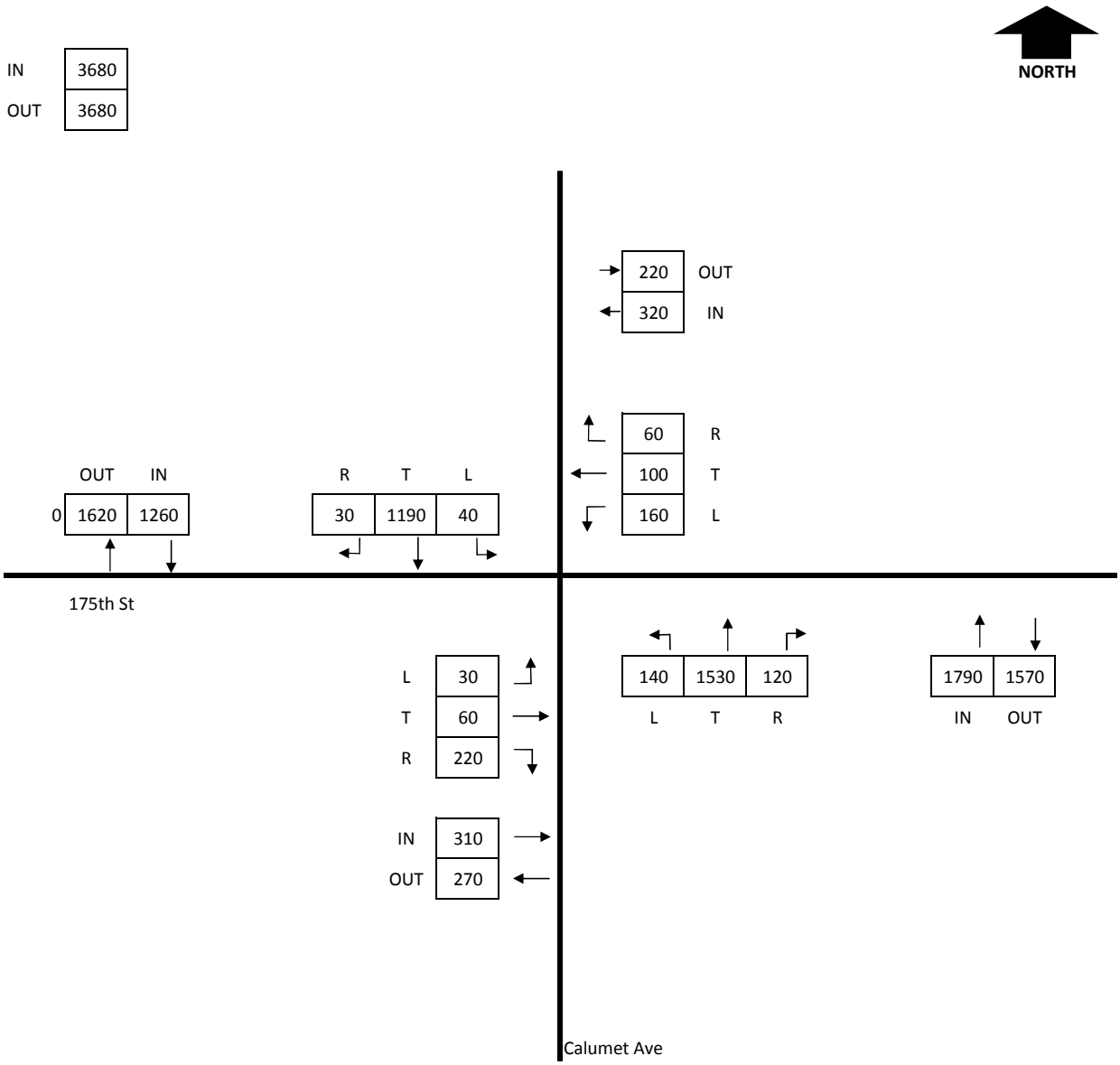
2040 SITE GENERATED TRIPS (AM)

SOUTH HAMMOND STATION

October 2017

TOTAL INTERSECTION

IN	3680
OUT	3680



CLASSIFICATION: ALL VEHICLES

CALUMET AVE & 175TH ST

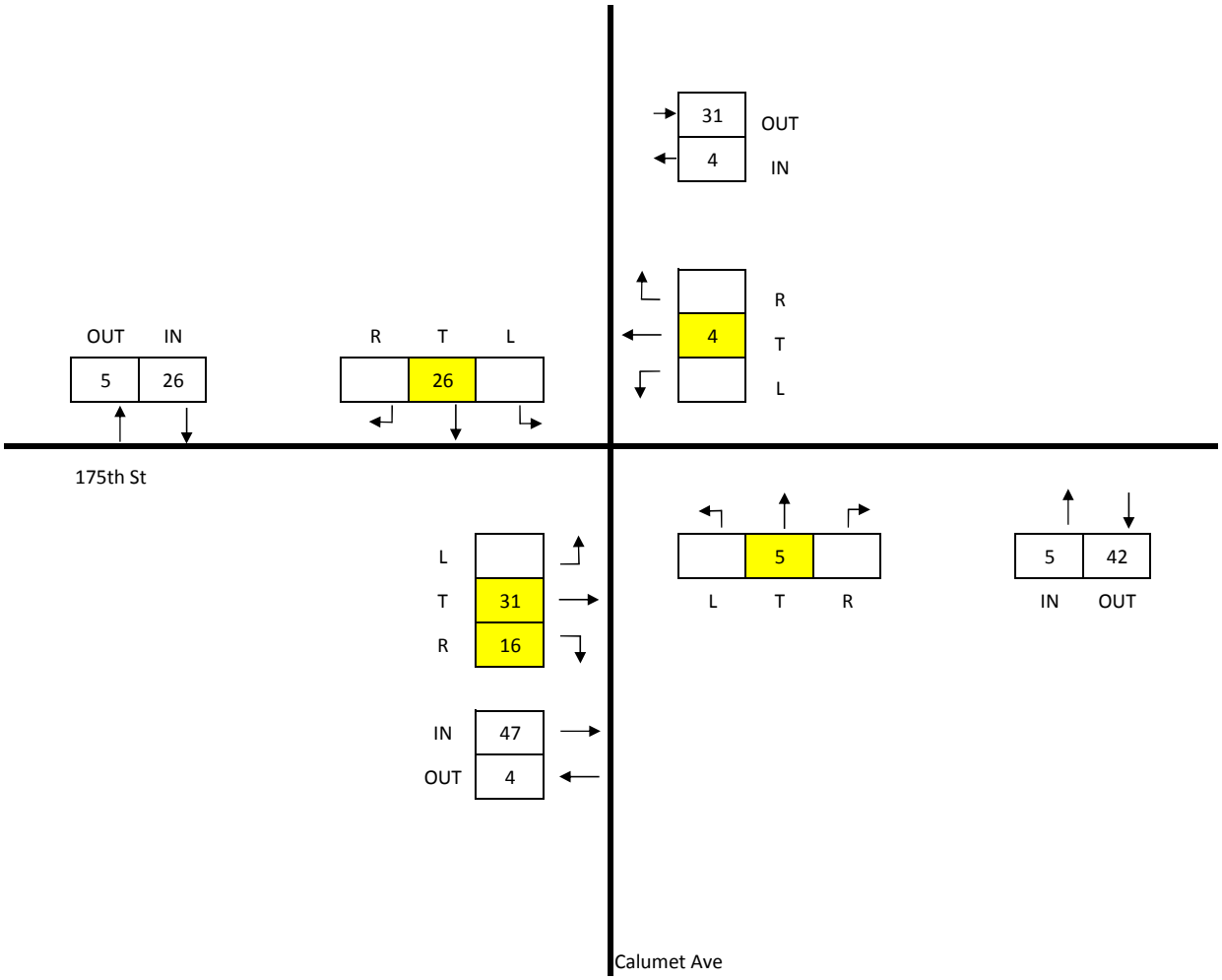
2040 BUILD TRAFFIC VOLUMES (AM)

SOUTH HAMMOND STATION

October 2017

TOTAL INTERSECTION

IN	82
OUT	82



CLASSIFICATION: ALL VEHICLES

CALUMET AVE & 175TH ST

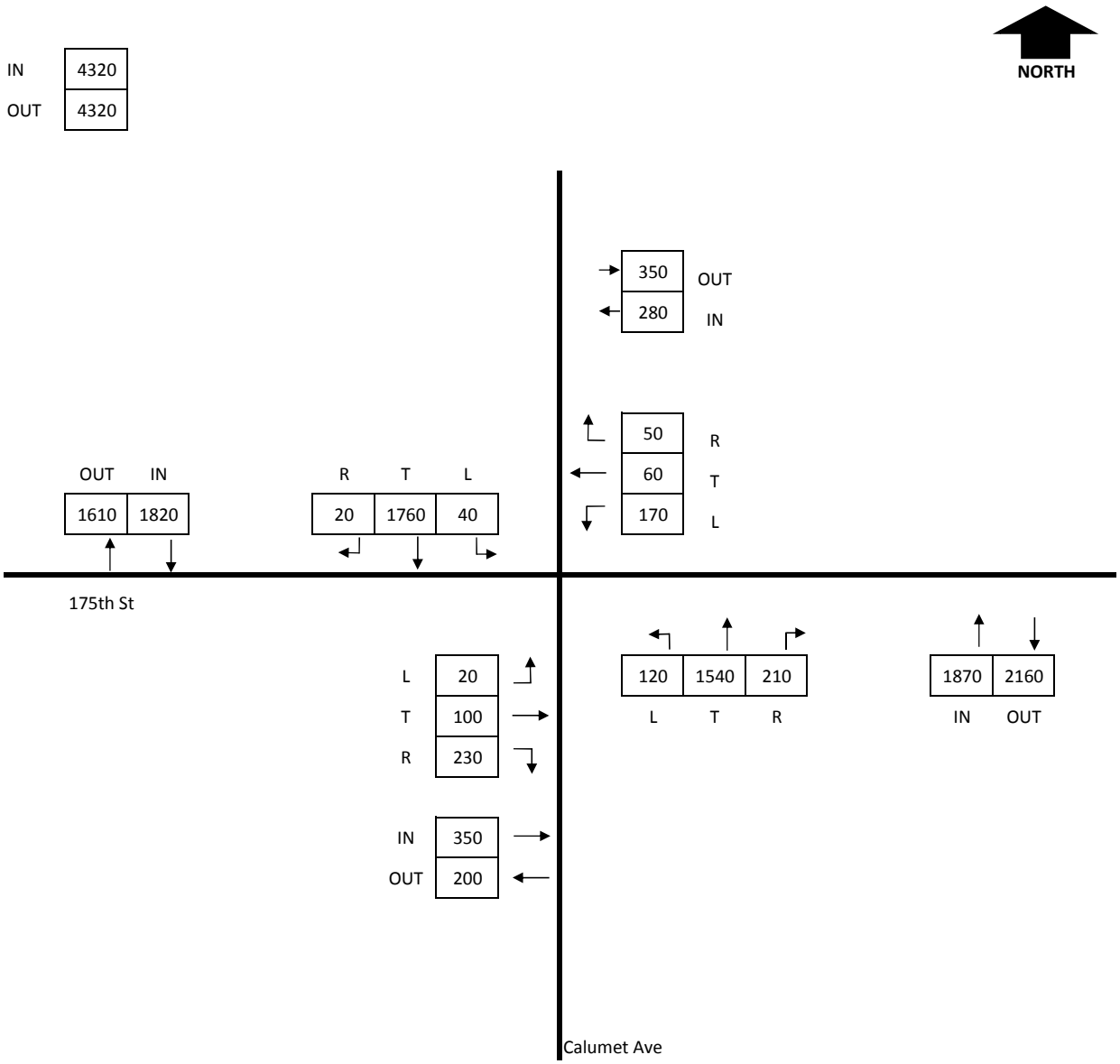
2040 SITE GENERATED TRIPS (PM)

SOUTH HAMMOND STATION

October 2017

TOTAL INTERSECTION

IN	4320
OUT	4320



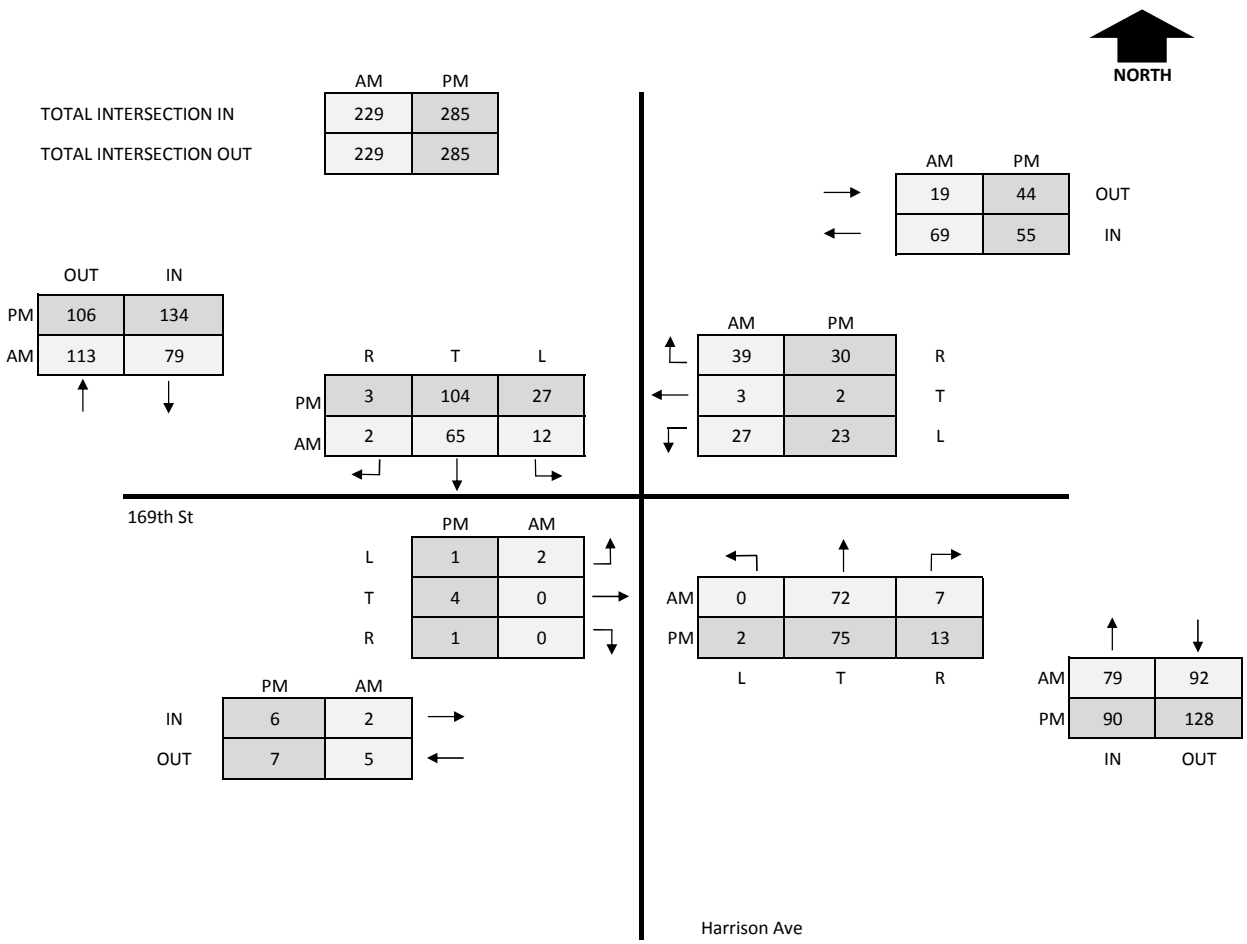
CLASSIFICATION: ALL VEHICLES

CALUMET AVE & 175TH ST

2040 BUILD TRAFFIC VOLUMES (PM)

SOUTH HAMMOND STATION

October 2017



CLASSIFICATION: ALL VEHICLES

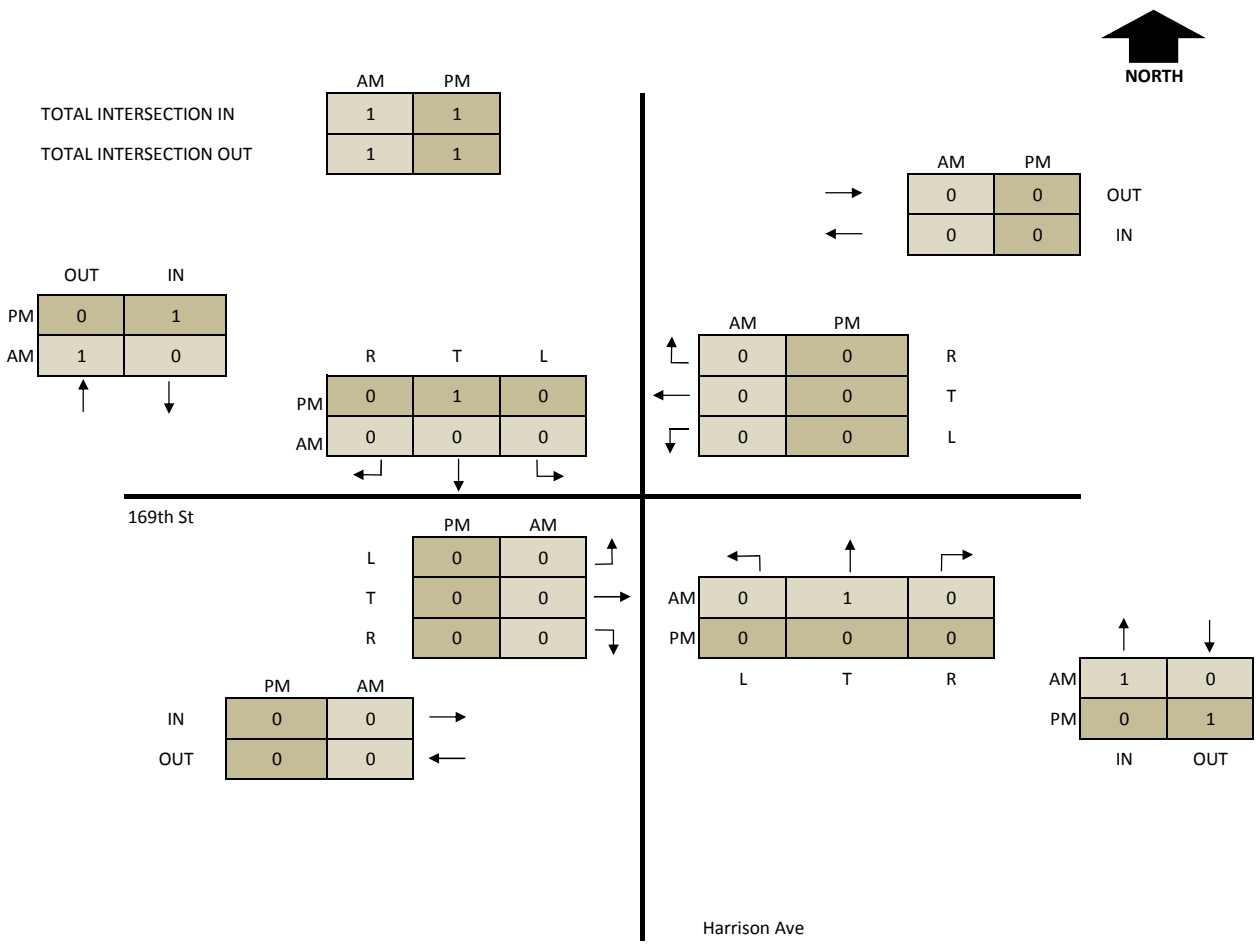
Traffic Counts from Quality Counts				
AM	11/4/2014	7:15 AM	to	8:15 AM
PM	11/4/2014	4:30 PM	to	5:30 PM

HARRISON AVE & 169TH ST

EXISTING TRAFFIC VOLUMES (2014)

SOUTH HAMMOND STATION

October 2017



CLASSIFICATION: TRUCKS

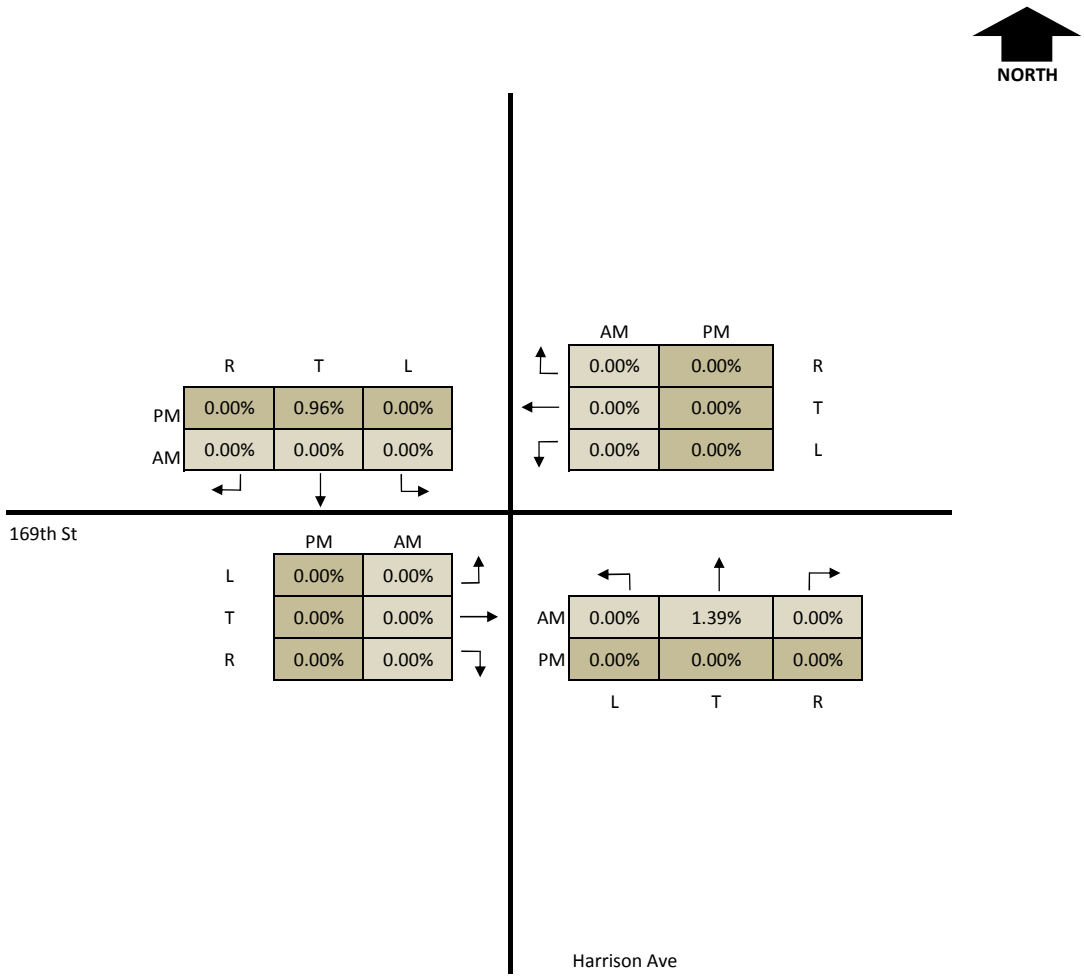
Traffic Counts from Quality Counts				
AM	11/4/2014	7:15 AM	to	8:15 AM
PM	11/4/2014	4:30 PM	to	5:30 PM

HARRISON AVE & 169TH ST

EXISTING TRAFFIC VOLUMES (2014)

SOUTH HAMMOND STATION

October 2017



CLASSIFICATION: TRUCKS

Traffic Counts from Quality Counts				
AM	11/4/2014	7:15 AM	to	8:15 AM
PM	11/4/2014	4:30 PM	to	5:30 PM

HARRISON AVE & 169TH ST

EXISTING TRAFFIC VOLUMES (2014)

SOUTH HAMMOND STATION

October 2017

TOTAL INTERSECTION

	2014	2022
IN	229	440
OUT	229	440

NORTH

	2014	2022	
→	19	50	OUT
←	69	130	IN

	OUT	IN
2022	200	130
2014	113	79

	R	T	L
2022	10	100	20
2014	2	65	12

	2014	2022	
↰	39	70	R
←	3	10	T
↙	27	50	L

169th St

	2022	2014	
L	10	2	↑
T	10	0	→
R	10	0	↘

	2022	2014
IN	30	2
OUT	30	5

	↰	↑	↱
2014	0	72	7
2022	10	120	20
	L	T	R

	↑	↓
2014	79	92
2022	150	160
	IN	OUT

Harrison Ave

CLASSIFICATION: ALL VEHICLES

ANNUAL GROWTH RATE	
Northbound	7.9%
Southbound	6.6%
Eastbound	7.2%
Westbound	7.2%
Years to Escalate: 2022	8

HARRISON AVE & 169TH ST

2022 PROJECTED TRAFFIC VOLUMES (AM)

SOUTH HAMMOND STATION

October 2017

TOTAL INTERSECTION

	2014	2022
IN	285	520
OUT	285	520

	2014	2022	
→	44	90	OUT
←	55	100	IN

	OUT	IN
2022	190	220
2014	106	134

	R	T	L
2022	10	160	50
2014	3	104	27

	2014	2022	
↰	30	50	R
←	2	10	T
↙	23	40	L

169th St

	2022	2014	
L	10	1	↑
T	10	4	→
R	10	1	↓

	L	T	R
2014	2	75	13
2022	10	130	30

	2022	2014	
IN	30	6	→
OUT	30	7	←

	IN	OUT
2014	90	128
2022	170	210

Harrison Ave

CLASSIFICATION: ALL VEHICLES

ANNUAL GROWTH RATE	
Northbound	7.9%
Southbound	6.6%
Eastbound	7.2%
Westbound	7.2%
Years to Escalate: 2022	8

HARRISON AVE & 169TH ST

2022 PROJECTED TRAFFIC VOLUMES (PM)

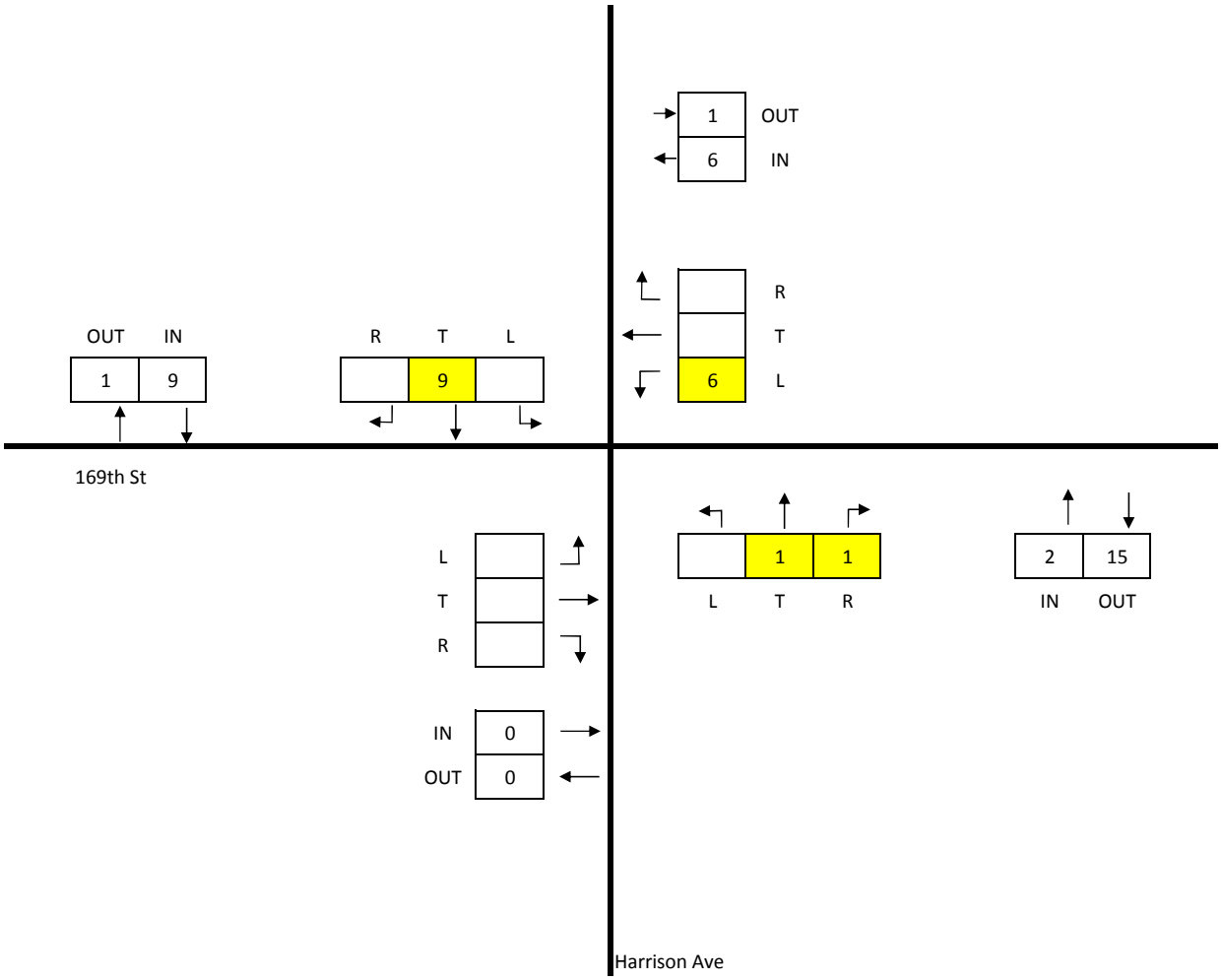
SOUTH HAMMOND STATION

October 2017

TOTAL INTERSECTION

IN	17
OUT	17

NORTH



CLASSIFICATION: ALL VEHICLES

HARRISON AVE & 169TH ST

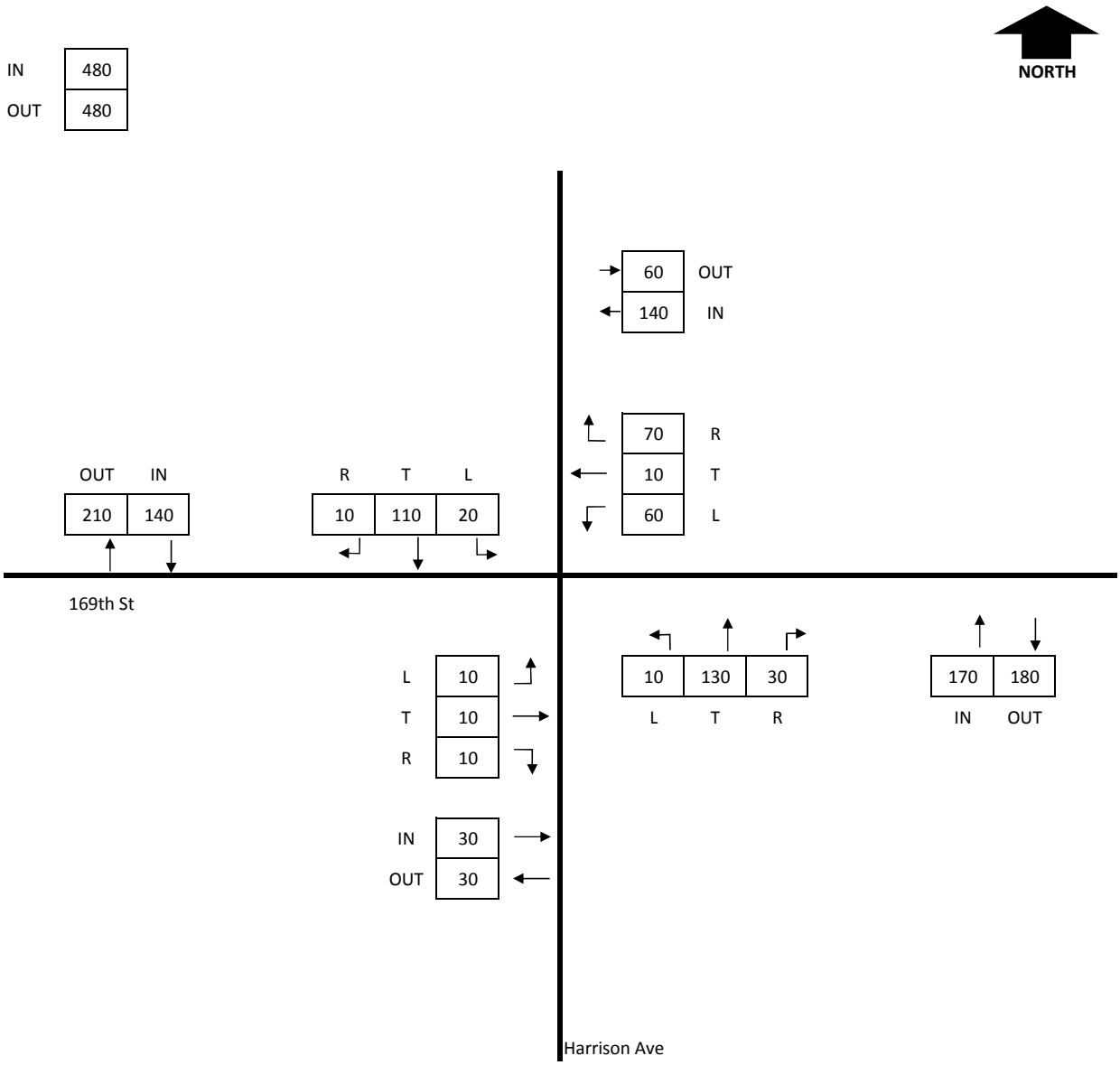
2022 SITE GENERATED TRIPS (AM)

SOUTH HAMMOND STATION

October 2017

TOTAL INTERSECTION

IN	480
OUT	480



CLASSIFICATION: ALL VEHICLES

HARRISON AVE & 169TH ST

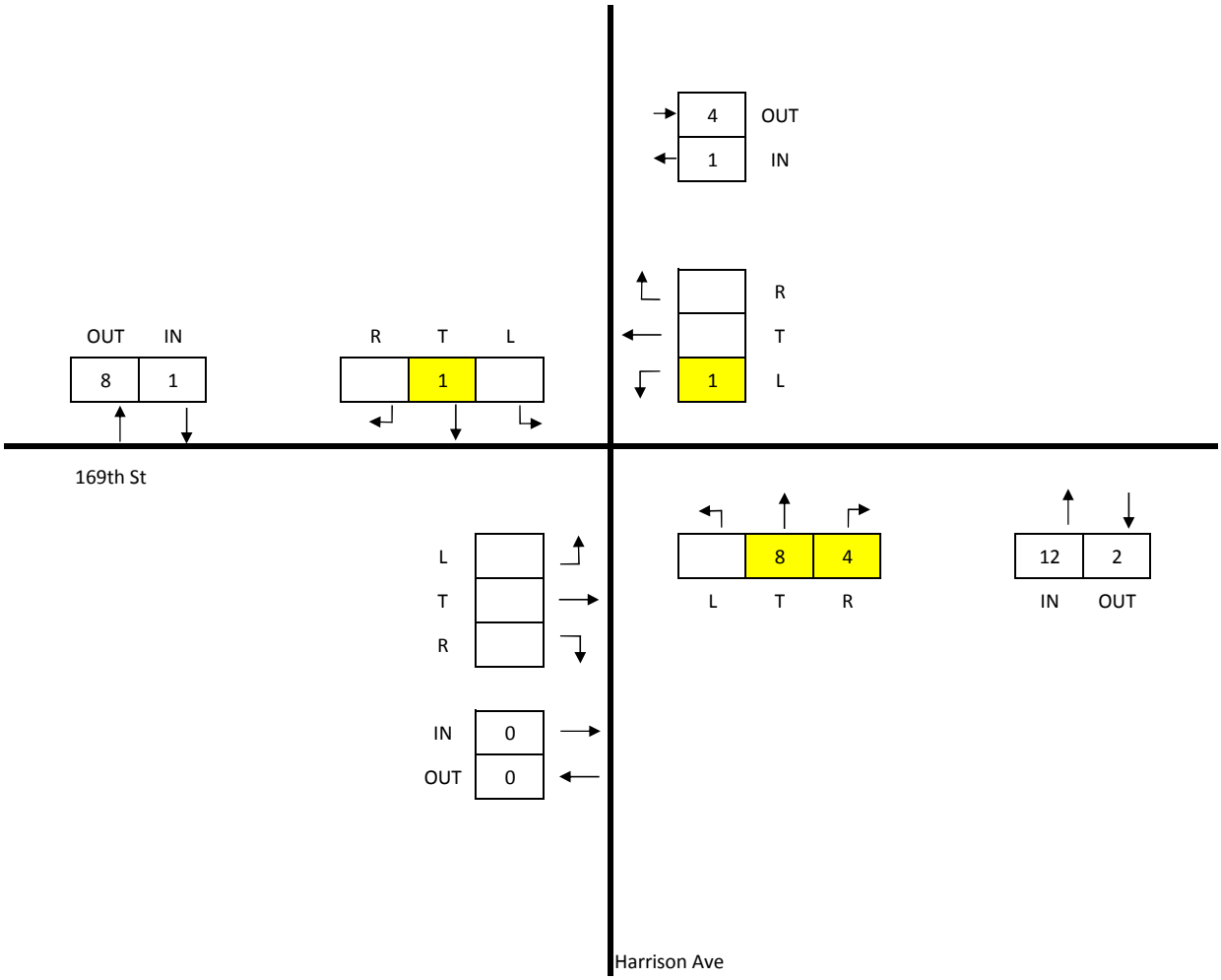
2022 BUILD TRAFFIC VOLUMES (AM)

SOUTH HAMMOND STATION

October 2017

TOTAL INTERSECTION

IN	14
OUT	14



CLASSIFICATION: ALL VEHICLES

HARRISON AVE & 169TH ST

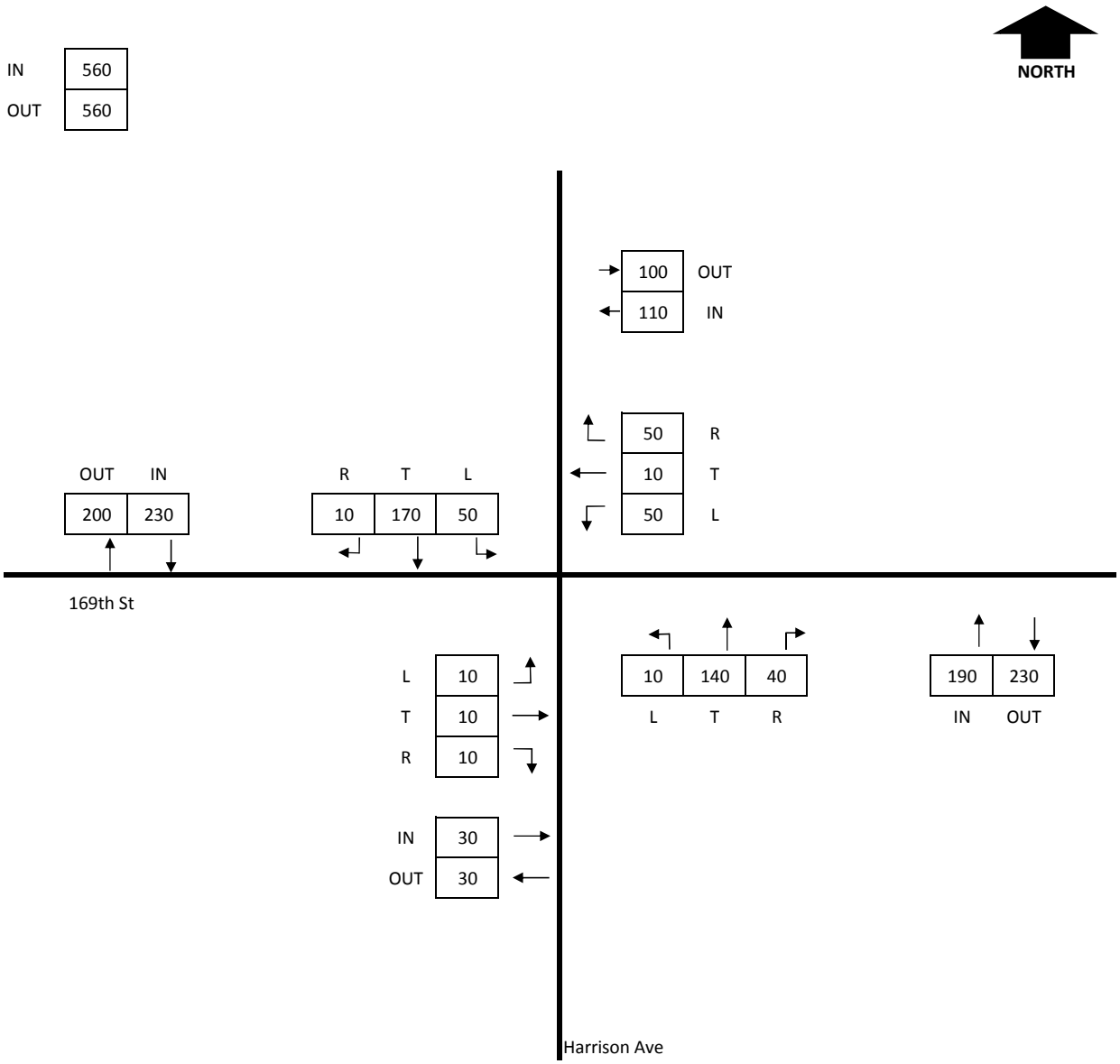
2022 SITE GENERATED TRIPS (PM)

SOUTH HAMMOND STATION

October 2017

TOTAL INTERSECTION

IN	560
OUT	560



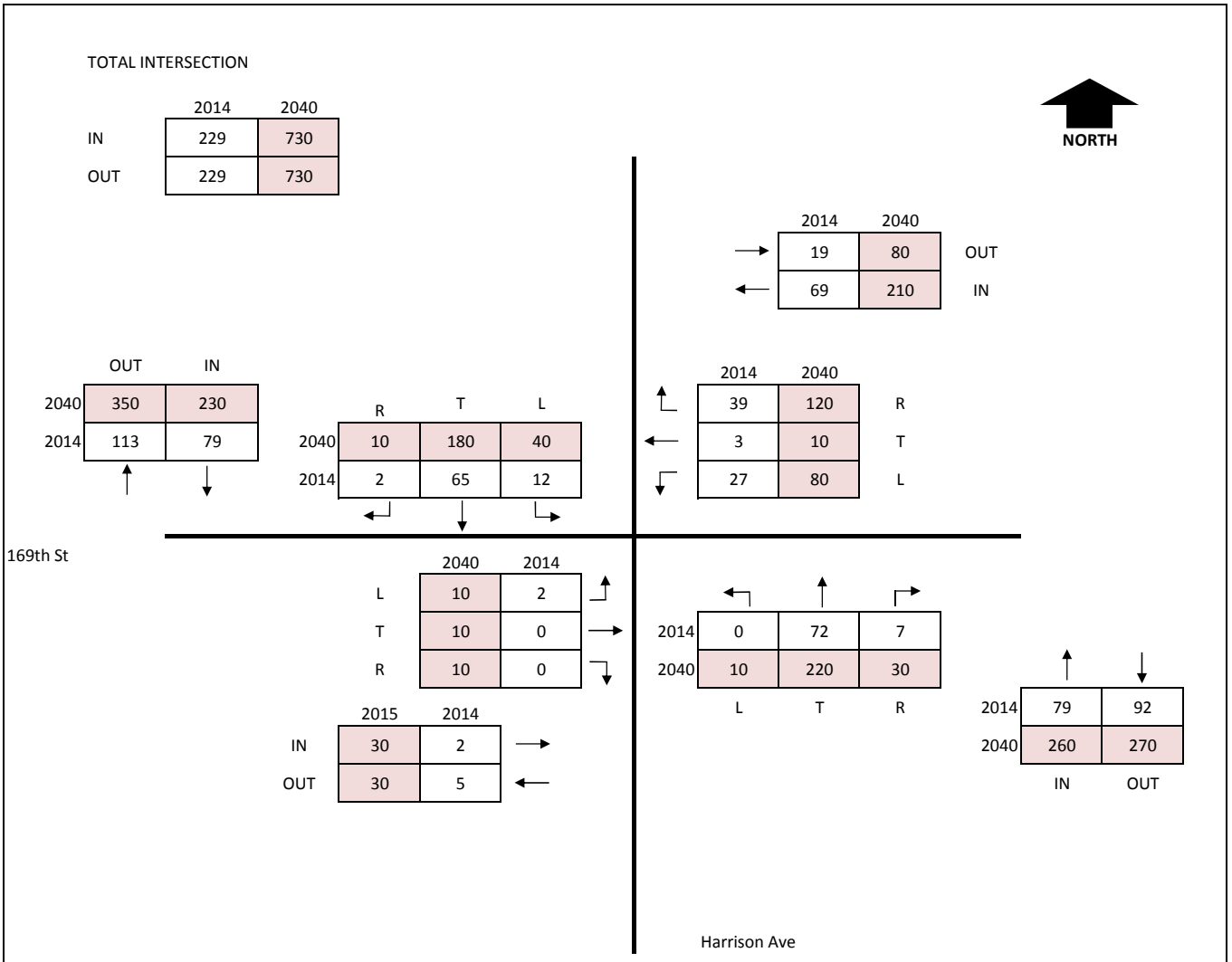
CLASSIFICATION: ALL VEHICLES

HARRISON AVE & 169TH ST

2022 BUILD TRAFFIC VOLUMES (PM)

SOUTH HAMMOND STATION

October 2017



CLASSIFICATION: ALL VEHICLES

ANNUAL GROWTH RATE	
Northbound	7.9%
Southbound	6.6%
Eastbound	7.2%
Westbound	7.2%
Years to Escalate: 2040	26

HARRISON AVE & 169TH ST

2040 PROJECTED TRAFFIC VOLUMES (AM)

SOUTH HAMMOND STATION

October 2017

TOTAL INTERSECTION

	2014	2040
IN	285	870
OUT	285	870

NORTH

	2014	2040	
→	44	140	OUT
←	55	170	IN

	OUT	IN
2040	330	380
2014	106	134

	R	T	L
2040	10	290	80
2014	3	104	27

	2014	2040	
↰	30	90	R
←	2	10	T
↙	23	70	L

169th St

	2040	2014	
L	10	1	↑
T	20	4	→
R	10	1	↓

	L	T	R
2014	2	75	13
2040	10	230	40

	2040	2014	
IN	40	6	→
OUT	30	7	←

	IN	OUT
2014	90	128
2040	280	370

Harrison Ave

CLASSIFICATION: ALL VEHICLES

ANNUAL GROWTH RATE	
Northbound	7.9%
Southbound	6.6%
Eastbound	7.2%
Westbound	7.2%
Years to Escalate: 2040	26

HARRISON AVE & 169TH ST

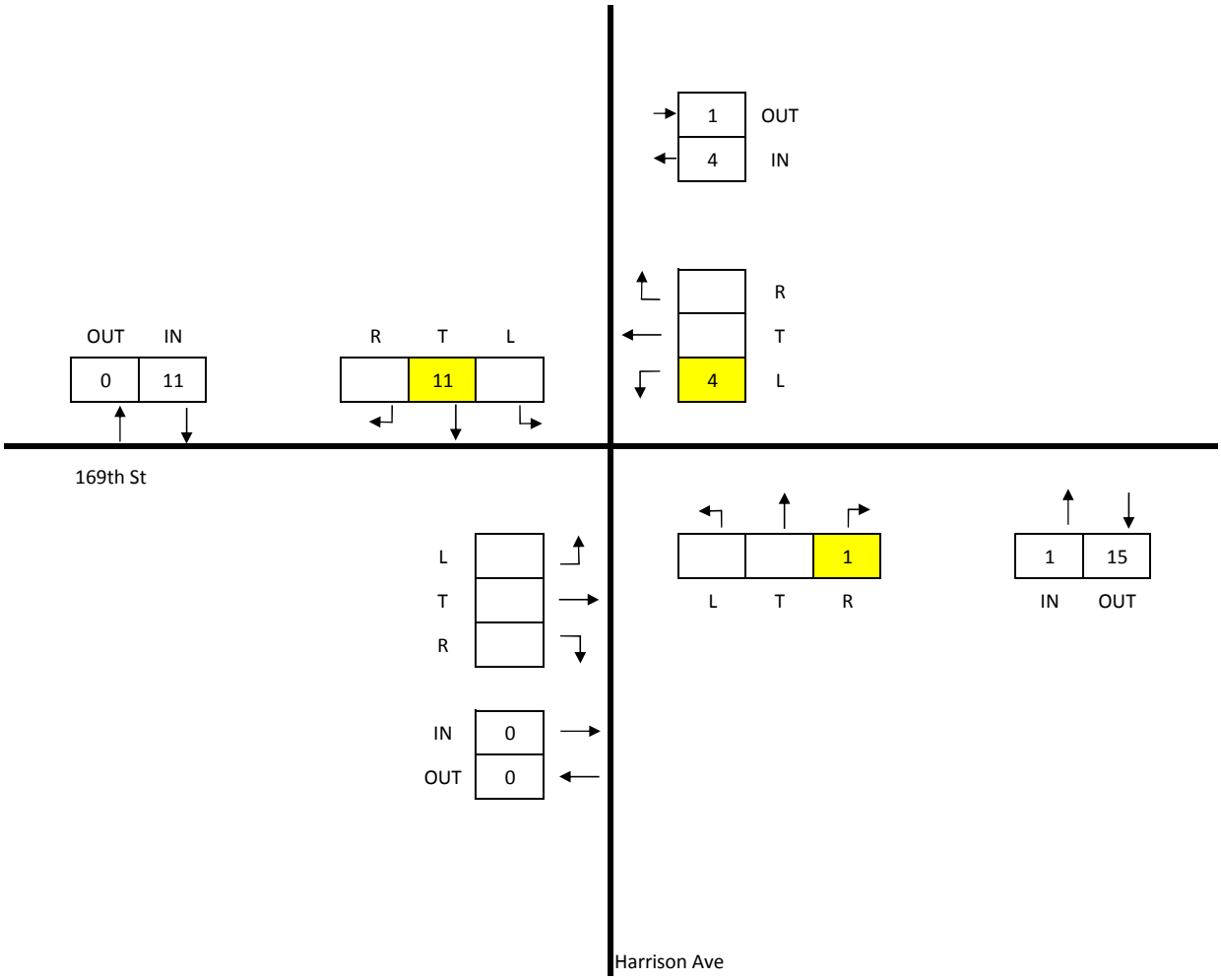
2040 PROJECTED TRAFFIC VOLUMES (PM)

SOUTH HAMMOND STATION

October 2017

TOTAL INTERSECTION

IN	16
OUT	16



CLASSIFICATION: ALL VEHICLES

HARRISON AVE & 169TH ST

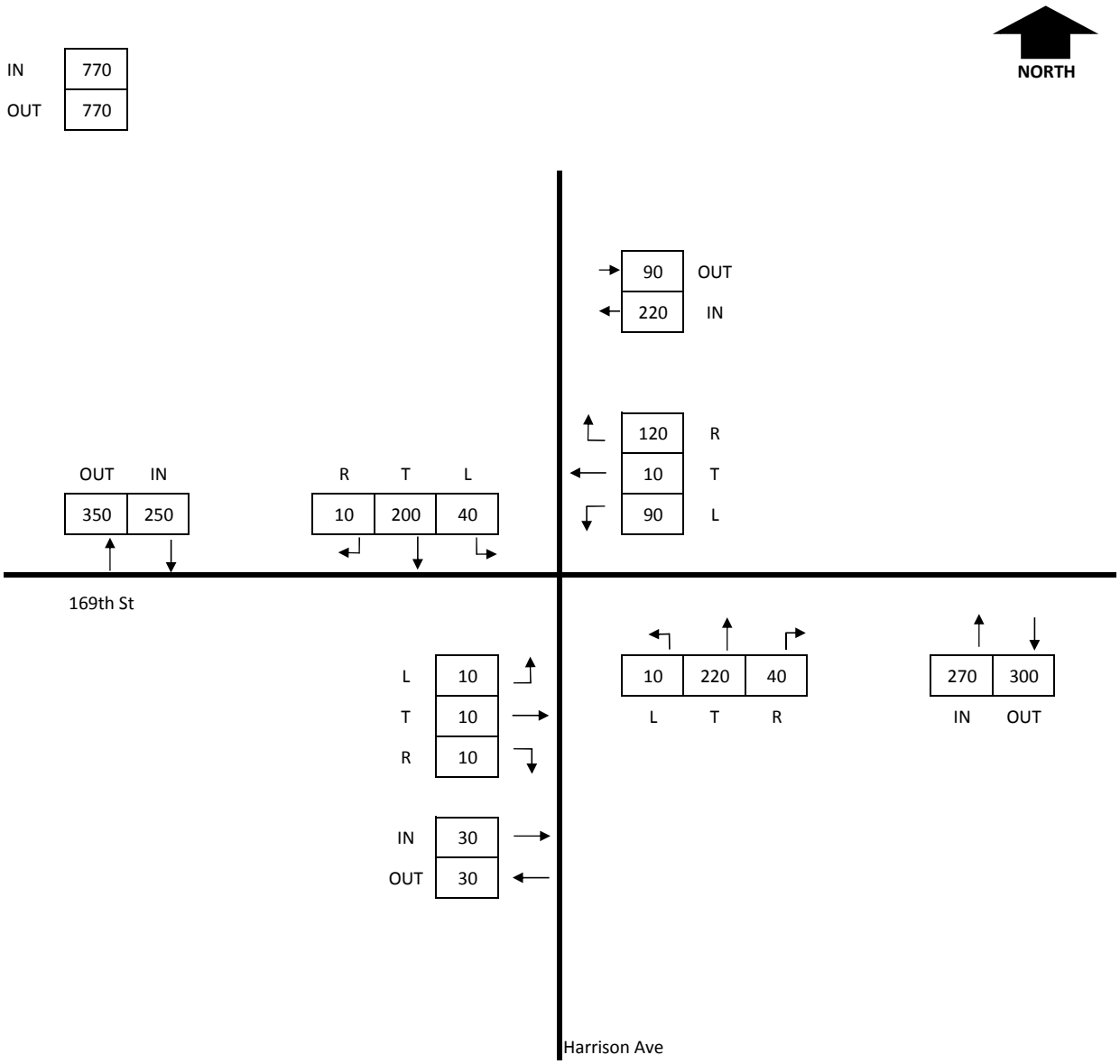
2040 SITE GENERATED TRIPS (AM)

SOUTH HAMMOND STATION

October 2017

TOTAL INTERSECTION

IN	770
OUT	770



CLASSIFICATION: ALL VEHICLES

HARRISON AVE & 169TH ST

2040 BUILD TRAFFIC VOLUMES (AM)

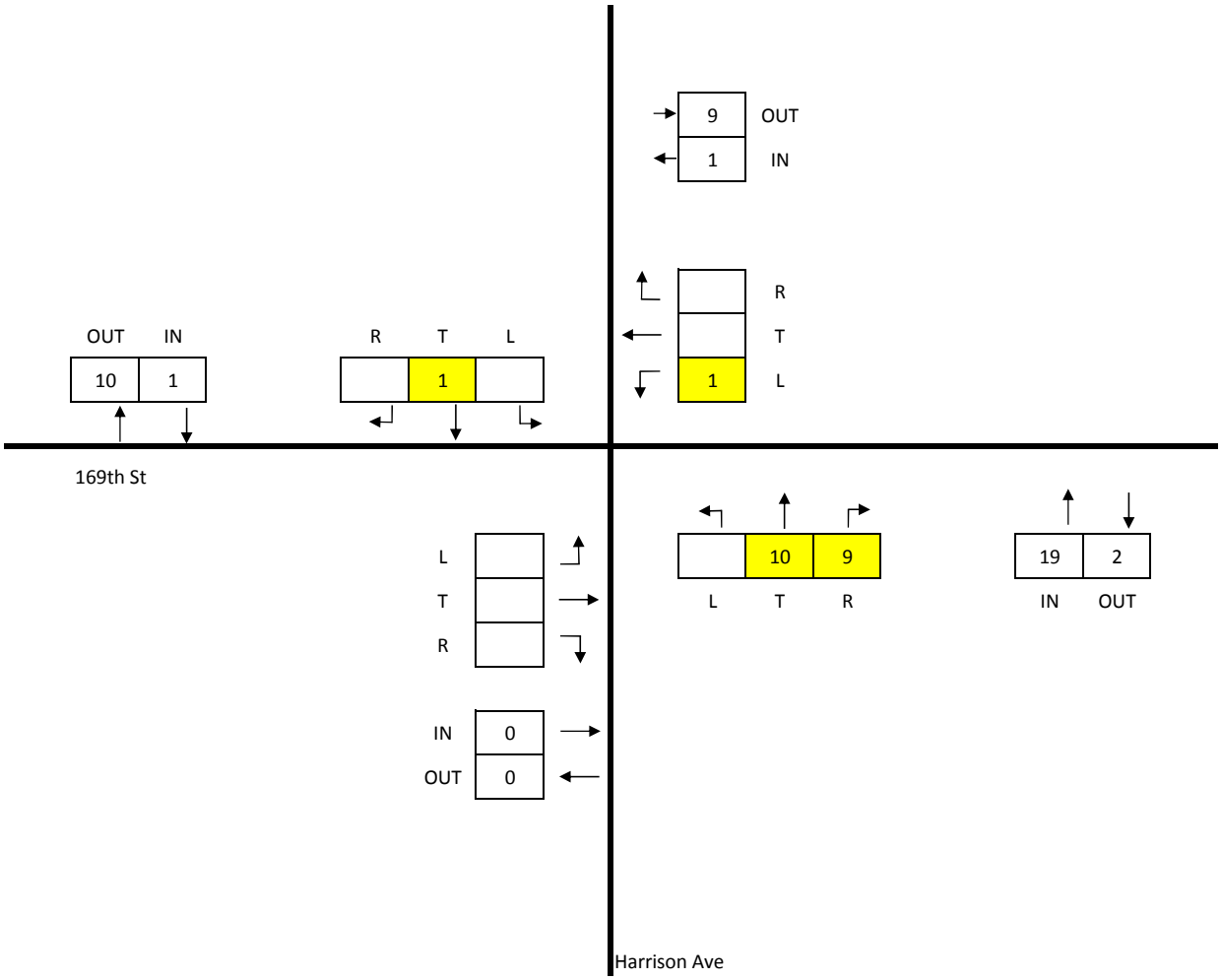
SOUTH HAMMOND STATION

October 2017

TOTAL INTERSECTION

IN	21
OUT	21

NORTH



CLASSIFICATION: ALL VEHICLES

HARRISON AVE & 169TH ST

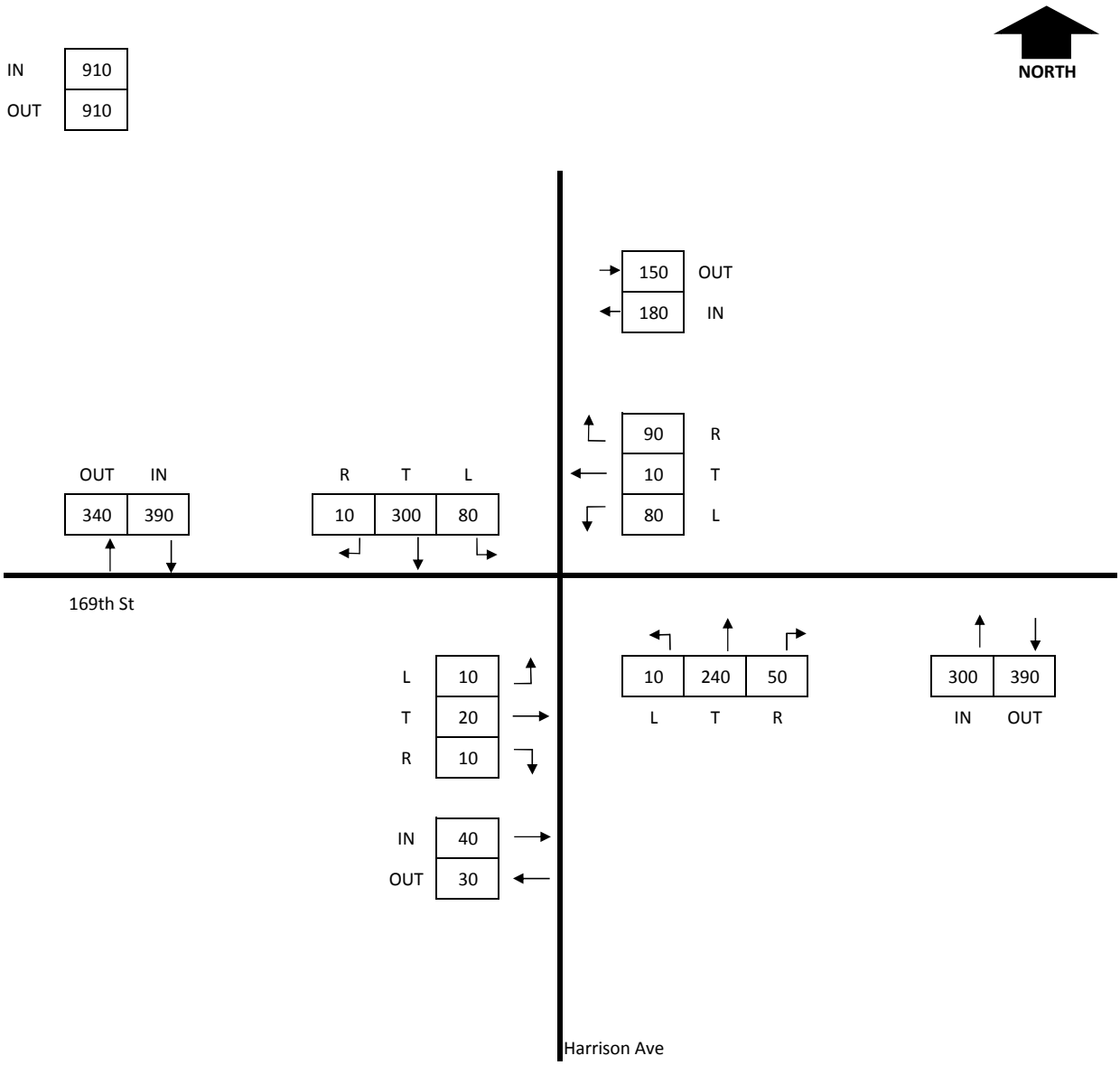
2040 SITE GENERATED TRIPS (PM)

SOUTH HAMMOND STATION

October 2017

TOTAL INTERSECTION

IN	910
OUT	910



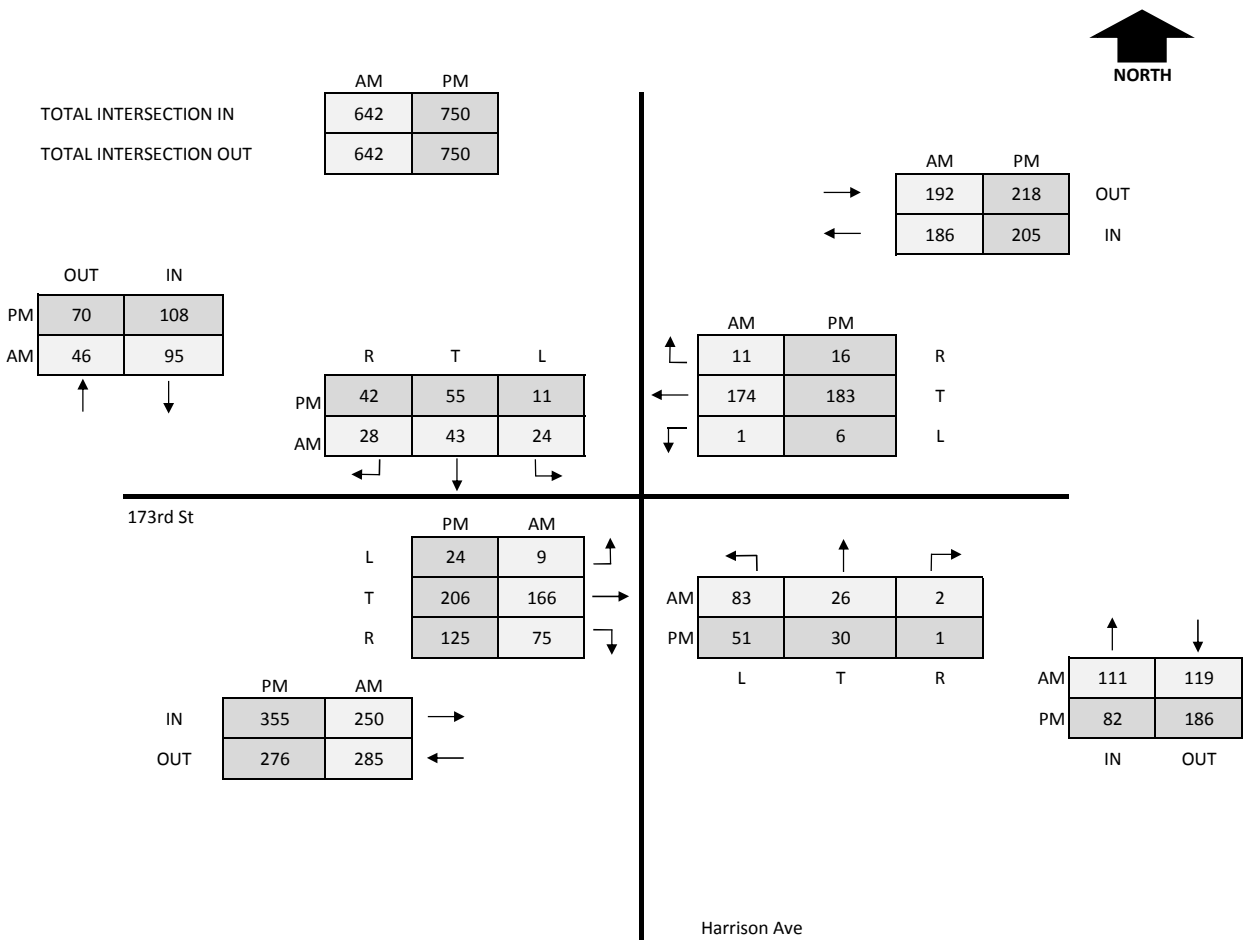
CLASSIFICATION: ALL VEHICLES

HARRISON AVE & 169TH ST

2040 BUILD TRAFFIC VOLUMES (PM)

SOUTH HAMMOND STATION

October 2017



CLASSIFICATION: ALL VEHICLES

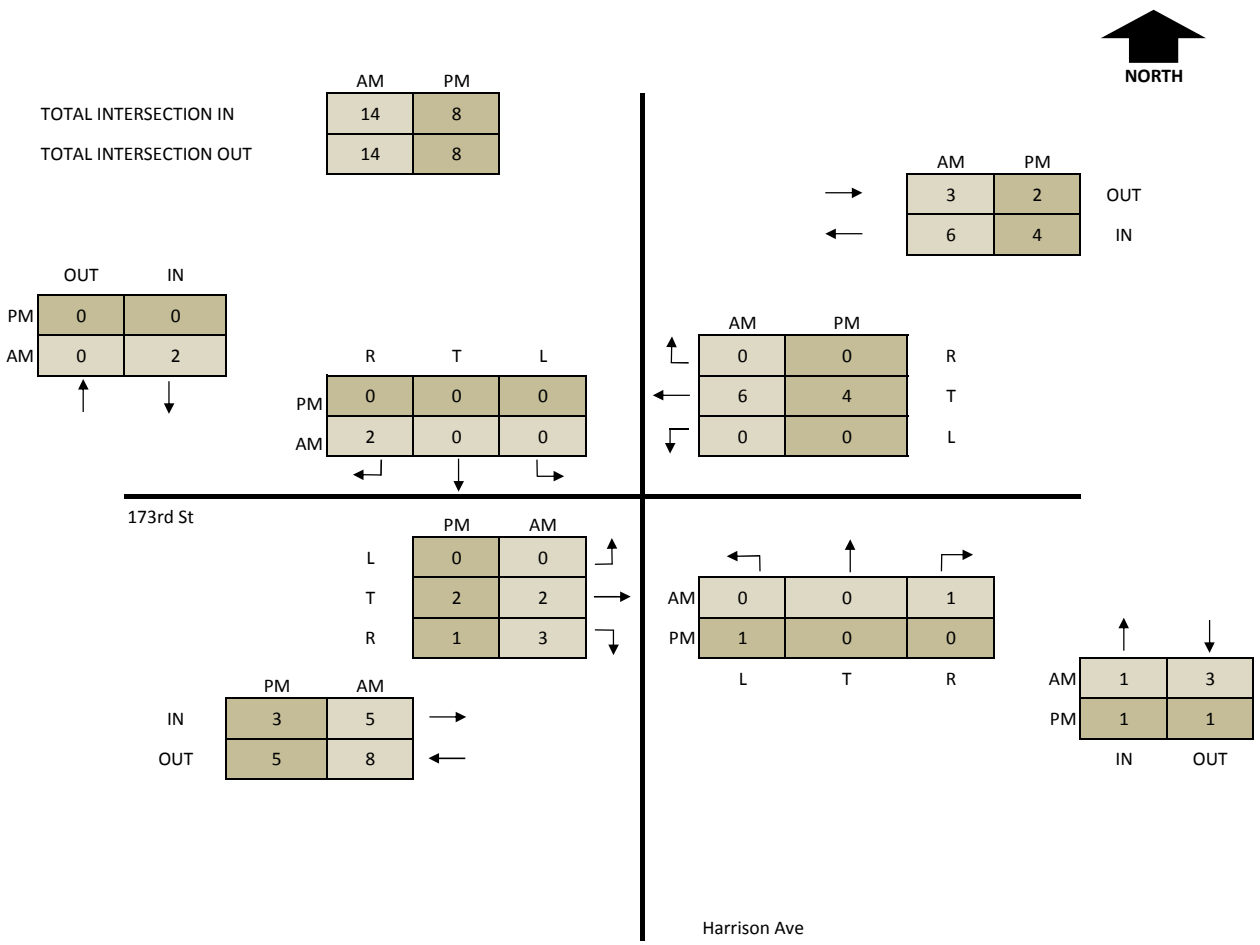
Traffic Counts from Quality Counts				
AM	11/11/2014	7:15 AM	to	8:15 AM
PM	11/11/2014	4:30 PM	to	5:30 PM

HARRISON AVE & 173RD ST

EXISTING TRAFFIC VOLUMES (2014)

SOUTH HAMMOND STATION

October 2017



CLASSIFICATION: TRUCKS

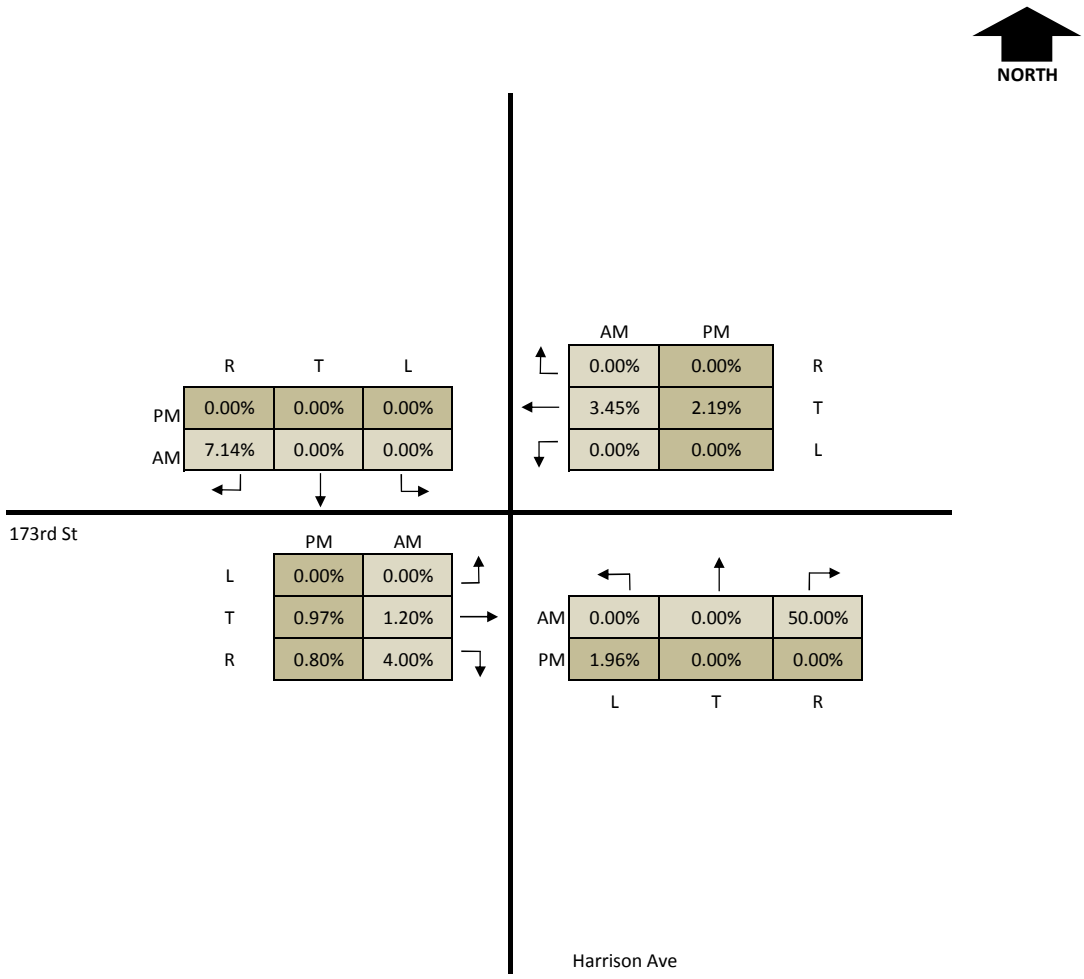
Traffic Counts from Quality Counts				
AM	11/11/2014	7:15 AM	to	8:15 AM
PM	11/11/2014	4:30 PM	to	5:30 PM

HARRISON AVE & 173RD ST

EXISTING TRAFFIC VOLUMES (2014)

SOUTH HAMMOND STATION

October 2017



CLASSIFICATION: TRUCKS

Traffic Counts from Quality Counts				
AM	11/11/2014	7:15 AM	to	8:15 AM
PM	11/11/2014	4:30 PM	to	5:30 PM

HARRISON AVE & 173RD ST

EXISTING TRAFFIC VOLUMES (2014)

SOUTH HAMMOND STATION

October 2017

TOTAL INTERSECTION

	2014	2022
IN	642	750
OUT	642	750

	2014	2022	
→	192	220	OUT
←	186	220	IN

	OUT	IN
2022	60	120
2014	46	95

	R	T	L
2022	40	50	30
2014	28	43	24

	2014	2022	
↰	11	20	R
←	174	190	T
↙	1	10	L

173rd St

	2022	2014
L	10	9
T	180	166
R	90	75

	2022	2014
IN	280	250
OUT	320	285

	L	T	R
2014	83	26	2
2022	90	30	10

	IN	OUT
2014	111	119
2022	130	150

Harrison Ave

CLASSIFICATION: ALL VEHICLES

ANNUAL GROWTH RATE	
Northbound	1.0%
Southbound	1.0%
Eastbound	1.0%
Westbound	1.0%
Years to Escalate: 2022	8

HARRISON AVE & 173RD ST

2022 PROJECTED TRAFFIC VOLUMES (AM)

SOUTH HAMMOND STATION

October 2017

TOTAL INTERSECTION

	2014	2022
IN	750	870
OUT	750	870

NORTH

	2014	2022	
→	218	260	OUT
←	205	230	IN

	OUT	IN
2022	90	130
2014	70	108

	R	T	L
2022	50	60	20
2014	42	55	11

	2014	2022	
↰	16	20	R
←	183	200	T
↙	6	10	L

173rd St

	2022	2014	
L	30	24	↑
T	230	206	→
R	140	125	↓

	2022	2014	
IN	400	355	→
OUT	310	276	←

	↰	↑	↱
2014	51	30	1
2022	60	40	10
	L	T	R

	↑	↓
2014	82	186
2022	110	210
	IN	OUT

Harrison Ave

CLASSIFICATION: ALL VEHICLES

ANNUAL GROWTH RATE	
Northbound	1.0%
Southbound	1.0%
Eastbound	1.0%
Westbound	1.0%
Years to Escalate: 2022	8

HARRISON AVE & 173RD ST

2022 PROJECTED TRAFFIC VOLUMES (PM)

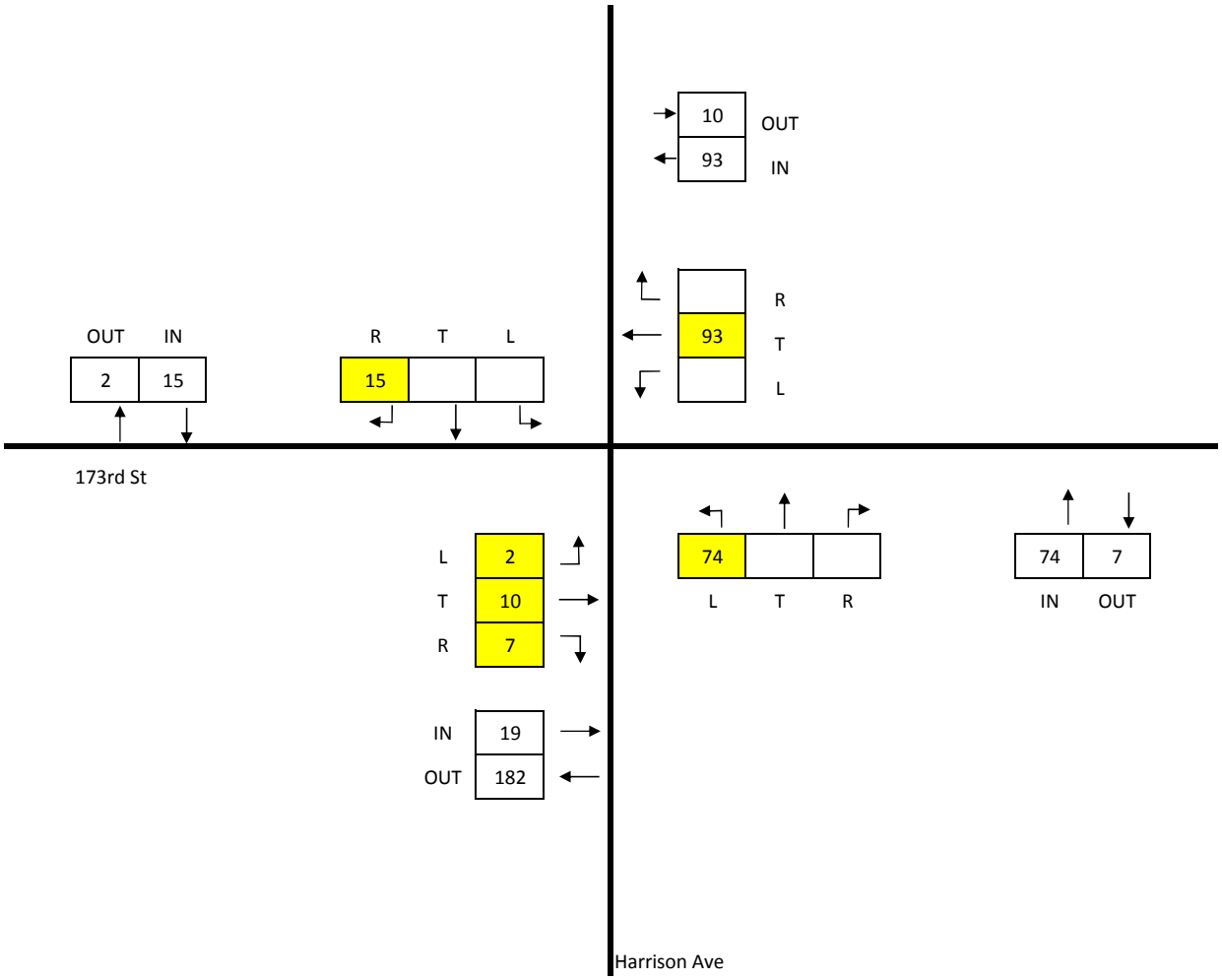
SOUTH HAMMOND STATION

October 2017

TOTAL INTERSECTION

IN	201
OUT	201

NORTH



CLASSIFICATION: ALL VEHICLES

HARRISON AVE & 173RD ST

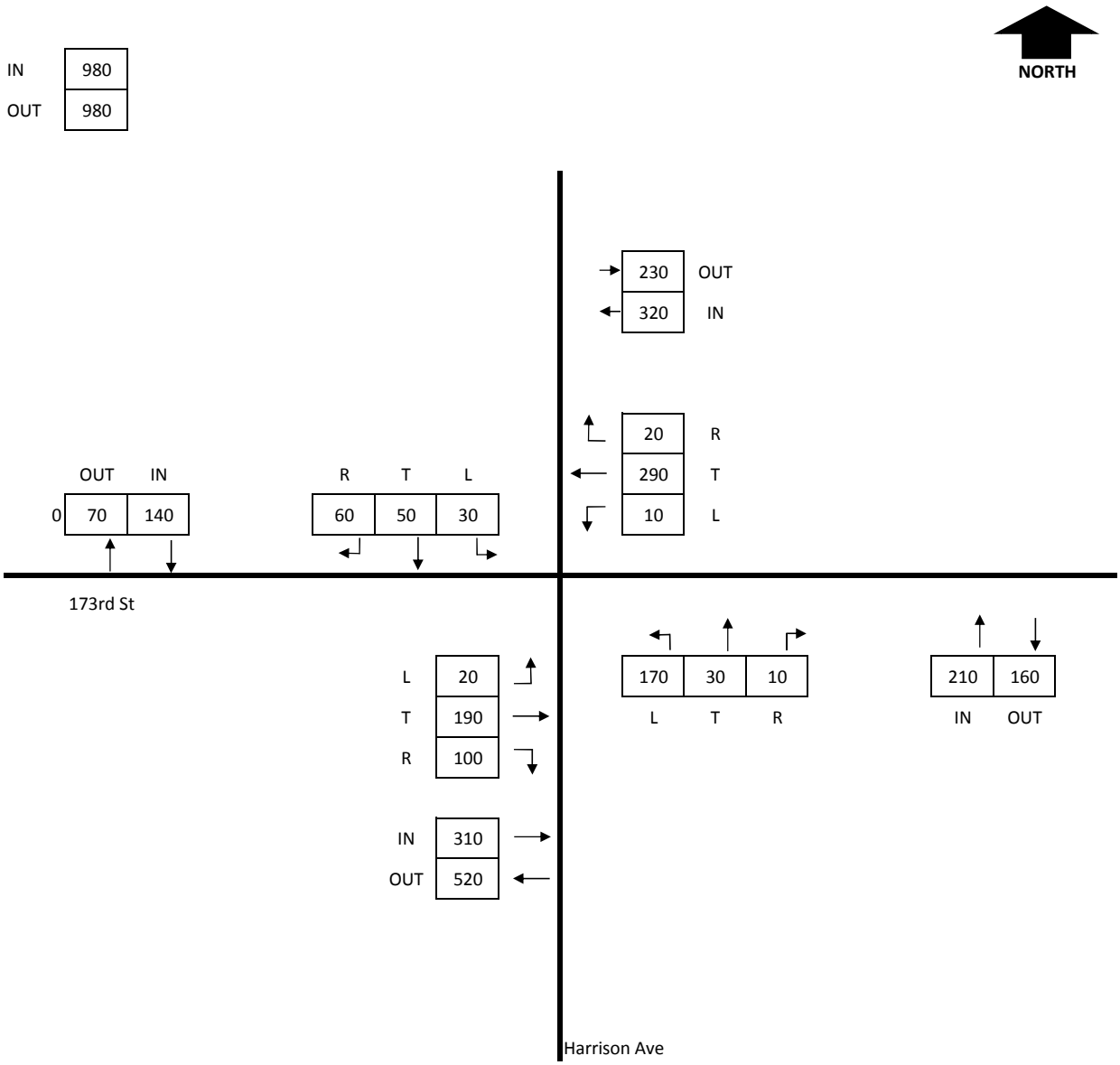
2022 SITE GENERATED TRIPS (AM)

SOUTH HAMMOND STATION

October 2017

TOTAL INTERSECTION

IN	980
OUT	980



CLASSIFICATION: ALL VEHICLES

HARRISON AVE & 173RD ST

2022 BUILD TRAFFIC VOLUMES (AM)

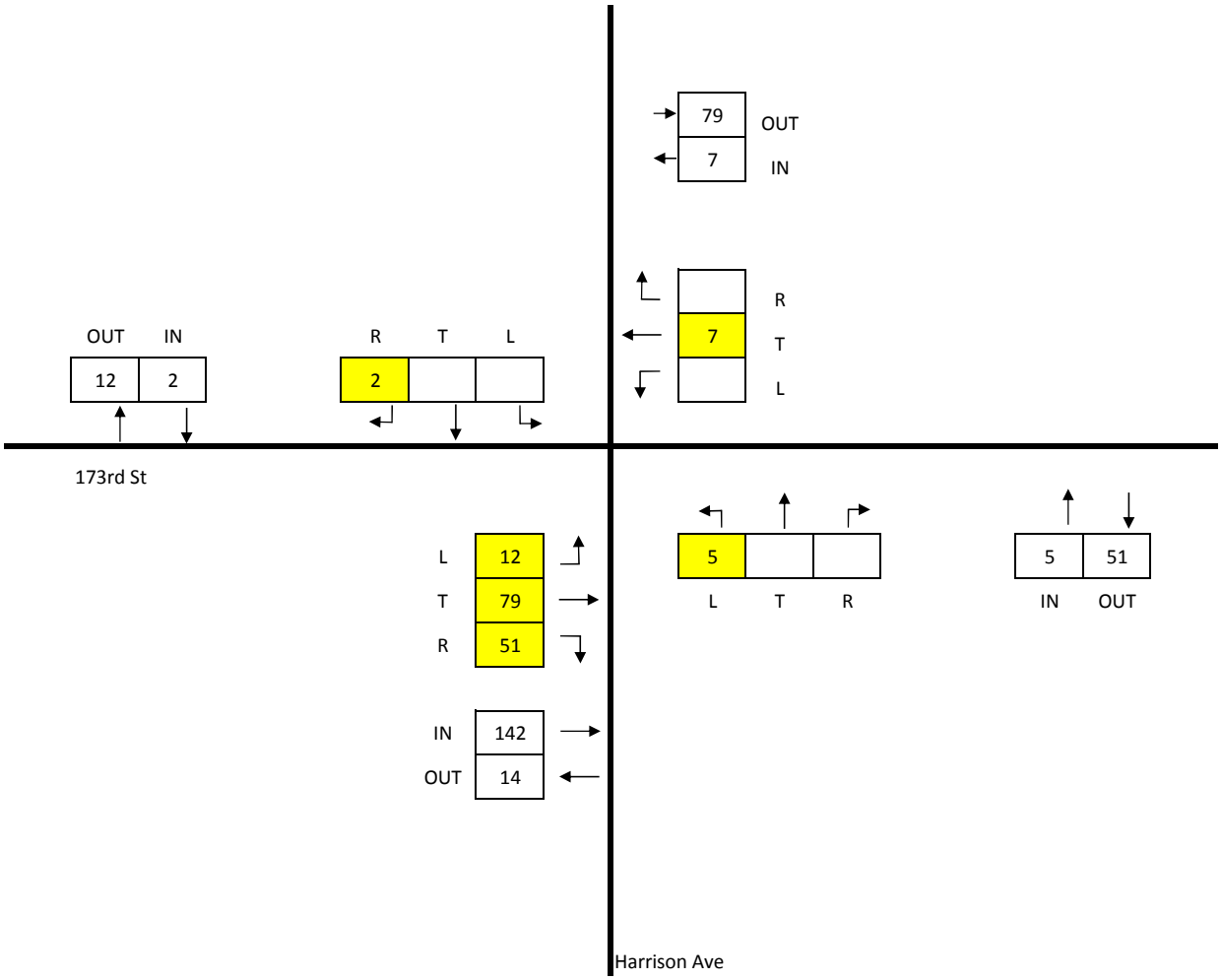
SOUTH HAMMOND STATION

October 2017

TOTAL INTERSECTION

IN	156
OUT	156

NORTH



CLASSIFICATION: ALL VEHICLES

HARRISON AVE & 173RD ST

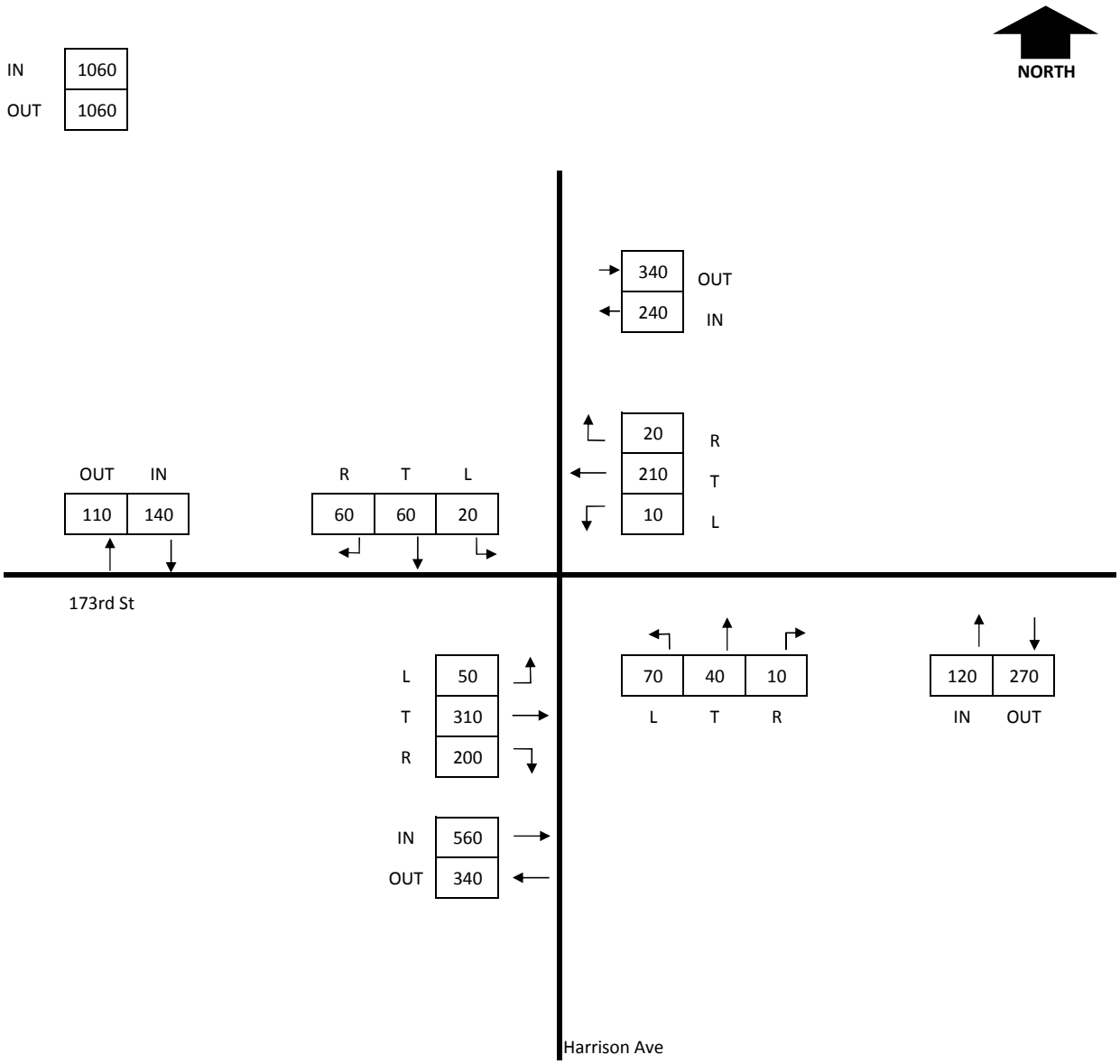
2022 SITE GENERATED TRIPS (PM)

SOUTH HAMMOND STATION

October 2017

TOTAL INTERSECTION

IN	1060
OUT	1060



CLASSIFICATION: ALL VEHICLES

HARRISON AVE & 173RD ST

2022 BUILD TRAFFIC VOLUMES (PM)

SOUTH HAMMOND STATION

October 2017

TOTAL INTERSECTION

	2014	2040
IN	642	900
OUT	642	900

NORTH

	2014	2040	
→	192	270	OUT
←	186	260	IN

	OUT	IN
2040	80	140
2014	46	95

	R	T	L
2040	40	60	40
2014	28	43	24

	2014	2040	
↰	11	20	R
←	174	230	T
↙	1	10	L

173rd St

	2040	2014
L	20	9
T	220	166
R	100	75

	2015	2014	
IN	340	250	→
OUT	380	285	←

	L	T	R
2014	83	26	2
2040	110	40	10

	IN	OUT
2014	111	119
2040	160	170

Harrison Ave

CLASSIFICATION: ALL VEHICLES

ANNUAL GROWTH RATE	
Northbound	1.0%
Southbound	1.0%
Eastbound	1.0%
Westbound	1.0%
Years to Escalate: 2040	26

HARRISON AVE & 173RD ST

2040 PROJECTED TRAFFIC VOLUMES (AM)

SOUTH HAMMOND STATION

October 2017

TOTAL INTERSECTION

	2014	2040
IN	750	1040
OUT	750	1040

NORTH

	2014	2040	
→	218	300	OUT
←	205	280	IN

	OUT	IN
2040	110	160
2014	70	108

	R	T	L
2040	60	80	20
2014	42	55	11

	2014	2040	
↰	16	30	R
←	183	240	T
↙	6	10	L

173rd St

	2040	2014	
L	40	24	↰
T	270	206	→
R	170	125	↘

	↰	↑	↱
2014	51	30	1
2040	70	40	10
	L	T	R

	↑	↓
2014	82	186
2040	120	260
	IN	OUT

	2040	2014	
IN	480	355	→
OUT	370	276	←

Harrison Ave

CLASSIFICATION: ALL VEHICLES

ANNUAL GROWTH RATE	
Northbound	1.0%
Southbound	1.0%
Eastbound	1.0%
Westbound	1.0%
Years to Escalate: 2040	26

HARRISON AVE & 173RD ST

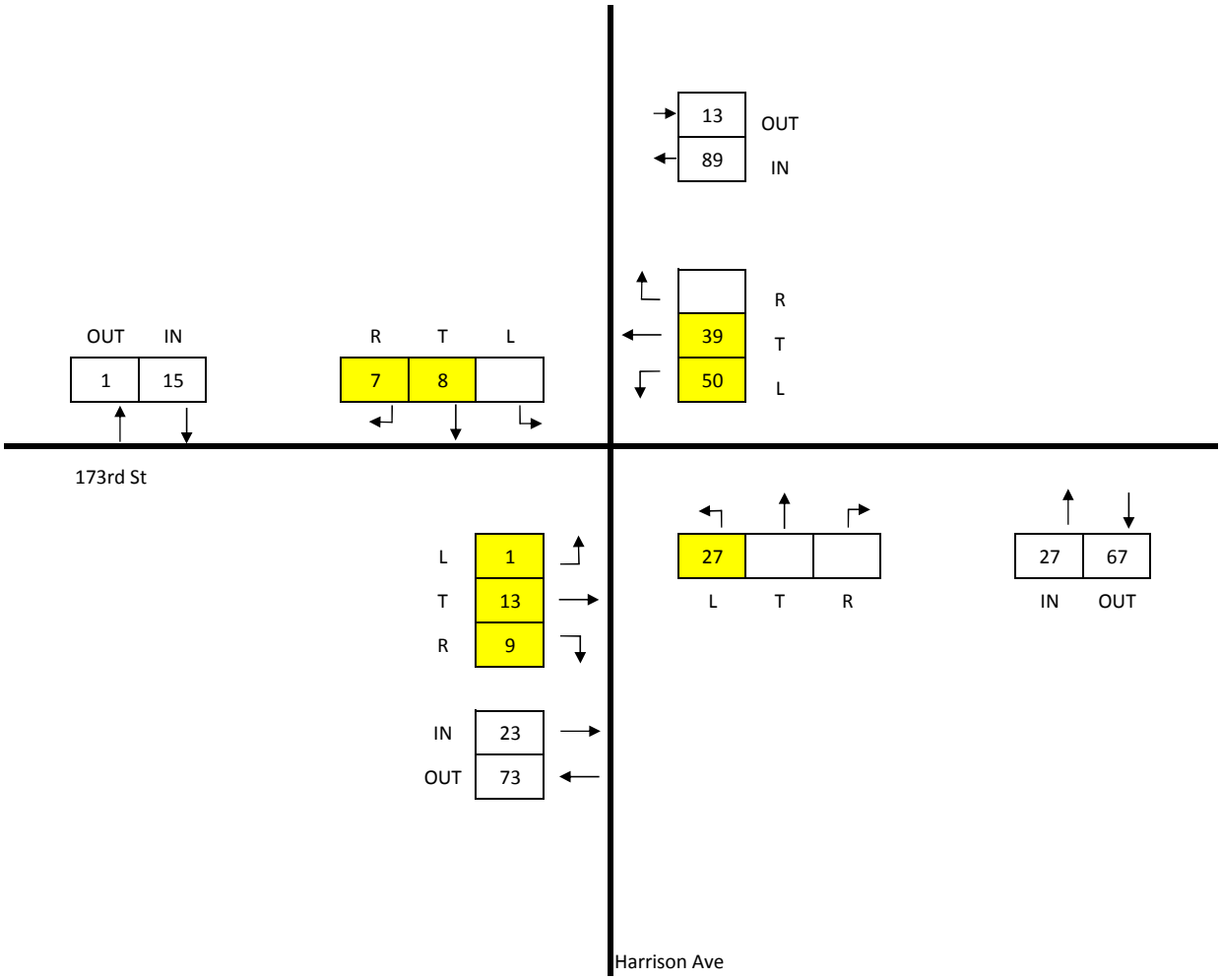
2040 PROJECTED TRAFFIC VOLUMES (PM)

SOUTH HAMMOND STATION

October 2017

TOTAL INTERSECTION

IN	154
OUT	154



CLASSIFICATION: ALL VEHICLES

HARRISON AVE & 173RD ST

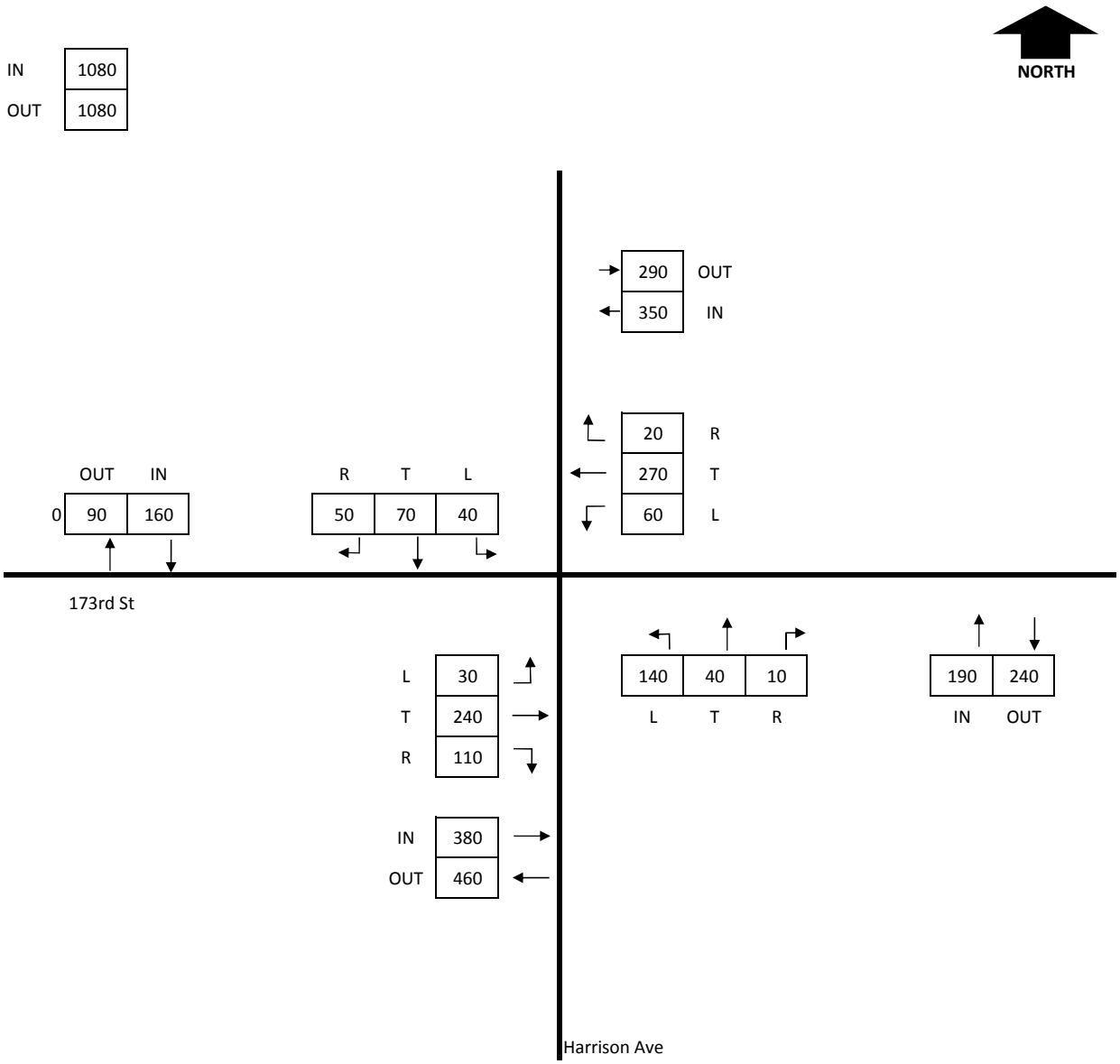
2040 SITE GENERATED TRIPS (AM)

SOUTH HAMMOND STATION

October 2017

TOTAL INTERSECTION

IN	1080
OUT	1080



CLASSIFICATION: ALL VEHICLES

HARRISON AVE & 173RD ST

2040 BUILD TRAFFIC VOLUMES (AM)

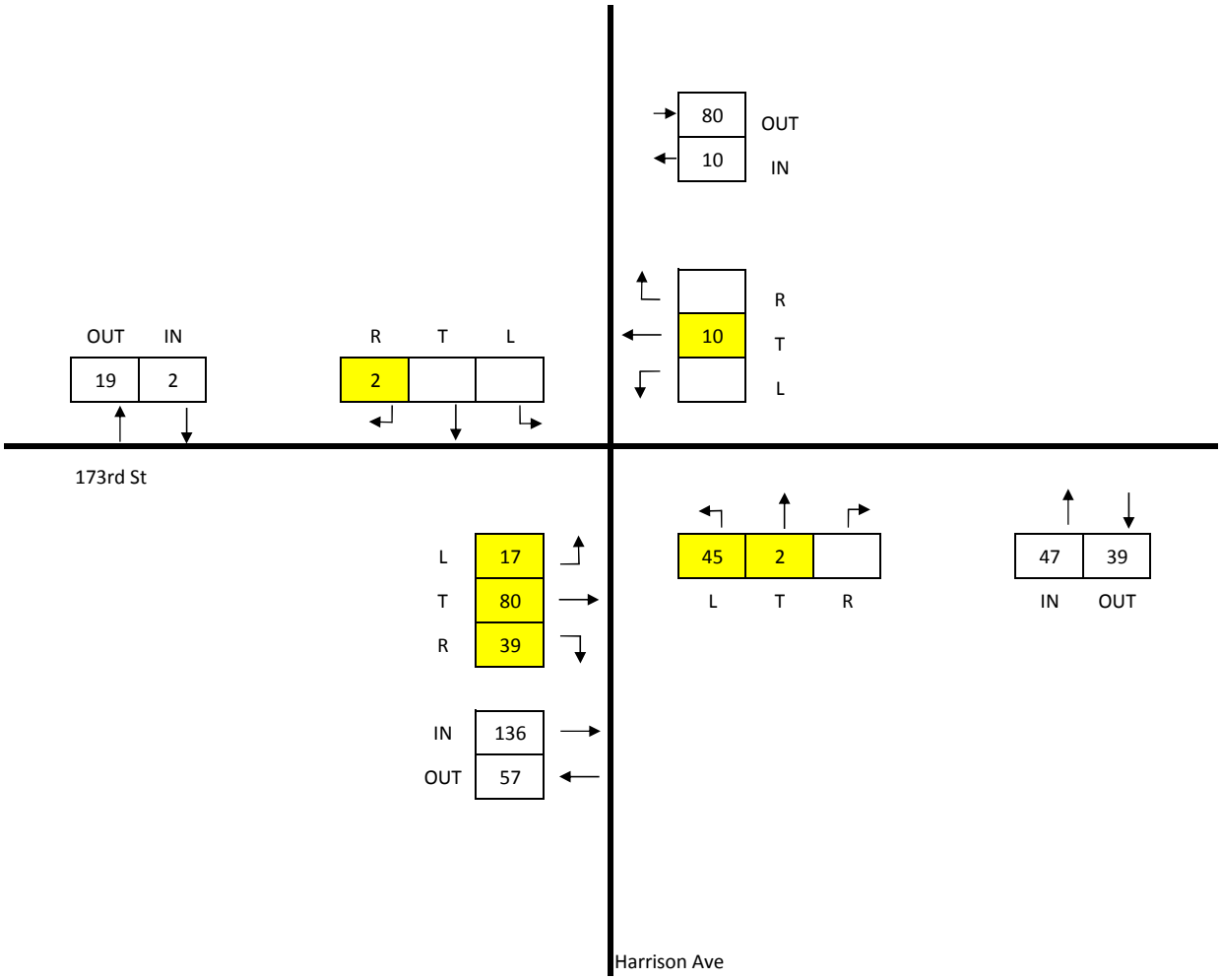
SOUTH HAMMOND STATION

October 2017

TOTAL INTERSECTION

IN	195
OUT	195

NORTH



CLASSIFICATION: ALL VEHICLES

HARRISON AVE & 173RD ST

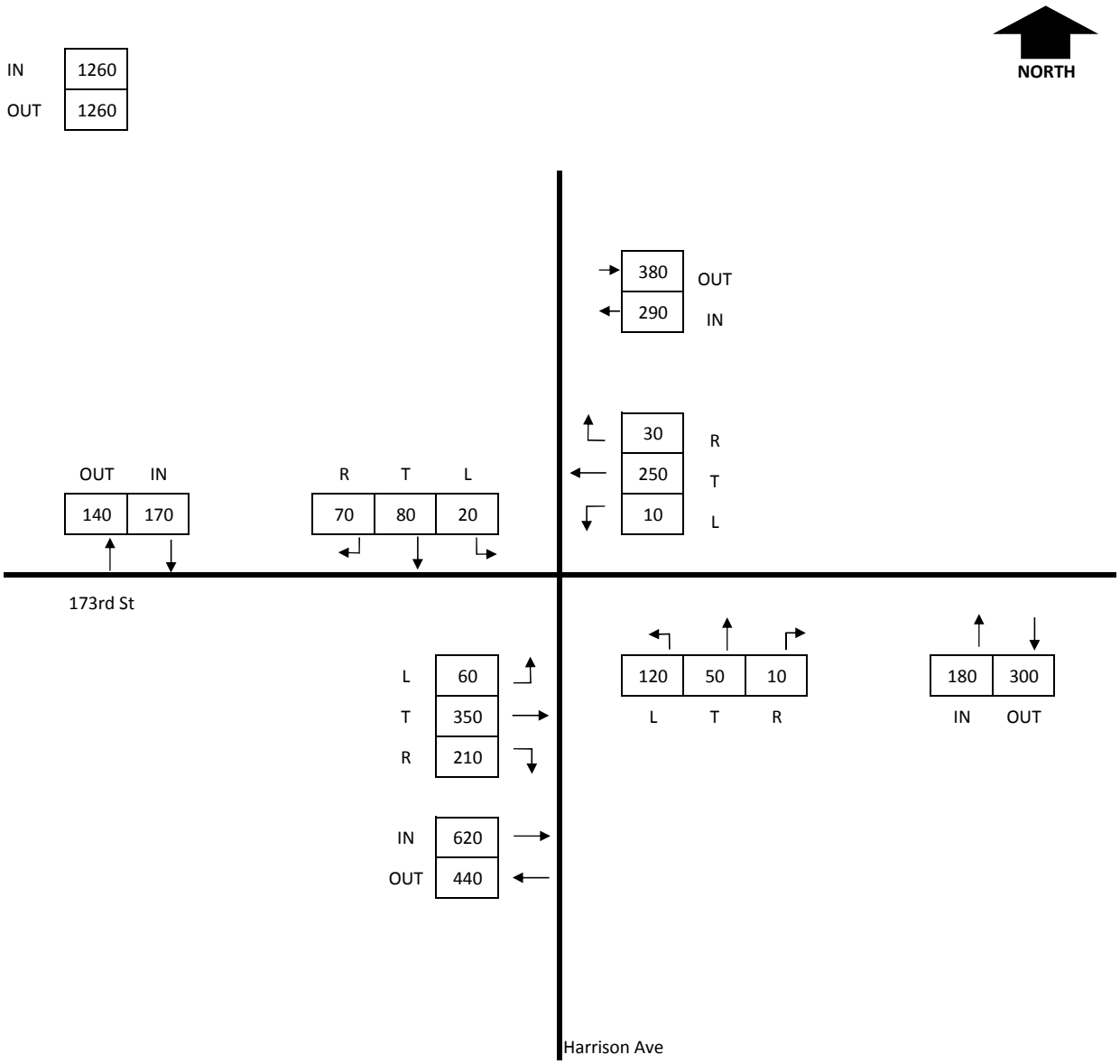
2040 SITE GENERATED TRIPS (PM)

SOUTH HAMMOND STATION

October 2017

TOTAL INTERSECTION

IN	1260
OUT	1260



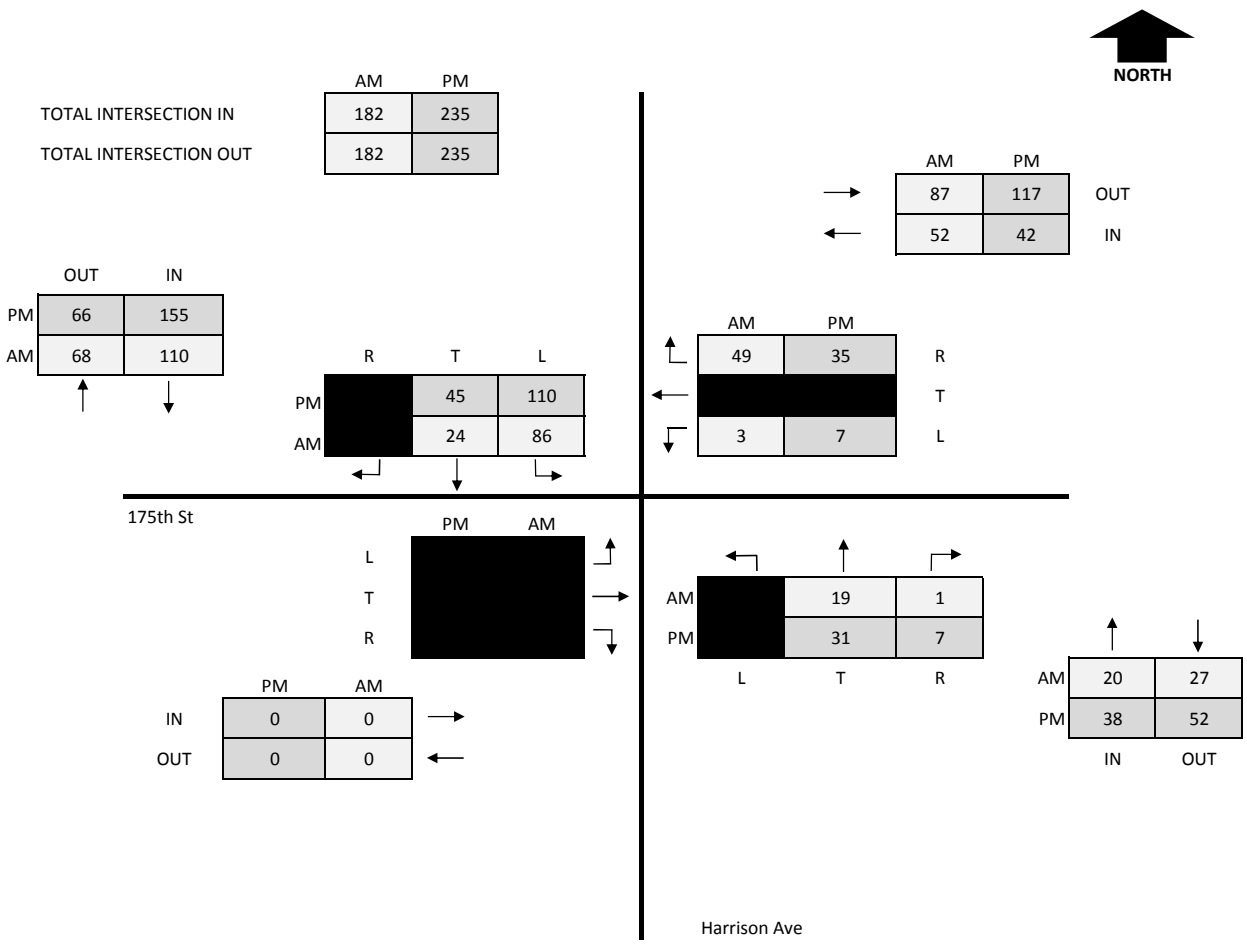
CLASSIFICATION: ALL VEHICLES

HARRISON AVE & 173RD ST

2040 BUILD TRAFFIC VOLUMES (PM)

SOUTH HAMMOND STATION

October 2017



CLASSIFICATION: ALL VEHICLES

Traffic Counts from Quality Counts				
AM	5/9/2017	7:15 AM	to	8:15 AM
PM	5/9/2017	4:30 PM	to	5:30 PM

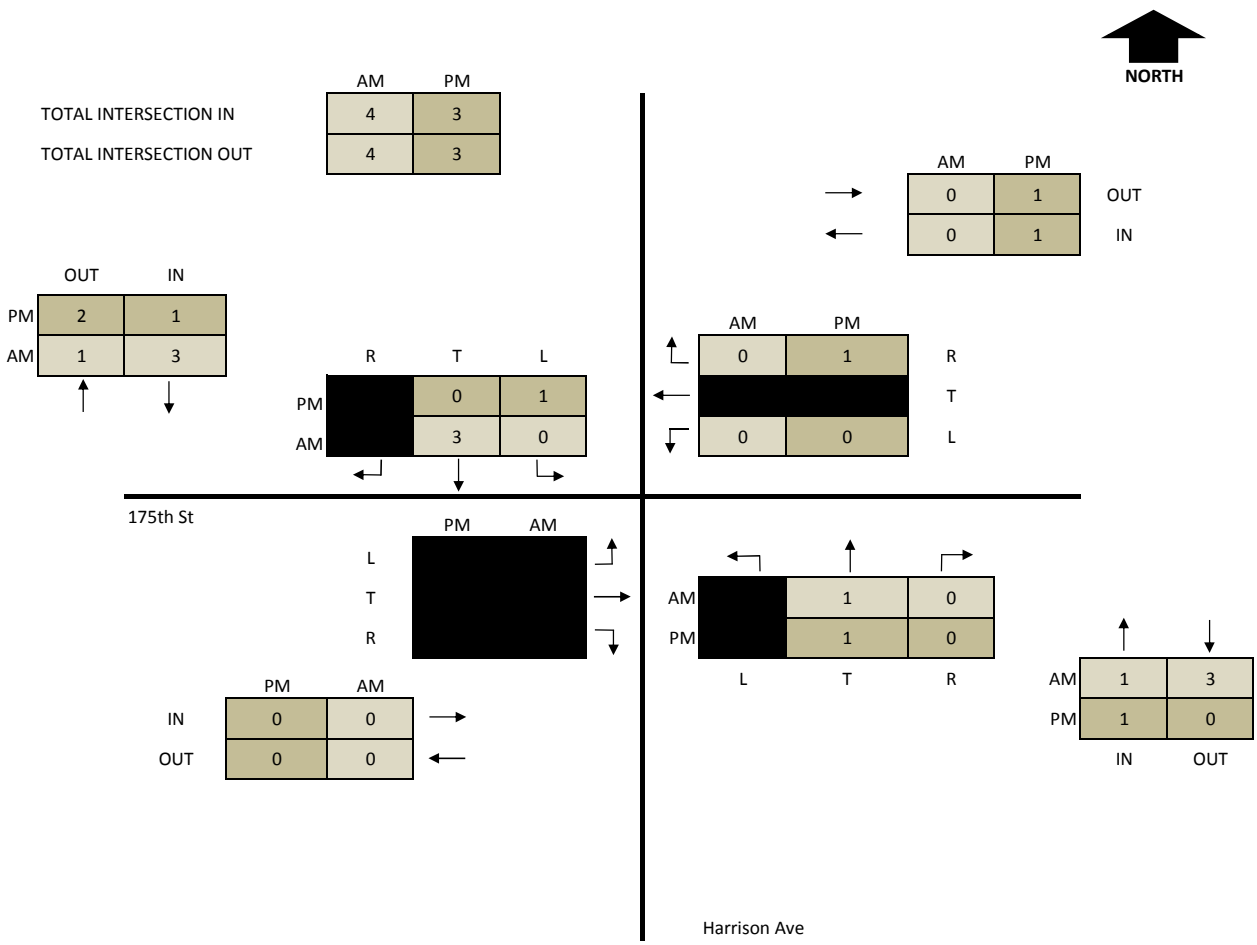
NICTD

HARRISON AVE & 175TH ST

EXISTING TRAFFIC VOLUMES (2017)

SOUTH HAMMOND STATION

October 2017



CLASSIFICATION: TRUCKS

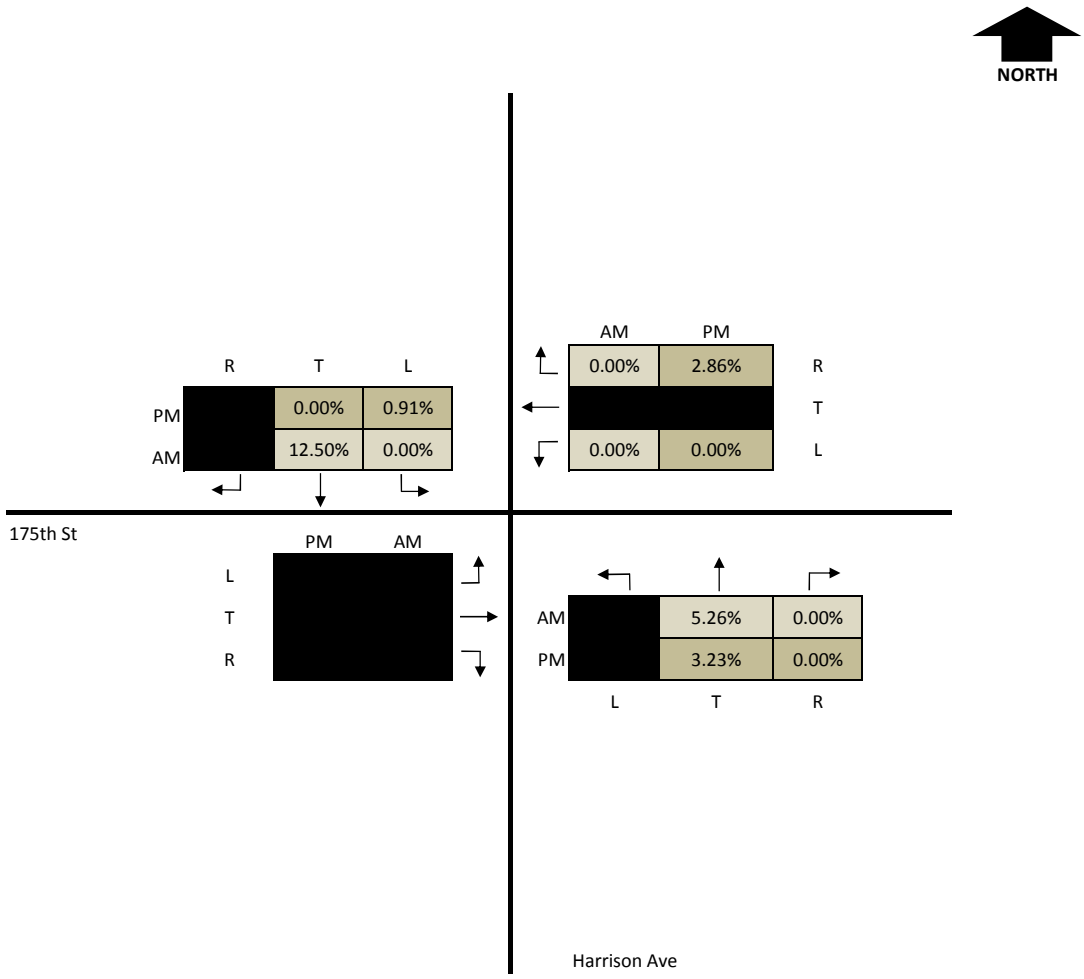
Traffic Counts from Quality Counts				
AM	5/9/2017	7:15 AM	to	8:15 AM
PM	5/9/2017	4:30 PM	to	5:30 PM

HARRISON AVE & 175TH ST

EXISTING TRAFFIC VOLUMES (2017)

SOUTH HAMMOND STATION

October 2017



CLASSIFICATION: TRUCKS

Traffic Counts from Quality Counts				
AM	5/9/2017	7:15 AM	to	8:15 AM
PM	5/9/2017	4:30 PM	to	5:30 PM

HARRISON AVE & 175TH ST

EXISTING TRAFFIC VOLUMES (2017)

SOUTH HAMMOND STATION

October 2017

TOTAL INTERSECTION

	2017	2022
IN	182	230
OUT	182	230

NORTH

	2017	2022	
→	87	110	OUT
←	52	70	IN

	OUT	IN
2022	80	130
2017	68	110

	R	T	L
2022		30	100
2017		24	86

	2017	2022	
↰	49	60	R
←			T
↙	3	10	L

175th St

	2022	2017
L		
T		
R		

	2022	2017
IN	0	0
OUT	0	0

2017		19	1
2022		20	10
	L	T	R

	2017	2022
IN	20	30
OUT	27	40

Harrison Ave

CLASSIFICATION: ALL VEHICLES

ANNUAL GROWTH RATE	
Northbound	1.0%
Southbound	1.0%
Eastbound	1.0%
Westbound	1.0%
Years to Escalate: 2022	5

HARRISON AVE & 175TH ST

2022 PROJECTED TRAFFIC VOLUMES (AM)

SOUTH HAMMOND STATION

October 2017

TOTAL INTERSECTION

	2017	2022
IN	235	270
OUT	235	270

	2017	2022	
→	117	130	OUT
←	42	50	IN

	OUT	IN
2022	80	170
2017	66	155

	R	T	L
2022		50	120
2017		45	110

	2017	2022	
↰	35	40	R
←			T
↙	7	10	L

175th St

	2022	2017
L		
T		
R		

	2022	2017
IN	0	0
OUT	0	0

2017		31	7
2022		40	10
	L	T	R

	2017	2022
↑	38	52
↓	50	60
	IN	OUT

Harrison Ave

CLASSIFICATION: ALL VEHICLES

ANNUAL GROWTH RATE	
Northbound	1.0%
Southbound	1.0%
Eastbound	1.0%
Westbound	1.0%
Years to Escalate: 2022	5

HARRISON AVE & 175TH ST

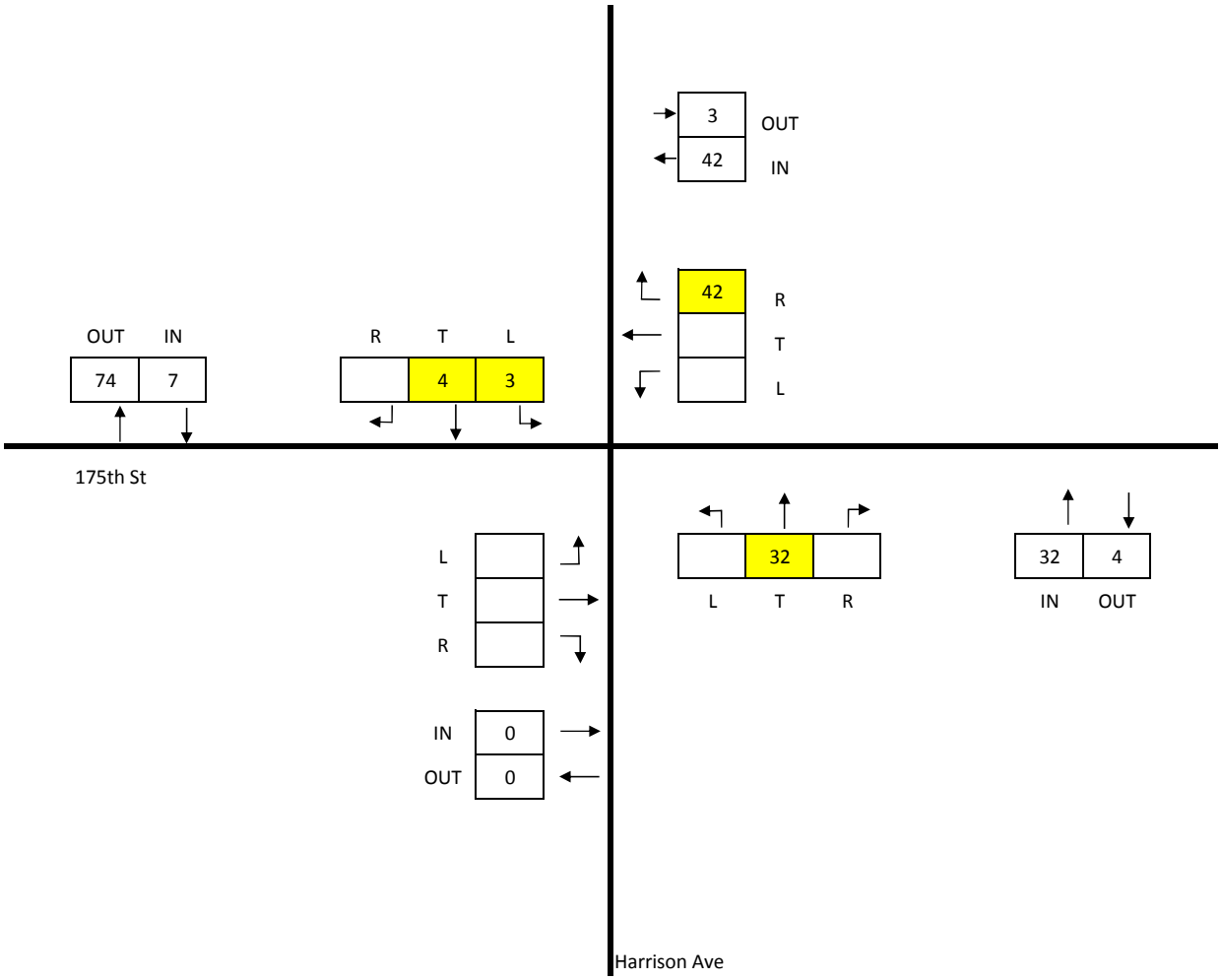
2022 PROJECTED TRAFFIC VOLUMES (PM)

SOUTH HAMMOND STATION

October 2017

TOTAL INTERSECTION

IN	81
OUT	81



CLASSIFICATION: ALL VEHICLES

HARRISON AVE & 175TH ST

2022 SITE GENERATED TRIPS (AM)

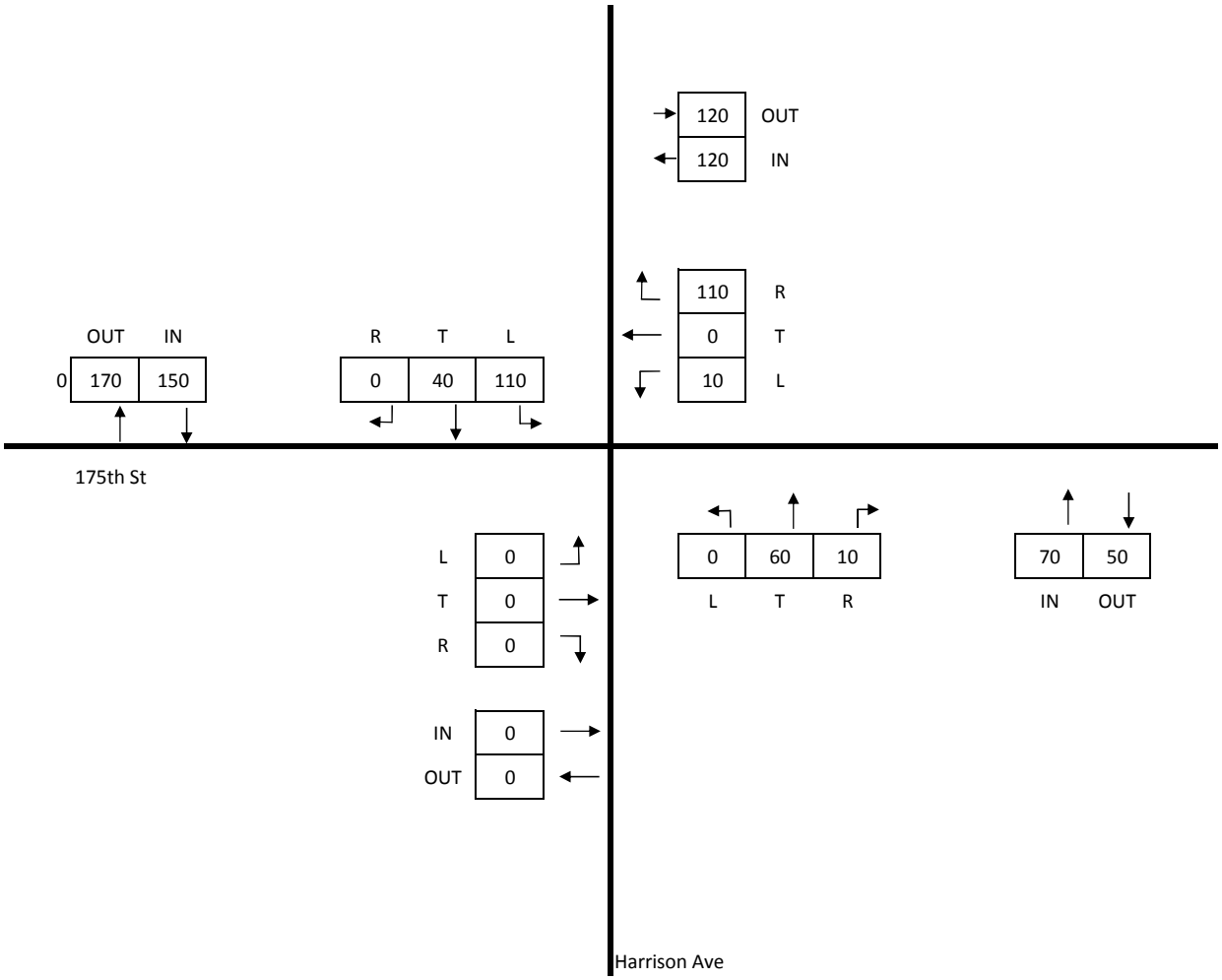
SOUTH HAMMOND STATION

October 2017

TOTAL INTERSECTION

IN	340
OUT	340

NORTH



CLASSIFICATION: ALL VEHICLES

HARRISON AVE & 175TH ST

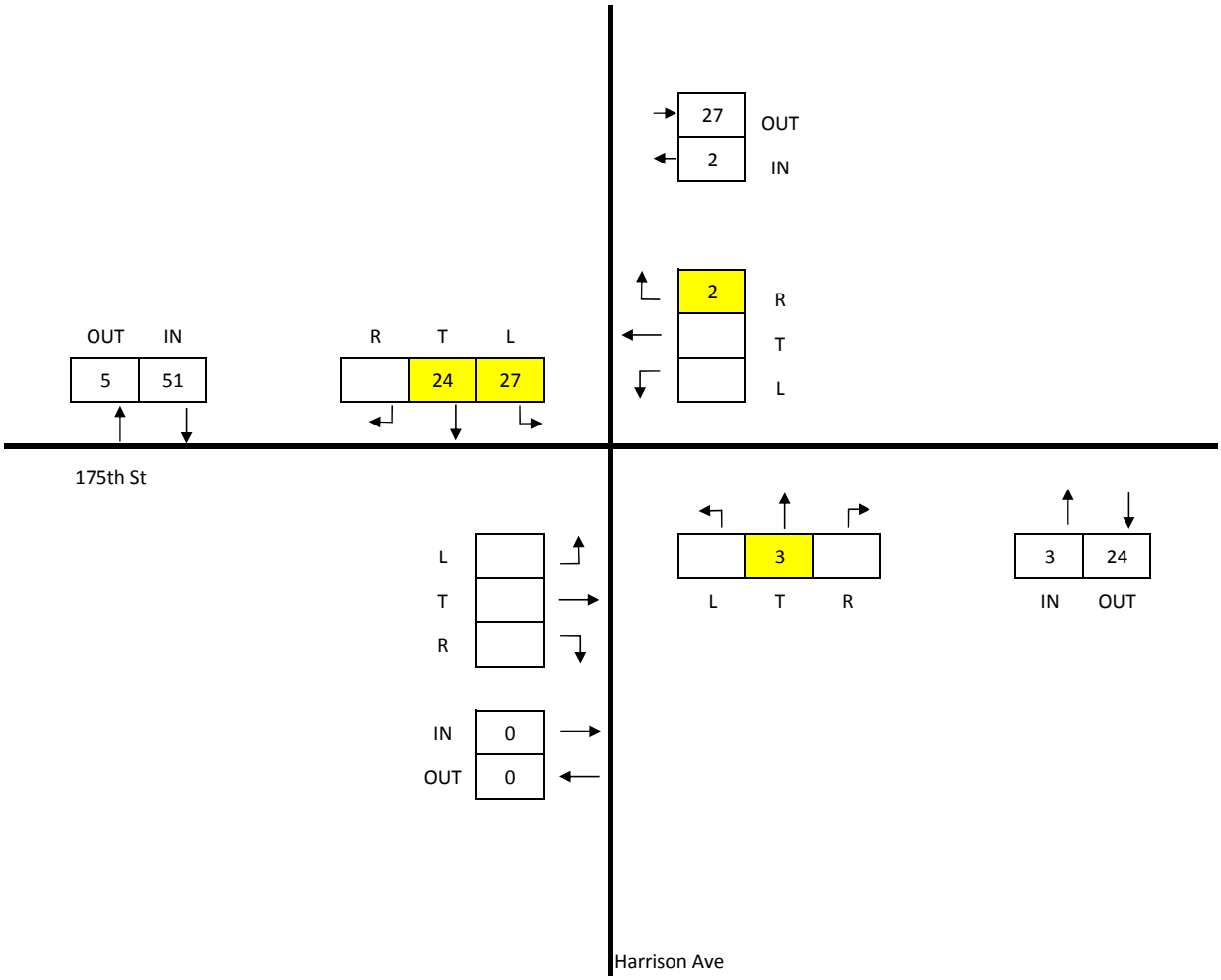
2022 BUILD TRAFFIC VOLUMES (AM)

SOUTH HAMMOND STATION

October 2017

TOTAL INTERSECTION

IN	56
OUT	56



CLASSIFICATION: ALL VEHICLES

HARRISON AVE & 175TH ST

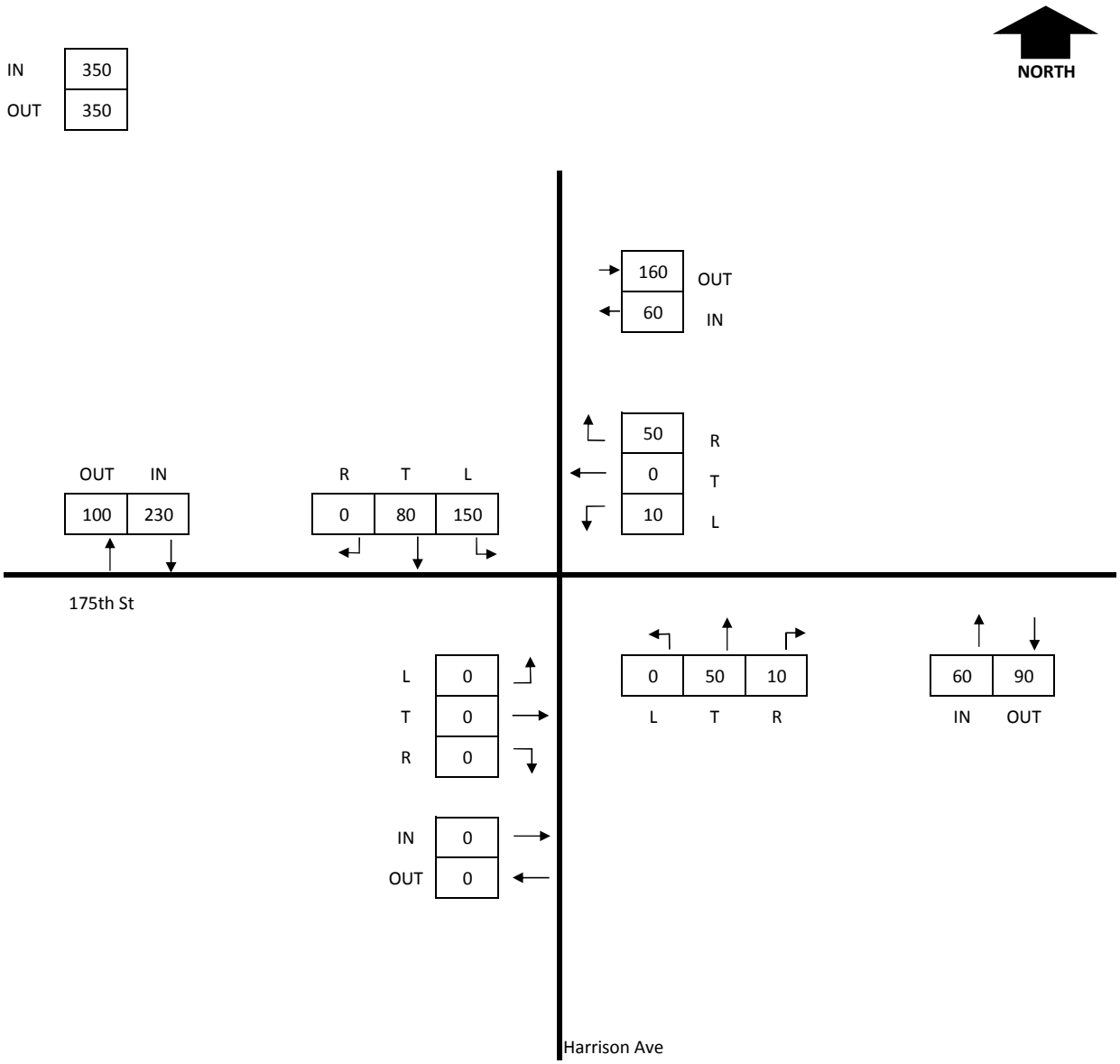
2022 SITE GENERATED TRIPS (PM)

SOUTH HAMMOND STATION

October 2017

TOTAL INTERSECTION

IN	350
OUT	350



CLASSIFICATION: ALL VEHICLES

HARRISON AVE & 175TH ST

2022 BUILD TRAFFIC VOLUMES (PM)

SOUTH HAMMOND STATION

October 2017

TOTAL INTERSECTION

	2017	2040
IN	182	270
OUT	182	270

NORTH

	2017	2040	
→	87	120	OUT
←	52	80	IN

	OUT	IN
2040	100	150
2017	68	110

	R	T	L
2040		40	110
2017		24	86

	2017	2040	
↰	49	70	R
←			T
↙	3	10	L

175th St

	2040	2017	
L			↑
T			→
R			↘

	L	T	R
2017		19	1
2040		30	10

	2040	2017
IN	0	0
OUT	0	0

	IN	OUT
2017	20	27
2040	40	50

Harrison Ave

CLASSIFICATION: ALL VEHICLES

ANNUAL GROWTH RATE	
Northbound	1.0%
Southbound	1.0%
Eastbound	1.0%
Westbound	1.0%
Years to Escalate: 2040	23

HARRISON AVE & 175TH ST

2040 PROJECTED TRAFFIC VOLUMES (AM)

SOUTH HAMMOND STATION

October 2017

TOTAL INTERSECTION

	2017	2040
IN	235	310
OUT	235	310

	2017	2040	
→	117	150	OUT
←	42	60	IN

	OUT	IN
2040	90	200
2017	66	155

	R	T	L
2040		60	140
2017		45	110

	2017	2040	
↰	35	50	R
←			T
↲	7	10	L

175th St

	2040	2017
L		
T		
R		

	2040	2017
IN	0	0
OUT	0	0

2017		31	7
2040		40	10
	L	T	R

2017	38	52
2040	50	70
	IN	OUT

Harrison Ave

CLASSIFICATION: ALL VEHICLES

ANNUAL GROWTH RATE	
Northbound	1.0%
Southbound	1.0%
Eastbound	1.0%
Westbound	1.0%
Years to Escalate: 2040	23

HARRISON AVE & 175TH ST

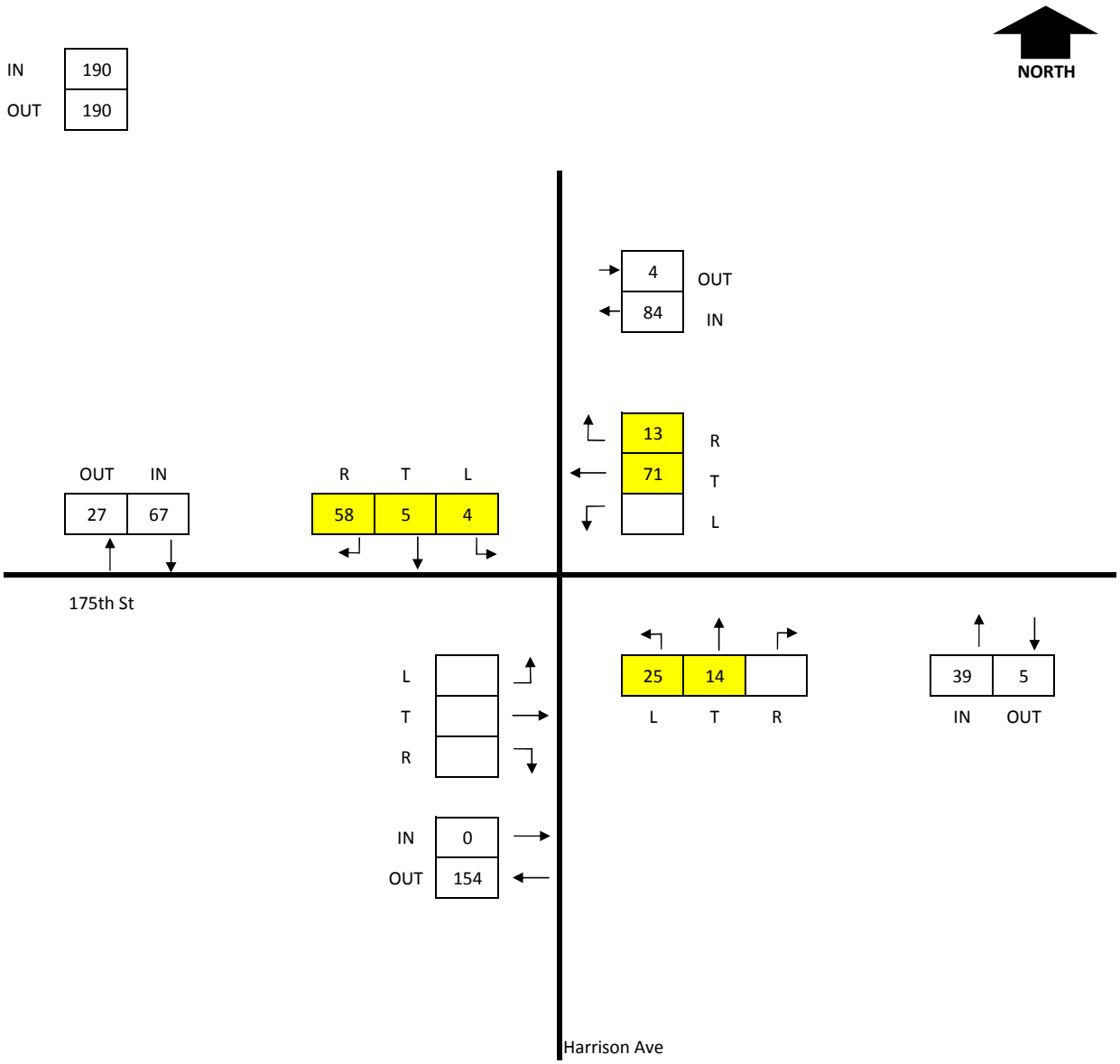
2040 PROJECTED TRAFFIC VOLUMES (PM)

SOUTH HAMMOND STATION

October 2017

TOTAL INTERSECTION

IN	190
OUT	190



CLASSIFICATION: ALL VEHICLES

HARRISON AVE & 175TH ST

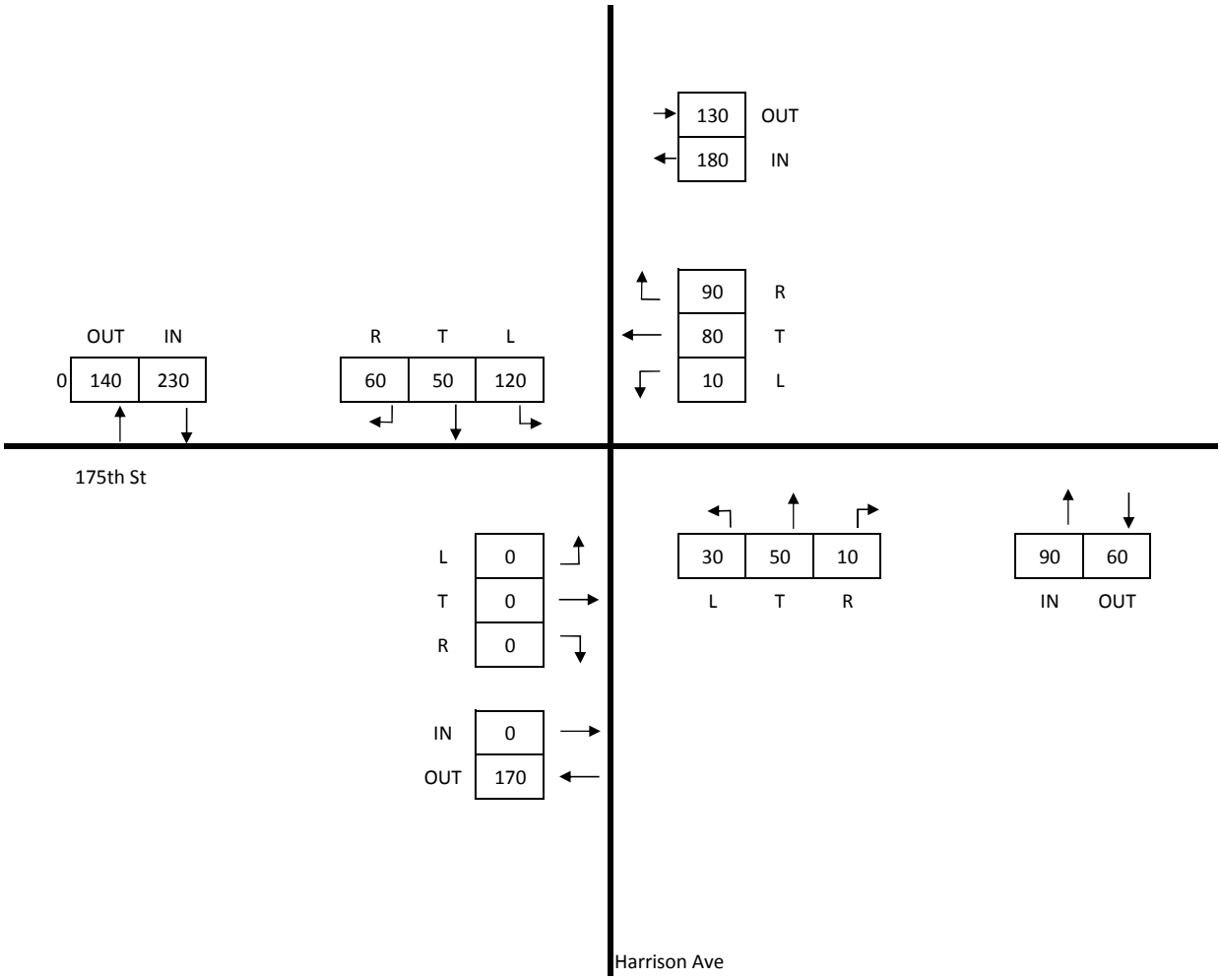
2040 SITE GENERATED TRIPS (AM)

SOUTH HAMMOND STATION

October 2017

TOTAL INTERSECTION

IN	500
OUT	500



CLASSIFICATION: ALL VEHICLES

HARRISON AVE & 175TH ST

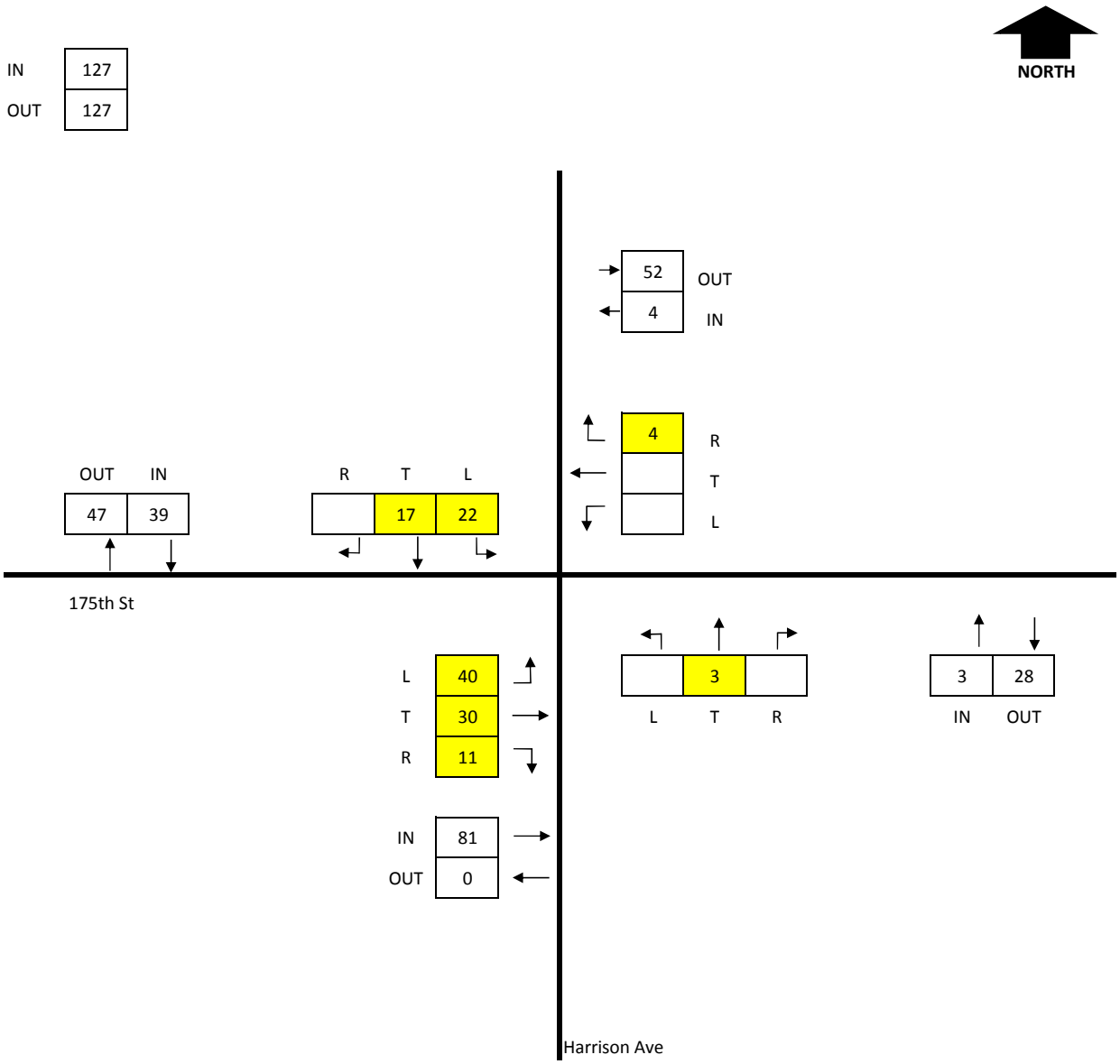
2040 BUILD TRAFFIC VOLUMES (AM)

SOUTH HAMMOND STATION

October 2017

TOTAL INTERSECTION

IN	127
OUT	127



CLASSIFICATION: ALL VEHICLES

HARRISON AVE & 175TH ST

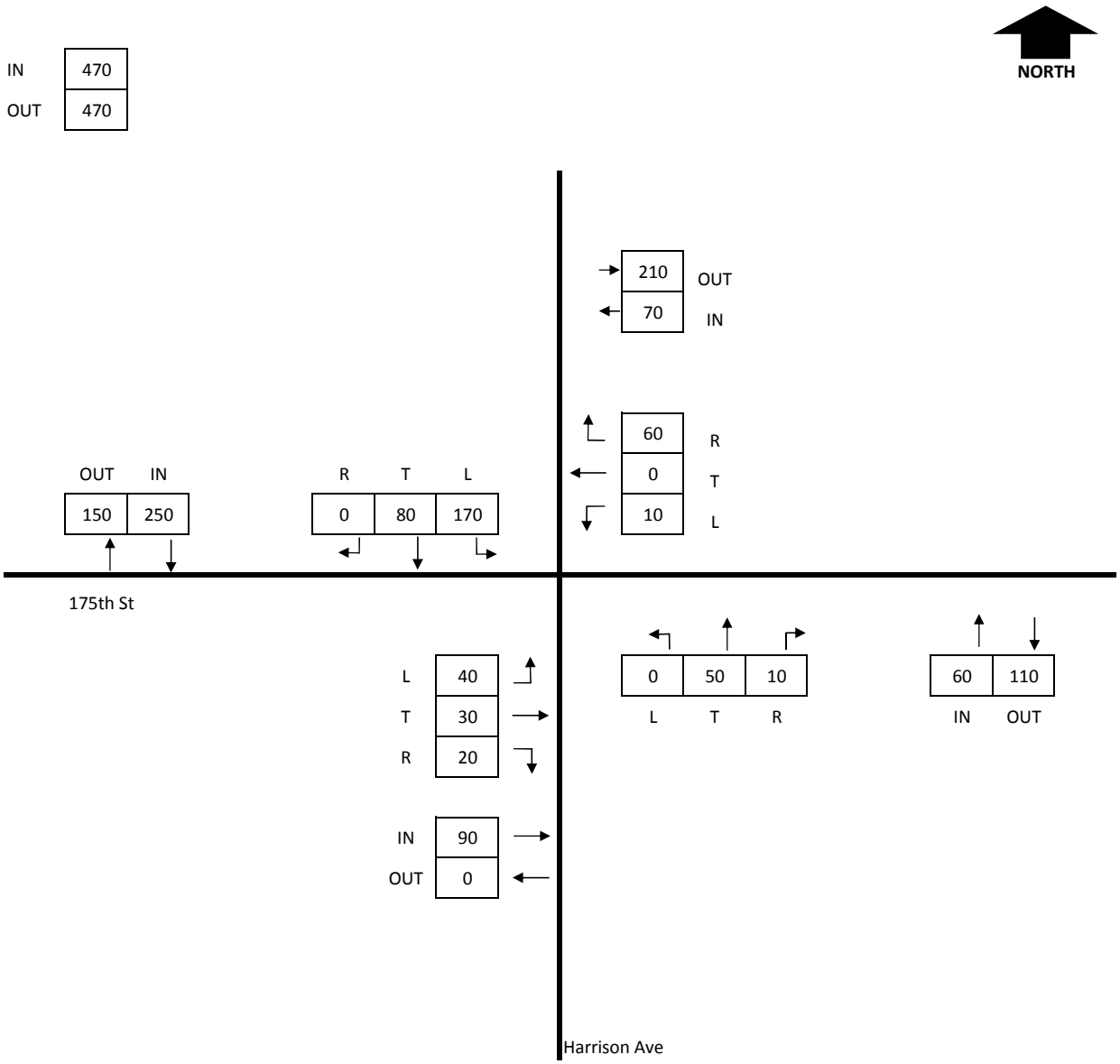
2040 SITE GENERATED TRIPS (PM)

SOUTH HAMMOND STATION

October 2017

TOTAL INTERSECTION

IN	470
OUT	470



CLASSIFICATION: ALL VEHICLES

HARRISON AVE & 175TH ST

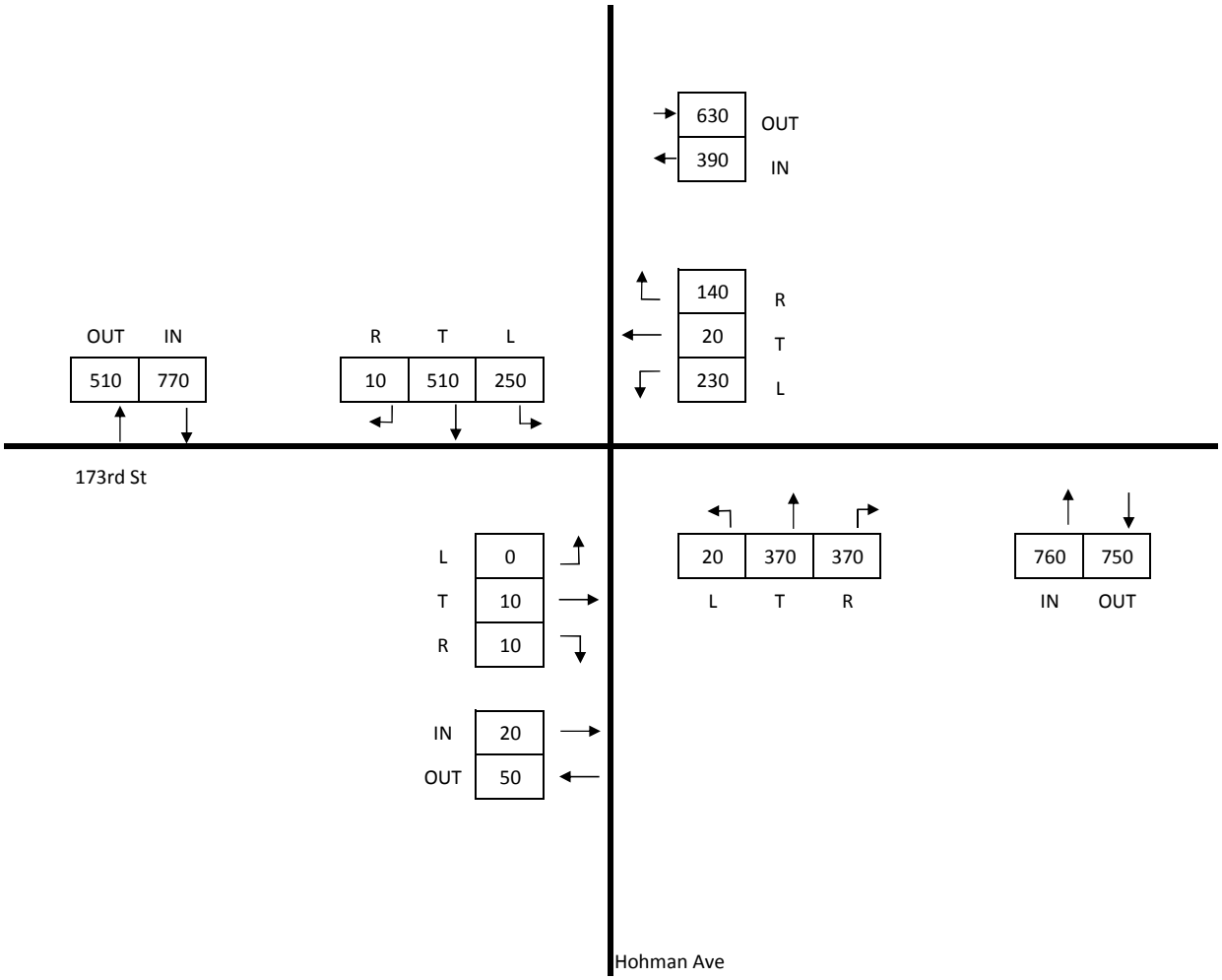
2040 BUILD TRAFFIC VOLUMES (PM)

SOUTH HAMMOND STATION

October 2017

TOTAL INTERSECTION

IN	1940
OUT	1940



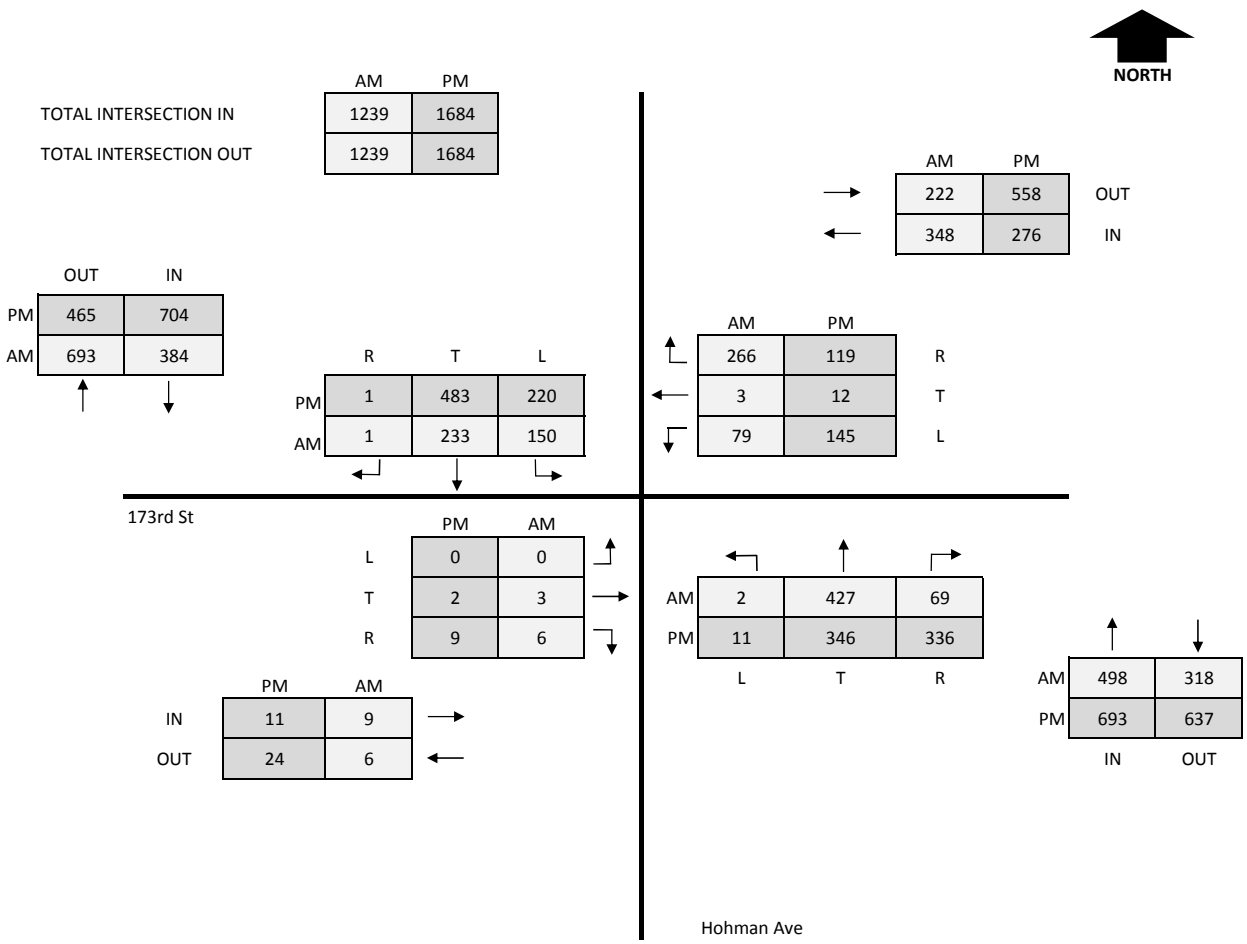
CLASSIFICATION: ALL VEHICLES

HOHMAN AVE & 173RD ST

2022 BUILD TRAFFIC VOLUMES (PM)

SOUTH HAMMOND STATION

October 2017



CLASSIFICATION: ALL VEHICLES

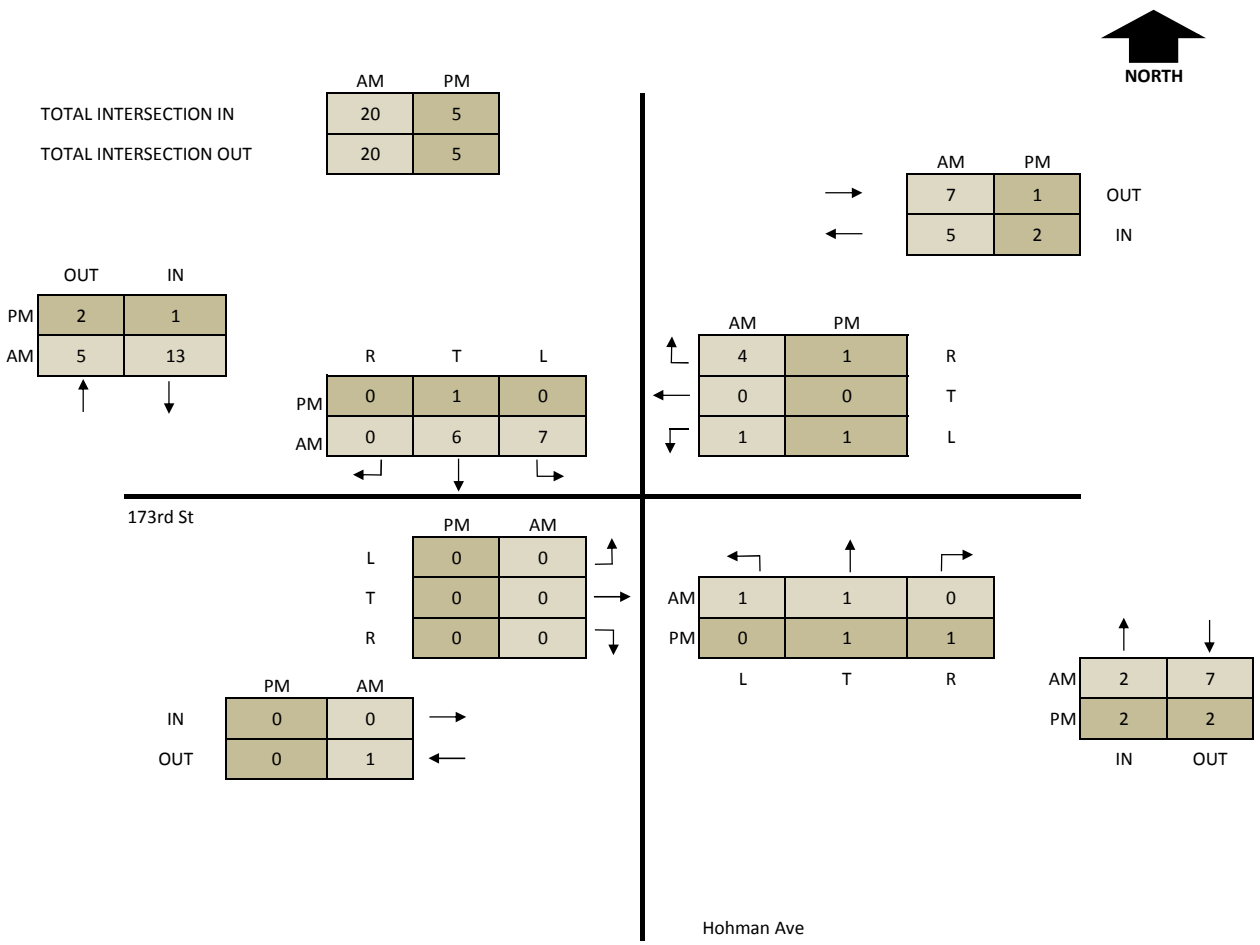
Traffic Counts from Quality Counts				
AM	4/4/2017	7:15 AM	to	8:15 AM
PM	4/4/2017	4:30 PM	to	5:30 PM

HOHMAN AVE & 173RD ST

EXISTING TRAFFIC VOLUMES (2017)

SOUTH HAMMOND STATION

October 2017



CLASSIFICATION: TRUCKS

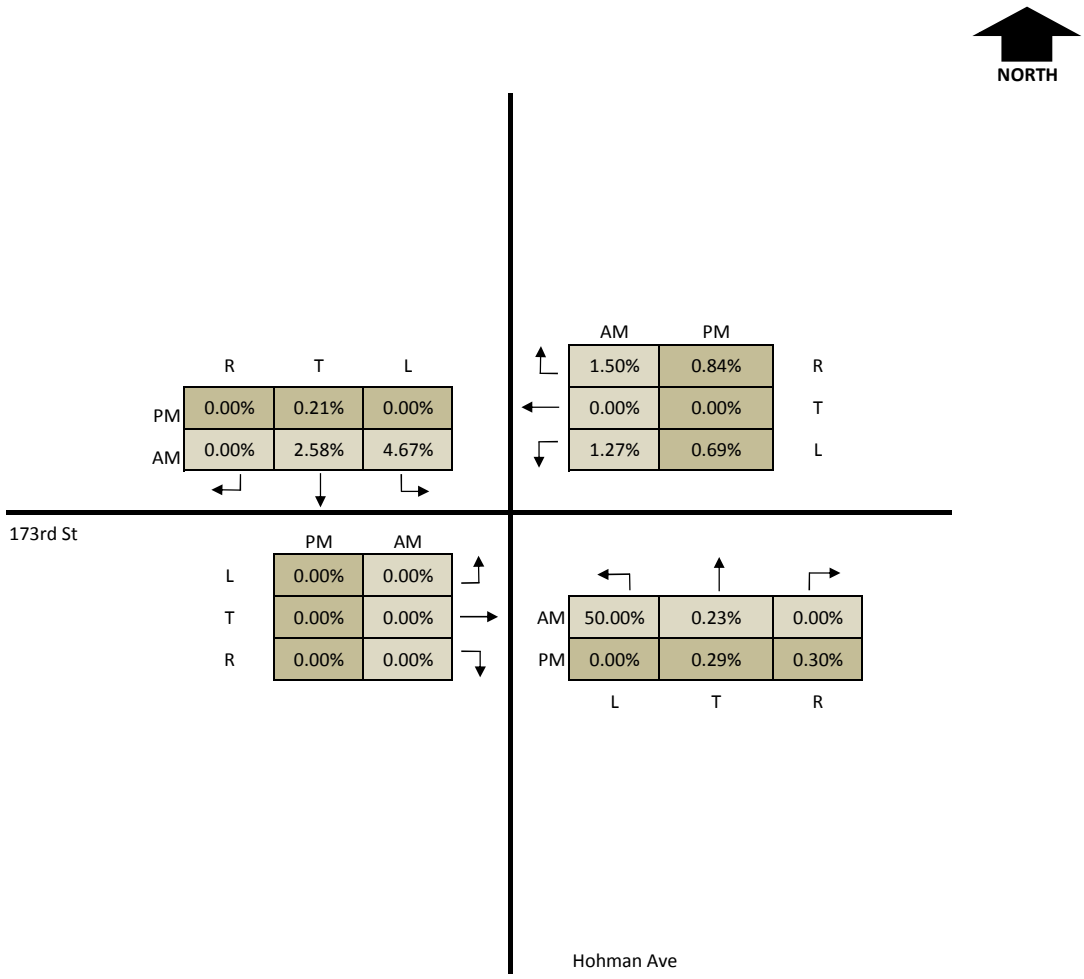
Traffic Counts from Quality Counts				
AM	4/4/2017	7:15 AM	to	8:15 AM
PM	4/4/2017	4:30 PM	to	5:30 PM

HOHMAN AVE & 173RD ST

EXISTING TRAFFIC VOLUMES (2017)

SOUTH HAMMOND STATION

October 2017



CLASSIFICATION: TRUCKS

Traffic Counts from Quality Counts				
AM	4/4/2017	7:15 AM	to	8:15 AM
PM	4/4/2017	4:30 PM	to	5:30 PM

HOHMAN AVE & 173RD ST

EXISTING TRAFFIC VOLUMES (2017)

SOUTH HAMMOND STATION

October 2017

TOTAL INTERSECTION

	2017	2040
IN	1239	1610
OUT	1239	1610

NORTH

	2017	2040	
→	222	290	OUT
←	348	450	IN

	OUT	IN
2040	880	500
2017	693	384

	R	T	L
2040	10	300	190
2017	1	233	150

	2017	2040	
↰	266	340	R
←	3	10	T
↙	79	100	L

173rd St

	2040	2017	
L	0	0	↑
T	10	3	→
R	10	6	↓

	2017	2040
IN	20	9
OUT	30	6

	↰ L	↑ T	↱ R
2017	2	427	69
2040	10	540	90

	↑ IN	↓ OUT
2017	498	318
2040	640	410

Hohman Ave

CLASSIFICATION: ALL VEHICLES

ANNUAL GROWTH RATE	
Northbound	1.0%
Southbound	1.0%
Eastbound	1.0%
Westbound	1.0%
Years to Escalate: 2040	23

HOHMAN AVE & 173RD ST

2040 PROJECTED TRAFFIC VOLUMES (AM)

SOUTH HAMMOND STATION

October 2017

TOTAL INTERSECTION

	2014	2040
IN	1684	2180
OUT	1684	2180

	2014	2040	
→	558	720	OUT
←	276	360	IN

	OUT	IN
2040	590	900
2014	465	704

	R	T	L
2040	10	610	280
2014	1	483	220

	2014	2040	
↰	119	150	R
←	12	20	T
↲	145	190	L

173rd St

	2040	2014	
L	0	0	↑
T	10	2	→
R	20	9	↓

	L	T	R
2014	11	346	336
2040	20	440	430

	2040	2014	
IN	30	11	→
OUT	50	24	←

	IN	OUT
2014	693	637
2040	890	820

Hohman Ave

CLASSIFICATION: ALL VEHICLES

ANNUAL GROWTH RATE	
Northbound	1.0%
Southbound	1.0%
Eastbound	1.0%
Westbound	1.0%
Years to Escalate: 2040	23

HOHMAN AVE & 173RD ST

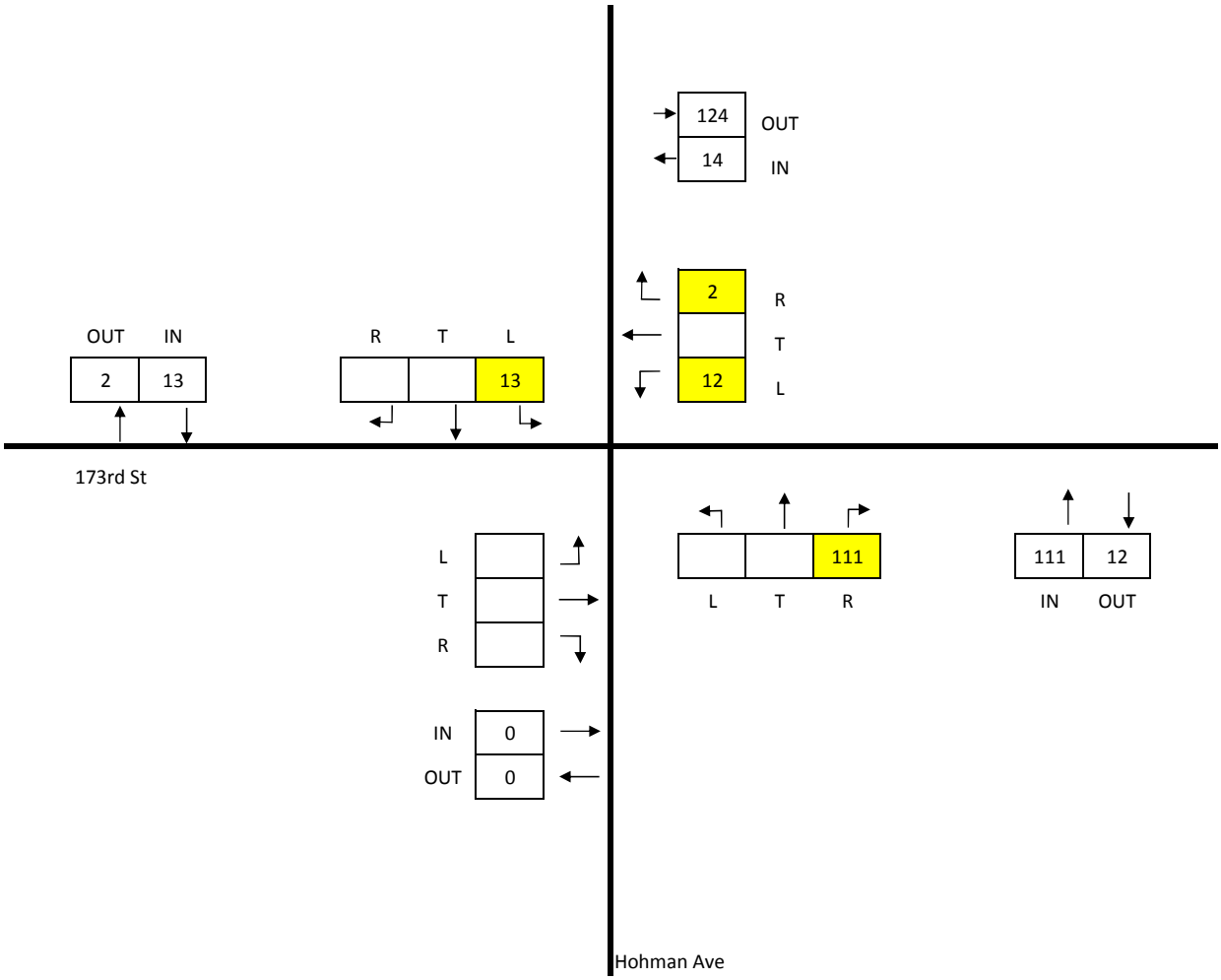
2040 PROJECTED TRAFFIC VOLUMES (PM)

SOUTH HAMMOND STATION

October 2017

TOTAL INTERSECTION

IN	138
OUT	138



CLASSIFICATION: ALL VEHICLES

HOHMAN AVE & 173RD ST

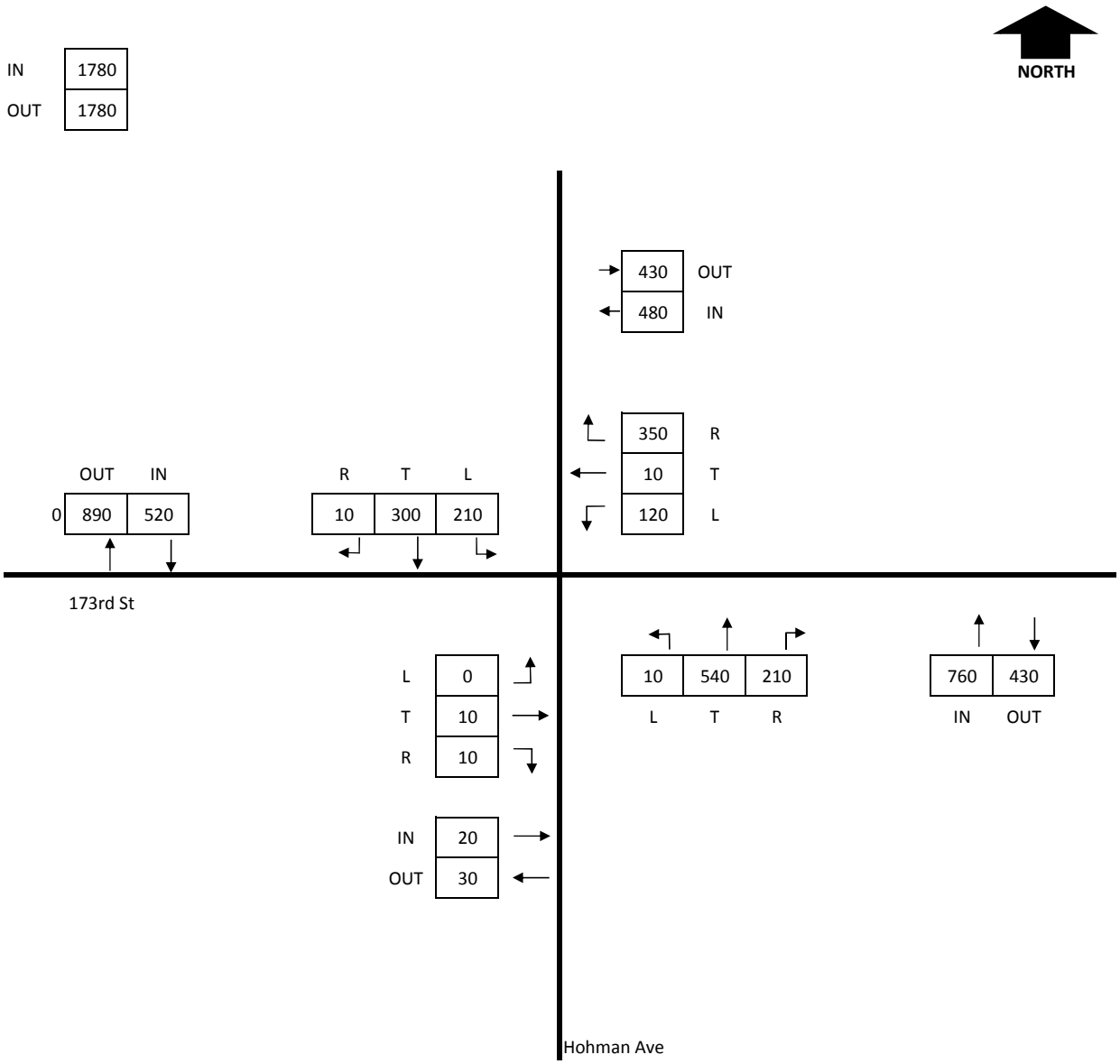
2040 SITE GENERATED TRIPS (AM)

SOUTH HAMMOND STATION

October 2017

TOTAL INTERSECTION

IN	1780
OUT	1780



CLASSIFICATION: ALL VEHICLES

HOHMAN AVE & 173RD ST

2040 BUILD TRAFFIC VOLUMES (AM)

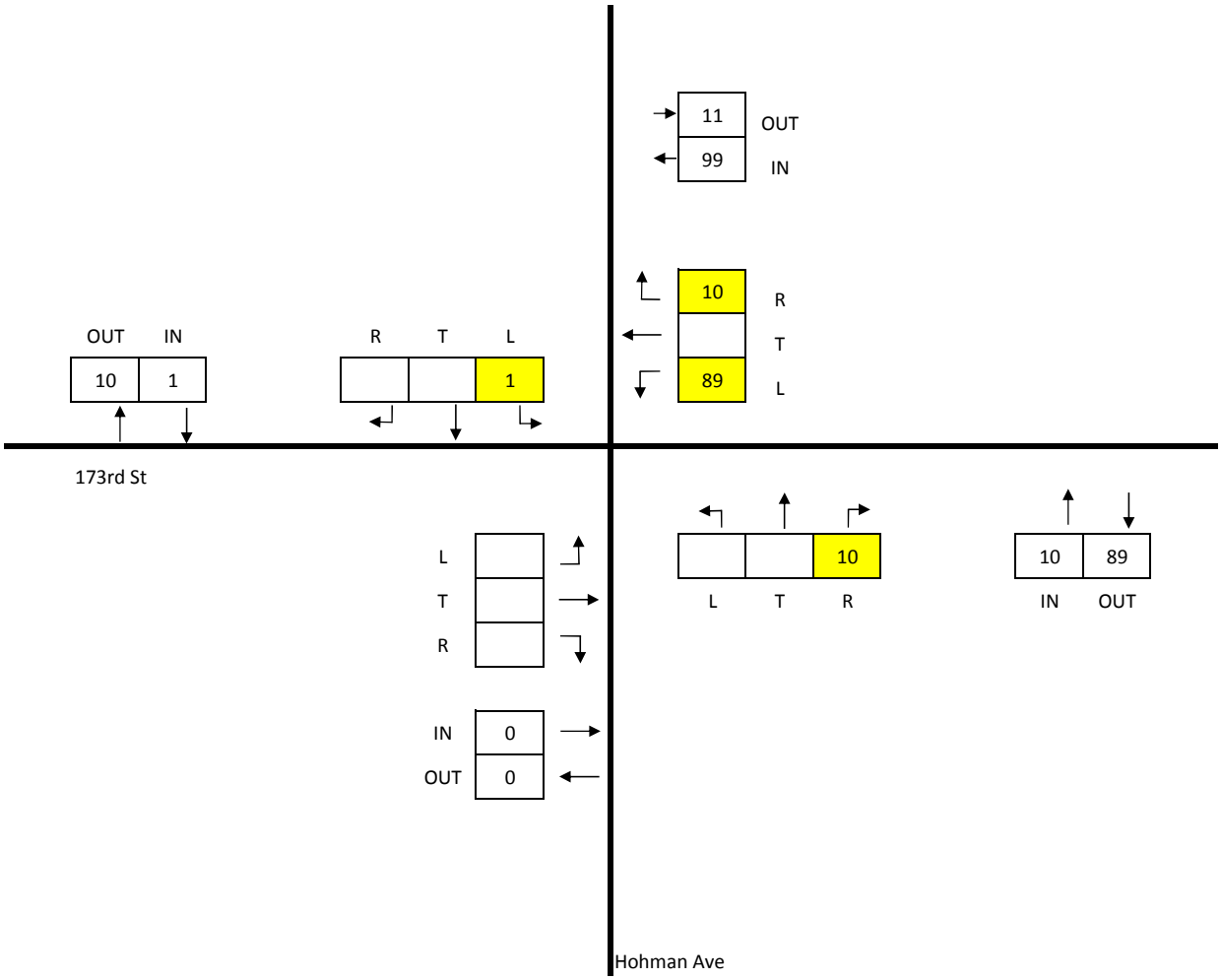
SOUTH HAMMOND STATION

October 2017

TOTAL INTERSECTION

IN	110
OUT	110

NORTH



CLASSIFICATION: ALL VEHICLES

HOHMAN AVE & 173RD ST

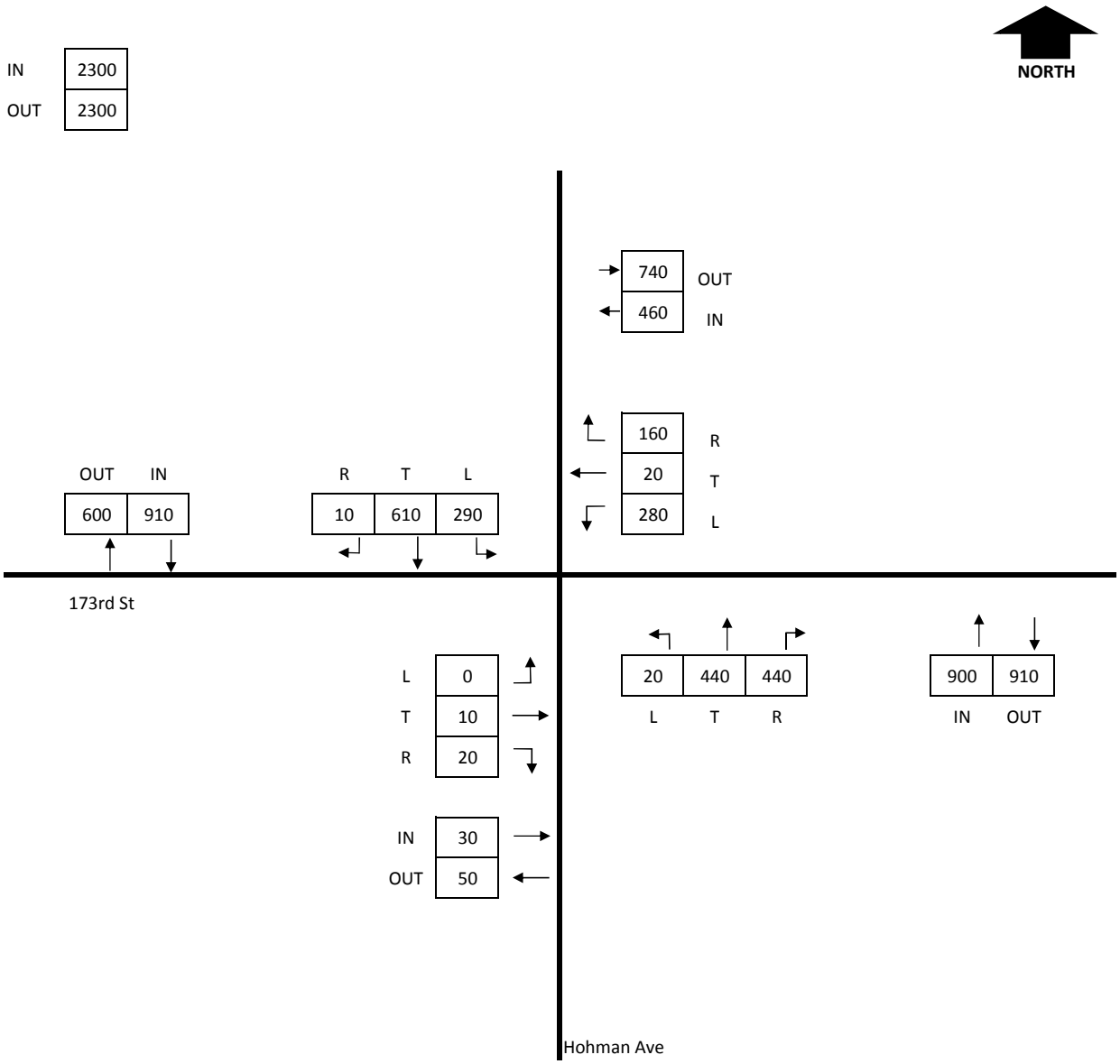
2040 SITE GENERATED TRIPS (PM)

SOUTH HAMMOND STATION

October 2017

TOTAL INTERSECTION

IN	2300
OUT	2300



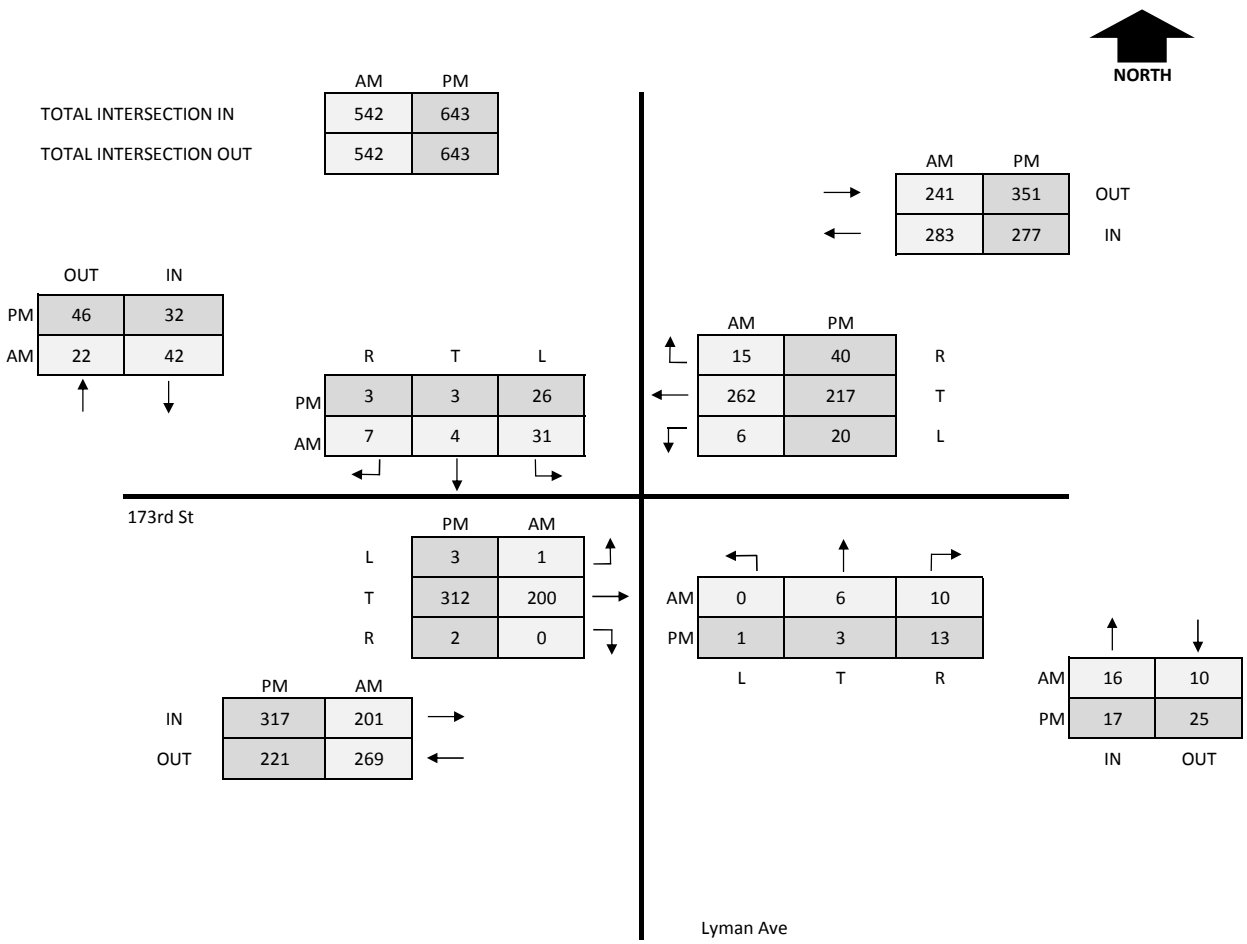
CLASSIFICATION: ALL VEHICLES

HOHMAN AVE & 173RD ST

2040 BUILD TRAFFIC VOLUMES (PM)

SOUTH HAMMOND STATION

October 2017



CLASSIFICATION: ALL VEHICLES

Traffic Counts from Quality Counts				
AM	11/11/2014	7:15 AM	to	8:15 AM
PM	11/11/2014	4:30 PM	to	5:30 PM

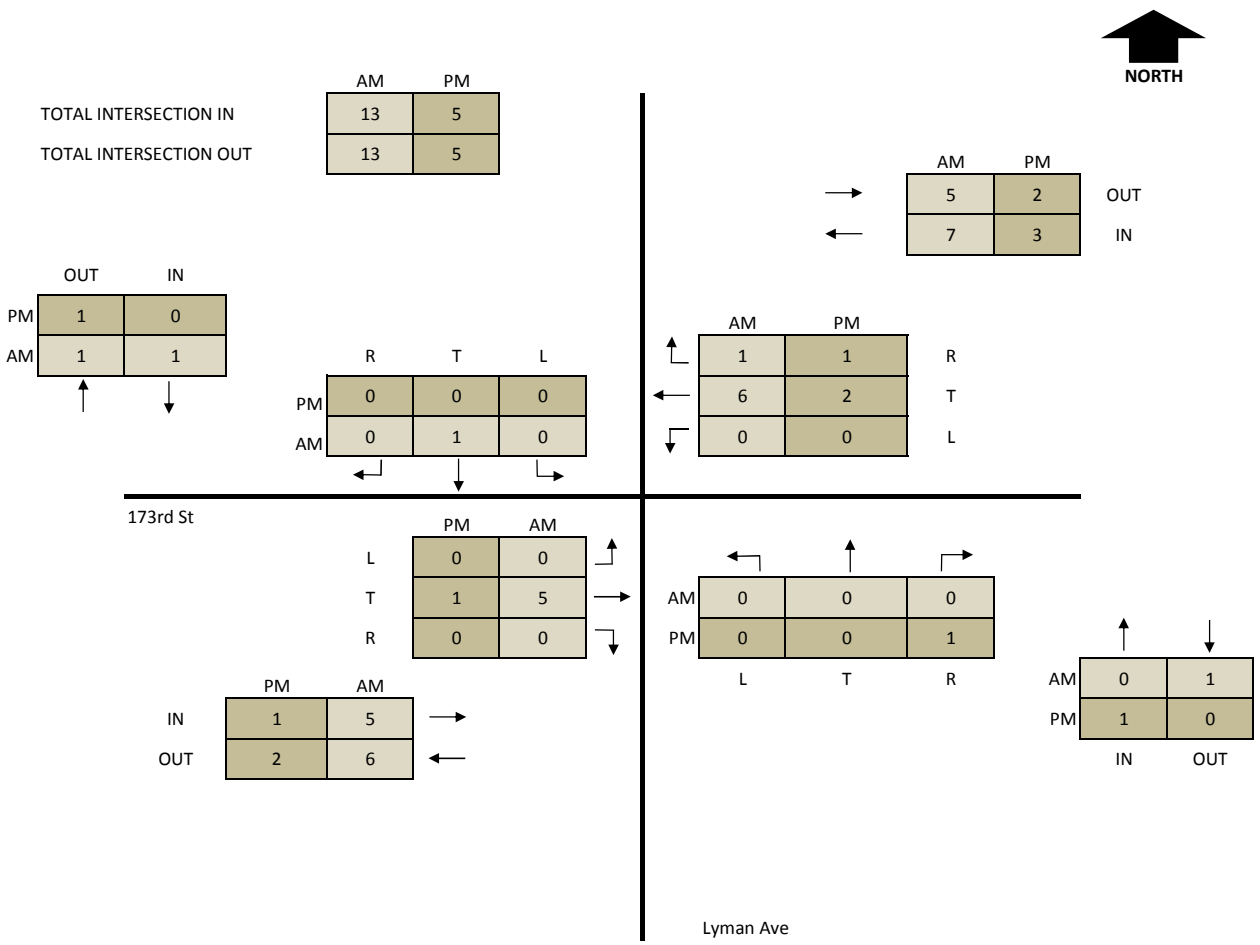
NICTD

LYMAN AVE & 173RD ST

EXISTING TRAFFIC VOLUMES (2014)

SOUTH HAMMOND STATION

October 2017



CLASSIFICATION: TRUCKS

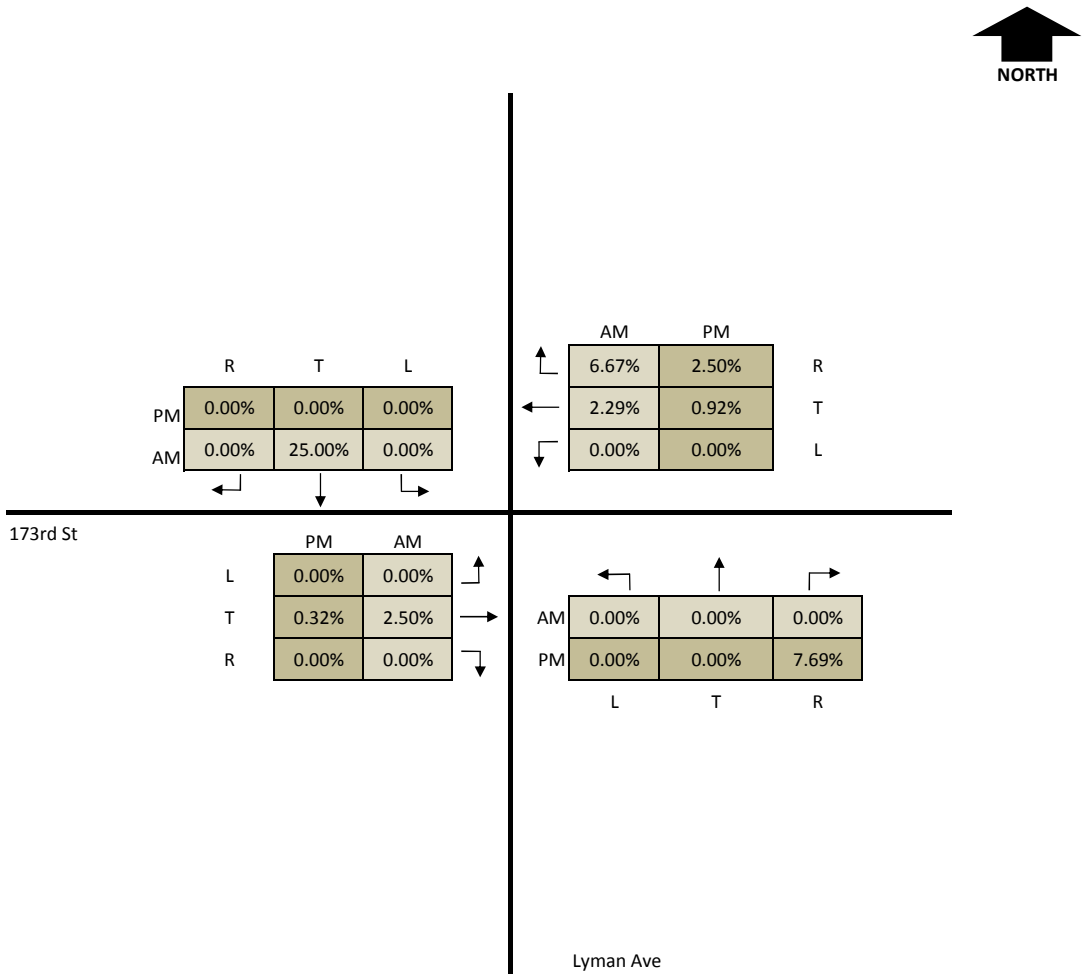
Traffic Counts from Quality Counts				
AM	11/11/2014	7:15 AM	to	8:15 AM
PM	11/11/2014	4:30 PM	to	5:30 PM

LYMAN AVE & 173RD ST

EXISTING TRAFFIC VOLUMES (2014)

SOUTH HAMMOND STATION

October 2017



CLASSIFICATION: TRUCKS

Traffic Counts from Quality Counts				
AM	11/11/2014	7:15 AM	to	8:15 AM
PM	11/11/2014	4:30 PM	to	5:30 PM

LYMAN AVE & 173RD ST

EXISTING TRAFFIC VOLUMES (2014)

SOUTH HAMMOND STATION

October 2017

TOTAL INTERSECTION

	2014	2022
IN	542	660
OUT	542	660

NORTH

	2014	2022	
→	241	280	OUT
←	283	320	IN

	OUT	IN
2022	40	60
2014	22	42

	R	T	L
2022	10	10	40
2014	7	4	31

	2014	2022	
↰	15	20	R
←	262	290	T
↙	6	10	L

173rd St

	2022	2014	
L	10	1	↑
T	220	200	→
R	10	0	↘

	2022	2014	
IN	240	201	→
OUT	310	269	←

	↰ L	↑ T	↱ R
2014	0	6	10
2022	10	10	20

	2014	2022
IN	16	10
OUT	40	30

Lyman Ave

CLASSIFICATION: ALL VEHICLES

ANNUAL GROWTH RATE	
Northbound	1.0%
Southbound	1.0%
Eastbound	1.0%
Westbound	1.0%
Years to Escalate: 2022	8

LYMAN AVE & 173RD ST

2022 PROJECTED TRAFFIC VOLUMES (AM)

SOUTH HAMMOND STATION

October 2017

TOTAL INTERSECTION

	2014	2022
IN	643	770
OUT	643	770

	2014	2022	
→	351	390	OUT
←	277	320	IN

	OUT	IN
2022	70	50
2014	46	32

	R	T	L
2022	10	10	30
2014	3	3	26

	2014	2022	
↰	40	50	R
←	217	240	T
↙	20	30	L

173rd St

	2022	2014
L	10	3
T	340	312
R	10	2

	2022	2014
IN	360	317
OUT	260	221

	L	T	R
2014	1	3	13
2022	10	10	20

	IN	OUT
2014	17	25
2022	40	50

Lyman Ave

CLASSIFICATION: ALL VEHICLES

ANNUAL GROWTH RATE	
Northbound	1.0%
Southbound	1.0%
Eastbound	1.0%
Westbound	1.0%
Years to Escalate: 2022	8

LYMAN AVE & 173RD ST

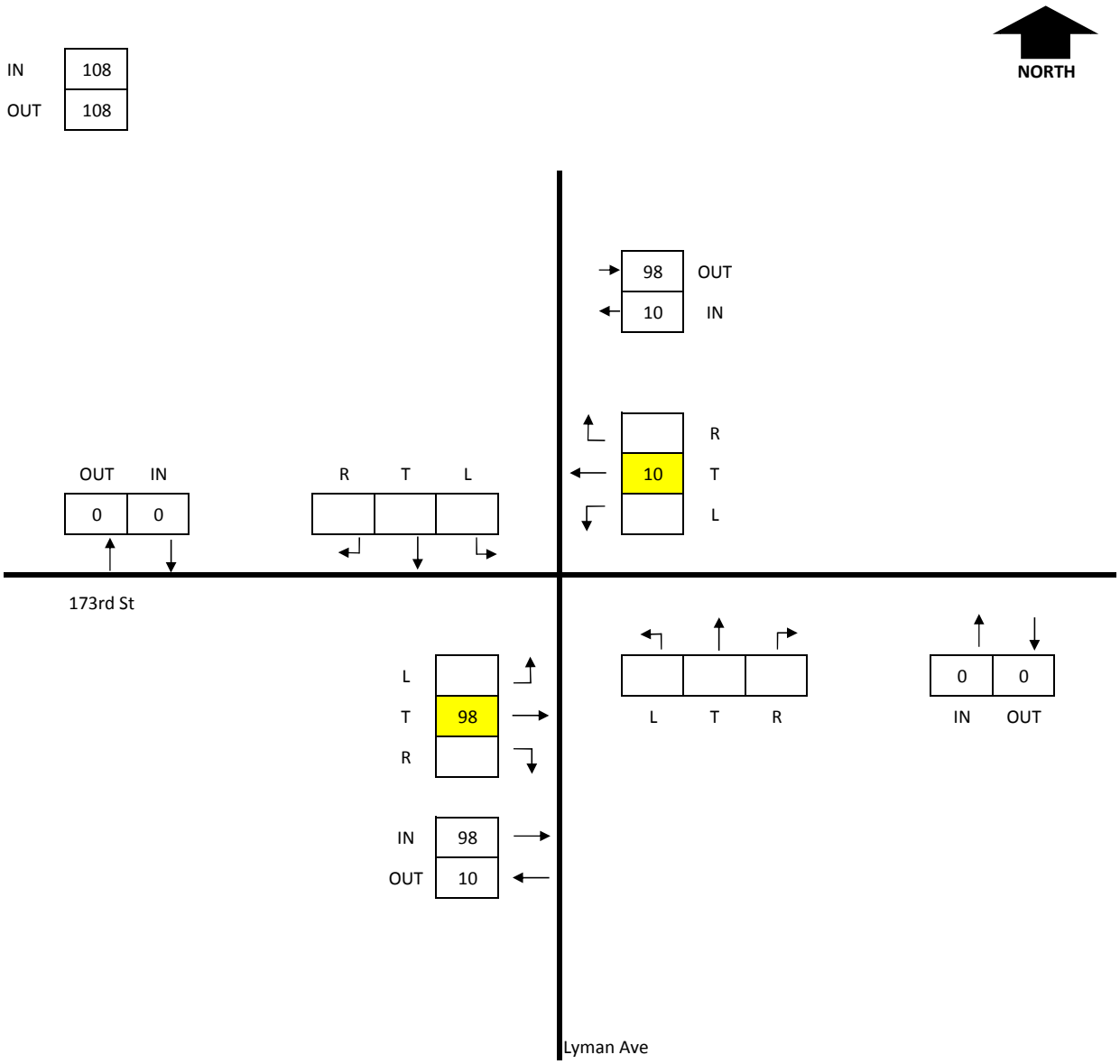
2022 PROJECTED TRAFFIC VOLUMES (PM)

SOUTH HAMMOND STATION

October 2017

TOTAL INTERSECTION

IN	108
OUT	108



CLASSIFICATION: ALL VEHICLES

LYMAN AVE & 173RD ST

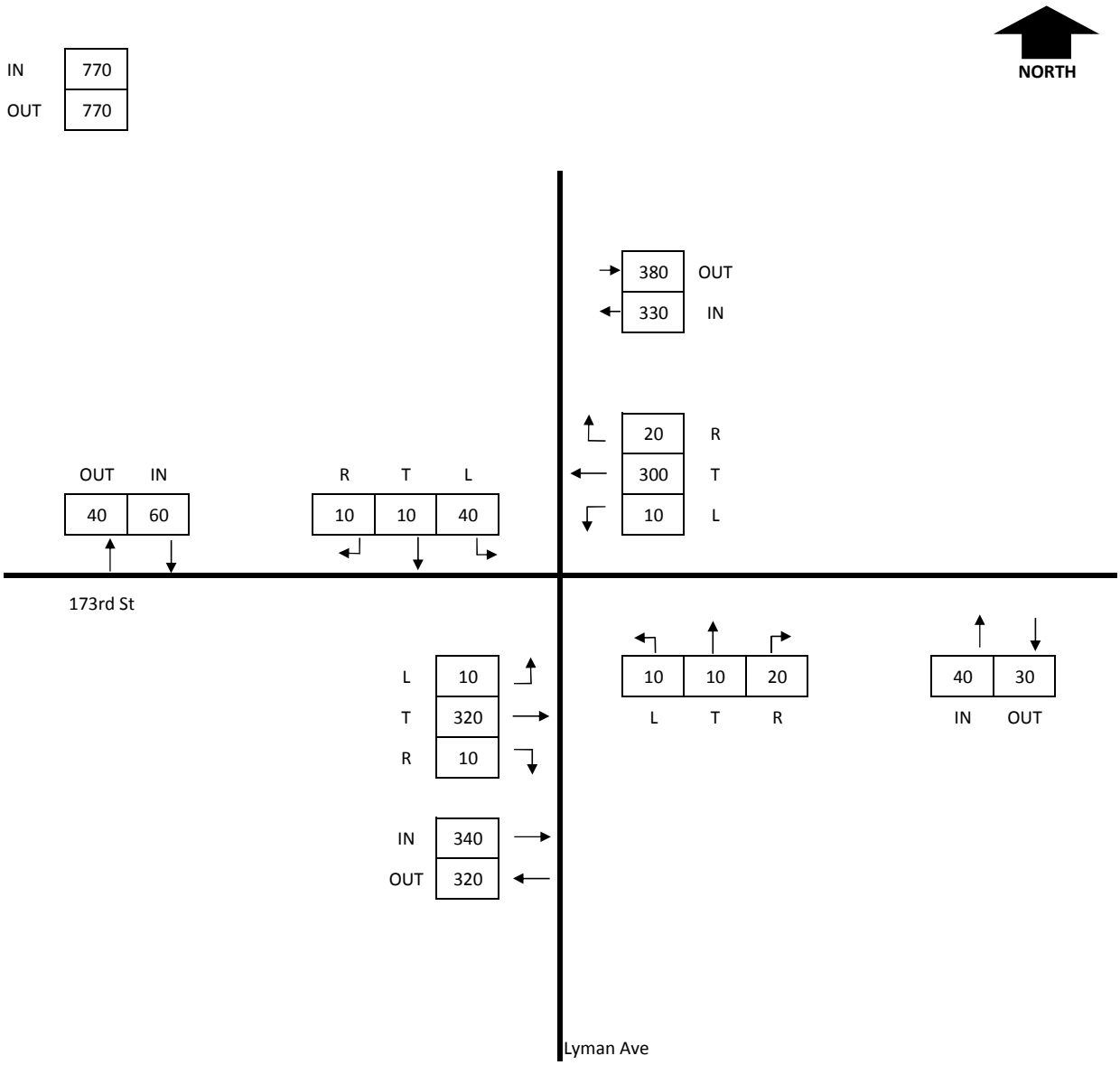
2022 SITE GENERATED TRIPS (AM)

SOUTH HAMMOND STATION

October 2017

TOTAL INTERSECTION

IN	770
OUT	770



CLASSIFICATION: ALL VEHICLES

LYMAN AVE & 173RD ST

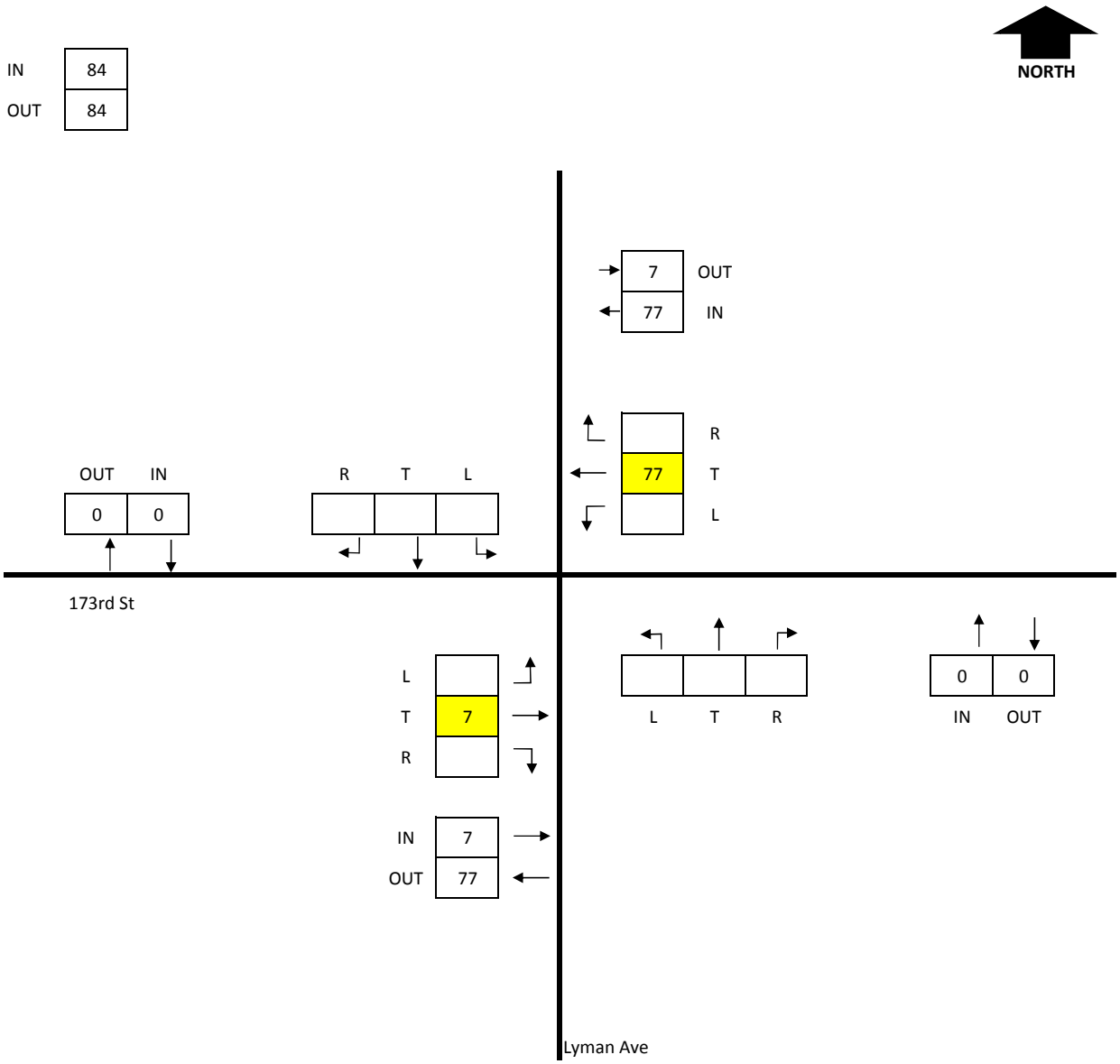
2022 BUILD TRAFFIC VOLUMES (AM)

SOUTH HAMMOND STATION

October 2017

TOTAL INTERSECTION

IN	84
OUT	84



CLASSIFICATION: ALL VEHICLES

LYMAN AVE & 173RD ST

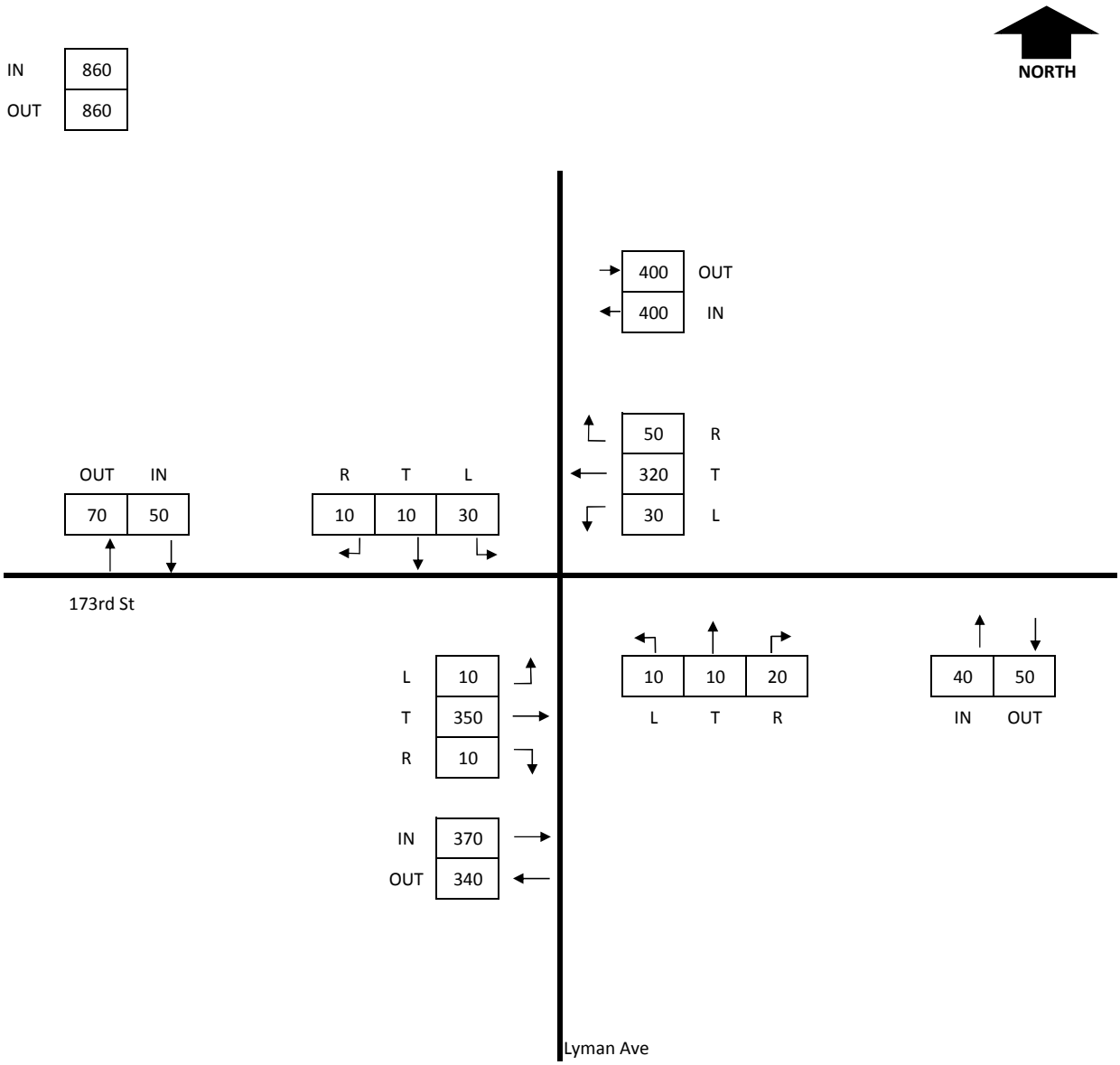
2022 SITE GENERATED TRIPS (PM)

SOUTH HAMMOND STATION

October 2017

TOTAL INTERSECTION

IN	860
OUT	860



CLASSIFICATION: ALL VEHICLES

LYMAN AVE & 173RD ST

2022 BUILD TRAFFIC VOLUMES (PM)

SOUTH HAMMOND STATION

October 2017

TOTAL INTERSECTION

	2014	2040
IN	542	760
OUT	542	760

NORTH

	2014	2040	
→	241	330	OUT
←	283	370	IN

	OUT	IN
2040	40	70
2014	22	42

	R	T	L
2040	10	10	50
2014	7	4	31

	2014	2040	
↰	15	20	R
←	262	340	T
↲	6	10	L

173rd St

	2040	2014	
L	10	1	↑
T	260	200	→
R	10	0	↓

	2015	2014	
IN	280	201	→
OUT	360	269	←

	L	T	R
2014	0	6	10
2040	10	10	20

	IN	OUT
2014	16	10
2040	40	30

Lyman Ave

CLASSIFICATION: ALL VEHICLES

ANNUAL GROWTH RATE	
Northbound	1.0%
Southbound	1.0%
Eastbound	1.0%
Westbound	1.0%
Years to Escalate: 2040	26

LYMAN AVE & 173RD ST

2040 PROJECTED TRAFFIC VOLUMES (AM)

SOUTH HAMMOND STATION

October 2017

TOTAL INTERSECTION

	2014	2040
IN	643	910
OUT	643	910

	2014	2040	
→	351	470	OUT
←	277	380	IN

	OUT	IN
2040	80	60
2014	46	32

	R	T	L
2040	10	10	40
2014	3	3	26

	2014	2040	
↰	40	60	R
←	217	290	T
↙	20	30	L

173rd St

	2040	2014
L	10	3
T	410	312
R	10	2

	2040	2014
IN	430	317
OUT	310	221

	L	T	R
2014	1	3	13
2040	10	10	20

	IN	OUT
2014	17	25
2040	40	50

Lyman Ave

CLASSIFICATION: ALL VEHICLES

ANNUAL GROWTH RATE	
Northbound	1.0%
Southbound	1.0%
Eastbound	1.0%
Westbound	1.0%
Years to Escalate: 2040	26

LYMAN AVE & 173RD ST

2040 PROJECTED TRAFFIC VOLUMES (PM)

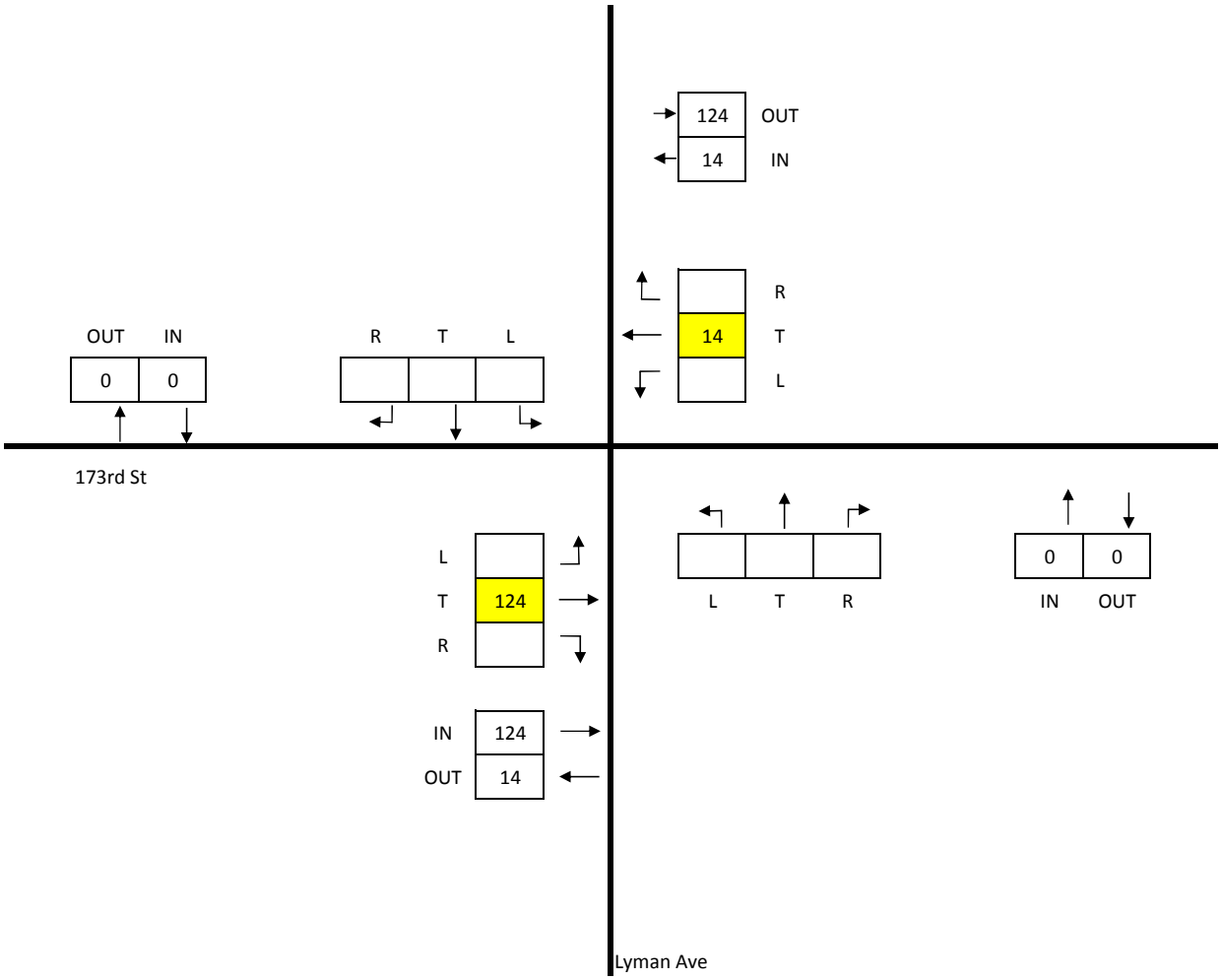
SOUTH HAMMOND STATION

October 2017

TOTAL INTERSECTION

IN	138
OUT	138

NORTH



CLASSIFICATION: ALL VEHICLES

LYMAN AVE & 173RD ST

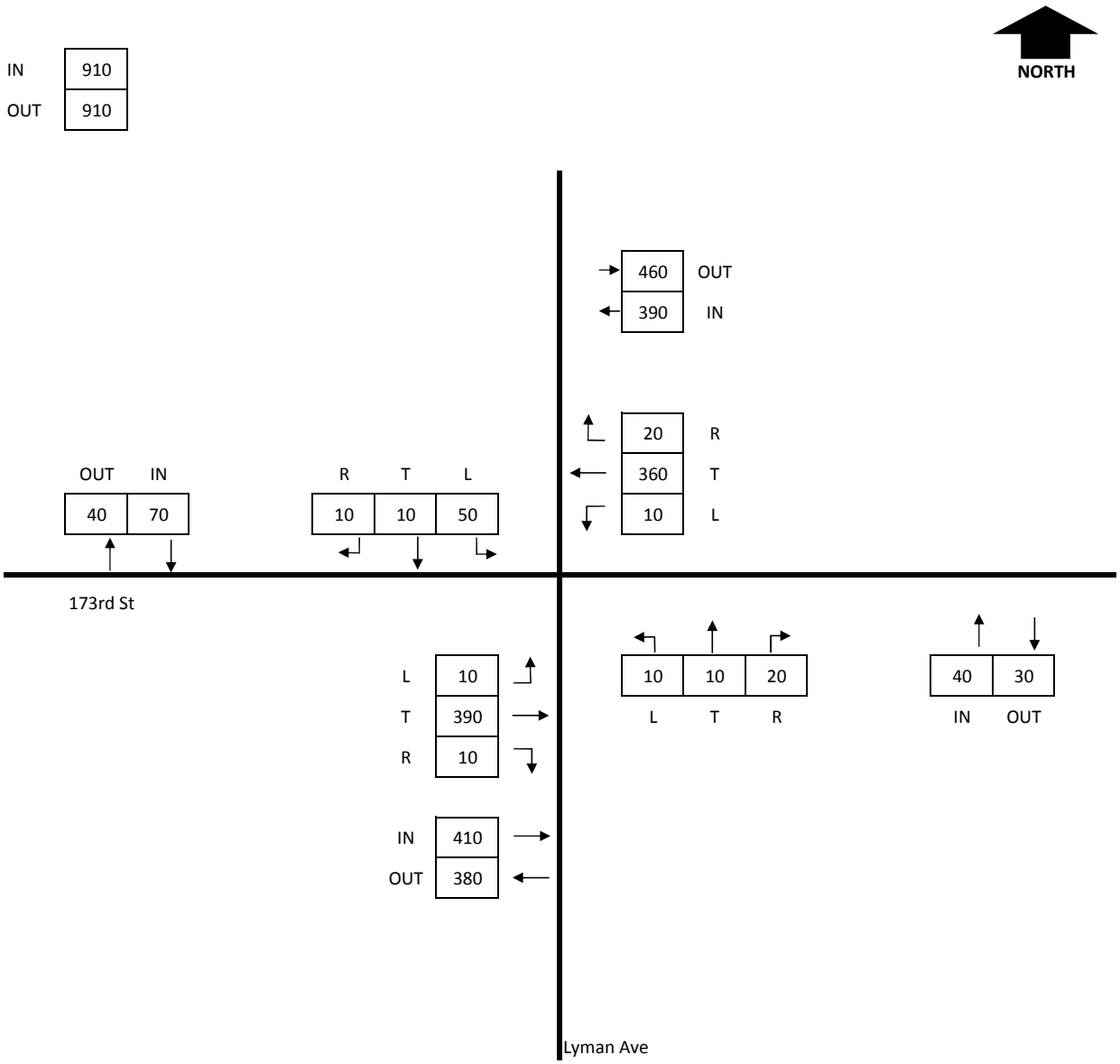
2040 SITE GENERATED TRIPS (AM)

SOUTH HAMMOND STATION

October 2017

TOTAL INTERSECTION

IN	910
OUT	910



CLASSIFICATION: ALL VEHICLES

LYMAN AVE & 173RD ST

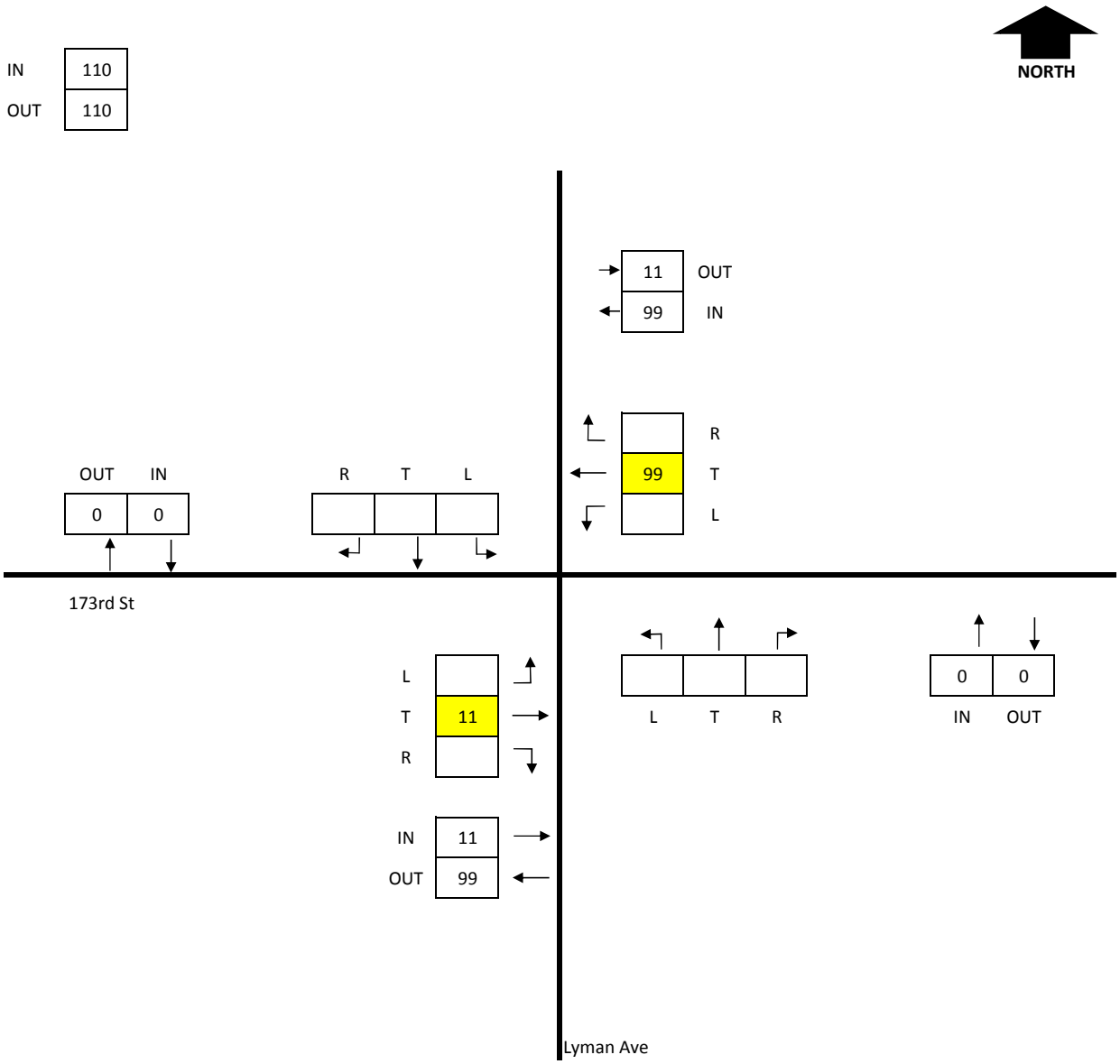
2040 BUILD TRAFFIC VOLUMES (AM)

SOUTH HAMMOND STATION

October 2017

TOTAL INTERSECTION

IN	110
OUT	110



CLASSIFICATION: ALL VEHICLES

LYMAN AVE & 173RD ST

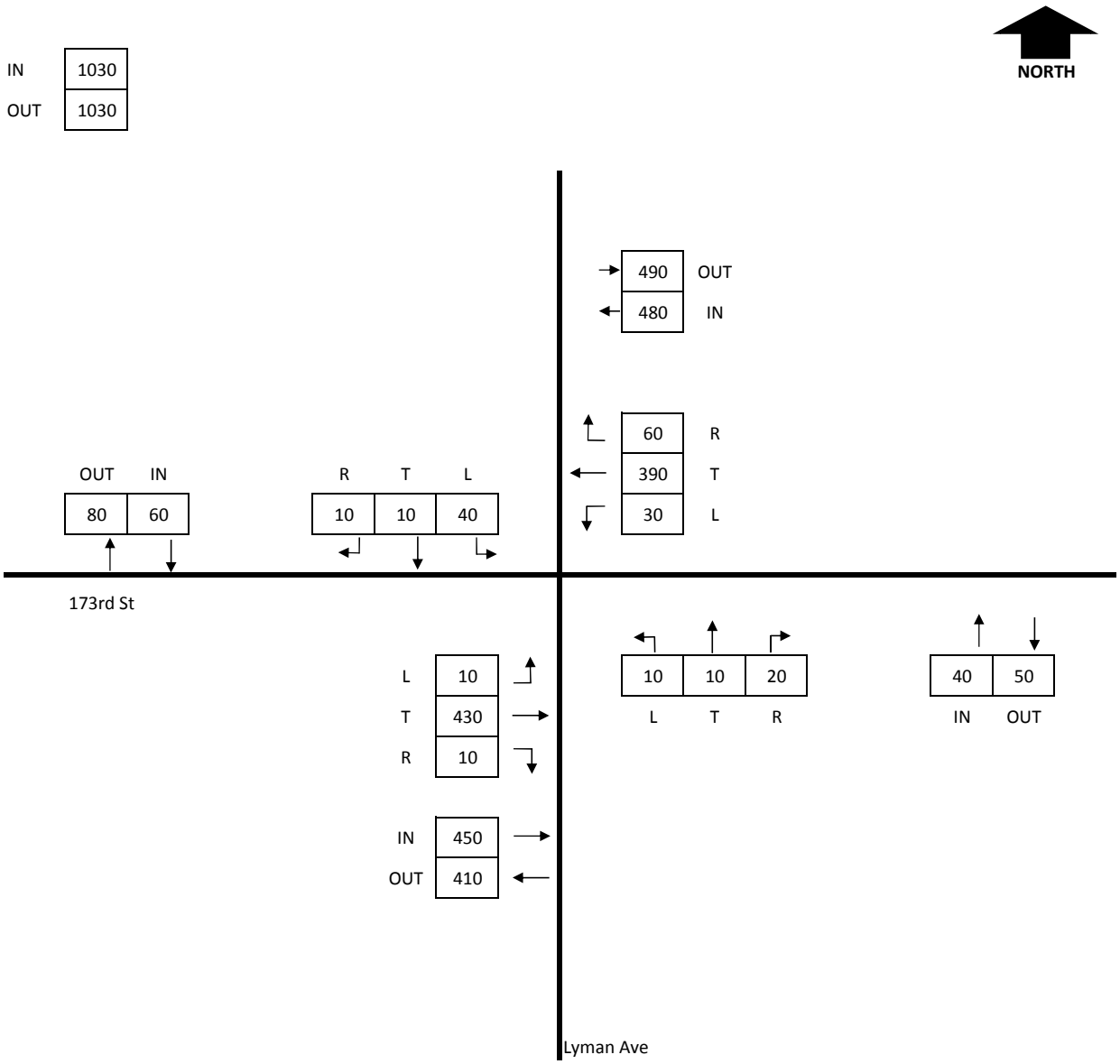
2040 SITE GENERATED TRIPS (PM)

SOUTH HAMMOND STATION

October 2017

TOTAL INTERSECTION

IN	1030
OUT	1030



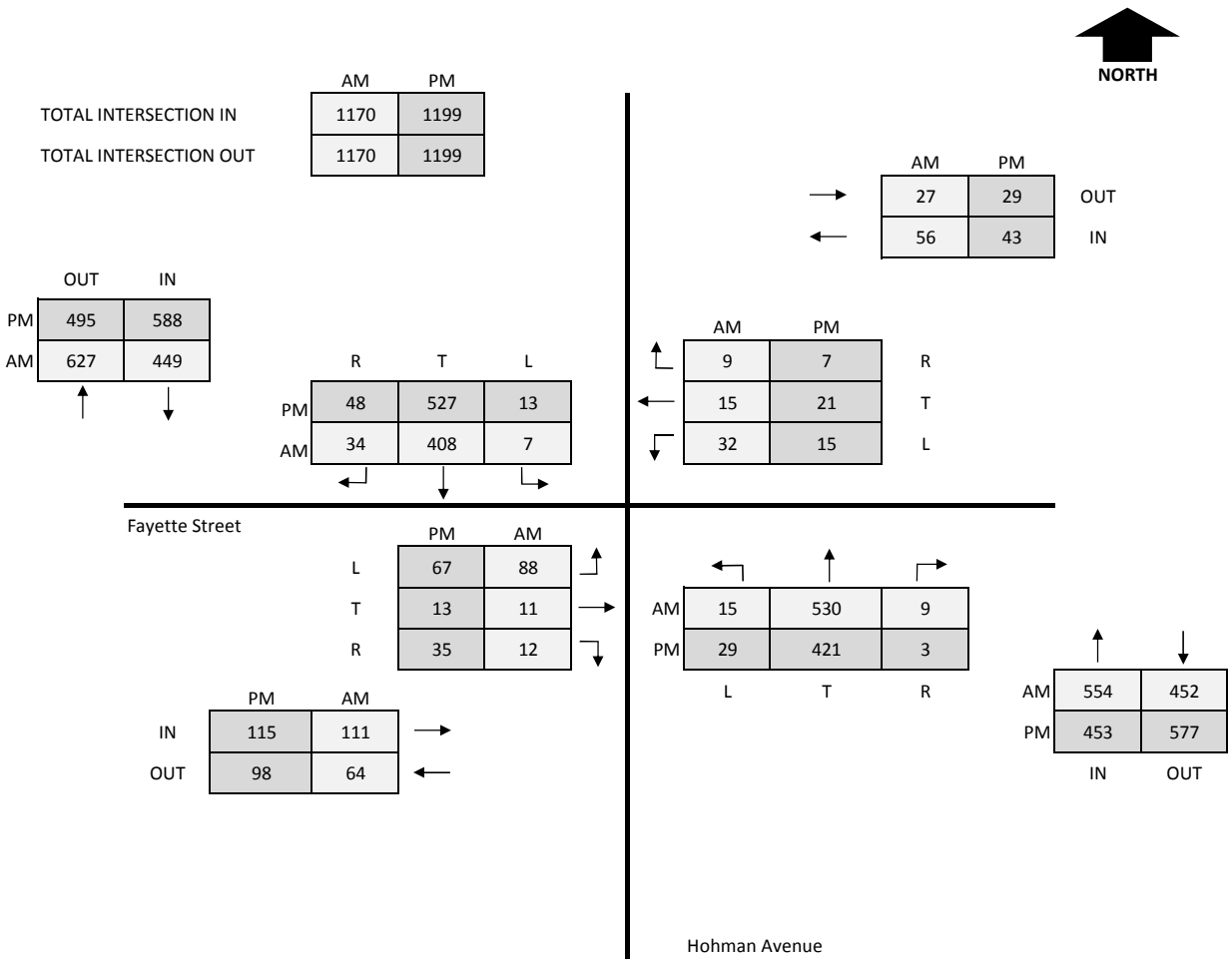
CLASSIFICATION: ALL VEHICLES

LYMAN AVE & 173RD ST

2040 BUILD TRAFFIC VOLUMES (AM)

SOUTH HAMMOND STATION

October 2017



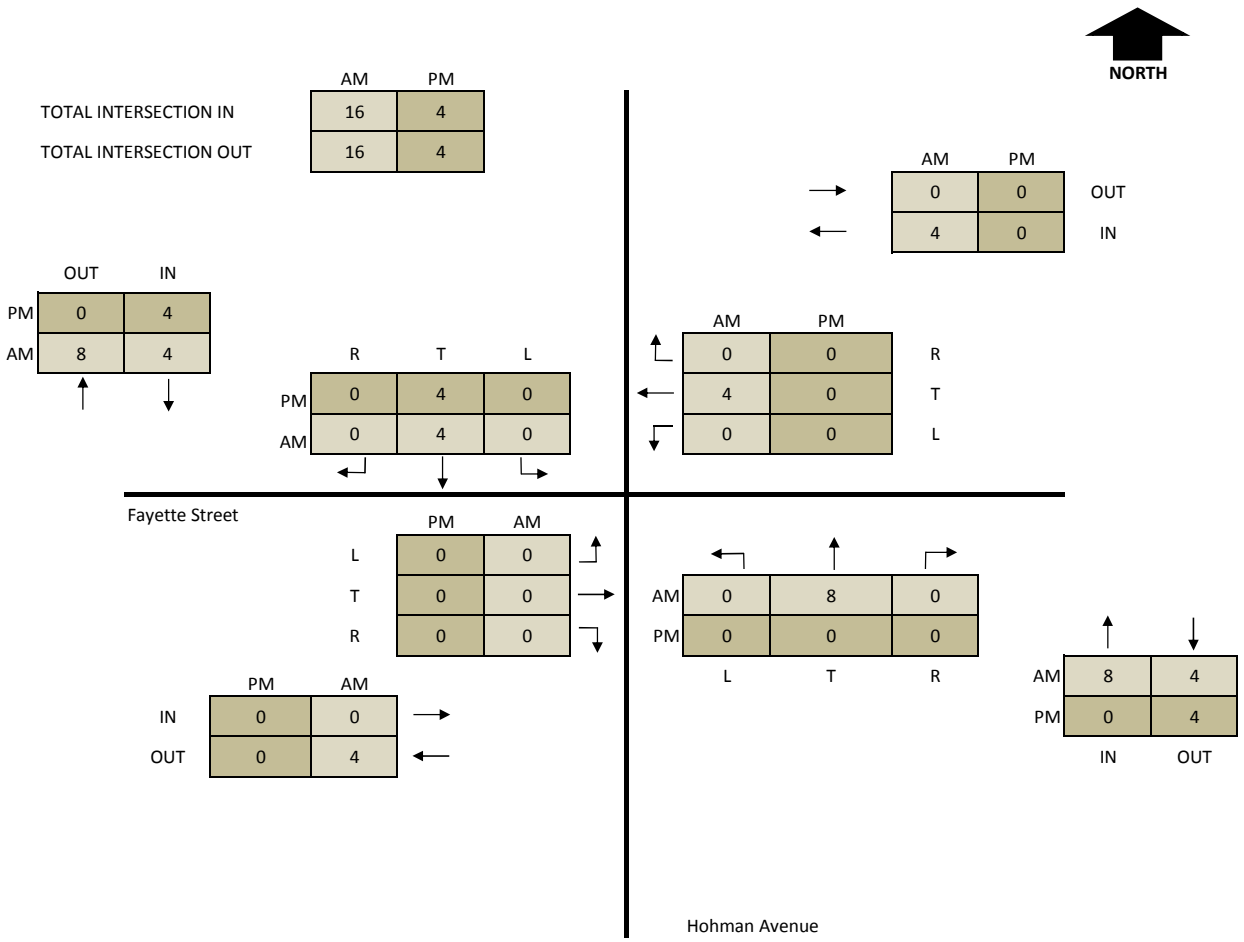
CLASSIFICATION: ALL VEHICLES

Traffic Counts from Quality Counts				
AM	11/11/2014	7:15 AM	to	8:15 AM
PM	11/11/2014	4:30 PM	to	5:30 PM

HOHMAN AVE & FAYETTE ST

EXISTING TRAFFIC VOLUMES (2014)

October 2017



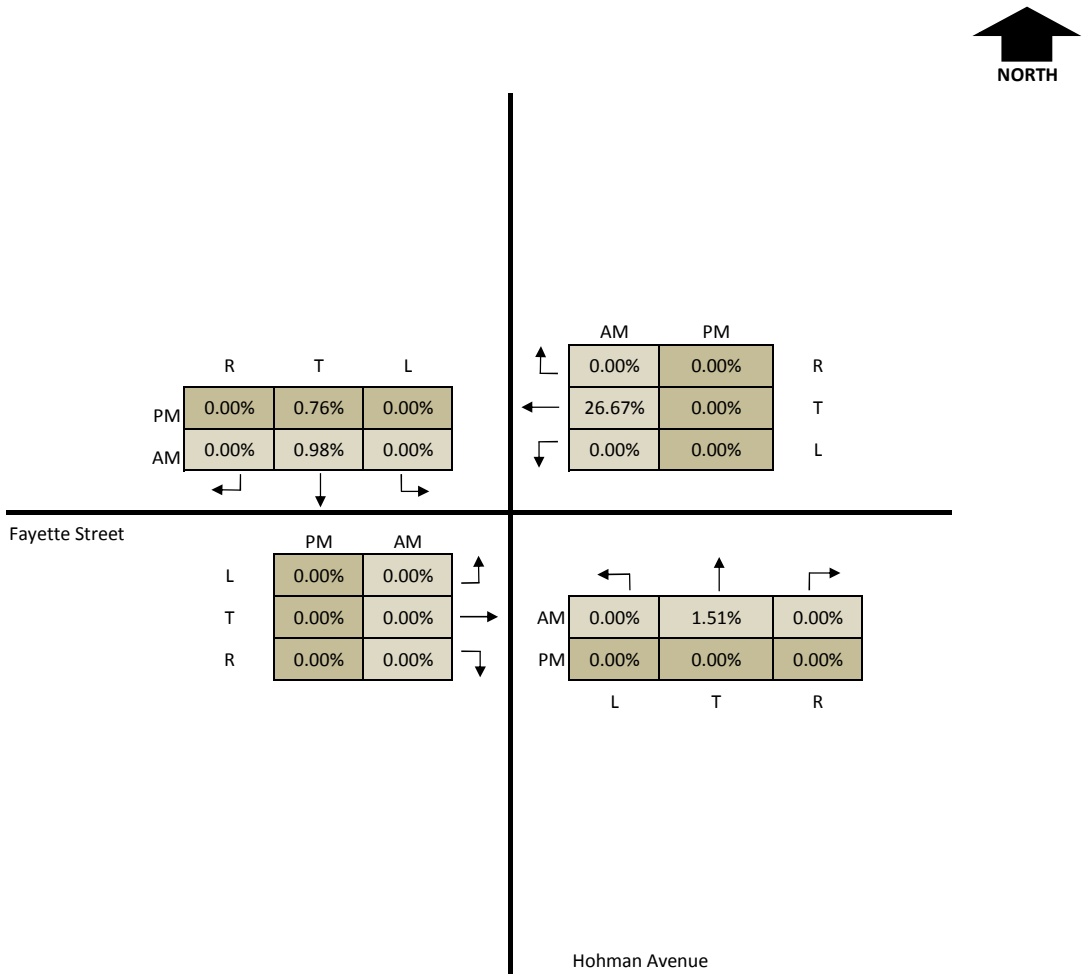
CLASSIFICATION: TRUCKS

Traffic Counts from Quality Counts				
AM	11/11/2014	7:15 AM	to	8:15 AM
PM	11/11/2014	4:30 PM	to	5:30 PM

HOHMAN AVE & FAYETTE ST

EXISTING TRAFFIC VOLUMES (2014)

October 2017



CLASSIFICATION: TRUCKS

Traffic Counts from Quality Counts				
AM	11/11/2014	7:15 AM	to	8:15 AM
PM	11/11/2014	4:30 PM	to	5:30 PM

HOHMAN AVE & FAYETTE ST

EXISTING TRAFFIC VOLUMES (2014)

October 2017

TOTAL INTERSECTION

	2014	2040
IN	1170	1540
OUT	1170	1540

	2014	2040	
→	27	50	OUT
←	56	90	IN

	OUT	IN
2040	810	580
2014	627	449

	R	T	L
2040	50	520	10
2014	34	408	7

	2014	2040	
↰	9	20	R
←	15	20	T
↙	32	50	L

Fayette Street

	2040	2014	
L	120	88	↑
T	20	11	→
R	20	12	↓

	2015	2014	
IN	160	111	→
OUT	90	64	←

	↰	↑	↱
2014	15	530	9
2040	20	670	20
	L	T	R

	↑	↓
2014	554	452
2040	710	590
	IN	OUT

Hohman Avenue

CLASSIFICATION: ALL VEHICLES

ANNUAL GROWTH RATE	
Northbound	1.0%
Southbound	1.0%
Eastbound	1.0%
Westbound	1.0%
Years to Escalate: 2040	26

HOHMAN AVE & FAYETTE ST

2040 PROJECTED TRAFFIC VOLUMES (AM)

October 2017

TOTAL INTERSECTION

	2014	2040
IN	1199	1570
OUT	1199	1570

	2014	2040	
→	29	50	OUT
←	43	60	IN

	OUT	IN
2040	640	760
2014	495	588

	R	T	L
2040	70	670	20
2014	48	527	13

	2014	2040	
↰	7	10	R
←	21	30	T
↙	15	20	L

Fayette Street

	2040	2014
L	90	67
T	20	13
R	50	35

	2040	2014
IN	160	115
OUT	140	98

	L	T	R
2014	29	421	3
2040	40	540	10

	2014	2040
2014	453	577
2040	590	740
	IN	OUT

Hohman Avenue

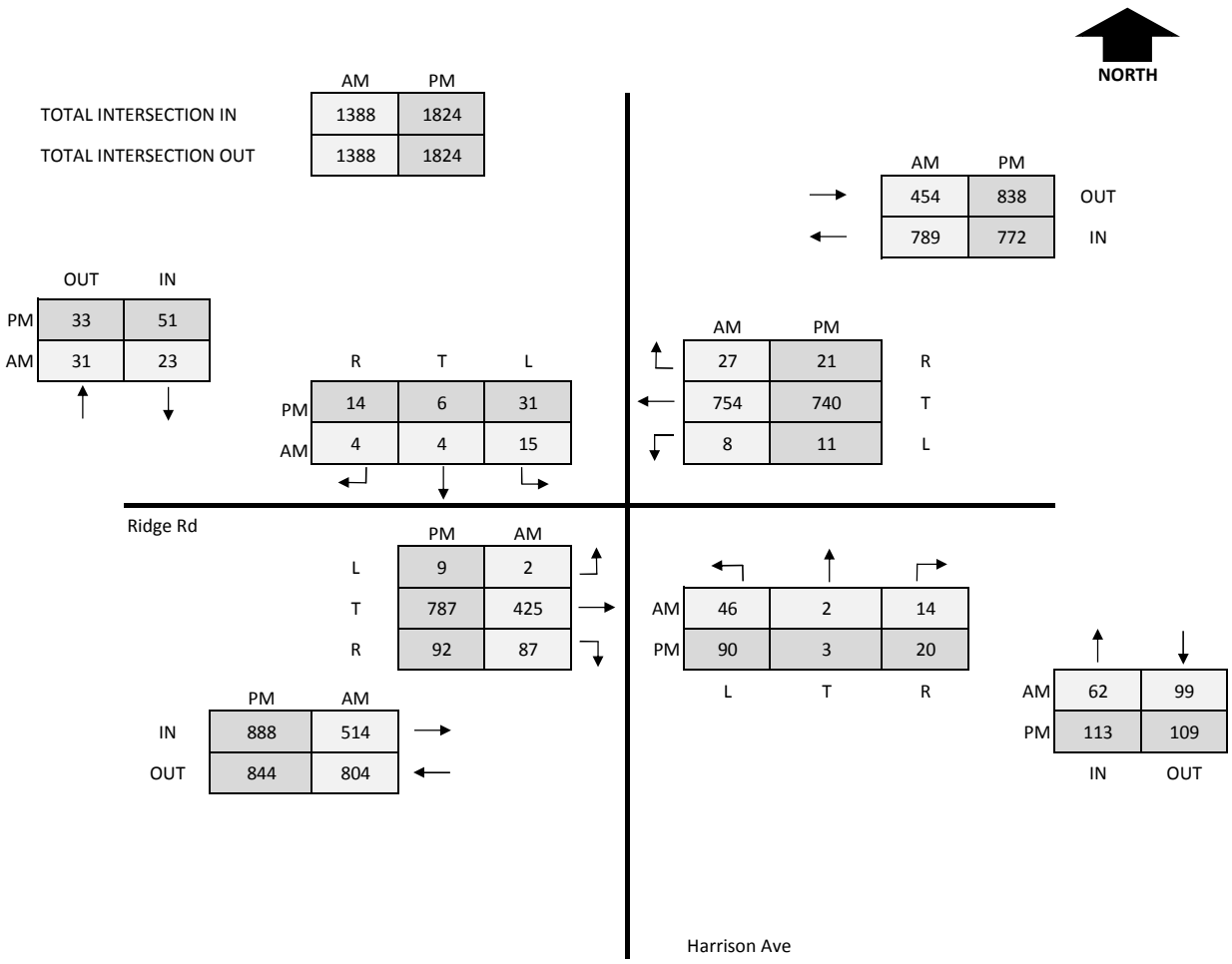
CLASSIFICATION: ALL VEHICLES

ANNUAL GROWTH RATE	
Northbound	1.0%
Southbound	1.0%
Eastbound	1.0%
Westbound	1.0%
Years to Escalate: 2040	26

HOHMAN AVE & FAYETTE ST

2040 PROJECTED TRAFFIC VOLUMES (PM)

October 2017



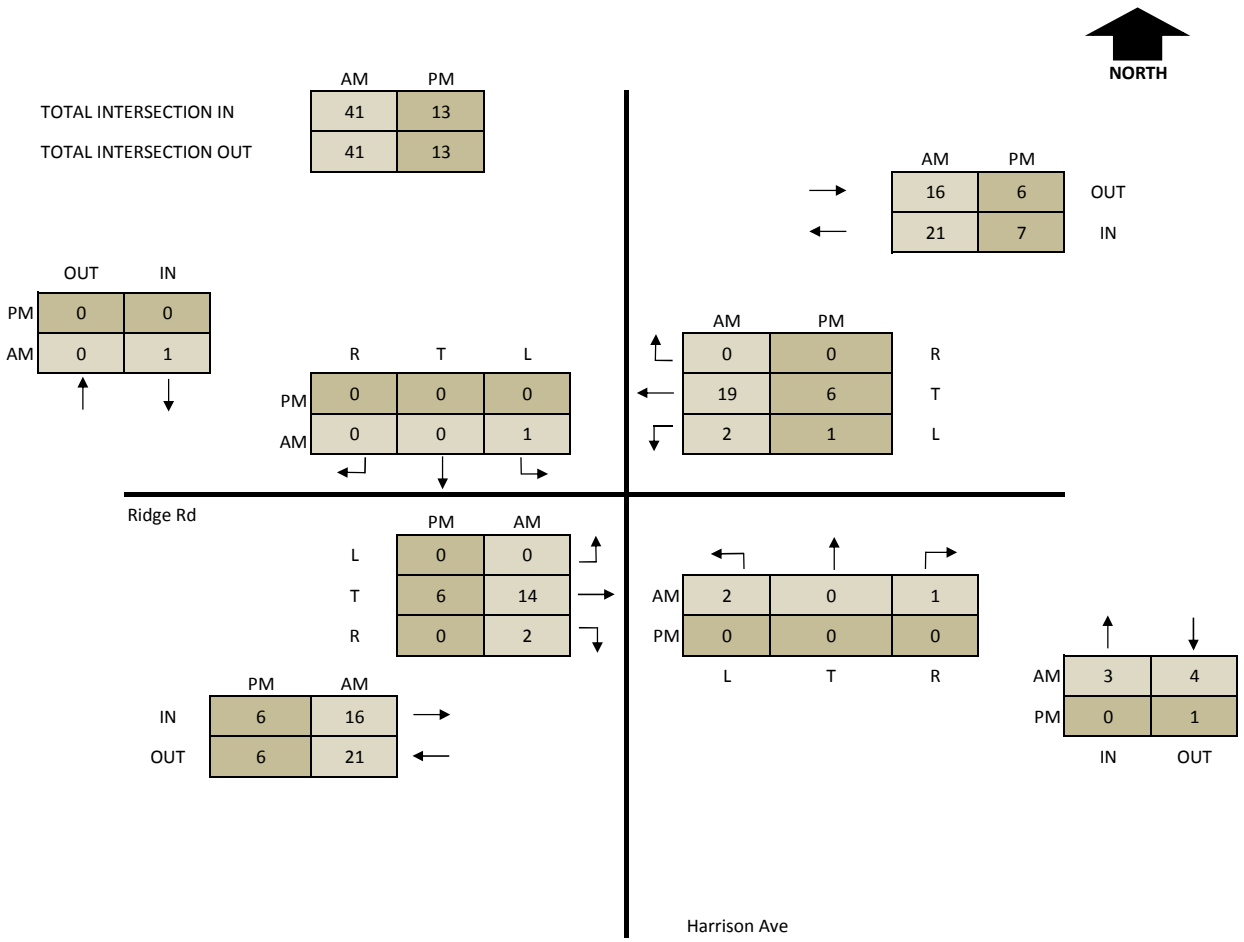
CLASSIFICATION: ALL VEHICLES

Traffic Counts from Quality Counts				
AM	11/4/2014	7:15 AM	to	8:15 AM
PM	11/4/2014	4:30 PM	to	5:30 PM

HARRISON AVE & RIDGE RD

EXISTING TRAFFIC VOLUMES (2014)

October 2017



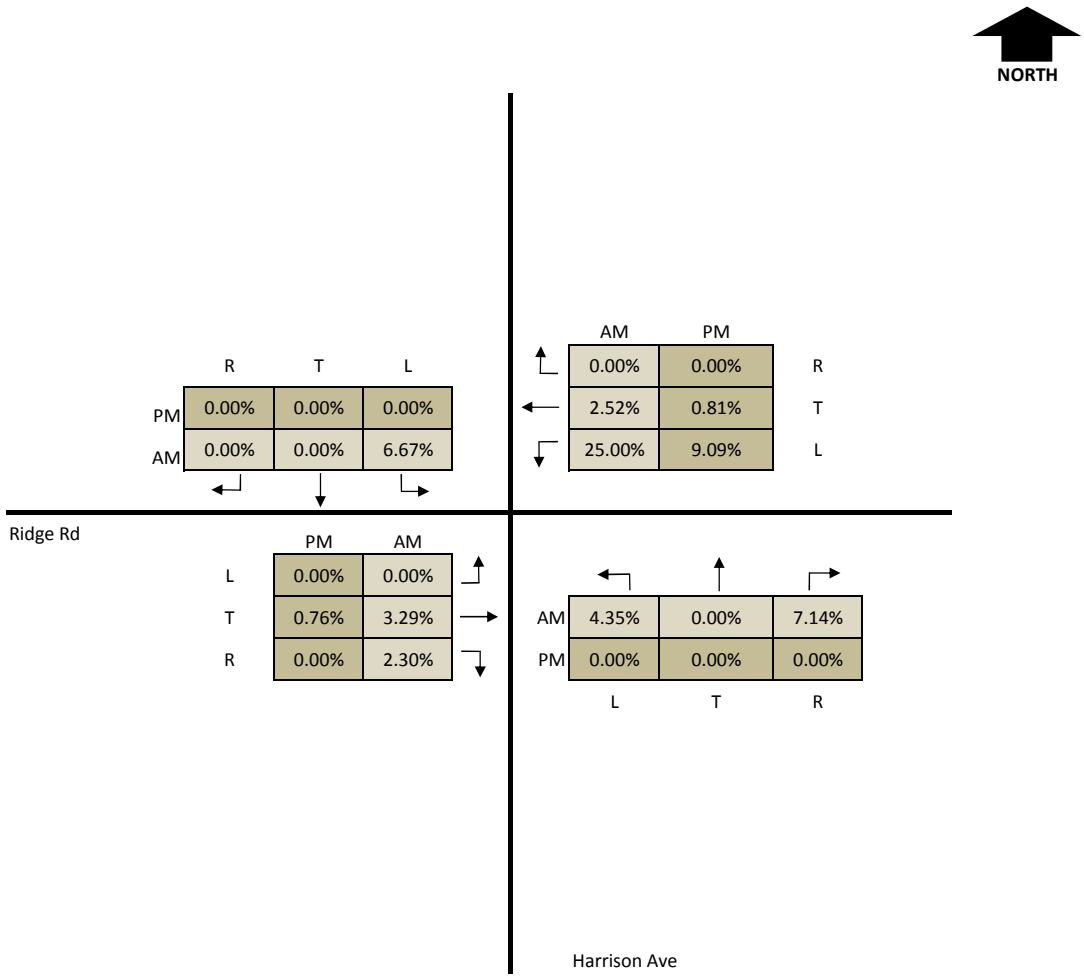
CLASSIFICATION: TRUCKS

Traffic Counts from Quality Counts				
AM	11/4/2014	7:15 AM	to	8:15 AM
PM	11/4/2014	4:30 PM	to	5:30 PM

HARRISON AVE & RIDGE RD

EXISTING TRAFFIC VOLUMES (2014)

October 2017



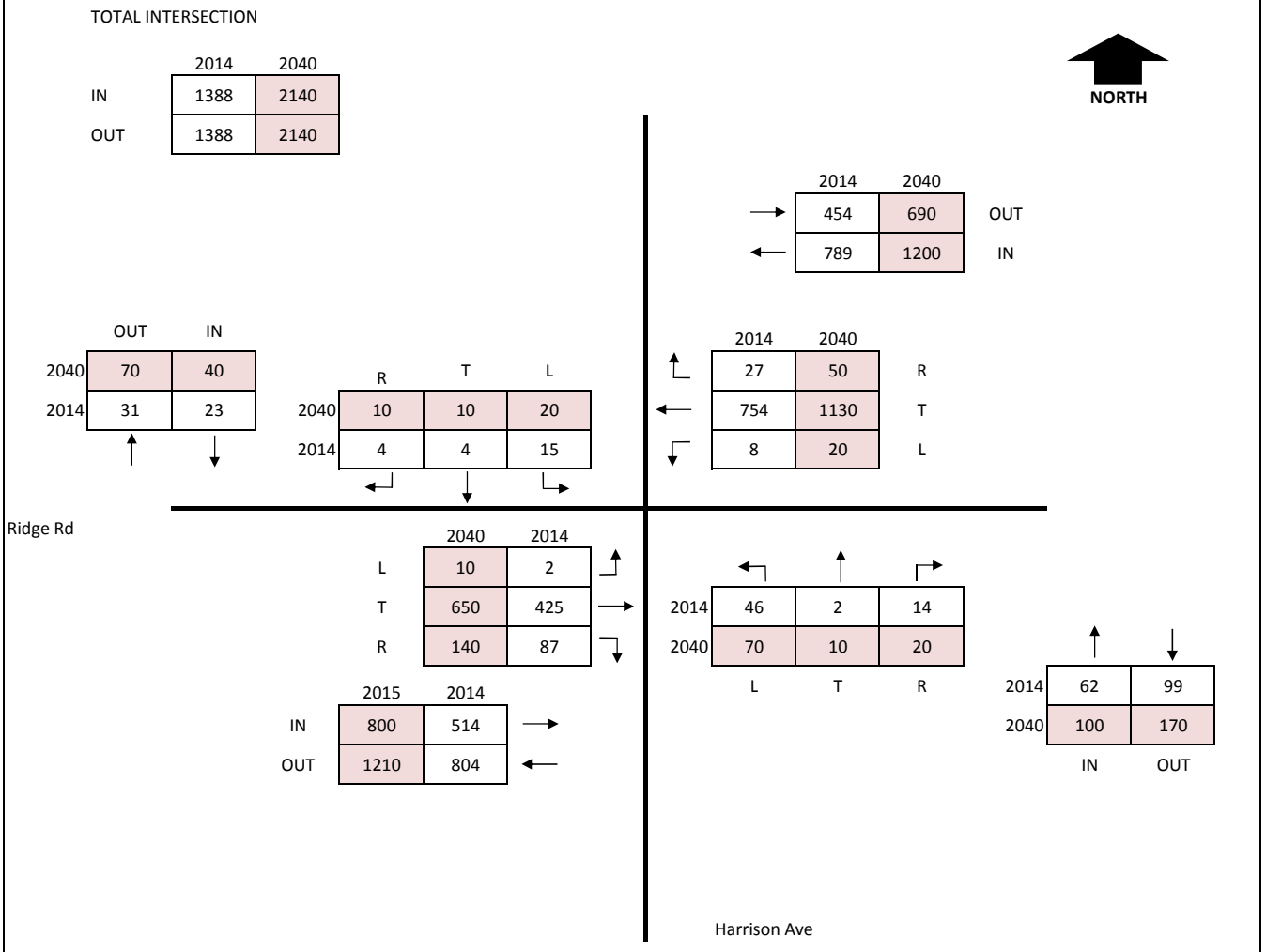
CLASSIFICATION: TRUCKS

Traffic Counts from Quality Counts				
AM	11/4/2014	7:15 AM	to	8:15 AM
PM	11/4/2014	4:30 PM	to	5:30 PM

HARRISON AVE & RIDGE RD

EXISTING TRAFFIC VOLUMES (2014)

October 2017



CLASSIFICATION: ALL VEHICLES

ANNUAL GROWTH RATE	
Northbound	1.4%
Southbound	0.3%
Eastbound	2.0%
Westbound	1.9%
Years to Escalate: 2040	26

HARRISON AVE & RIDGE RD

2040 PROJECTED TRAFFIC VOLUMES (AM)

October 2017

TOTAL INTERSECTION

	2014	2040
IN	1824	2770
OUT	1824	2770

NORTH

	2014	2040	
→	838	1270	OUT
←	772	1170	IN

	OUT	IN
2040	70	70
2014	33	51

	R	T	L
2040	20	10	40
2014	14	6	31

	2014	2040	
↰	21	40	R
←	740	1110	T
↙	11	20	L

Ridge Rd

	2040	2014	
L	20	9	↑
T	1200	787	→
R	140	92	↘

	2040	2014
IN	1360	888 →
OUT	1260	844 ←

	↰	↑	↱
2014	90	3	20
2040	130	10	30
	L	T	R

	↑	↓
2014	113	109
2040	170	170
	IN	OUT

Harrison Ave

CLASSIFICATION: ALL VEHICLES

ANNUAL GROWTH RATE	
Northbound	1.4%
Southbound	0.3%
Eastbound	2.0%
Westbound	1.9%
Years to Escalate: 2040	26

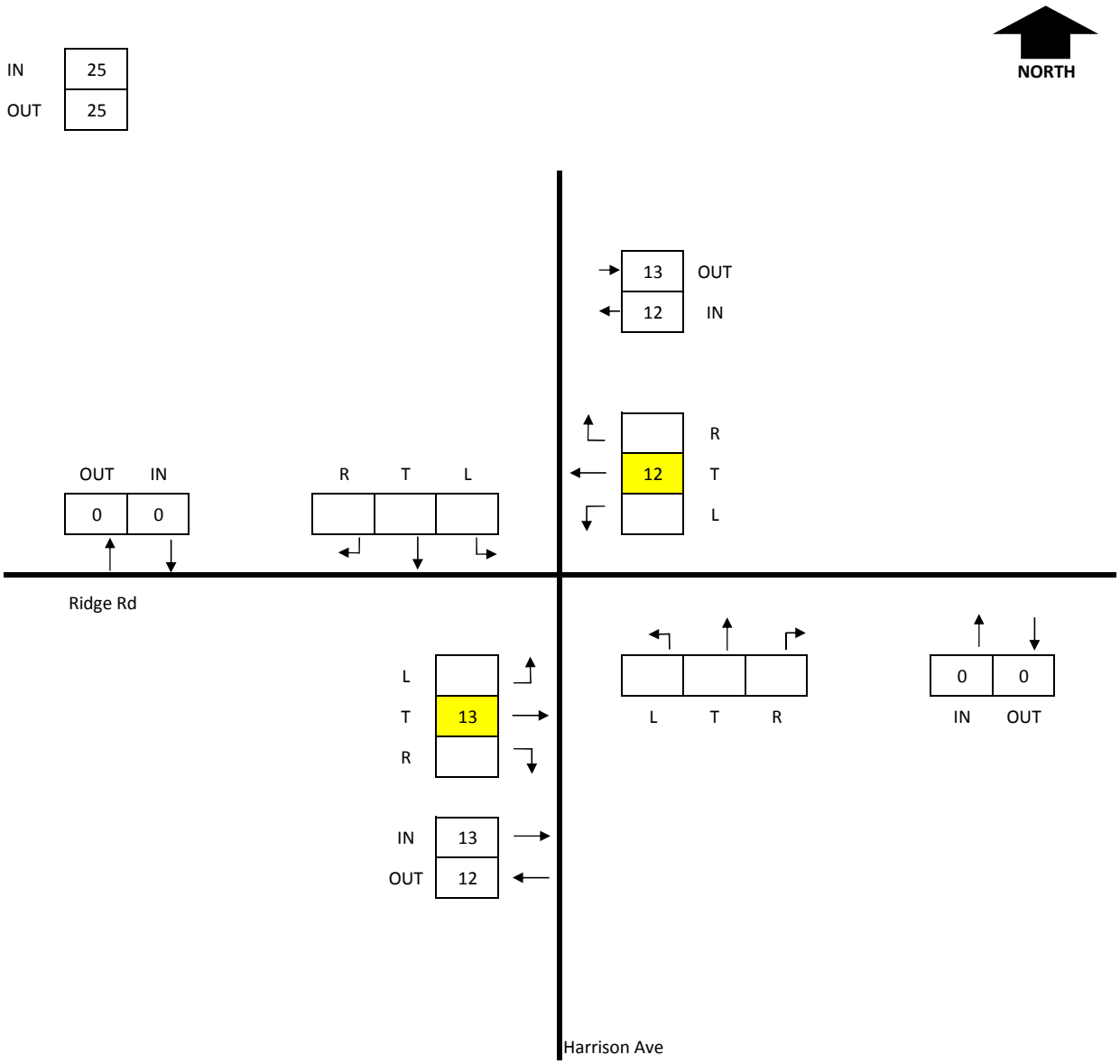
HARRISON AVE & RIDGE RD

2040 PROJECTED TRAFFIC VOLUMES (PM)

October 2017

TOTAL INTERSECTION

IN	25
OUT	25



CLASSIFICATION: ALL VEHICLES

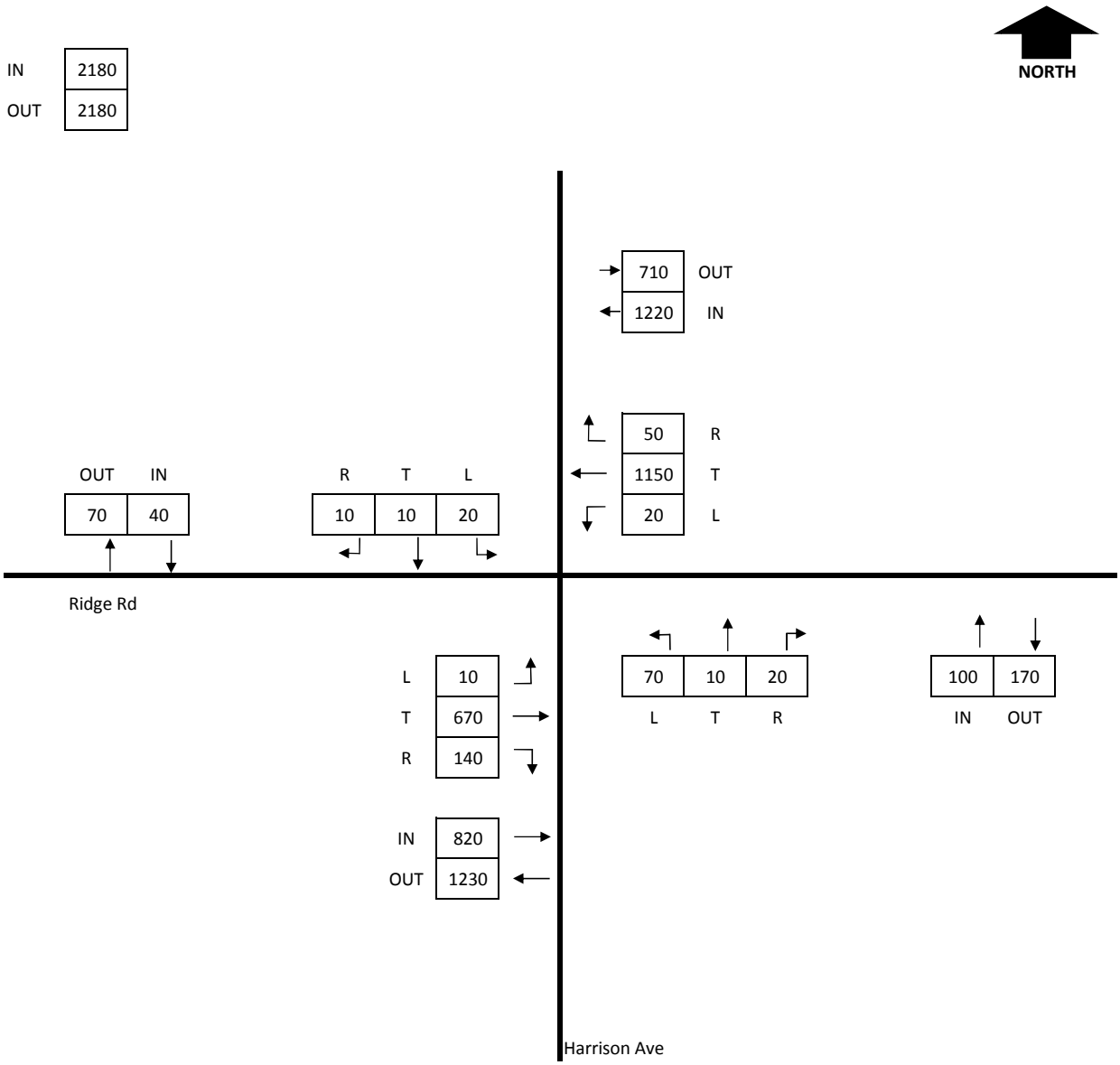
HARRISON AVE & RIDGE RD

2040 SITE GENERATED TRIPS (AM)

October 2017

TOTAL INTERSECTION

IN	2180
OUT	2180



CLASSIFICATION: ALL VEHICLES

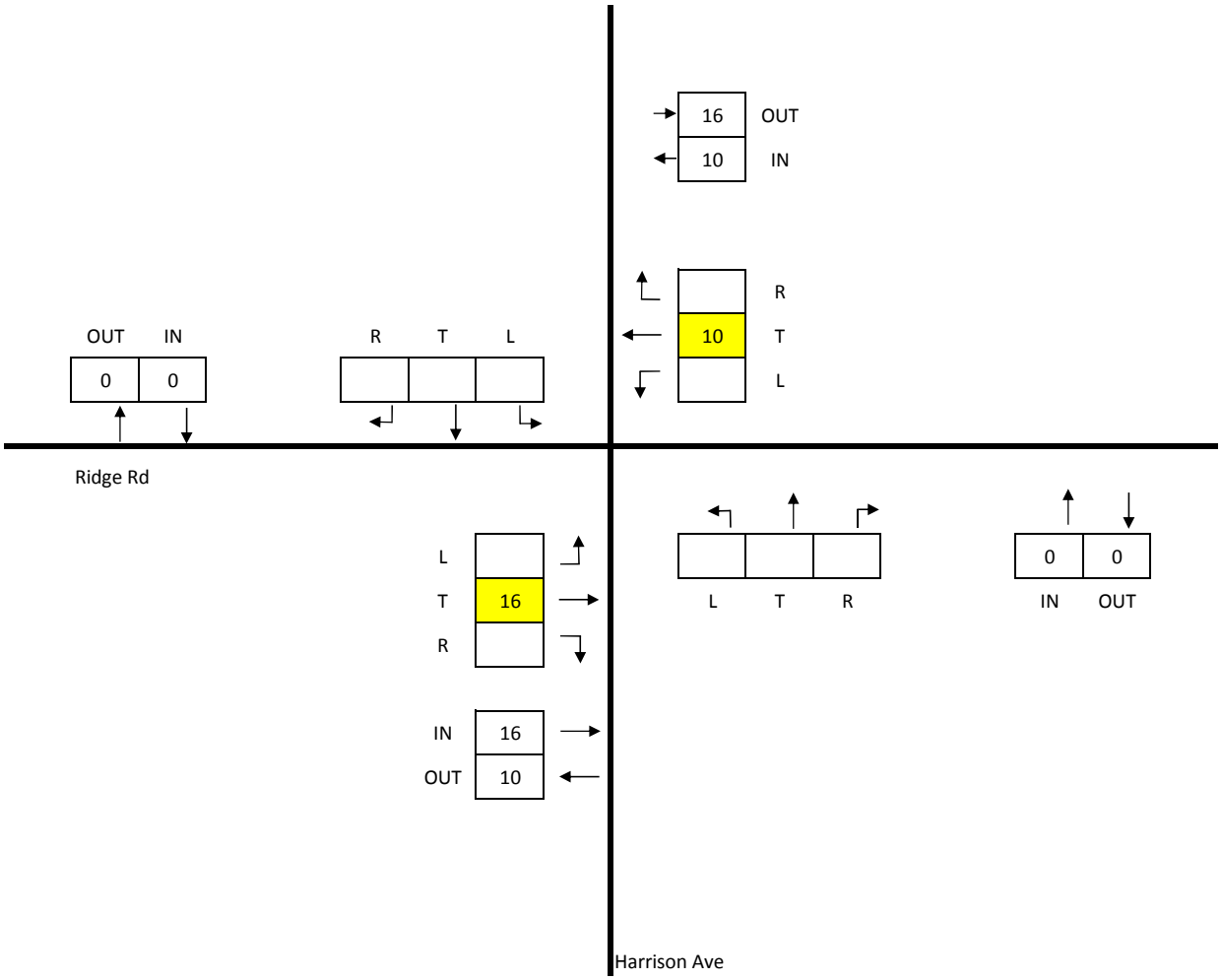
HARRISON AVE & RIDGE RD

2040 BUILD TRAFFIC VOLUMES (AM)

October 2017

TOTAL INTERSECTION

IN	26
OUT	26



CLASSIFICATION: ALL VEHICLES

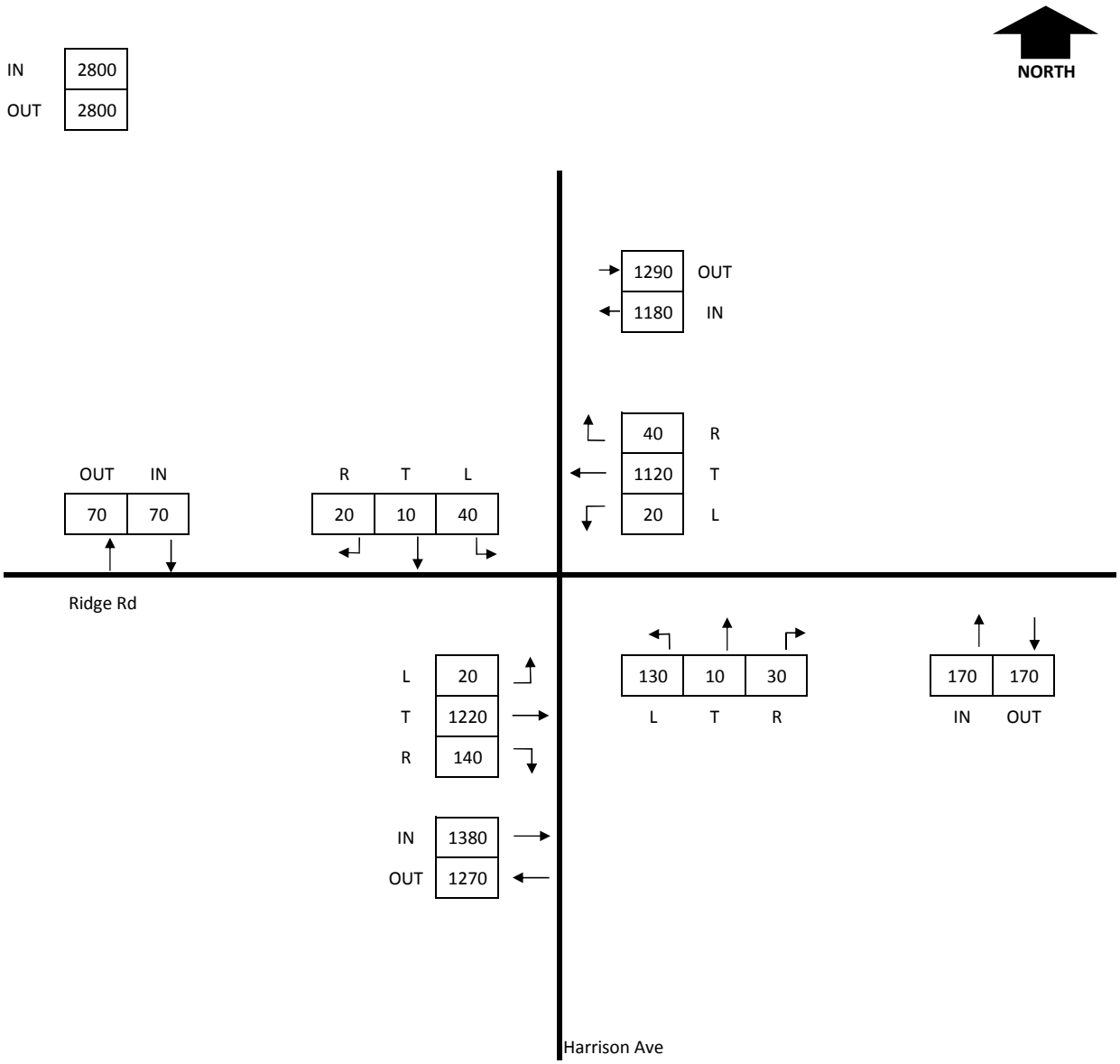
HARRISON AVE & RIDGE RD

2040 SITE GENERATED TRIPS (PM)

October 2017

TOTAL INTERSECTION

IN	2800
OUT	2800

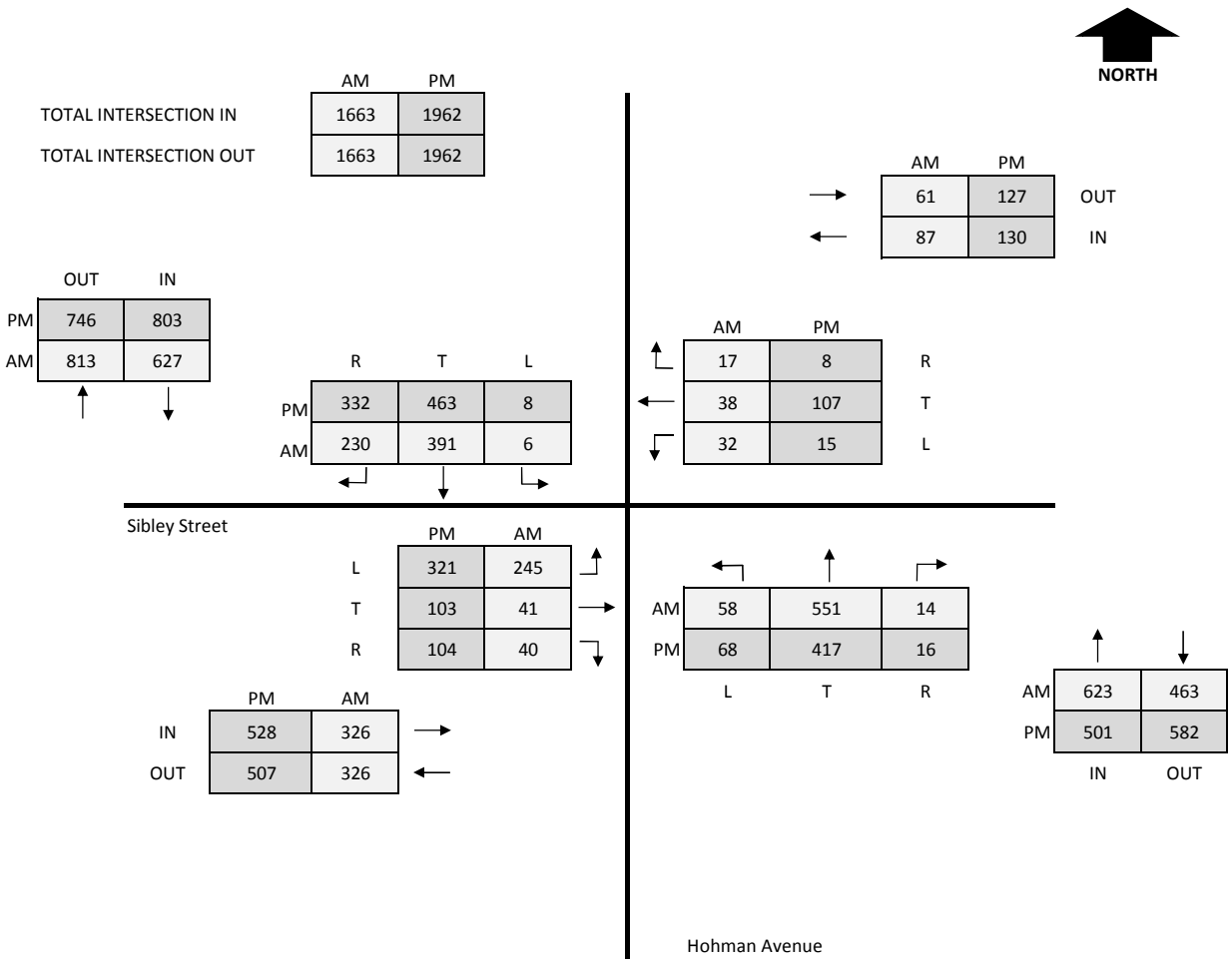


CLASSIFICATION: ALL VEHICLES

HARRISON AVE & RIDGE RD

2040 BUILD TRAFFIC VOLUMES (PM)

October 2017



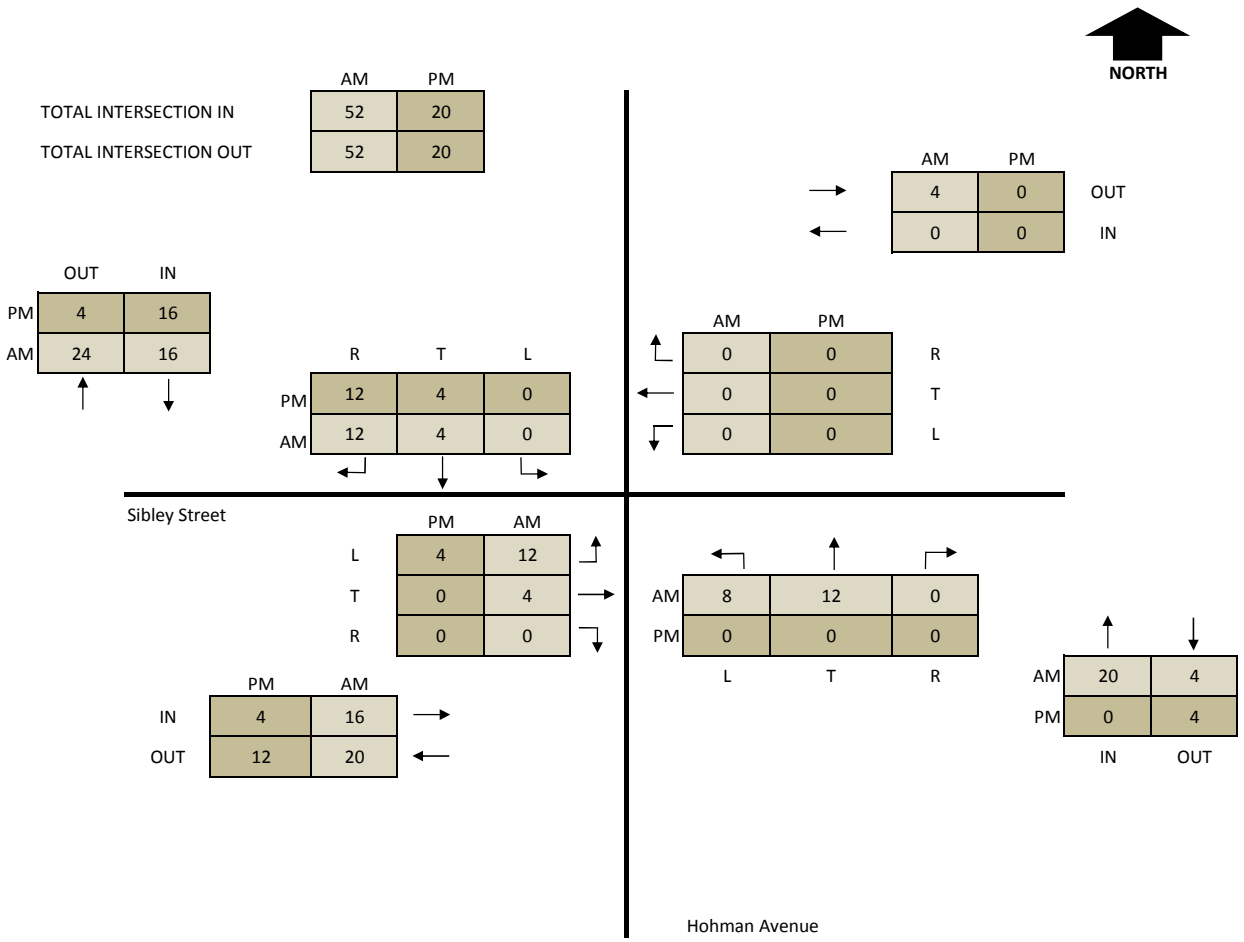
CLASSIFICATION: ALL VEHICLES

Traffic Counts from Quality Counts				
AM	11/11/2014	7:15 AM	to	8:15 AM
PM	11/11/2014	4:30 PM	to	5:30 PM

HOHMAN AVE & SIBLEY ST

EXISTING TRAFFIC VOLUMES (2014)

October 2017



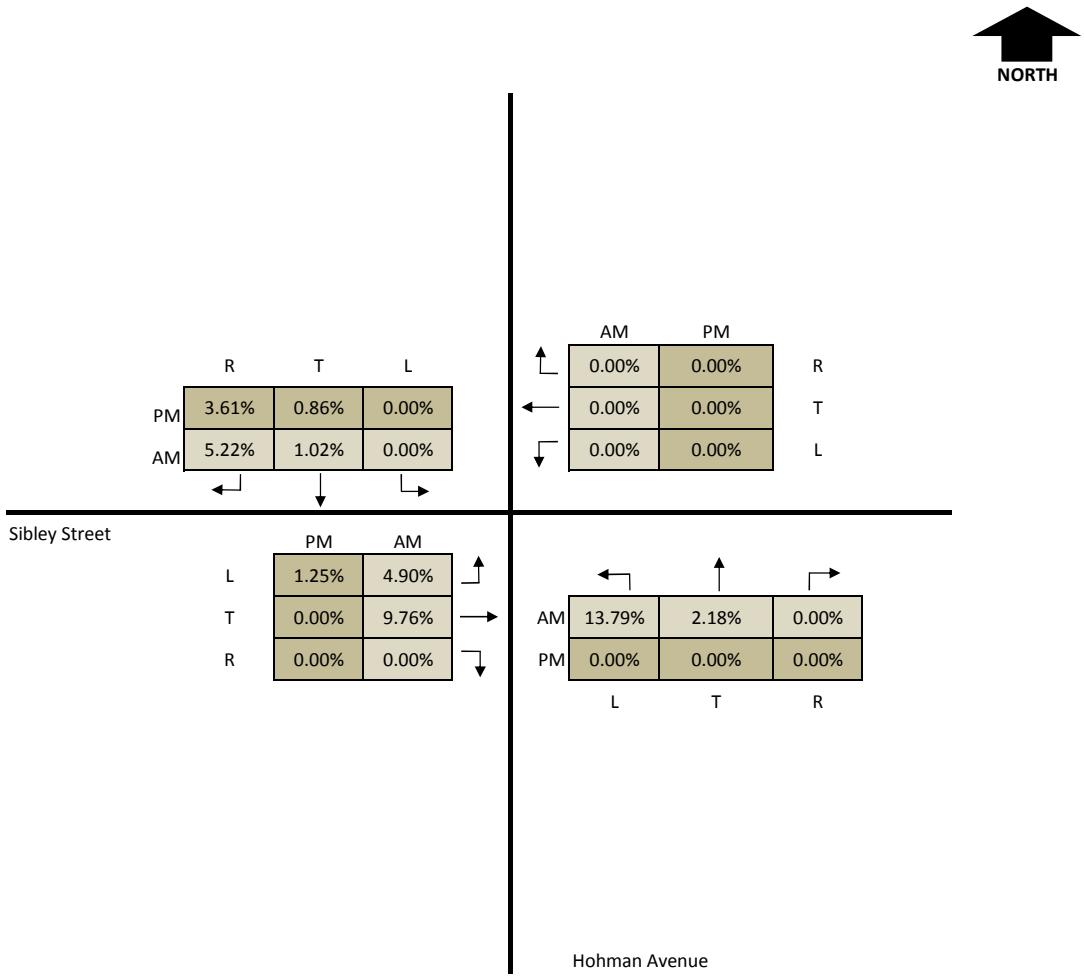
CLASSIFICATION: TRUCKS

Traffic Counts from Quality Counts				
AM	11/11/2014	7:15 AM	to	8:15 AM
PM	11/11/2014	4:30 PM	to	5:30 PM

HOHMAN AVE & SIBLEY ST

EXISTING TRAFFIC VOLUMES (2014)

October 2017



CLASSIFICATION: TRUCKS

Traffic Counts from Quality Counts				
AM	11/11/2014	7:15 AM	to	8:15 AM
PM	11/11/2014	4:30 PM	to	5:30 PM

HOHMAN AVE & SIBLEY ST

EXISTING TRAFFIC VOLUMES (2014)

October 2017

TOTAL INTERSECTION

	2014	2040
IN	1663	2160
OUT	1663	2160

NORTH

	2014	2040	
→	61	90	OUT
←	87	130	IN

	OUT	IN
2040	1040	800
2014	813	627

	R	T	L
2040	290	500	10
2014	230	391	6

	2014	2040	
↰	17	30	R
←	38	50	T
↙	32	50	L

Sibley Street

	2040	2014	
L	310	245	↑
T	60	41	→
R	60	40	↓

	2015	2014	
IN	430	326	→
OUT	420	326	←

	L	T	R
2014	58	551	14
2040	80	700	20

	2014	2040
IN	623	463
OUT	800	610

Hohman Avenue

CLASSIFICATION: ALL VEHICLES

ANNUAL GROWTH RATE	
Northbound	1.0%
Southbound	1.0%
Eastbound	1.0%
Westbound	1.0%
Years to Escalate: 2040	26

HOHMAN AVE & SIBLEY ST

2040 PROJECTED TRAFFIC VOLUMES (AM)

October 2017

TOTAL INTERSECTION

	2014	2040
IN	1962	2540
OUT	1962	2540

	2014	2040	
→	127	180	OUT
←	130	180	IN

	OUT	IN
2040	960	1030
2014	746	803

	R	T	L
2040	420	590	20
2014	332	463	8

	2014	2040	
↰	8	20	R
←	107	140	T
↙	15	20	L

Sibley Street

	2040	2014	
L	410	321	↰
T	130	103	→
R	140	104	↘

	2040	2014	
IN	680	528	→
OUT	650	507	←

	L	T	R
2014	68	417	16
2040	90	530	30

	2014	2040
	501	582
	650	750
	IN	OUT

Hohman Avenue

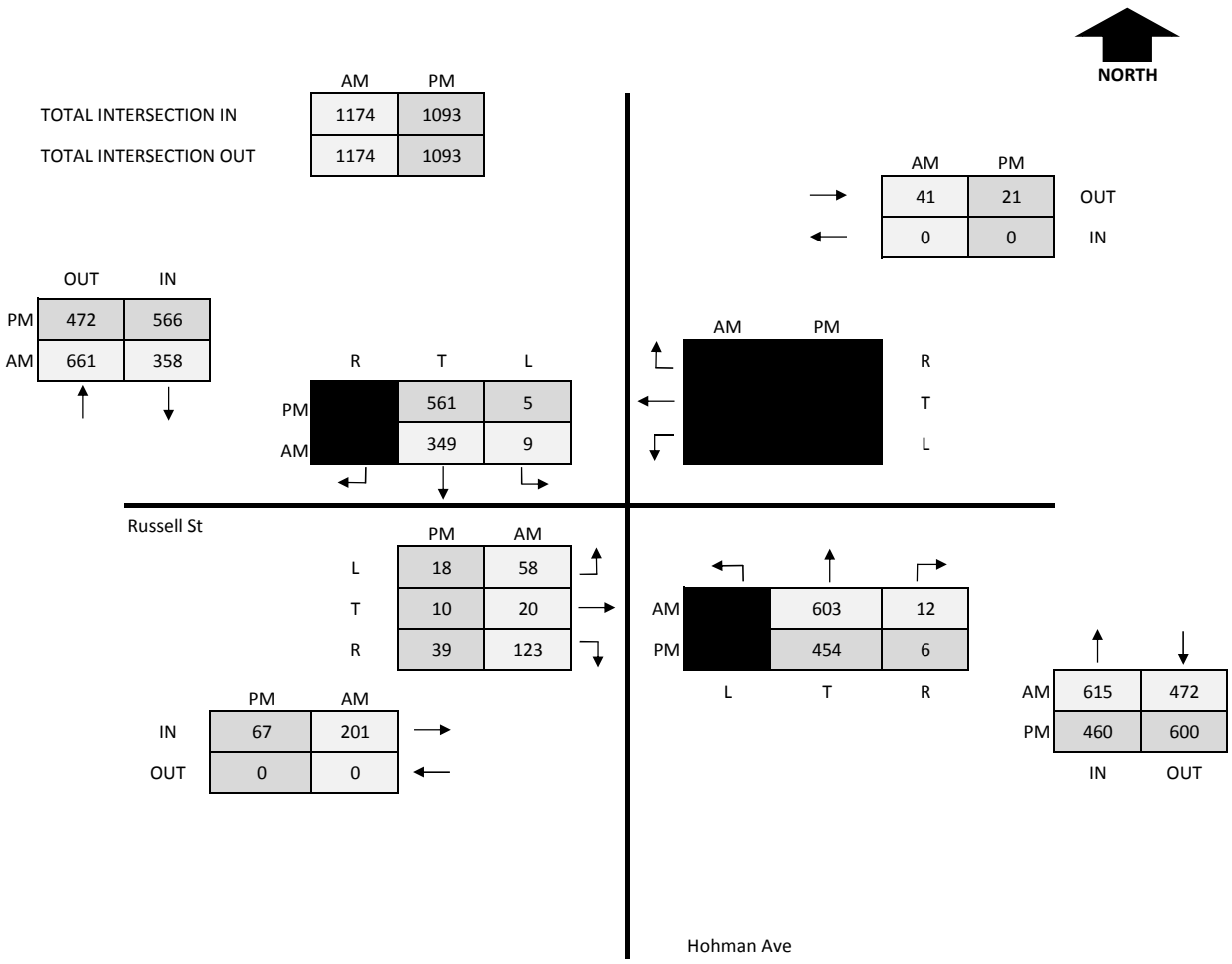
CLASSIFICATION: ALL VEHICLES

ANNUAL GROWTH RATE	
Northbound	1.0%
Southbound	1.0%
Eastbound	1.0%
Westbound	1.0%
Years to Escalate: 2040	26

HOHMAN AVE & SIBLEY ST

2040 PROJECTED TRAFFIC VOLUMES (PM)

October 2017



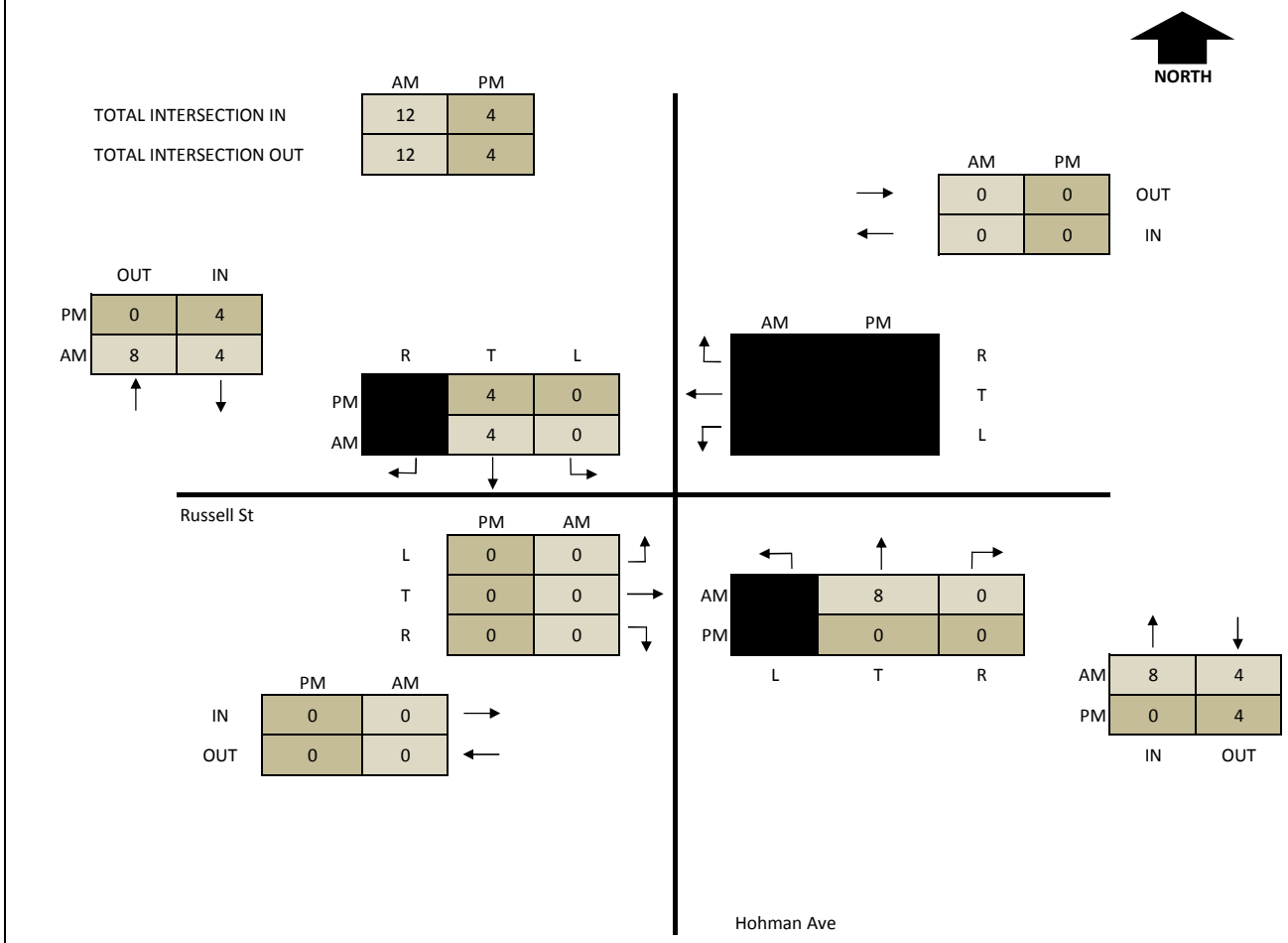
CLASSIFICATION: ALL VEHICLES

Traffic Counts from Quality Counts				
AM	11/11/2014	7:00 AM	to	8:00 AM
PM	11/11/2014	4:30 PM	to	5:30 PM

HOHMAN AVE & RUSSELL ST

EXISTING TRAFFIC VOLUMES (2014)

October 2017



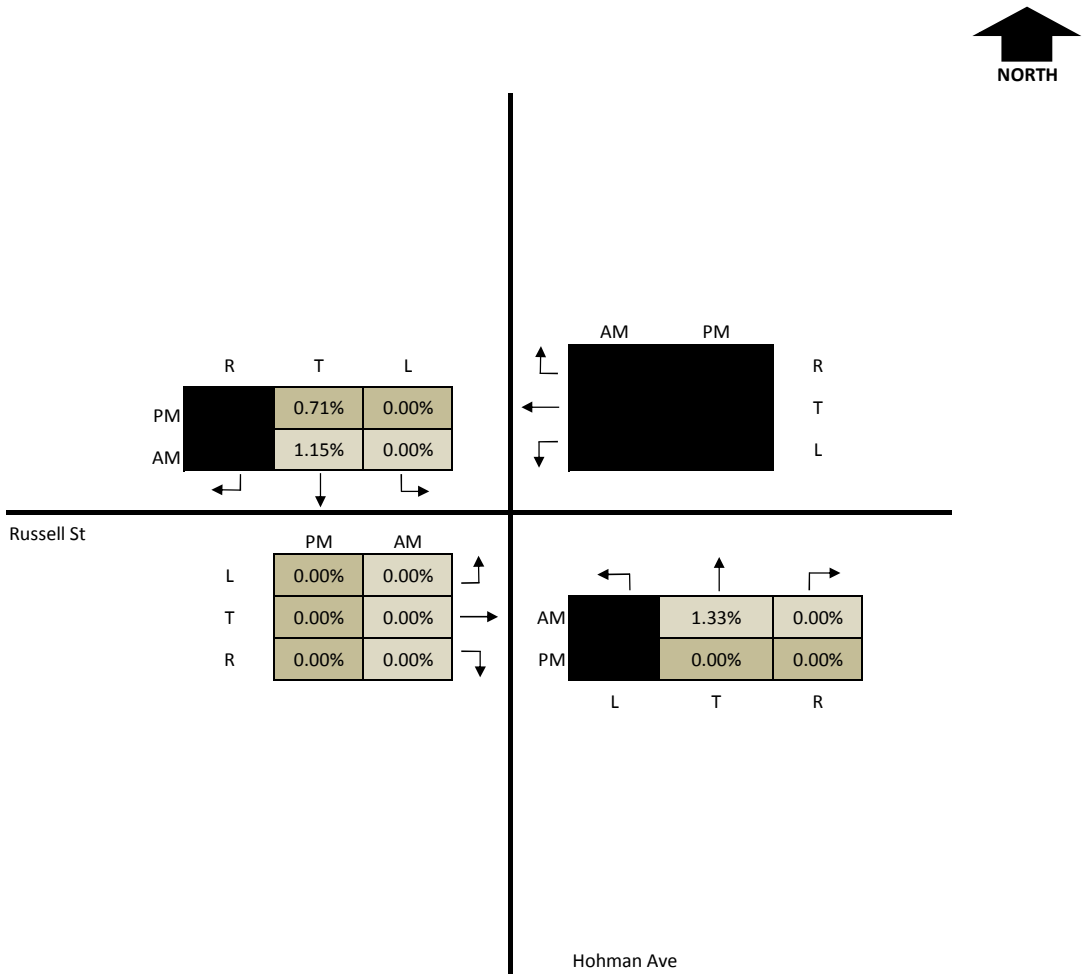
CLASSIFICATION: TRUCKS

Traffic Counts from Quality Counts				
AM	11/11/2014	7:00 AM	to	8:00 AM
PM	11/11/2014	4:30 PM	to	5:30 PM

HOHMAN AVE & RUSSELL ST

EXISTING TRAFFIC VOLUMES (2014)

October 2017



CLASSIFICATION: TRUCKS

Traffic Counts from Quality Counts				
AM	11/11/2014	7:00 AM	to	8:00 AM
PM	11/11/2014	4:30 PM	to	5:30 PM

HOHMAN AVE & RUSSELL ST

EXISTING TRAFFIC VOLUMES (2014)

October 2017

TOTAL INTERSECTION

	2014	2022
IN	1174	1310
OUT	1174	1310

NORTH

	2014	2022	
→	41	60	OUT
←	0	0	IN

	OUT	IN
2022	730	390
2014	661	358

	R	T	L
2022	[redacted]	380	10
2014		349	9

	2014	2022	
↰	[redacted]		R
←			T
↲			L

Russell St

	2022	2014	
L	70	58	↰
T	30	20	→
R	140	123	↳

	2022	2014	
IN	240	201	→
OUT	0	0	←

	L	T	R
2014	[redacted]	603	12
2022		660	20

	2014	2022
2014	615	472
2022	680	520
	IN	OUT

Hohman Ave

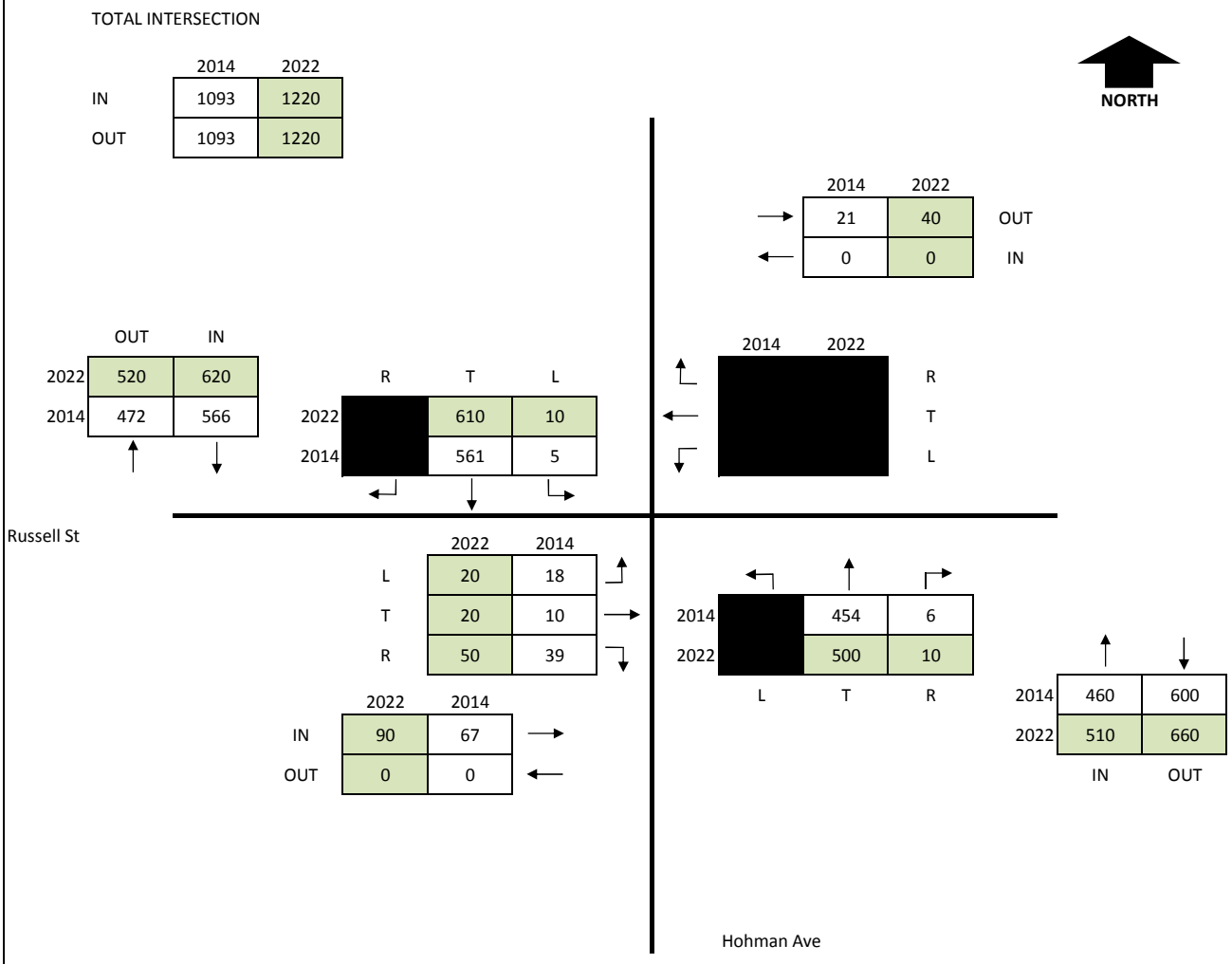
CLASSIFICATION: ALL VEHICLES

ANNUAL GROWTH RATE	
Northbound	1.0%
Southbound	1.0%
Eastbound	1.0%
Westbound	1.0%
Years to Escalate: 2022	8

HOHMAN AVE & RUSSELL ST

2022 PROJECTED TRAFFIC VOLUMES (AM)

October 2017



CLASSIFICATION: ALL VEHICLES

ANNUAL GROWTH RATE	
Northbound	1.0%
Southbound	1.0%
Eastbound	1.0%
Westbound	1.0%
Years to Escalate: 2022	8

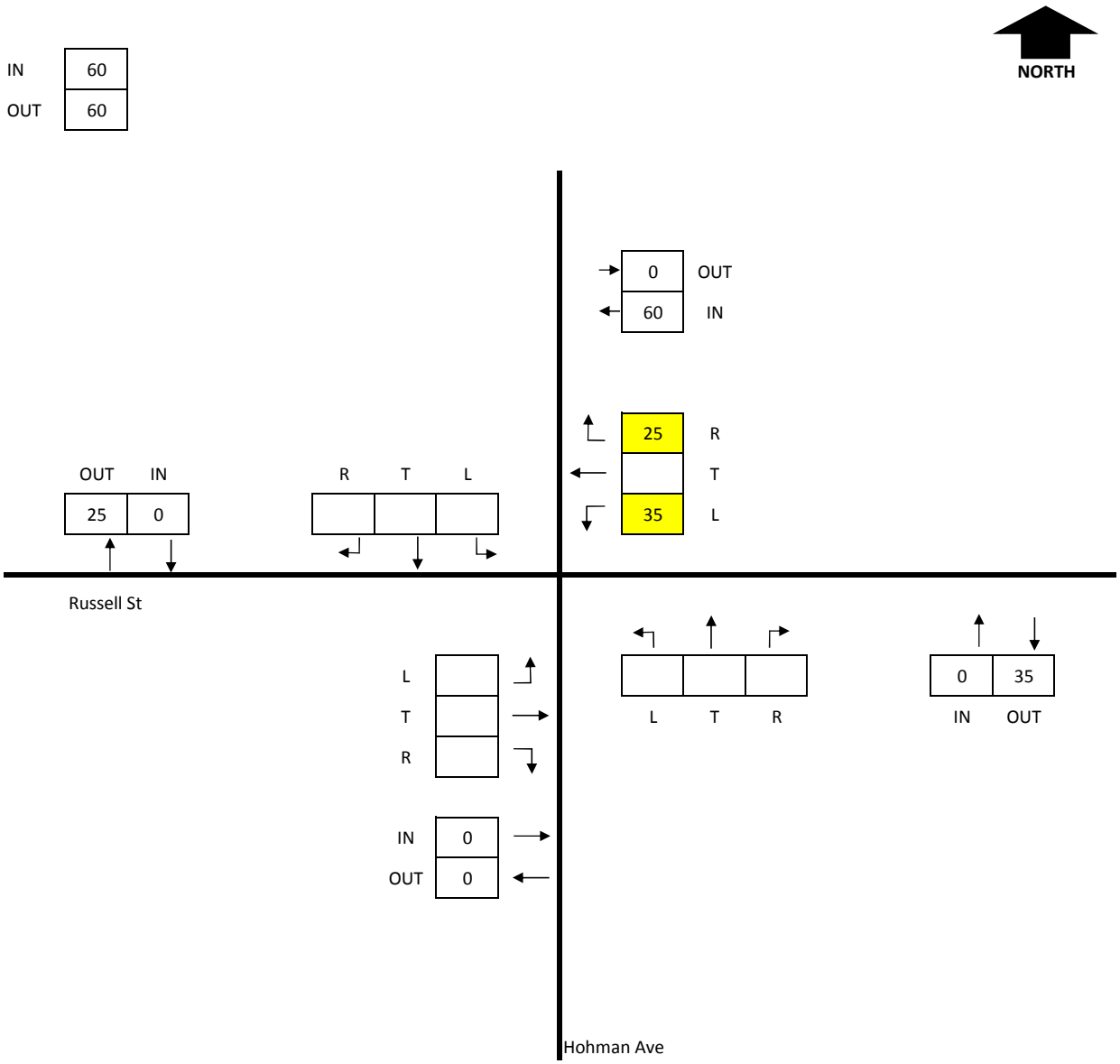
HOHMAN AVE & RUSSELL ST

2022 PROJECTED TRAFFIC VOLUMES (PM)

October 2017

TOTAL INTERSECTION

IN	60
OUT	60



CLASSIFICATION: ALL VEHICLES

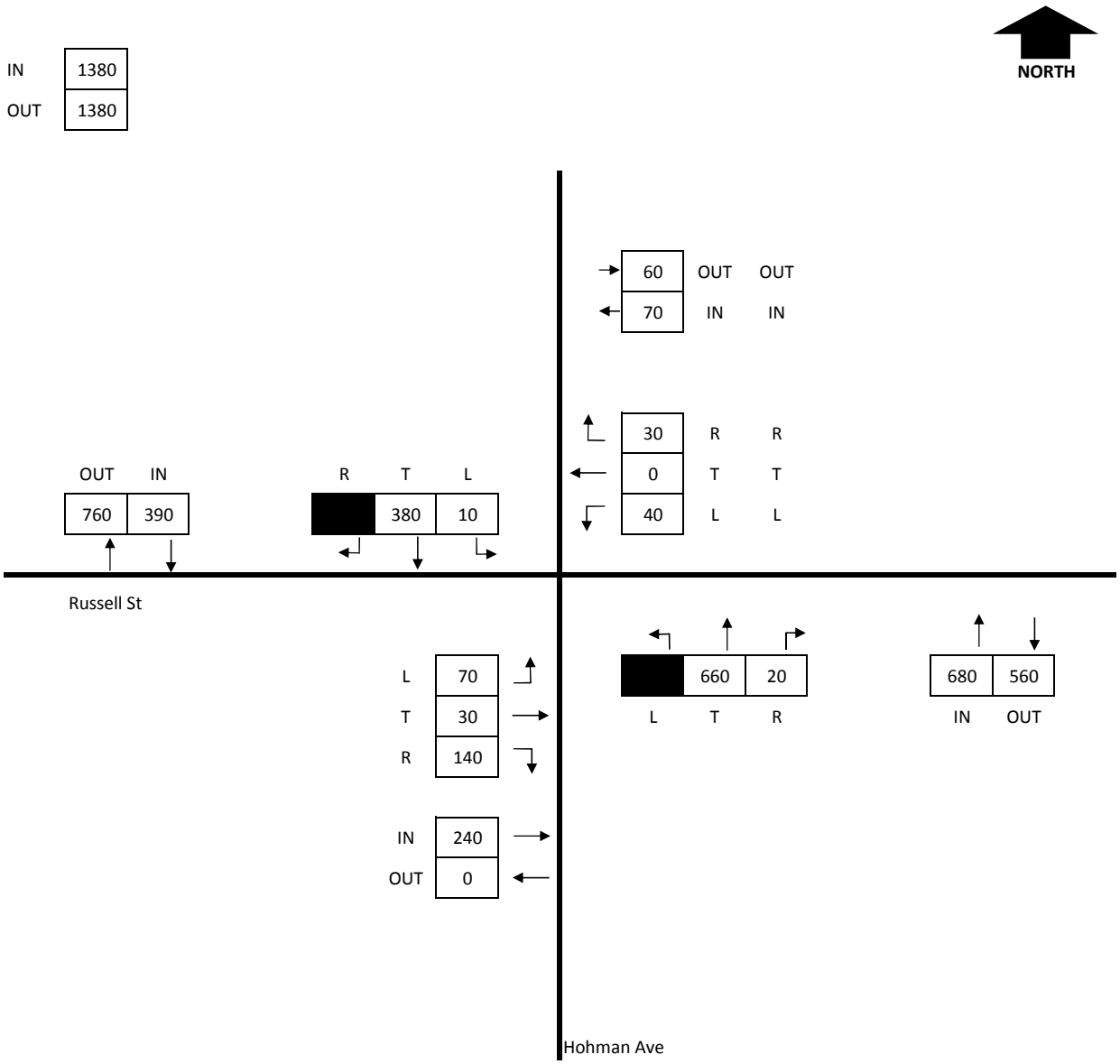
HOHMAN AVE & RUSSELL ST

2022 SITE GENERATED TRIPS (AM)

October 2017

TOTAL INTERSECTION

IN	1380
OUT	1380



CLASSIFICATION: ALL VEHICLES

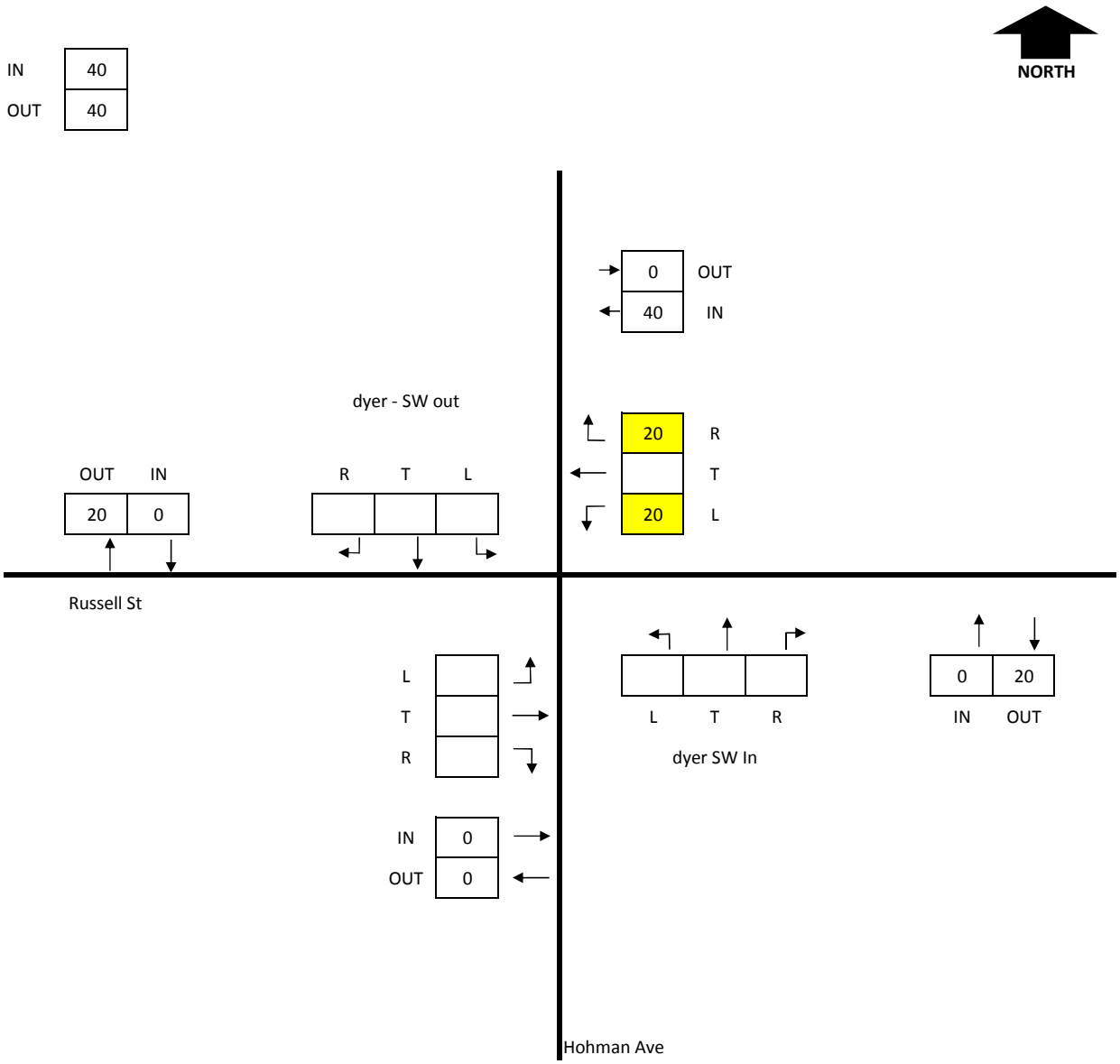
HOHMAN AVE & RUSSELL ST

2022 BUILD TRAFFIC VOLUMES (AM)

October 2017

TOTAL INTERSECTION

IN	40
OUT	40



CLASSIFICATION: ALL VEHICLES

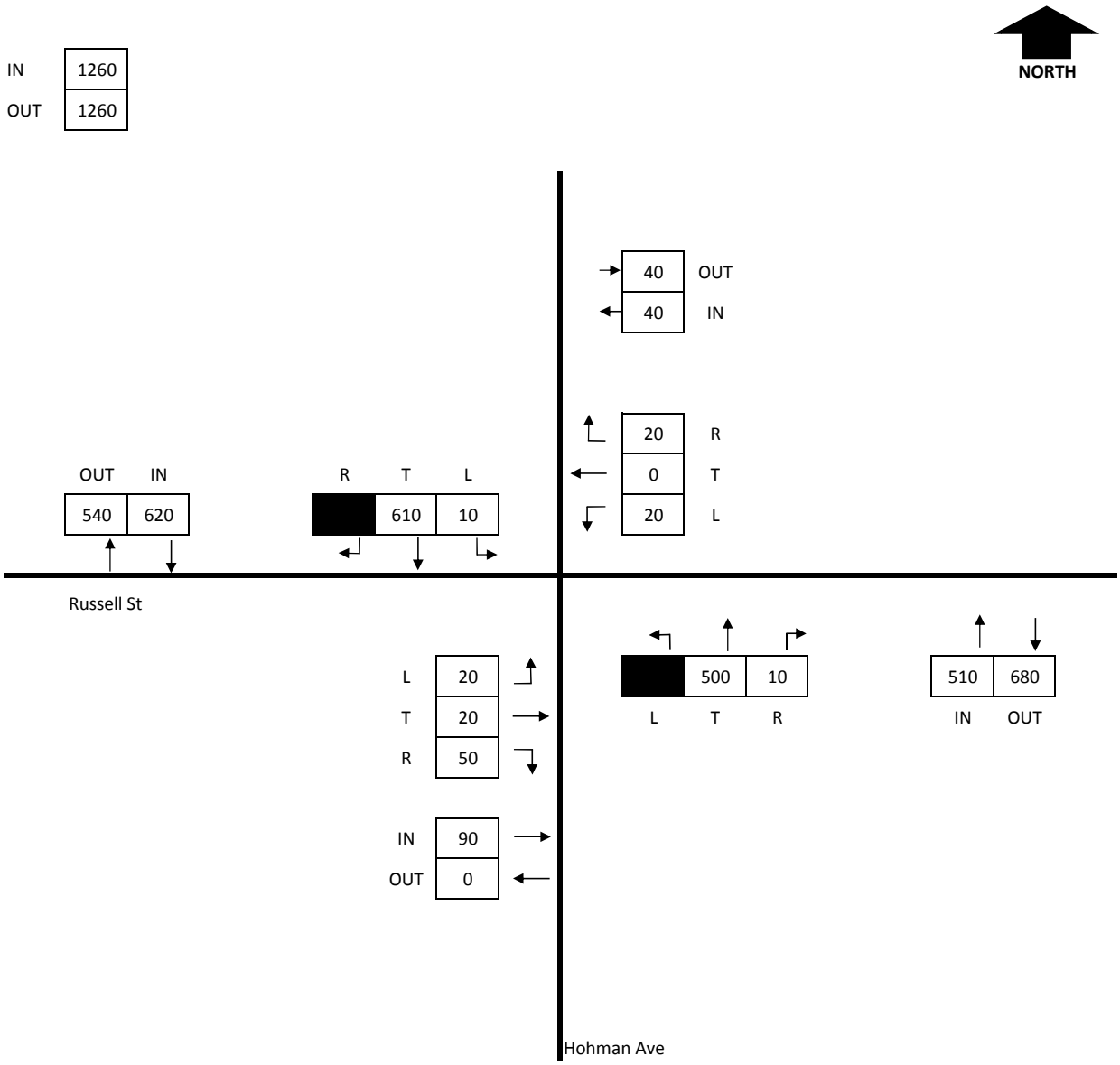
HOHMAN AVE & RUSSELL ST

2022 SITE GENERATED TRIPS (PM)

October 2017

TOTAL INTERSECTION

IN	1260
OUT	1260



CLASSIFICATION: ALL VEHICLES

HOHMAN AVE & RUSSELL ST

2022 BUILD TRAFFIC VOLUMES (PM)

October 2017

TOTAL INTERSECTION

	2014	2040
IN	1174	1510
OUT	1174	1510

	2014	2040	
→	41	70	OUT
←	0	0	IN

	OUT	IN
2040	840	460
2014	661	358

	R	T	L
2040		440	20
2014		349	9

	2014	2040	
↰			R
←			T
↲			L

Russell St

	2040	2014	
L	80	58	↰
T	30	20	→
R	160	123	↳

	2040	2014	
IN	270	201	→
OUT	0	0	←

2014		603	12
2040		760	20
	L	T	R

	2014	2040
IN	615	780
OUT	472	600

Hohman Ave

CLASSIFICATION: ALL VEHICLES

ANNUAL GROWTH RATE	
Northbound	1.0%
Southbound	1.0%
Eastbound	1.0%
Westbound	1.0%
Years to Escalate: 2040	26

NICTD

HOHMAN AVE & RUSSELL ST

2040 PROJECTED TRAFFIC VOLUMES (AM)

October 2017

TOTAL INTERSECTION

	2014	2040
IN	1093	1410
OUT	1093	1410

NORTH

	2014	2040	
→	21	40	OUT
←	0	0	IN

	OUT	IN
2040	610	720
2014	472	566

	R	T	L
2040		710	10
2014		561	5

	2014	2040	
↰			R
←			T
↙			L

Russell St

	2040	2014	
L	30	18	↰
T	20	10	→
R	50	39	↘

	L	T	R
2014		454	6
2040		580	10

	2040	2014	
IN	100	67	→
OUT	0	0	←

	2014	2040
2014	460	600
2040	590	760
	IN	OUT

Hohman Ave

CLASSIFICATION: ALL VEHICLES

ANNUAL GROWTH RATE	
Northbound	1.0%
Southbound	1.0%
Eastbound	1.0%
Westbound	1.0%
Years to Escalate: 2040	26

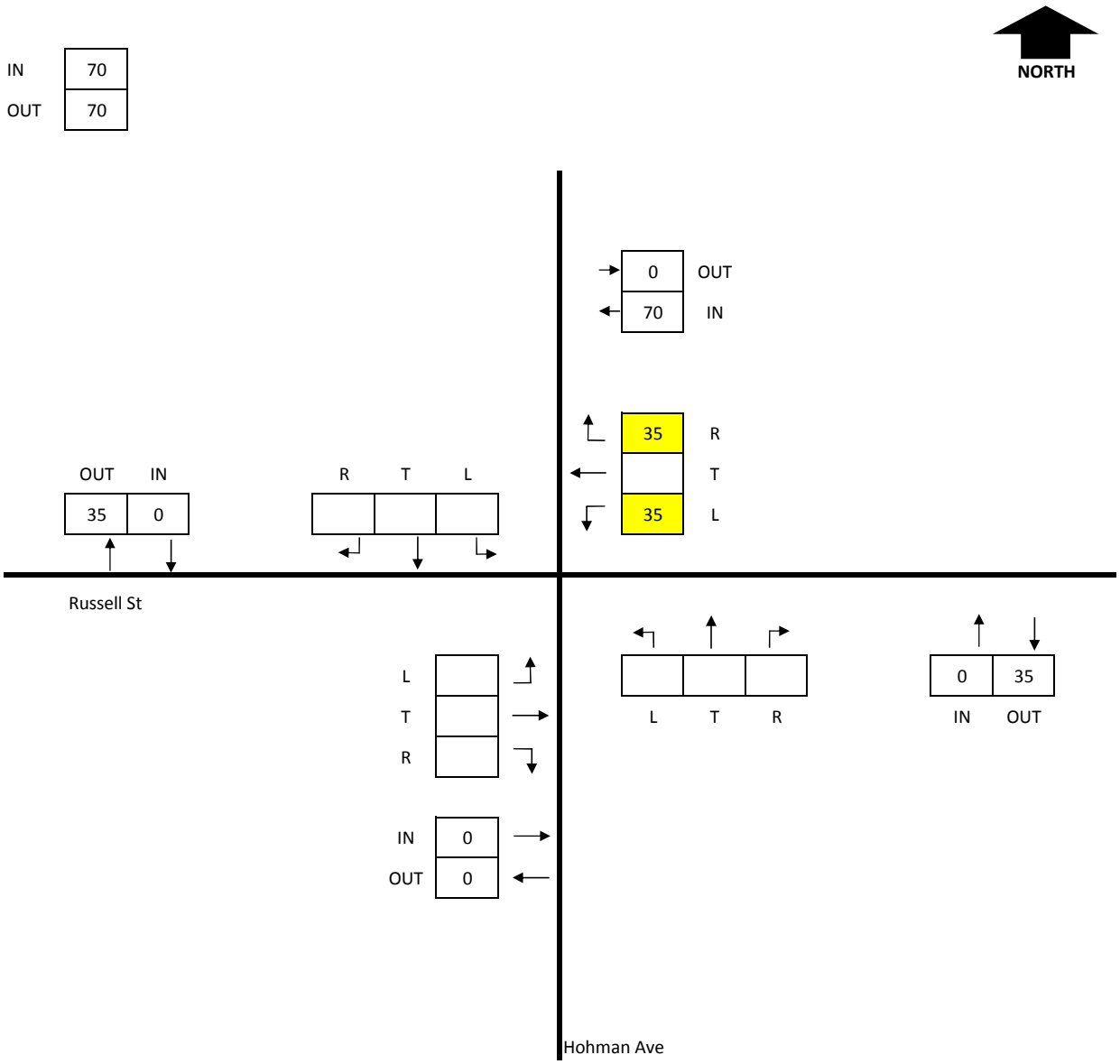
HOHMAN AVE & RUSSELL ST

2040 PROJECTED TRAFFIC VOLUMES (PM)

October 2017

TOTAL INTERSECTION

IN	70
OUT	70



CLASSIFICATION: ALL VEHICLES

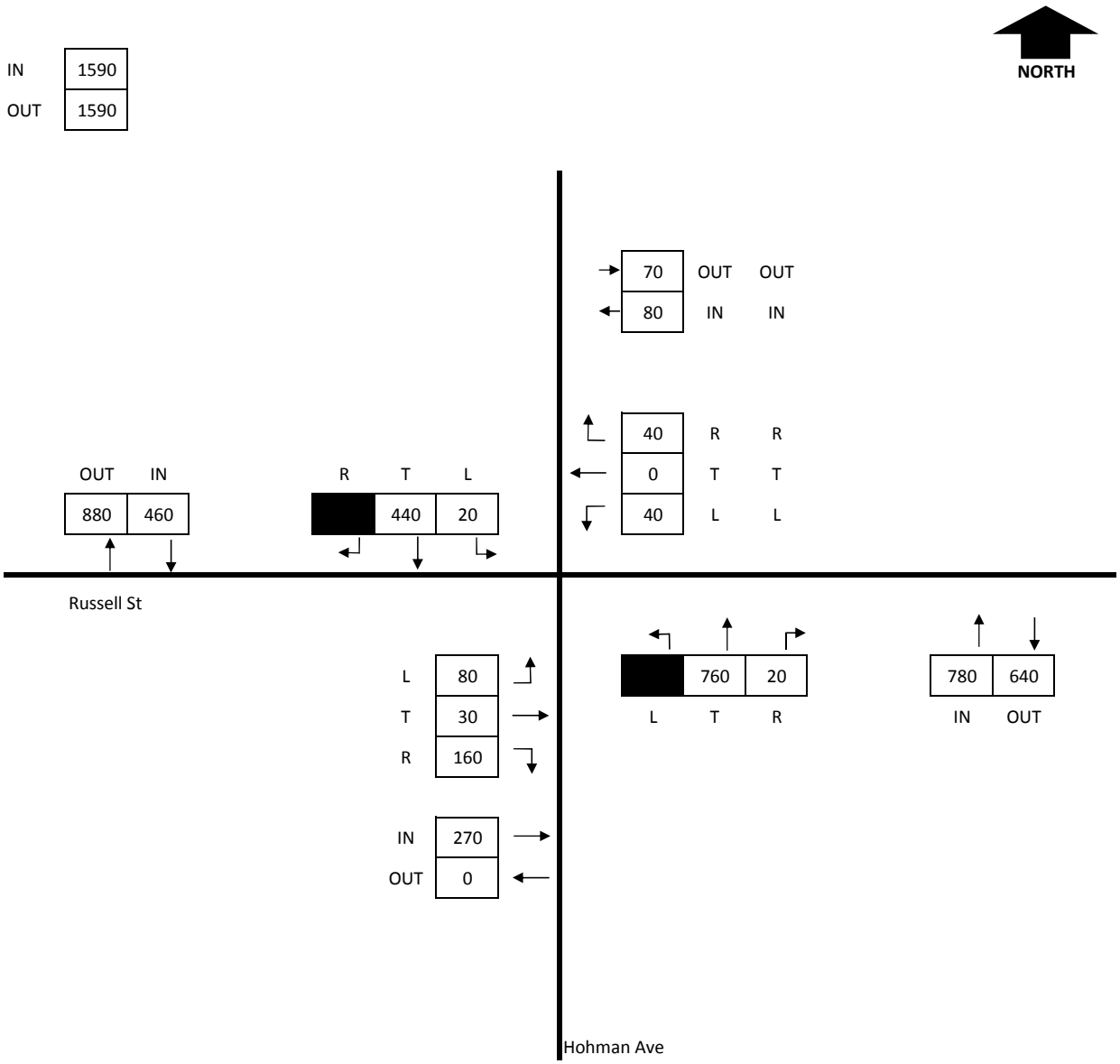
HOHMAN AVE & RUSSELL ST

2040 SITE GENERATED TRIPS (AM)

October 2017

TOTAL INTERSECTION

IN	1590
OUT	1590



CLASSIFICATION: ALL VEHICLES

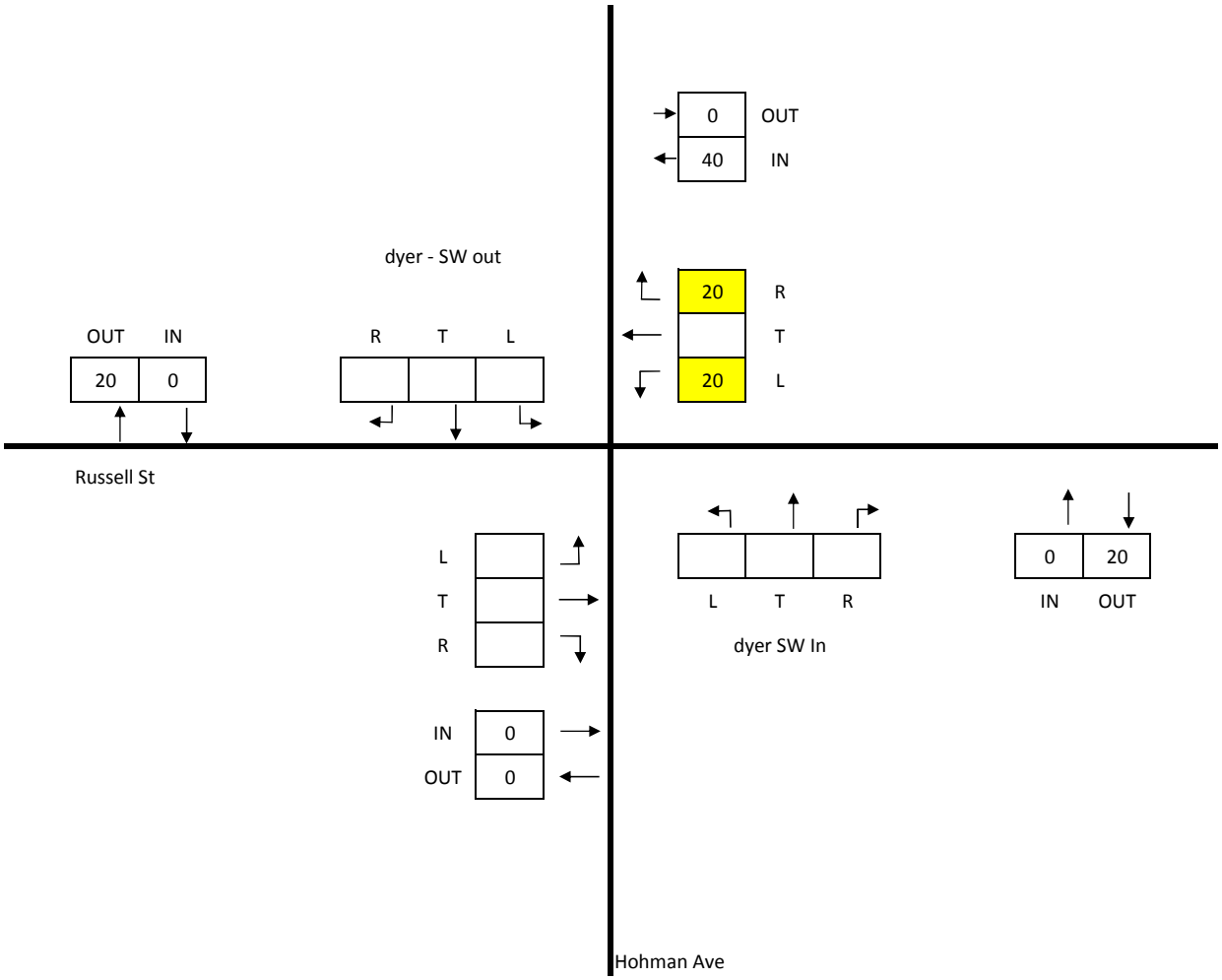
HOHMAN AVE & RUSSELL ST

2040 BUILD TRAFFIC VOLUMES (AM)

October 2017

TOTAL INTERSECTION

IN	40
OUT	40



CLASSIFICATION: ALL VEHICLES

NICD

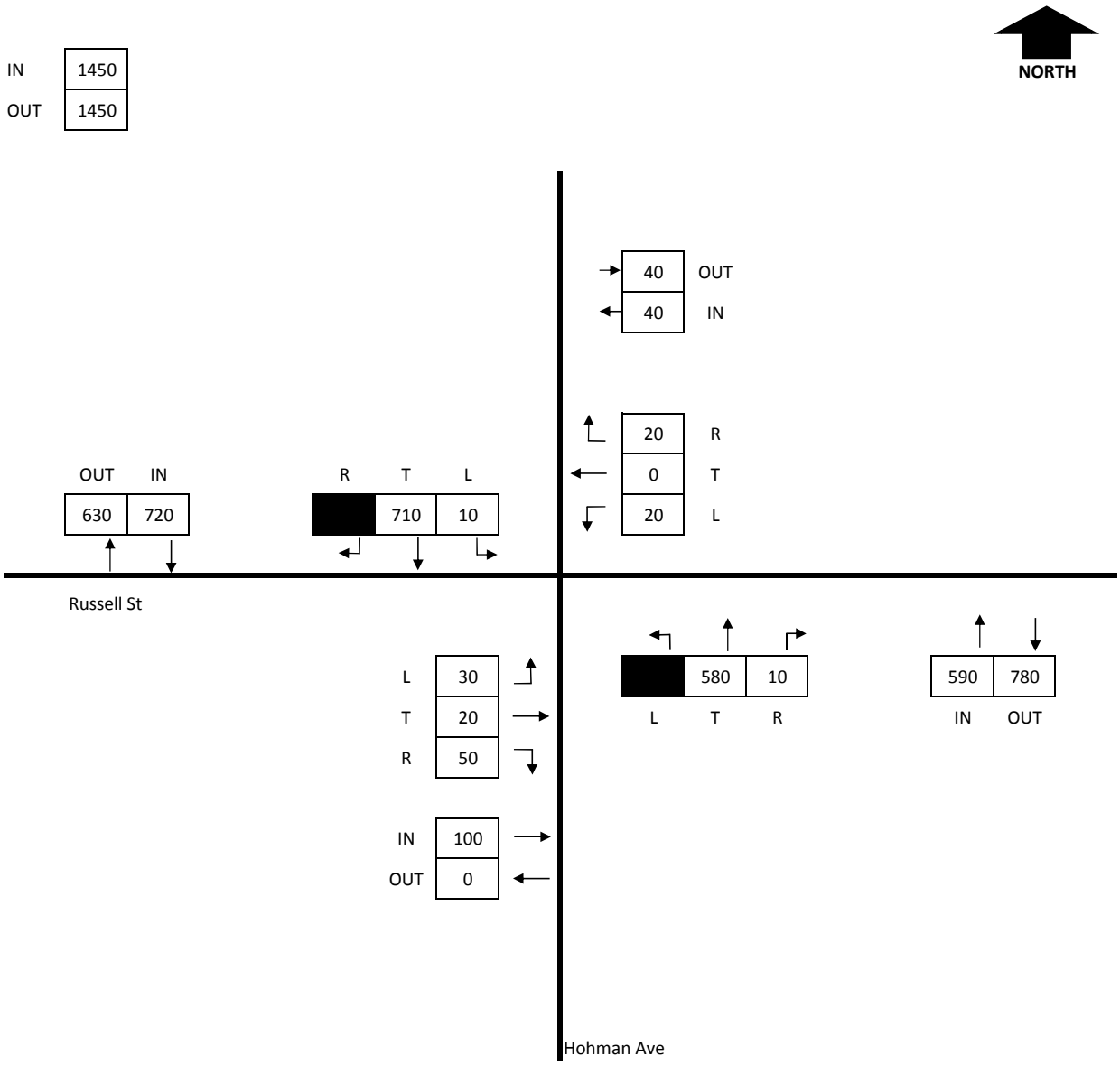
HOHMAN AVE & RUSSELL ST

2040 SITE GENERATED TRIPS (PM)

October 2017

TOTAL INTERSECTION

IN	1450
OUT	1450



CLASSIFICATION: ALL VEHICLES

HOHMAN AVE & RUSSELL ST

2040 BUILD TRAFFIC VOLUMES (PM)

October 2017

Appendix B. Synchro HCM Output Reports

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Rodel Output: Chicago and Hohman (2022 No-Build - AM)

Rodel - C:\Users\jseyer\Documents\TXFR to server\PW\Workshare\Chicago\Rodel Project\Chicago and Hohman_2022 No-Build.rod

File View Help

Project: Chicago and Hohman | Date: 29-Jun-2017 | Model: Rodel Win1 | Timeslice: 7.5 | Full Geometry | Peak: AM | Feet | RHD

Name: No-Build | Flows: 2022 | Delay: Queuing | Results: Veh / Peak60/15m | Synthetic Flow Profile | Conf: 50 | Light | 16

	Approach Geometry						Entry Geometry					Circ Geom			Exit Geometry				Entry Capacity Mods	
	Leg Name	•	Bearing	G	V	n	E	n	L'	R	Φ	D	C	n	Ex	n	Vx	n	-+ Cap (v/h)	Xwalk Fact
1	Hohman SB	Y	0	0	10.00	1	18.00	1	33.00	110.00	30.00	200.00	23.00	1	18.00	1	10.00	1	0	1.000
2	Chicago EB	Y	76	0	10.00	1	18.00	1	33.00	215.00	30.00	200.00	23.00	1	18.00	1	10.00	1	0	1.000
3	Hohman NB	Y	180	0	10.00	1	18.00	1	33.00	190.00	30.00	200.00	23.00	1	18.00	1	10.00	1	0	1.000
4	Chicago WB	Y	270	0	10.00	1	18.00	1	33.00	215.00	30.00	200.00	23.00	1	18.00	1	10.00	1	0	1.000

	Volume Modifiers			Turning Volumes (veh/hr)					Arrival Volume Ratios			Arrival Volume Times (min)			PHF
	Leg Name	%Truck	Factor			U-Turn	Exit-3	Exit-2	Exit-1	Bypass	Ratio1	Ratio2	Ratio3	Time1	Time2	Time3	
1	Hohman SB	5.0	1.00			0	30	180	10	0	0.750	1.125	0.750	0	30	60	
2	Chicago EB	10.0	1.00			0	10	180	100	0	0.750	1.125	0.750	0	30	60	
3	Hohman NB	5.0	1.00			0	10	390	100	0	0.750	1.125	0.750	0	30	60	
4	Chicago WB	10.0	1.00			0	160	210	0	0	0.750	1.125	0.750	0	30	60	

Calibration | Accidents | Economics | Bypass | Run

	Peak 60min Results	Bypass Type	Flow Rate (veh/hr)		Opp Rate (veh/hr)		Capacity (veh/hr)		Ave VCR		Ave Del (sec/veh)			Max Q (veh)		Max Q95% (veh)		LOS A-F		
			Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Leg	Entry	Bypass	Entry	Bypass	Entry	Byp	Leg
1	Hohman SB	None	220		380		883		0.2565		5.10		5.10	0.38		0.98		A		A
2	Chicago EB	None	290		370		824		0.3629		5.87		5.87	0.58		1.51		A		A
3	Hohman NB	None	500		220		969		0.5320		7.06		7.06	1.26		3.21		A		A
4	Chicago WB	None	370		410		810		0.4721		6.99		6.99	0.91		2.35		A		A
All	Intersection												6.47							A

Results 60 | Results 15 | Int / Slope - 60 | Int / Slope - 15 | Economics | Global Results

Rodel Output: Chicago and Hohman (2022 No-Build - PM)

Rodel - C:\Users\jseyer\Documents\TXFR to server\PW\Workshare\Chicago\Rodel Project\Chicago and Hohman_2022 No-Build.rod

File View Help

Project: Chicago and Hohman | Date: 29-Jun-2017 | Model: Rodel Win1 | Timeslice: 7.5 | Full Geometry | Peak: PM | Feet | RHD

Name: No-Build | Flows: 2022 | Delay: Queuing | Results: Veh / Peak60/15m | Synthetic Flow Profile | Conf: 50 | Light | 18

	Approach Geometry						Entry Geometry					Circ Geom			Exit Geometry				Entry Capacity Mods	
	Leg Name	•	Bearing	G	V	n	E	n	L'	R	Φ	D	C	n	Ex	n	Vx	n	-+ Cap (v/h)	Xwalk Fact
1	Hohman SB	Y	0	0	10.00	1	18.00	1	33.00	110.00	30.00	200.00	23.00	1	18.00	1	10.00	1	0	1.000
2	Chicago EB	Y	76	0	10.00	1	18.00	1	33.00	215.00	30.00	200.00	23.00	1	18.00	1	10.00	1	0	1.000
3	Hohman NB	Y	180	0	10.00	1	18.00	1	33.00	190.00	30.00	200.00	23.00	1	18.00	1	10.00	1	0	1.000
4	Chicago WB	Y	270	0	10.00	1	18.00	1	33.00	215.00	30.00	200.00	23.00	1	18.00	1	10.00	1	0	1.000

	Volume Modifiers			Turning Volumes (veh/hr)					Arrival Volume Ratios			Arrival Volume Times (min)			PHF
	Leg Name	%Truck	Factor			U-Turn	Exit-3	Exit-2	Exit-1	Bypass	Ratio1	Ratio2	Ratio3	Time1	Time2	Time3	
1	Hohman SB	5.0	1.00			0	90	570	10	0	0.750	1.125	0.750	0	30	60	
2	Chicago EB	10.0	1.00			0	10	260	120	0	0.750	1.125	0.750	0	30	60	
3	Hohman NB	5.0	1.00			0	10	470	160	0	0.750	1.125	0.750	0	30	60	
4	Chicago WB	10.0	1.00			0	270	230	0	0	0.750	1.125	0.750	0	30	60	

Calibration | Accidents | Economics | Bypass | Run

	Peak 60min Results	Bypass Type	Flow Rate (veh/hr)		Opp Rate (veh/hr)		Capacity (veh/hr)		Ave VCR		Ave Del (sec/veh)			Max Q (veh)		Max Q95% (veh)		LOS A-F		
			Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Leg	Entry	Bypass	Entry	Bypass	Entry	Byp	Leg
1	Hohman SB	None	670		510		823		0.8734		22.45		22.45	7.25		16.19		C		C
2	Chicago EB	None	390		930		593		0.7025		15.18		15.18	2.52		6.20		C		C
3	Hohman NB	None	640		360		905		0.7397		12.46		12.46	3.25		7.86		B		B
4	Chicago WB	None	500		490		778		0.6710		10.59		10.59	2.05		5.11		B		B
All	Intersection												15.56							C

Results 60 | Results 15 | Int / Slope - 60 | Int / Slope - 15 | $ Economics | Global Results

Rodel Output: Chicago and Hohman (2040 No-Build - AM)

Rodel - C:\Users\jseyer\Documents\TXFR to server\PW\Workshare\Chicago\Rodel Project\Chicago and Hohman_2040 No-Build.rod

File View Help

Project: Chicago and Hohman | Date: 29-Jun-2017 | Model: Rodel Win1 | Timeslice: 7.5 | Full Geometry | Peak: AM | Feet | RHD

Name: No-Build | Flows: 2040 | Delay: Queuing | Results: Veh / Peak60/15m | Synthetic Flow Profile | Conf: 50 | Light | 15

	Approach Geometry						Entry Geometry					Circ Geom			Exit Geometry				Entry Capacity Mods	
	Leg Name	•	Bearing	G	V	n	E	n	L'	R	Φ	D	C	n	Ex	n	Vx	n	-+ Cap (v/h)	Xwalk Fact
1	Hohman SB	Y	0	0	10.00	1	18.00	1	33.00	110.00	30.00	200.00	23.00	1	18.00	1	10.00	1	0	1.000
2	Chicago EB	Y	76	0	10.00	1	18.00	1	33.00	215.00	30.00	200.00	23.00	1	18.00	1	10.00	1	0	1.000
3	Hohman NB	Y	180	0	10.00	1	18.00	1	33.00	190.00	30.00	200.00	23.00	1	18.00	1	10.00	1	0	1.000
4	Chicago WB	Y	270	0	10.00	1	18.00	1	33.00	215.00	30.00	200.00	23.00	1	18.00	1	10.00	1	0	1.000

	Volume Modifiers			Turning Volumes (veh/hr)						Arrival Volume Ratios			Arrival Volume Times (min)			PHF
	Leg Name	%Truck	Factor			U-Turn	Exit-3	Exit-2	Exit-1	Bypass	Ratio1	Ratio2	Ratio3	Time1	Time2	Time3	
1	Hohman SB	1.0	1.00			0	40	200	20	0	0.750	1.125	0.750	0	30	60	
2	Chicago EB	1.0	1.00			0	20	200	110	0	0.750	1.125	0.750	0	30	60	
3	Hohman NB	1.0	1.00			0	20	430	110	0	0.750	1.125	0.750	0	30	60	
4	Chicago WB	1.0	1.00			0	170	230	0	0	0.750	1.125	0.750	0	30	60	

Calibration | Accidents | Economics | Bypass | Run

	Peak 60min Results	Bypass Type	Flow Rate (veh/hr)		Opp Rate (veh/hr)		Capacity (veh/hr)		Ave VCR		Ave Del (sec/veh)			Max Q (veh)		Max Q95% (veh)		LOS A-F		
			Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Leg	Entry	Bypass	Entry	Bypass	Entry	Byp	Leg
1	Hohman SB	None	260		420		951		0.2815		5.15		5.15	0.45		1.18		A		A
2	Chicago EB	None	330		410		969		0.3509		5.58		5.58	0.63		1.64		A		A
3	Hohman NB	None	560		260		1037		0.5575		7.55		7.55	1.54		3.90		A		A
4	Chicago WB	None	400		470		941		0.4395		6.64		6.64	0.94		2.43		A		A
All	Intersection												6.49							A

Results 60 | Results 15 | Int / Slope - 60 | Int / Slope - 15 | Economics | Global Results

Rodel Output: Chicago and Hohman (2040 No-Build - PM)

Rodel - C:\Users\jseyer\Documents\TXFR to server\PW\Workshare\Chicago\Rodel Project\Chicago and Hohman_2040 No-Build.rod

File View Help

Project: Chicago and Hohman | Date: 29-Jun-2017 | Model: Rodel Win1 | Timeslice: 7.5 | Full Geometry | Peak: PM | Feet | RHD

Name: No-Build | Flows: 2040 | Delay: Queuing | Results: Veh / Peak60/15m | Synthetic Flow Profile | Conf: 50 | Light | 13

	Approach Geometry						Entry Geometry					Circ Geom			Exit Geometry				Entry Capacity Mods	
	Leg Name	•	Bearing	G	V	n	E	n	L'	R	Φ	D	C	n	Ex	n	Vx	n	-+ Cap (v/h)	Xwalk Fact
1	Hohman SB	Y	0	0	10.00	1	18.00	1	33.00	110.00	30.00	200.00	23.00	1	18.00	1	10.00	1	0	1.000
2	Chicago EB	Y	76	0	10.00	1	18.00	1	33.00	215.00	30.00	200.00	23.00	1	18.00	1	10.00	1	0	1.000
3	Hohman NB	Y	180	0	10.00	1	18.00	1	33.00	190.00	30.00	200.00	23.00	1	18.00	1	10.00	1	0	1.000
4	Chicago WB	Y	270	0	10.00	1	18.00	1	33.00	215.00	30.00	200.00	23.00	1	18.00	1	10.00	1	0	1.000

	Volume Modifiers			Turning Volumes (veh/hr)					Arrival Volume Ratios			Arrival Volume Times (min)			PHF
	Leg Name	%Truck	Factor			U-Turn	Exit-3	Exit-2	Exit-1	Bypass	Ratio1	Ratio2	Ratio3	Time1	Time2	Time3	
1	Hohman SB	5.0	1.00			0	100	620	20	0	0.750	1.125	0.750	0	30	60	
2	Chicago EB	10.0	1.00			0	20	280	130	0	0.750	1.125	0.750	0	30	60	
3	Hohman NB	5.0	1.00			0	20	520	170	0	0.750	1.125	0.750	0	30	60	
4	Chicago WB	10.0	1.00			0	290	250	0	0	0.750	1.125	0.750	0	30	60	

Calibration | Accidents | Economics | Bypass | Run

	Peak 60min Results	Bypass Type	Flow Rate (veh/hr)		Opp Rate (veh/hr)		Capacity (veh/hr)		Ave VCR		Ave Del (sec/veh)			Max Q (veh)		Max Q95% (veh)		LOS A-F		
			Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Leg	Entry	Bypass	Entry	Bypass	Entry	Byp	Leg
1	Hohman SB	None	740		560		800		1.0551		51.48		51.48	21.51		42.97		F		F
2	Chicago EB	None	430		1003		562		0.8260		22.08		22.08	4.10		9.72		C		C
3	Hohman NB	None	710		399		887		0.8488		18.67		18.67	5.99		13.66		C		C
4	Chicago WB	None	540		560		749		0.7586		13.71		13.71	3.06		7.43		B		B
All	Intersection												28.20							D

Results 60 | Results 15 | Int / Slope - 60 | Int / Slope - 15 | Economics | Global Results

Rodel Output: Chicago and Hohman (2022 Build - AM)

Rodel - C:\Users\jseyer\Documents\TXFR to server\PW\Workshare\Chicago\Rodel Project\Chicago and Hohman_2022 Build.rod

File View Help

Project: Chicago and Hohman | Date: 29-Jun-2017 | Model: Rodel Win1 | Timeslice: 7.5 | Full Geometry | Peak: AM | Feet | RHD

Name: Build | Flows: 2022 | Delay: Queuing | Results: Veh / Peak60/15m | Synthetic Flow Profile | Conf: 50 | Light | 21

	Approach Geometry						Entry Geometry					Circ Geom			Exit Geometry				Entry Capacity Mods	
	Leg Name	•	Bearing	G	V	n	E	n	L'	R	Φ	D	C	n	Ex	n	Vx	n	-+ Cap (v/h)	Xwalk Fact
1	Hohman SB	Y	0	0	10.00	1	18.00	1	33.00	110.00	30.00	200.00	23.00	1	18.00	1	10.00	1	0	1.000
2	Chicago EB	Y	76	0	10.00	1	18.00	1	33.00	215.00	30.00	200.00	23.00	1	18.00	1	10.00	1	0	1.000
3	Hohman NB	Y	180	0	10.00	1	18.00	1	33.00	190.00	30.00	200.00	23.00	1	18.00	1	10.00	1	0	1.000
4	Chicago WB	Y	270	0	10.00	1	18.00	1	33.00	215.00	30.00	200.00	23.00	1	18.00	1	10.00	1	0	1.000

	Volume Modifiers			Turning Volumes (veh/hr)					Arrival Volume Ratios			Arrival Volume Times (min)			PHF
	Leg Name	%Truck	Factor			U-Turn	Exit-3	Exit-2	Exit-1	Bypass	Ratio1	Ratio2	Ratio3	Time1	Time2	Time3	
1	Hohman SB	5.0	1.00			0	40	200	10	0	0.750	1.125	0.750	0	30	60	
2	Chicago EB	10.0	1.00			0	10	190	120	0	0.750	1.125	0.750	0	30	60	
3	Hohman NB	5.0	1.00			0	70	510	100	0	0.750	1.125	0.750	0	30	60	
4	Chicago WB	10.0	1.00			0	160	250	0	0	0.750	1.125	0.750	0	30	60	

Calibration | Accidents | Economics | Bypass | Run

	Peak 60min Results	Bypass Type	Flow Rate (veh/hr)		Opp Rate (veh/hr)		Capacity (veh/hr)		Ave VCR		Ave Del (sec/veh)			Max Q (veh)		Max Q95% (veh)		LOS A-F		
			Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Leg	Entry	Bypass	Entry	Bypass	Entry	Byp	Leg
1	Hohman SB	None	250		480		838		0.3082		5.75		5.75	0.49		1.28		A		A
2	Chicago EB	None	320		400		812		0.4071		6.33		6.33	0.70		1.82		A		A
3	Hohman NB	None	680		240		960		0.7382		11.67		11.67	3.19		7.71		B		B
4	Chicago WB	None	410		590		737		0.5805		9.29		9.29	1.43		3.63		A		A
All	Intersection												9.16							A

Results 60 | Results 15 | Int / Slope - 60 | Int / Slope - 15 | Economics | Global Results

Rodel Output: Chicago and Hohman (2022 Build - PM)

Rodel - C:\Users\jseyer\Documents\TXFR to server\PW\Workshare\Chicago\Rodel Project\Chicago and Hohman_2022 Build.rod

File View Help

Project: Chicago and Hohman | Date: 29-Jun-2017 | Model: Rodel Win1 | Timeslice: 7.5 | Full Geometry | Peak: PM | Feet | RHD

Name: Build | Flows: 2022 | Delay: Queuing | Results: Veh / Peak60/15m | Synthetic Flow Profile | Conf: 50 | Light | 19

	Approach Geometry						Entry Geometry					Circ Geom			Exit Geometry				Entry Capacity Mods	
	Leg Name	•	Bearing	G	V	n	E	n	L'	R	Φ	D	C	n	Ex	n	Vx	n	-+ Cap (v/h)	Xwalk Fact
1	Hohman SB	Y	0	0	10.00	1	18.00	1	33.00	110.00	30.00	200.00	23.00	1	18.00	1	10.00	1	0	1.000
2	Chicago EB	Y	76	0	10.00	1	18.00	1	33.00	215.00	30.00	200.00	23.00	1	18.00	1	10.00	1	0	1.000
3	Hohman NB	Y	180	0	10.00	1	18.00	1	33.00	190.00	30.00	200.00	23.00	1	18.00	1	10.00	1	0	1.000
4	Chicago WB	Y	270	0	10.00	1	18.00	1	33.00	215.00	30.00	200.00	23.00	1	18.00	1	10.00	1	0	1.000
																...		...		
																...		...		

	Volume Modifiers			Turning Volumes (veh/hr)						Arrival Volume Ratios			Arrival Volume Times (min)			PHF
	Leg Name	%Truck	Factor			U-Turn	Exit-3	Exit-2	Exit-1	Bypass	Ratio1	Ratio2	Ratio3	Time1	Time2	Time3	
1	Hohman SB	5.0	1.00			0	140	640	10	0	0.750	1.125	0.750	0	30	60	
2	Chicago EB	10.0	1.00			0	10	300	180	0	0.750	1.125	0.750	0	30	60	
3	Hohman NB	5.0	1.00			0	30	490	160	0	0.750	1.125	0.750	0	30	60	
4	Chicago WB	10.0	1.00			0	270	240	0	0	0.750	1.125	0.750	0	30	60	

Calibration | Accidents | Economics | Bypass | Run

	Peak 60min Results	Bypass Type	Flow Rate (veh/hr)		Opp Rate (veh/hr)		Capacity (veh/hr)		Ave VCR		Ave Del (sec/veh)			Max Q (veh)		Max Q95% (veh)		LOS A-F		
			Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Leg	Entry	Bypass	Entry	Bypass	Entry	Byp	Leg
1	Hohman SB	None	790		540		809		1.1773		82.45		82.45	36.60		71.63		F		F
2	Chicago EB	None	490		1034		550		0.9872		37.43		37.43	8.68		18.97		E		E
3	Hohman NB	None	680		446		865		0.8302		17.58		17.58	5.19		12.03		C		C
4	Chicago WB	None	510		530		762		0.7009		11.61		11.61	2.34		5.79		B		B
All	Intersection												41.03							E

Results 60 | Results 15 | Int / Slope - 60 | Int / Slope - 15 | Economics | Global Results

Rodel Output: Chicago and Hohman (2040 Build - AM)

Rodel - C:\Users\jseyer\Documents\TXFR to server\PW\Workshare\Chicago\Rodel Project\Chicago and Hohman_2040 Build.rod

File View Help

Project: Chicago and Hohman | Date: 30-Jun-2017 | Model: Rodel Win1 | Timeslice: 7.5 | Full Geometry | Peak: AM | Feet | RHD

Name: Build | Flows: 2040 | Delay: Queuing | Results: Veh / Peak60/15m | Synthetic Flow Profile | Conf: 50 | Light | 20

	Approach Geometry						Entry Geometry					Circ Geom			Exit Geometry				Entry Capacity Mods	
	Leg Name	•	Bearing	G	V	n	E	n	L'	R	Φ	D	C	n	Ex	n	Vx	n	-+ Cap (v/h)	Xwalk Fact
1	Hohman SB	Y	0	0	10.00	1	18.00	1	33.00	110.00	30.00	200.00	23.00	1	18.00	1	10.00	1	0	1.000
2	Chicago EB	Y	76	0	10.00	1	18.00	1	33.00	215.00	30.00	200.00	23.00	1	18.00	1	10.00	1	0	1.000
3	Hohman NB	Y	180	0	10.00	1	18.00	1	33.00	190.00	30.00	200.00	23.00	1	18.00	1	10.00	1	0	1.000
4	Chicago WB	Y	270	0	10.00	1	18.00	1	33.00	215.00	30.00	200.00	23.00	1	18.00	1	10.00	1	0	1.000

	Volume Modifiers			Turning Volumes (veh/hr)					Arrival Volume Ratios			Arrival Volume Times (min)			PHF
	Leg Name	%Truck	Factor			U-Turn	Exit-3	Exit-2	Exit-1	Bypass	Ratio1	Ratio2	Ratio3	Time1	Time2	Time3	
1	Hohman SB	5.0	1.00			0	50	220	20	0	0.750	1.125	0.750	0	30	60	
2	Chicago EB	10.0	1.00			0	20	210	130	0	0.750	1.125	0.750	0	30	60	
3	Hohman NB	5.0	1.00			0	80	570	110	0	0.750	1.125	0.750	0	30	60	
4	Chicago WB	10.0	1.00			0	170	270	0	0	0.750	1.125	0.750	0	30	60	

Calibration | Accidents | Economics | Bypass | Run

	Peak 60min Results	Bypass Type	Flow Rate (veh/hr)		Opp Rate (veh/hr)		Capacity (veh/hr)		Ave VCR		Ave Del (sec/veh)			Max Q (veh)		Max Q95% (veh)		LOS A-F		
			Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Leg	Entry	Bypass	Entry	Bypass	Entry	Byp	Leg
1	Hohman SB	None	290		520		819		0.3663		6.37		6.37	0.64		1.67		A		A
2	Chicago EB	None	360		440		795		0.4686		7.09		7.09	0.90		2.32		A		A
3	Hohman NB	None	760		280		941		0.8537		18.04		18.04	6.21		14.12		C		C
4	Chicago WB	None	440		670		704		0.6561		11.36		11.36	1.97		4.92		B		B
All	Intersection												12.49							B

Results 60 | Results 15 | Int / Slope - 60 | Int / Slope - 15 | Economics | Global Results

Rodel Output: Chicago and Hohman (2040 Build - PM)

Rodel - C:\Users\jseyer\Documents\TXFR to server\PW\Workshare\Chicago\Rodel Project\Chicago and Hohman_2040 Build.rod

File View Help

Project: Chicago and Hohman | Date: 29-Jun-2017 | Model: Rodel Win1 | Timeslice: 7.5 | Full Geometry | Peak: PM | Feet | RHD

Name: Build | Flows: 2040 | Delay: Queuing | Results: Veh / Peak60/15m | Synthetic Flow Profile | Conf: 50 | Light | 18

	Approach Geometry						Entry Geometry					Circ Geom			Exit Geometry				Entry Capacity Mods	
	Leg Name	•	Bearing	G	V	n	E	n	L'	R	Φ	D	C	n	Ex	n	Vx	n	-+ Cap (v/h)	Xwalk Fact
1	Hohman SB	Y	0	0	10.00	1	18.00	1	33.00	110.00	30.00	200.00	23.00	1	18.00	1	10.00	1	0	1.000
2	Chicago EB	Y	76	0	10.00	1	18.00	1	33.00	215.00	30.00	200.00	23.00	1	18.00	1	10.00	1	0	1.000
3	Hohman NB	Y	180	0	10.00	1	18.00	1	33.00	190.00	30.00	200.00	23.00	1	18.00	1	10.00	1	0	1.000
4	Chicago WB	Y	270	0	10.00	1	18.00	1	33.00	215.00	30.00	200.00	23.00	1	18.00	1	10.00	1	0	1.000

	Volume Modifiers			Turning Volumes (veh/hr)					Arrival Volume Ratios			Arrival Volume Times (min)			PHF
	Leg Name	%Truck	Factor			U-Turn	Exit-3	Exit-2	Exit-1	Bypass	Ratio1	Ratio2	Ratio3	Time1	Time2	Time3	
1	Hohman SB	5.0	1.00			0	160	710	20	0	0.750	1.125	0.750	0	30	60	
2	Chicago EB	10.0	1.00			0	20	320	200	0	0.750	1.125	0.750	0	30	60	
3	Hohman NB	5.0	1.00			0	40	540	170	0	0.750	1.125	0.750	0	30	60	
4	Chicago WB	10.0	1.00			0	290	260	0	0	0.750	1.125	0.750	0	30	60	

Calibration | Accidents | Economics | Bypass | Run

	Peak 60min Results	Bypass Type	Flow Rate (veh/hr)		Opp Rate (veh/hr)		Capacity (veh/hr)		Ave VCR		Ave Del (sec/veh)			Max Q (veh)		Max Q95% (veh)		LOS A-F		
			Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Leg	Entry	Bypass	Entry	Bypass	Entry	Byp	Leg
1	Hohman SB	None	890		590		786		1.6747		229.38		229.38	108.47		211.52		F		F
2	Chicago EB	None	540		1045		545		1.1562		66.35		66.35	18.49		37.33		F		F
3	Hohman NB	None	750		466		856		0.9455		28.55		28.55	10.16		21.81		D		D
4	Chicago WB	None	550		598		733		0.7923		15.40		15.40	3.58		8.59		C		C
All	Intersection												98.85							F

Results 60 | Results 15 | Int / Slope - 60 | Int / Slope - 15 | Economics | Global Results

Rodel Output: Chicago and Hohman (2022 Build, Multi - AM)

Rodel - C:\Users\jseyer\Documents\TXFR to server\PW\Workshare\Chicago\Rodel Project\Chicago and Hohman_2022 Build_Imps-Multi.rod

File View Help

Project: Chicago and Hohman | Date: 30-Jun-2017 | Model: Rodel Win1 | Timeslice: 7.5 | Full Geometry | Peak: AM | Feet | RHD

Name: Build - Multi-Lane | Flows: 2022 | Delay: Queuing | Results: Veh / Peak60/15m | Synthetic Flow Profile | Conf: 50 | Light | 28

	Approach Geometry						Entry Geometry					Circ Geom			Exit Geometry				Entry Capacity Mods	
	Leg Name	•	Bearing	G	V	n	E	n	L'	R	Φ	D	C	n	Ex	n	Vx	n	-+ Cap (v/h)	Xwalk Fact
1	Hohman SB	Y	0	0	10.00	1	30.00	2	80.00	110.00	30.00	200.00	23.00	1	30.00	2	10.00	1	0	1.000
2	Chicago EB	Y	76	0	10.00	1	18.00	1	33.00	215.00	30.00	200.00	34.00	2	18.00	1	10.00	1	0	1.000
3	Hohman NB	Y	180	0	10.00	1	30.00	2	80.00	190.00	30.00	200.00	23.00	1	30.00	2	10.00	1	0	1.000
4	Chicago WB	Y	270	0	10.00	1	18.00	1	33.00	215.00	30.00	200.00	34.00	2	18.00	1	10.00	1	0	1.000

	Volume Modifiers			Turning Volumes (veh/hr)					Arrival Volume Ratios			Arrival Volume Times (min)			PHF
	Leg Name	%Truck	Factor			U-Turn	Exit-3	Exit-2	Exit-1	Bypass	Ratio1	Ratio2	Ratio3	Time1	Time2	Time3	
1	Hohman SB	5.0	1.00			0	40	200	10	0	0.750	1.125	0.750	0	30	60	
2	Chicago EB	10.0	1.00			0	10	190	120	0	0.750	1.125	0.750	0	30	60	
3	Hohman NB	5.0	1.00			0	70	510	100	0	0.750	1.125	0.750	0	30	60	
4	Chicago WB	10.0	1.00			0	160	250	0	0	0.750	1.125	0.750	0	30	60	

Calibration | Accidents | Economics | Bypass | 1 message | Run

	Peak 60min Results	Bypass Type	Flow Rate (veh/hr)		Opp Rate (veh/hr)		Capacity (veh/hr)		Ave VCR		Ave Del (sec/veh)			Max Q (veh)		Max Q95% (veh)		LOS A-F		
			Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Leg	Entry	Bypass	Entry	Bypass	Entry	Byp	Leg
1	Hohman SB	None	250		480		1291		0.1995		3.89		3.89	0.33		0.86		A		A
2	Chicago EB	None	320		400		859		0.3834		5.78		5.78	0.63		1.63		A		A
3	Hohman NB	None	680		240		1511		0.4620		4.71		4.71	1.12		2.87		A		A
4	Chicago WB	None	410		590		806		0.5272		7.70		7.70	1.14		2.90		A		A
All	Intersection												5.53							A

Results 60 | Results 15 | Int / Slope - 60 | Int / Slope - 15 | Economics | Global Results

Rodel Output: Chicago and Hohman (2022 Build, Multi - PM)

Rodel - C:\Users\jseyer\Documents\TXFR to server\PW\Workshare\Chicago\Rodel Project\Chicago and Hohman_2022 Build_Imps-Multi.rod

File View Help

Project: Chicago and Hohman | Date: 30-Jun-2017 | Model: Rodel Win1 | Timeslice: 7.5 | Full Geometry | Peak: PM | Feet | RHD

Name: Build - Multi-Lane | Flows: 2022 | Delay: Queuing | Results: Veh / Peak60/15m | Synthetic Flow Profile | Conf: 50 | Light | 30

	Approach Geometry						Entry Geometry					Circ Geom			Exit Geometry				Entry Capacity Mods	
	Leg Name	•	Bearing	G	V	n	E	n	L'	R	Φ	D	C	n	Ex	n	Vx	n	-+ Cap (v/h)	Xwalk Fact
1	Hohman SB	Y	0	0	10.00	1	30.00	2	80.00	110.00	30.00	200.00	23.00	1	30.00	2	10.00	1	0	1.000
2	Chicago EB	Y	76	0	10.00	1	18.00	1	33.00	215.00	30.00	200.00	34.00	2	18.00	1	10.00	1	0	1.000
3	Hohman NB	Y	180	0	10.00	1	30.00	2	80.00	190.00	30.00	200.00	23.00	1	30.00	2	10.00	1	0	1.000
4	Chicago WB	Y	270	0	10.00	1	18.00	1	33.00	215.00	30.00	200.00	34.00	2	18.00	1	10.00	1	0	1.000

	Volume Modifiers			Turning Volumes (veh/hr)					Arrival Volume Ratios			Arrival Volume Times (min)			PHF
	Leg Name	%Truck	Factor			U-Turn	Exit-3	Exit-2	Exit-1	Bypass	Ratio1	Ratio2	Ratio3	Time1	Time2	Time3	
1	Hohman SB	5.0	1.00			0	140	640	10	0	0.750	1.125	0.750	0	30	60	
2	Chicago EB	10.0	1.00			0	10	300	180	0	0.750	1.125	0.750	0	30	60	
3	Hohman NB	5.0	1.00			0	30	490	160	0	0.750	1.125	0.750	0	30	60	
4	Chicago WB	10.0	1.00			0	270	240	0	0	0.750	1.125	0.750	0	30	60	

Calibration | Accidents | Economics | Bypass | 1 message | Run

	Peak 60min Results	Bypass Type	Flow Rate (veh/hr)		Opp Rate (veh/hr)		Capacity (veh/hr)		Ave VCR		Ave Del (sec/veh)			Max Q (veh)		Max Q95% (veh)		LOS A-F		
			Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Leg	Entry	Bypass	Entry	Bypass	Entry	Byp	Leg
1	Hohman SB	None	790		540		1239		0.6662		9.24		9.24	2.98		7.24		A		A
2	Chicago EB	None	490		1049		667		0.7820		16.62		16.62	3.59		8.59		C		C
3	Hohman NB	None	680		450		1335		0.5275		6.70		6.70	1.68		4.23		A		A
4	Chicago WB	None	510		530		823		0.6437		9.40		9.40	1.80		4.53		A		A
All	Intersection												10.04							B

Results 60 | Results 15 | Int / Slope - 60 | Int / Slope - 15 | $ Economics | Global Results

Rodel Output: Chicago and Hohman (2040 Build, Multi - AM)

Rodel - C:\Users\jseyer\Documents\TXFR to server\PW\Workshare\Chicago\Rodel Project\Chicago and Hohman_2040 Build_Imps-Multi.rod

File View Help

Project: Chicago and Hohman | Date: 30-Jun-2017 | Model: Rodel Win1 | Timeslice: 7.5 | Full Geometry | Peak: AM | Feet | RHD

Name: Build - Multi-Lane | Flows: 2040 | Delay: Queuing | Results: Veh | Peak60/15m | Synthetic Flow Profile | Conf: 50 | Light | 27

	Approach Geometry						Entry Geometry					Circ Geom			Exit Geometry				Entry Capacity Mods	
	Leg Name	•	Bearing	G	V	n	E	n	L'	R	Φ	D	C	n	Ex	n	Vx	n	-+ Cap (v/h)	Xwalk Fact
1	Hohman SB	Y	0	0	10.00	1	30.00	2	80.00	110.00	30.00	200.00	23.00	1	30.00	2	10.00	1	0	1.000
2	Chicago EB	Y	76	0	10.00	1	18.00	1	33.00	215.00	30.00	200.00	34.00	2	18.00	1	10.00	1	0	1.000
3	Hohman NB	Y	180	0	10.00	1	30.00	2	80.00	190.00	30.00	200.00	23.00	1	30.00	2	10.00	1	0	1.000
4	Chicago WB	Y	270	0	10.00	1	18.00	1	33.00	215.00	30.00	200.00	34.00	2	18.00	1	10.00	1	0	1.000

	Volume Modifiers			Turning Volumes (veh/hr)					Arrival Volume Ratios			Arrival Volume Times (min)			PHF
	Leg Name	%Truck	Factor			U-Turn	Exit-3	Exit-2	Exit-1	Bypass	Ratio1	Ratio2	Ratio3	Time1	Time2	Time3	
1	Hohman SB	5.0	1.00			0	50	220	20	0	0.750	1.125	0.750	0	30	60	
2	Chicago EB	10.0	1.00			0	20	210	130	0	0.750	1.125	0.750	0	30	60	
3	Hohman NB	5.0	1.00			0	80	570	110	0	0.750	1.125	0.750	0	30	60	
4	Chicago WB	10.0	1.00			0	170	270	0	0	0.750	1.125	0.750	0	30	60	

Calibration | Accidents | Economics | Bypass | 1 message | Run

	Peak 60min Results	Bypass Type	Flow Rate (veh/hr)		Opp Rate (veh/hr)		Capacity (veh/hr)		Ave VCR		Ave Del (sec/veh)			Max Q (veh)		Max Q95% (veh)		LOS A-F		
			Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Leg	Entry	Bypass	Entry	Bypass	Entry	Byp	Leg
1	Hohman SB	None	290		520		1257		0.2381		4.25		4.25	0.42		1.10		A		A
2	Chicago EB	None	360		440		847		0.4381		6.34		6.34	0.79		2.04		A		A
3	Hohman NB	None	760		280		1477		0.5294		5.43		5.43	1.49		3.77		A		A
4	Chicago WB	None	440		670		782		0.5849		8.81		8.81	1.44		3.64		A		A
All	Intersection												6.23							A

Results 60 | Results 15 | Int / Slope - 60 | Int / Slope - 15 | Economics | Global Results

Rodel Output: Chicago and Hohman (2040 Build, Multi - PM)

Rodel - C:\Users\jseyer\Documents\TXFR to server\PW\Workshare\Chicago\Rodel Project\Chicago and Hohman_2040 Build_Imps-Multi.rod

File View Help

Project: Chicago and Hohman | Date: 30-Jun-2017 | Model: Rodel Win1 | Timeslice: 7.5 | Full Geometry | Peak: PM | Feet | RHD

Name: Build - Multi-Lane | Flows: 2040 | Delay: Queuing | Results: Veh / Peak60/15m | Synthetic Flow Profile | Conf: 50 | Light | 25

	Approach Geometry						Entry Geometry					Circ Geom			Exit Geometry				Entry Capacity Mods	
	Leg Name	•	Bearing	G	V	n	E	n	L'	R	Φ	D	C	n	Ex	n	Vx	n	-+ Cap (v/h)	Xwalk Fact
1	Hohman SB	Y	0	0	10.00	1	30.00	2	80.00	110.00	30.00	200.00	23.00	1	30.00	2	10.00	1	0	1.000
2	Chicago EB	Y	76	0	10.00	1	18.00	1	33.00	215.00	30.00	200.00	34.00	2	18.00	1	10.00	1	0	1.000
3	Hohman NB	Y	180	0	10.00	1	30.00	2	80.00	190.00	30.00	200.00	23.00	1	30.00	2	10.00	1	0	1.000
4	Chicago WB	Y	270	0	10.00	1	18.00	1	33.00	215.00	30.00	200.00	34.00	2	18.00	1	10.00	1	0	1.000

	Volume Modifiers			Turning Volumes (veh/hr)						Arrival Volume Ratios			Arrival Volume Times (min)			PHF
	Leg Name	%Truck	Factor			U-Turn	Exit-3	Exit-2	Exit-1	Bypass	Ratio1	Ratio2	Ratio3	Time1	Time2	Time3	
1	Hohman SB	5.0	1.00			0	160	710	20	0	0.750	1.125	0.750	0	30	60	
2	Chicago EB	10.0	1.00			0	20	320	200	0	0.750	1.125	0.750	0	30	60	
3	Hohman NB	5.0	1.00			0	40	540	170	0	0.750	1.125	0.750	0	30	60	
4	Chicago WB	10.0	1.00			0	290	260	0	0	0.750	1.125	0.750	0	30	60	

Calibration | Accidents | Economics | Bypass | 1 message | Run

	Peak 60min Results	Bypass Type	Flow Rate (veh/hr)		Opp Rate (veh/hr)		Capacity (veh/hr)		Ave VCR		Ave Del (sec/veh)			Max Q (veh)		Max Q95% (veh)		LOS A-F		
			Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Leg	Entry	Bypass	Entry	Bypass	Entry	Byp	Leg
1	Hohman SB	None	890		590		1196		0.7866		14.06		14.06	5.79		13.25		B		B
2	Chicago EB	None	540		1160		635		0.9342		29.69		29.69	8.26		18.17		D		D
3	Hohman NB	None	750		499		1293		0.6025		7.99		7.99	2.28		5.65		A		A
4	Chicago WB	None	550		600		803		0.7158		11.41		11.41	2.48		6.10		B		B
All	Intersection												14.95							B

Results 60 | Results 15 | Int / Slope - 60 | Int / Slope - 15 | Economics | Global Results

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	20	190	40	60	210	30	80	200	90	30	220	30
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1961	1863	1863	1863	1900
Adj Flow Rate, veh/h	22	207	43	65	228	33	87	217	98	33	239	33
Adj No. of Lanes	1	1	0	1	1	0	1	1	1	1	1	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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	246	376	78	253	400	58	655	1123	907	656	918	127
Arrive On Green	0.25	0.25	0.25	0.25	0.25	0.25	0.57	0.57	0.57	0.57	0.57	0.57
Sat Flow, veh/h	1114	1497	311	1125	1592	230	1103	1961	1583	1060	1602	221
Grp Volume(v), veh/h	22	0	250	65	0	261	87	217	98	33	0	272
Grp Sat Flow(s),veh/h/ln	1114	0	1808	1125	0	1822	1103	1961	1583	1060	0	1824
Q Serve(g_s), s	1.2	0.0	8.2	3.6	0.0	8.5	2.9	3.6	1.9	1.1	0.0	5.1
Cycle Q Clear(g_c), s	9.7	0.0	8.2	11.8	0.0	8.5	8.0	3.6	1.9	4.7	0.0	5.1
Prop In Lane	1.00		0.17	1.00		0.13	1.00		1.00	1.00		0.12
Lane Grp Cap(c), veh/h	246	0	454	253	0	458	655	1123	907	656	0	1044
V/C Ratio(X)	0.09	0.00	0.55	0.26	0.00	0.57	0.13	0.19	0.11	0.05	0.00	0.26
Avail Cap(c_a), veh/h	604	0	1035	615	0	1043	655	1123	907	656	0	1044
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	26.5	0.0	22.2	27.3	0.0	22.3	9.3	7.0	6.6	8.1	0.0	7.3
Incr Delay (d2), s/veh	0.2	0.0	1.0	0.5	0.0	1.1	0.4	0.4	0.2	0.1	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	4.2	1.2	0.0	4.4	1.0	2.0	0.9	0.3	0.0	2.7
LnGrp Delay(d),s/veh	26.7	0.0	23.2	27.8	0.0	23.4	9.7	7.4	6.9	8.3	0.0	7.9
LnGrp LOS	C		C	C		C	A	A	A	A		A
Approach Vol, veh/h		272			326			402			305	
Approach Delay, s/veh		23.5			24.3			7.8			8.0	
Approach LOS		C			C			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		45.0		23.1		45.0		23.1
Change Period (Y+Rc), s		6.0		6.0		6.0		6.0
Max Green Setting (Gmax), s		39.0		39.0		39.0		39.0
Max Q Clear Time (g_c+I1), s		10.0		11.7		7.1		13.8
Green Ext Time (p_c), s		3.7		3.3		3.8		3.3

Intersection Summary	
HCM 2010 Ctrl Delay	15.2
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	40	370	70	60	290	50	90	280	90	60	260	40
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1961	1863	1863	1863	1900
Adj Flow Rate, veh/h	42	389	74	63	305	53	95	295	95	63	274	42
Adj No. of Lanes	1	1	0	1	1	0	1	1	1	1	1	0
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	302	555	106	225	564	98	490	953	769	481	767	118
Arrive On Green	0.36	0.36	0.36	0.36	0.36	0.36	0.49	0.49	0.49	0.49	0.49	0.49
Sat Flow, veh/h	1019	1522	290	925	1547	269	1059	1961	1583	990	1578	242
Grp Volume(v), veh/h	42	0	463	63	0	358	95	295	95	63	0	316
Grp Sat Flow(s),veh/h/ln	1019	0	1812	925	0	1815	1059	1961	1583	990	0	1820
Q Serve(g_s), s	2.7	0.0	17.5	5.0	0.0	12.5	4.9	7.3	2.6	3.3	0.0	8.7
Cycle Q Clear(g_c), s	15.3	0.0	17.5	22.5	0.0	12.5	13.6	7.3	2.6	10.6	0.0	8.7
Prop In Lane	1.00		0.16	1.00		0.15	1.00		1.00	1.00		0.13
Lane Grp Cap(c), veh/h	302	0	660	225	0	662	490	953	769	481	0	884
V/C Ratio(X)	0.14	0.00	0.70	0.28	0.00	0.54	0.19	0.31	0.12	0.13	0.00	0.36
Avail Cap(c_a), veh/h	426	0	880	338	0	882	490	953	769	481	0	884
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	26.2	0.0	21.8	31.4	0.0	20.2	17.1	12.5	11.3	15.7	0.0	12.8
Incr Delay (d2), s/veh	0.2	0.0	1.6	0.7	0.0	0.7	0.9	0.8	0.3	0.6	0.0	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	9.0	1.3	0.0	6.4	1.5	4.2	1.2	1.0	0.0	4.6
LnGrp Delay(d),s/veh	26.4	0.0	23.4	32.0	0.0	20.9	17.9	13.3	11.6	16.3	0.0	14.0
LnGrp LOS	C		C	C		C	B	B	B	B		B
Approach Vol, veh/h		505			421			485			379	
Approach Delay, s/veh		23.6			22.5			13.9			14.3	
Approach LOS		C			C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		45.0		35.3		45.0		35.3
Change Period (Y+Rc), s		6.0		6.0		6.0		6.0
Max Green Setting (Gmax), s		39.0		39.0		39.0		39.0
Max Q Clear Time (g_c+I1), s		15.6		19.5		12.6		24.5
Green Ext Time (p_c), s		4.6		5.4		4.8		4.7

Intersection Summary	
HCM 2010 Ctrl Delay	18.8
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	30	200	40	60	230	30	90	220	100	30	240	30
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1961	1863	1863	1863	1900
Adj Flow Rate, veh/h	33	217	43	65	250	33	98	239	109	33	261	33
Adj No. of Lanes	1	1	0	1	1	0	1	1	1	1	1	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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	238	391	77	254	417	55	628	1112	898	626	919	116
Arrive On Green	0.26	0.26	0.26	0.26	0.26	0.26	0.57	0.57	0.57	0.57	0.57	0.57
Sat Flow, veh/h	1092	1511	299	1115	1612	213	1081	1961	1583	1029	1622	205
Grp Volume(v), veh/h	33	0	260	65	0	283	98	239	109	33	0	294
Grp Sat Flow(s),veh/h/ln	1092	0	1810	1115	0	1825	1081	1961	1583	1029	0	1827
Q Serve(g_s), s	1.9	0.0	8.6	3.7	0.0	9.4	3.5	4.1	2.2	1.1	0.0	5.7
Cycle Q Clear(g_c), s	11.2	0.0	8.6	12.2	0.0	9.4	9.3	4.1	2.2	5.3	0.0	5.7
Prop In Lane	1.00		0.17	1.00		0.12	1.00		1.00	1.00		0.11
Lane Grp Cap(c), veh/h	238	0	468	254	0	472	628	1112	898	626	0	1036
V/C Ratio(X)	0.14	0.00	0.56	0.26	0.00	0.60	0.16	0.21	0.12	0.05	0.00	0.28
Avail Cap(c_a), veh/h	575	0	1026	598	0	1035	628	1112	898	626	0	1036
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	27.3	0.0	22.1	27.4	0.0	22.4	10.1	7.3	6.9	8.6	0.0	7.7
Incr Delay (d2), s/veh	0.3	0.0	1.0	0.5	0.0	1.2	0.5	0.4	0.3	0.2	0.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	4.4	1.2	0.0	4.9	1.2	2.3	1.0	0.3	0.0	3.1
LnGrp Delay(d),s/veh	27.6	0.0	23.1	27.9	0.0	23.6	10.6	7.8	7.2	8.8	0.0	8.4
LnGrp LOS	C		C	C		C	B	A	A	A		A
Approach Vol, veh/h		293			348			446			327	
Approach Delay, s/veh		23.6			24.4			8.3			8.4	
Approach LOS		C			C			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		45.0		23.8		45.0		23.8
Change Period (Y+Rc), s		6.0		6.0		6.0		6.0
Max Green Setting (Gmax), s		39.0		39.0		39.0		39.0
Max Q Clear Time (g_c+I1), s		11.3		13.2		7.7		14.2
Green Ext Time (p_c), s		4.1		3.6		4.2		3.5

Intersection Summary	
HCM 2010 Ctrl Delay	15.5
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	50	400	70	70	310	50	100	310	100	60	280	40
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1961	1863	1863	1863	1900
Adj Flow Rate, veh/h	53	421	74	74	326	53	105	326	105	63	295	42
Adj No. of Lanes	1	1	0	1	1	0	1	1	1	1	1	0
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	310	595	105	226	603	98	450	921	744	434	750	107
Arrive On Green	0.39	0.39	0.39	0.39	0.39	0.39	0.47	0.47	0.47	0.47	0.47	0.47
Sat Flow, veh/h	1000	1544	271	899	1564	254	1039	1961	1583	953	1596	227
Grp Volume(v), veh/h	53	0	495	74	0	379	105	326	105	63	0	337
Grp Sat Flow(s),veh/h/ln	1000	0	1815	899	0	1818	1039	1961	1583	953	0	1823
Q Serve(g_s), s	3.6	0.0	19.1	6.3	0.0	13.4	6.1	8.8	3.1	3.7	0.0	10.0
Cycle Q Clear(g_c), s	17.0	0.0	19.1	25.4	0.0	13.4	16.0	8.8	3.1	12.5	0.0	10.0
Prop In Lane	1.00		0.15	1.00		0.14	1.00		1.00	1.00		0.12
Lane Grp Cap(c), veh/h	310	0	700	226	0	701	450	921	744	434	0	856
V/C Ratio(X)	0.17	0.00	0.71	0.33	0.00	0.54	0.23	0.35	0.14	0.15	0.00	0.39
Avail Cap(c_a), veh/h	395	0	853	302	0	854	450	921	744	434	0	856
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	26.4	0.0	21.5	32.3	0.0	19.8	19.5	14.0	12.5	18.0	0.0	14.3
Incr Delay (d2), s/veh	0.3	0.0	2.1	0.8	0.0	0.7	1.2	1.1	0.4	0.7	0.0	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.0	9.9	1.6	0.0	6.9	1.9	5.0	1.5	1.1	0.0	5.3
LnGrp Delay(d),s/veh	26.7	0.0	23.6	33.1	0.0	20.4	20.7	15.1	12.9	18.7	0.0	15.7
LnGrp LOS	C		C	C		C	C	B	B	B		B
Approach Vol, veh/h		548			453			536			400	
Approach Delay, s/veh		23.9			22.5			15.7			16.1	
Approach LOS		C			C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		45.0		38.0		45.0		38.0
Change Period (Y+Rc), s		6.0		6.0		6.0		6.0
Max Green Setting (Gmax), s		39.0		39.0		39.0		39.0
Max Q Clear Time (g_c+I1), s		18.0		21.1		14.5		27.4
Green Ext Time (p_c), s		5.0		5.7		5.2		4.6

Intersection Summary	
HCM 2010 Ctrl Delay	19.7
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	20	190	50	60	210	30	80	200	90	30	230	30
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1961	1863	1863	1863	1900
Adj Flow Rate, veh/h	22	207	54	65	228	33	87	217	98	33	250	33
Adj No. of Lanes	1	1	0	1	1	0	1	1	1	1	1	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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	254	368	96	252	411	59	638	1113	899	649	915	121
Arrive On Green	0.26	0.26	0.26	0.26	0.26	0.26	0.57	0.57	0.57	0.57	0.57	0.57
Sat Flow, veh/h	1114	1425	372	1114	1592	230	1092	1961	1583	1060	1612	213
Grp Volume(v), veh/h	22	0	261	65	0	261	87	217	98	33	0	283
Grp Sat Flow(s),veh/h/ln	1114	0	1797	1114	0	1822	1092	1961	1583	1060	0	1825
Q Serve(g_s), s	1.2	0.0	8.7	3.7	0.0	8.5	3.0	3.7	2.0	1.1	0.0	5.5
Cycle Q Clear(g_c), s	9.7	0.0	8.7	12.4	0.0	8.5	8.5	3.7	2.0	4.8	0.0	5.5
Prop In Lane	1.00		0.21	1.00		0.13	1.00		1.00	1.00		0.12
Lane Grp Cap(c), veh/h	254	0	463	252	0	470	638	1113	899	649	0	1036
V/C Ratio(X)	0.09	0.00	0.56	0.26	0.00	0.56	0.14	0.20	0.11	0.05	0.00	0.27
Avail Cap(c_a), veh/h	599	0	1020	596	0	1034	638	1113	899	649	0	1036
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	26.3	0.0	22.1	27.5	0.0	22.1	9.8	7.2	6.9	8.4	0.0	7.6
Incr Delay (d2), s/veh	0.1	0.0	1.1	0.5	0.0	1.0	0.4	0.4	0.2	0.1	0.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	4.4	1.2	0.0	4.4	1.0	2.1	0.9	0.3	0.0	2.9
LnGrp Delay(d),s/veh	26.4	0.0	23.2	28.0	0.0	23.1	10.2	7.6	7.1	8.5	0.0	8.3
LnGrp LOS	C		C	C		C	B	A	A	A		A
Approach Vol, veh/h		283			326			402			316	
Approach Delay, s/veh		23.5			24.1			8.1			8.3	
Approach LOS		C			C			A			A	

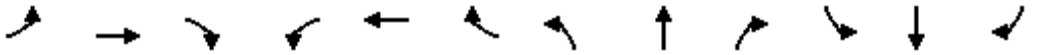
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		45.0		23.7		45.0		23.7
Change Period (Y+Rc), s		6.0		6.0		6.0		6.0
Max Green Setting (Gmax), s		39.0		39.0		39.0		39.0
Max Q Clear Time (g_c+I1), s		10.5		11.7		7.5		14.4
Green Ext Time (p_c), s		3.8		3.4		3.8		3.4

Intersection Summary	
HCM 2010 Ctrl Delay	15.3
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	40	370	70	60	290	50	100	290	90	60	260	40
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1961	1863	1863	1863	1900
Adj Flow Rate, veh/h	42	389	74	63	305	53	105	305	95	63	274	42
Adj No. of Lanes	1	1	0	1	1	0	1	1	1	1	1	0
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	302	555	106	225	564	98	490	953	769	473	767	118
Arrive On Green	0.36	0.36	0.36	0.36	0.36	0.36	0.49	0.49	0.49	0.49	0.49	0.49
Sat Flow, veh/h	1019	1522	290	925	1547	269	1059	1961	1583	981	1578	242
Grp Volume(v), veh/h	42	0	463	63	0	358	105	305	95	63	0	316
Grp Sat Flow(s),veh/h/ln	1019	0	1812	925	0	1815	1059	1961	1583	981	0	1820
Q Serve(g_s), s	2.7	0.0	17.5	5.0	0.0	12.5	5.5	7.6	2.6	3.4	0.0	8.7
Cycle Q Clear(g_c), s	15.3	0.0	17.5	22.5	0.0	12.5	14.2	7.6	2.6	11.0	0.0	8.7
Prop In Lane	1.00		0.16	1.00		0.15	1.00		1.00	1.00		0.13
Lane Grp Cap(c), veh/h	302	0	660	225	0	662	490	953	769	473	0	884
V/C Ratio(X)	0.14	0.00	0.70	0.28	0.00	0.54	0.21	0.32	0.12	0.13	0.00	0.36
Avail Cap(c_a), veh/h	426	0	880	338	0	882	490	953	769	473	0	884
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	26.2	0.0	21.8	31.4	0.0	20.2	17.2	12.6	11.3	15.9	0.0	12.8
Incr Delay (d2), s/veh	0.2	0.0	1.6	0.7	0.0	0.7	1.0	0.9	0.3	0.6	0.0	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	9.0	1.3	0.0	6.4	1.7	4.3	1.2	1.0	0.0	4.6
LnGrp Delay(d),s/veh	26.4	0.0	23.4	32.0	0.0	20.9	18.2	13.4	11.6	16.5	0.0	14.0
LnGrp LOS	C		C	C		C	B	B	B	B		B
Approach Vol, veh/h		505			421			505			379	
Approach Delay, s/veh		23.6			22.5			14.1			14.4	
Approach LOS		C			C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		45.0		35.3		45.0		35.3
Change Period (Y+Rc), s		6.0		6.0		6.0		6.0
Max Green Setting (Gmax), s		39.0		39.0		39.0		39.0
Max Q Clear Time (g_c+I1), s		16.2		19.5		13.0		24.5
Green Ext Time (p_c), s		4.7		5.4		4.9		4.7

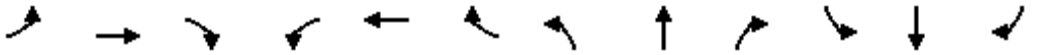
Intersection Summary	
HCM 2010 Ctrl Delay	18.8
HCM 2010 LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	30	200	50	60	230	30	90	220	100	30	250	30
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1961	1863	1863	1863	1900
Adj Flow Rate, veh/h	33	217	54	65	250	33	98	239	109	33	272	33
Adj No. of Lanes	1	1	0	1	1	0	1	1	1	1	1	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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	246	382	95	253	428	56	611	1102	890	619	916	111
Arrive On Green	0.27	0.27	0.27	0.27	0.27	0.27	0.56	0.56	0.56	0.56	0.56	0.56
Sat Flow, veh/h	1092	1441	359	1104	1612	213	1070	1961	1583	1029	1630	198
Grp Volume(v), veh/h	33	0	271	65	0	283	98	239	109	33	0	305
Grp Sat Flow(s),veh/h/ln	1092	0	1799	1104	0	1825	1070	1961	1583	1029	0	1828
Q Serve(g_s), s	1.9	0.0	9.0	3.8	0.0	9.4	3.7	4.2	2.2	1.1	0.0	6.1
Cycle Q Clear(g_c), s	11.2	0.0	9.0	12.8	0.0	9.4	9.8	4.2	2.2	5.4	0.0	6.1
Prop In Lane	1.00		0.20	1.00		0.12	1.00		1.00	1.00		0.11
Lane Grp Cap(c), veh/h	246	0	477	253	0	484	611	1102	890	619	0	1027
V/C Ratio(X)	0.13	0.00	0.57	0.26	0.00	0.58	0.16	0.22	0.12	0.05	0.00	0.30
Avail Cap(c_a), veh/h	570	0	1011	580	0	1025	611	1102	890	619	0	1027
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	27.1	0.0	22.1	27.6	0.0	22.2	10.6	7.6	7.2	8.9	0.0	8.0
Incr Delay (d2), s/veh	0.2	0.0	1.1	0.5	0.0	1.1	0.6	0.5	0.3	0.2	0.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	4.6	1.2	0.0	4.9	1.2	2.4	1.0	0.3	0.0	3.3
LnGrp Delay(d),s/veh	27.3	0.0	23.1	28.1	0.0	23.3	11.1	8.0	7.4	9.1	0.0	8.7
LnGrp LOS	C		C	C		C	B	A	A	A		A
Approach Vol, veh/h		304			348			446			338	
Approach Delay, s/veh		23.6			24.2			8.6			8.8	
Approach LOS		C			C			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		45.0		24.4		45.0		24.4
Change Period (Y+Rc), s		6.0		6.0		6.0		6.0
Max Green Setting (Gmax), s		39.0		39.0		39.0		39.0
Max Q Clear Time (g_c+I1), s		11.8		13.2		8.1		14.8
Green Ext Time (p_c), s		4.2		3.7		4.3		3.6

Intersection Summary	
HCM 2010 Ctrl Delay	15.6
HCM 2010 LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	50	400	70	70	310	50	110	320	100	60	280	40
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1961	1863	1863	1863	1900
Adj Flow Rate, veh/h	53	421	74	74	326	53	116	337	105	63	295	42
Adj No. of Lanes	1	1	0	1	1	0	1	1	1	1	1	0
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	310	595	105	226	603	98	450	921	744	426	750	107
Arrive On Green	0.39	0.39	0.39	0.39	0.39	0.39	0.47	0.47	0.47	0.47	0.47	0.47
Sat Flow, veh/h	1000	1544	271	899	1564	254	1039	1961	1583	944	1596	227
Grp Volume(v), veh/h	53	0	495	74	0	379	116	337	105	63	0	337
Grp Sat Flow(s),veh/h/ln	1000	0	1815	899	0	1818	1039	1961	1583	944	0	1823
Q Serve(g_s), s	3.6	0.0	19.1	6.3	0.0	13.4	6.8	9.1	3.1	3.8	0.0	10.0
Cycle Q Clear(g_c), s	17.0	0.0	19.1	25.4	0.0	13.4	16.8	9.1	3.1	12.9	0.0	10.0
Prop In Lane	1.00		0.15	1.00		0.14	1.00		1.00	1.00		0.12
Lane Grp Cap(c), veh/h	310	0	700	226	0	701	450	921	744	426	0	856
V/C Ratio(X)	0.17	0.00	0.71	0.33	0.00	0.54	0.26	0.37	0.14	0.15	0.00	0.39
Avail Cap(c_a), veh/h	395	0	853	302	0	854	450	921	744	426	0	856
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	26.4	0.0	21.5	32.3	0.0	19.8	19.8	14.1	12.5	18.2	0.0	14.3
Incr Delay (d2), s/veh	0.3	0.0	2.1	0.8	0.0	0.7	1.4	1.1	0.4	0.7	0.0	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.0	9.9	1.6	0.0	6.9	2.1	5.2	1.5	1.1	0.0	5.3
LnGrp Delay(d),s/veh	26.7	0.0	23.6	33.1	0.0	20.4	21.1	15.2	12.9	19.0	0.0	15.7
LnGrp LOS	C		C	C		C	C	B	B	B		B
Approach Vol, veh/h		548			453			558			400	
Approach Delay, s/veh		23.9			22.5			16.0			16.2	
Approach LOS		C			C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		45.0		38.0		45.0		38.0
Change Period (Y+Rc), s		6.0		6.0		6.0		6.0
Max Green Setting (Gmax), s		39.0		39.0		39.0		39.0
Max Q Clear Time (g_c+I1), s		18.8		21.1		14.9		27.4
Green Ext Time (p_c), s		5.1		5.7		5.3		4.6

Intersection Summary	
HCM 2010 Ctrl Delay	19.8
HCM 2010 LOS	B

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	10	10	10	370	315	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	11	11	402	342	11

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	772	348	353	0	-	0
Stage 1	348	-	-	-	-	-
Stage 2	424	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	368	695	1206	-	-	-
Stage 1	715	-	-	-	-	-
Stage 2	660	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	364	695	1206	-	-	-
Mov Cap-2 Maneuver	364	-	-	-	-	-
Stage 1	715	-	-	-	-	-
Stage 2	652	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.9	0.2	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1206	-	478	-	-
HCM Lane V/C Ratio	0.009	-	0.045	-	-
HCM Control Delay (s)	8	0	12.9	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	10	10	10	445	415	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	11	11	468	437	11

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	931	442	447	0	-	0
Stage 1	442	-	-	-	-	-
Stage 2	489	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	296	615	1113	-	-	-
Stage 1	648	-	-	-	-	-
Stage 2	616	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	292	615	1113	-	-	-
Mov Cap-2 Maneuver	292	-	-	-	-	-
Stage 1	648	-	-	-	-	-
Stage 2	608	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	14.6	0.2	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1113	-	396	-	-
HCM Lane V/C Ratio	0.009	-	0.053	-	-
HCM Control Delay (s)	8.3	0	14.6	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	10	10	10	410	340	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	11	11	446	370	11

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	842	375	380	0	-	0
Stage 1	375	-	-	-	-	-
Stage 2	467	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	334	671	1178	-	-	-
Stage 1	695	-	-	-	-	-
Stage 2	631	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	330	671	1178	-	-	-
Mov Cap-2 Maneuver	330	-	-	-	-	-
Stage 1	695	-	-	-	-	-
Stage 2	623	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13.6	0.2	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1178	-	442	-	-
HCM Lane V/C Ratio	0.009	-	0.049	-	-
HCM Control Delay (s)	8.1	0	13.6	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	10	10	10	500	450	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	11	11	526	474	11

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1026	479	484	0	-	0
Stage 1	479	-	-	-	-	-
Stage 2	547	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	260	587	1079	-	-	-
Stage 1	623	-	-	-	-	-
Stage 2	580	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	256	587	1079	-	-	-
Mov Cap-2 Maneuver	256	-	-	-	-	-
Stage 1	623	-	-	-	-	-
Stage 2	572	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	15.7	0.2	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1079	-	357	-	-
HCM Lane V/C Ratio	0.01	-	0.059	-	-
HCM Control Delay (s)	8.4	0	15.7	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	10	30	60	480	320	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	33	65	522	348	11

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1005	353	359	0	-	0
Stage 1	353	-	-	-	-	-
Stage 2	652	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	268	691	1200	-	-	-
Stage 1	711	-	-	-	-	-
Stage 2	518	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	248	691	1200	-	-	-
Mov Cap-2 Maneuver	248	-	-	-	-	-
Stage 1	711	-	-	-	-	-
Stage 2	479	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13.3	0.9	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1200	-	478	-	-
HCM Lane V/C Ratio	0.054	-	0.091	-	-
HCM Control Delay (s)	8.2	0	13.3	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.2	-	0.3	-	-

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	10	60	20	450	460	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	63	21	474	484	11

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1005	489	495	0	-	0
Stage 1	489	-	-	-	-	-
Stage 2	516	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	268	579	1069	-	-	-
Stage 1	616	-	-	-	-	-
Stage 2	599	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	261	579	1069	-	-	-
Mov Cap-2 Maneuver	261	-	-	-	-	-
Stage 1	616	-	-	-	-	-
Stage 2	583	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13.6	0.4	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1069	-	493	-	-
HCM Lane V/C Ratio	0.02	-	0.149	-	-
HCM Control Delay (s)	8.4	0	13.6	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.5	-	-

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	10	30	60	530	340	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	33	65	576	370	11

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1082	375	380	0	-	0
Stage 1	375	-	-	-	-	-
Stage 2	707	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	241	671	1178	-	-	-
Stage 1	695	-	-	-	-	-
Stage 2	489	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	221	671	1178	-	-	-
Mov Cap-2 Maneuver	221	-	-	-	-	-
Stage 1	695	-	-	-	-	-
Stage 2	449	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	14	0.8	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1178	-	445	-	-
HCM Lane V/C Ratio	0.055	-	0.098	-	-
HCM Control Delay (s)	8.2	0	14	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.2	-	0.3	-	-

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	10	60	20	500	500	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	63	21	526	526	11

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1100	532	537	0	-	0
Stage 1	532	-	-	-	-	-
Stage 2	568	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	235	547	1031	-	-	-
Stage 1	589	-	-	-	-	-
Stage 2	567	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	228	547	1031	-	-	-
Mov Cap-2 Maneuver	228	-	-	-	-	-
Stage 1	589	-	-	-	-	-
Stage 2	551	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	14.4	0.3	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1031	-	456	-	-
HCM Lane V/C Ratio	0.02	-	0.162	-	-
HCM Control Delay (s)	8.6	0	14.4	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.6	-	-

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	10	10	10	10	10	10	10	430	10	10	310	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	11	11	11	11	11	11	453	11	11	326	11

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	842	837	332	842	837	458	337	0	0	463	0	0
Stage 1	353	353	-	479	479	-	-	-	-	-	-	-
Stage 2	489	484	-	363	358	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	284	303	710	284	303	603	1222	-	-	1098	-	-
Stage 1	664	631	-	568	555	-	-	-	-	-	-	-
Stage 2	561	552	-	656	628	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	267	296	710	267	296	603	1222	-	-	1098	-	-
Mov Cap-2 Maneuver	267	296	-	267	296	-	-	-	-	-	-	-
Stage 1	656	623	-	561	548	-	-	-	-	-	-	-
Stage 2	534	545	-	628	620	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	16.2	16.6	0.2	0.3
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1222	-	-	352	342	1098	-	-
HCM Lane V/C Ratio	0.009	-	-	0.09	0.092	0.01	-	-
HCM Control Delay (s)	8	0	-	16.2	16.6	8.3	0	-
HCM Lane LOS	A	A	-	C	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.3	0.3	0	-	-

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	10	10	10	10	10	10	10	430	10	10	440	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	11	11	11	11	11	11	453	11	11	463	11

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	978	973	468	979	974	458	474	0	0	463	0	0
Stage 1	489	489	-	479	479	-	-	-	-	-	-	-
Stage 2	489	484	-	500	495	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	230	252	595	229	252	603	1088	-	-	1098	-	-
Stage 1	561	549	-	568	555	-	-	-	-	-	-	-
Stage 2	561	552	-	553	546	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	214	245	595	213	245	603	1088	-	-	1098	-	-
Mov Cap-2 Maneuver	214	245	-	213	245	-	-	-	-	-	-	-
Stage 1	553	541	-	560	547	-	-	-	-	-	-	-
Stage 2	533	544	-	525	538	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	19.1	19.1	0.2	0.2
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1088	-	-	287	287	1098	-	-
HCM Lane V/C Ratio	0.01	-	-	0.11	0.11	0.01	-	-
HCM Control Delay (s)	8.3	0	-	19.1	19.1	8.3	0	-
HCM Lane LOS	A	A	-	C	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.4	0.4	0	-	-

Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	10	10	10	10	10	20	10	470	10	10	340	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	11	11	11	11	21	11	495	11	11	358	11

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	921	910	363	916	910	500	368	0	0	505	0	0
Stage 1	384	384	-	521	521	-	-	-	-	-	-	-
Stage 2	537	526	-	395	389	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	251	275	682	253	275	571	1191	-	-	1060	-	-
Stage 1	639	611	-	539	532	-	-	-	-	-	-	-
Stage 2	528	529	-	630	608	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	230	268	682	237	268	571	1191	-	-	1060	-	-
Mov Cap-2 Maneuver	230	268	-	237	268	-	-	-	-	-	-	-
Stage 1	631	603	-	532	525	-	-	-	-	-	-	-
Stage 2	492	522	-	602	600	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	17.7	16.7	0.2	0.2
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1191	-	-	314	349	1060	-	-
HCM Lane V/C Ratio	0.009	-	-	0.101	0.121	0.01	-	-
HCM Control Delay (s)	8.1	0	-	17.7	16.7	8.4	0	-
HCM Lane LOS	A	A	-	C	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.3	0.4	0	-	-

Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	10	10	10	10	10	20	10	470	10	20	480	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	11	11	11	11	21	11	495	11	21	505	11

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1090	1079	511	1084	1079	500	516	0	0	505	0	0
Stage 1	553	553	-	521	521	-	-	-	-	-	-	-
Stage 2	537	526	-	563	558	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	193	218	563	194	218	571	1050	-	-	1060	-	-
Stage 1	517	514	-	539	532	-	-	-	-	-	-	-
Stage 2	528	529	-	511	512	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	173	209	563	177	209	571	1050	-	-	1060	-	-
Mov Cap-2 Maneuver	173	209	-	177	209	-	-	-	-	-	-	-
Stage 1	509	500	-	531	524	-	-	-	-	-	-	-
Stage 2	491	521	-	477	498	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	22	19.7	0.2	0.3
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1050	-	-	243	287	1060	-	-
HCM Lane V/C Ratio	0.01	-	-	0.13	0.147	0.02	-	-
HCM Control Delay (s)	8.5	0	-	22	19.7	8.5	0	-
HCM Lane LOS	A	A	-	C	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.4	0.5	0.1	-	-

Intersection	
Int Delay, s/veh	2.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	10	10	30	10	10	10	60	550	10	10	330	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	11	32	11	11	11	63	579	11	11	347	11

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1095	1090	353	1106	1090	584	358	0	0	589	0	0
Stage 1	374	374	-	711	711	-	-	-	-	-	-	-
Stage 2	721	716	-	395	379	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	191	215	691	188	215	512	1201	-	-	986	-	-
Stage 1	647	618	-	424	436	-	-	-	-	-	-	-
Stage 2	419	434	-	630	615	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	167	195	691	160	195	512	1201	-	-	986	-	-
Mov Cap-2 Maneuver	167	195	-	160	195	-	-	-	-	-	-	-
Stage 1	597	609	-	391	402	-	-	-	-	-	-	-
Stage 2	368	400	-	583	606	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	18.3	23.6	0.8	0.2
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1201	-	-	323	225	986	-	-
HCM Lane V/C Ratio	0.053	-	-	0.163	0.14	0.011	-	-
HCM Control Delay (s)	8.2	0	-	18.3	23.6	8.7	0	-
HCM Lane LOS	A	A	-	C	C	A	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0.6	0.5	0	-	-

Intersection	
Int Delay, s/veh	2.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	10	10	60	10	10	10	20	440	10	10	520	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	11	63	11	11	11	21	463	11	11	547	11

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1095	1090	553	1122	1090	468	558	0	0	474	0	0
Stage 1	574	574	-	511	511	-	-	-	-	-	-	-
Stage 2	521	516	-	611	579	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	191	215	533	183	215	595	1013	-	-	1088	-	-
Stage 1	504	503	-	545	537	-	-	-	-	-	-	-
Stage 2	539	534	-	481	501	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	174	206	533	150	206	595	1013	-	-	1088	-	-
Mov Cap-2 Maneuver	174	206	-	150	206	-	-	-	-	-	-	-
Stage 1	490	495	-	530	522	-	-	-	-	-	-	-
Stage 2	504	519	-	409	493	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	17.8	23.4	0.4	0.2
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1013	-	-	366	227	1088	-	-
HCM Lane V/C Ratio	0.021	-	-	0.23	0.139	0.01	-	-
HCM Control Delay (s)	8.6	0	-	17.8	23.4	8.3	0	-
HCM Lane LOS	A	A	-	C	C	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.9	0.5	0	-	-

Intersection	
Int Delay, s/veh	2.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	10	10	30	10	10	20	60	610	10	10	360	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	11	32	11	11	21	63	642	11	11	379	11

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1194	1184	384	1200	1185	647	389	0	0	653	0	0
Stage 1	405	405	-	774	774	-	-	-	-	-	-	-
Stage 2	789	779	-	426	411	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	163	189	664	162	189	471	1170	-	-	934	-	-
Stage 1	622	598	-	391	408	-	-	-	-	-	-	-
Stage 2	384	406	-	606	595	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	137	170	664	136	170	471	1170	-	-	934	-	-
Mov Cap-2 Maneuver	137	170	-	136	170	-	-	-	-	-	-	-
Stage 1	569	589	-	358	373	-	-	-	-	-	-	-
Stage 2	326	371	-	558	586	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	20.7	24.2	0.7	0.2
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1170	-	-	282	229	934	-	-
HCM Lane V/C Ratio	0.054	-	-	0.187	0.184	0.011	-	-
HCM Control Delay (s)	8.3	0	-	20.7	24.2	8.9	0	-
HCM Lane LOS	A	A	-	C	C	A	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0.7	0.7	0	-	-

Intersection	
Int Delay, s/veh	2.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	10	10	60	10	10	20	20	480	10	20	580	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	11	63	11	11	21	21	505	11	21	611	11

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1226	1216	616	1248	1216	511	621	0	0	516	0	0
Stage 1	658	658	-	553	553	-	-	-	-	-	-	-
Stage 2	568	558	-	695	663	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	155	181	491	150	181	563	960	-	-	1050	-	-
Stage 1	453	461	-	517	514	-	-	-	-	-	-	-
Stage 2	508	512	-	433	459	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	136	170	491	119	170	563	960	-	-	1050	-	-
Mov Cap-2 Maneuver	136	170	-	119	170	-	-	-	-	-	-	-
Stage 1	439	447	-	501	498	-	-	-	-	-	-	-
Stage 2	464	496	-	357	445	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	20.6	24.8	0.3	0.3
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	960	-	-	314	224	1050	-	-
HCM Lane V/C Ratio	0.022	-	-	0.268	0.188	0.02	-	-
HCM Control Delay (s)	8.8	0	-	20.6	24.8	8.5	0	-
HCM Lane LOS	A	A	-	C	C	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	1.1	0.7	0.1	-	-

Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	10	10	110	380	330	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	11	116	400	347	11

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	985	353	358	0	-	0
Stage 1	353	-	-	-	-	-
Stage 2	632	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	275	691	1201	-	-	-
Stage 1	711	-	-	-	-	-
Stage 2	530	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	241	691	1201	-	-	-
Mov Cap-2 Maneuver	241	-	-	-	-	-
Stage 1	711	-	-	-	-	-
Stage 2	464	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	15.7	1.9	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1201	-	357	-	-
HCM Lane V/C Ratio	0.096	-	0.059	-	-
HCM Control Delay (s)	8.3	0	15.7	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0.3	-	0.2	-	-

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	10	50	10	470	420	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	53	11	495	442	11

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	963	447	453	0	-	0
Stage 1	447	-	-	-	-	-
Stage 2	516	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	284	612	1108	-	-	-
Stage 1	644	-	-	-	-	-
Stage 2	599	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	280	612	1108	-	-	-
Mov Cap-2 Maneuver	280	-	-	-	-	-
Stage 1	644	-	-	-	-	-
Stage 2	591	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13	0.2	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1108	-	511	-	-
HCM Lane V/C Ratio	0.01	-	0.124	-	-
HCM Control Delay (s)	8.3	0	13	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.4	-	-

Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	10	10	120	420	350	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	11	126	442	368	11

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1069	374	379	0	-	0
Stage 1	374	-	-	-	-	-
Stage 2	695	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	245	672	1179	-	-	-
Stage 1	696	-	-	-	-	-
Stage 2	495	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	210	672	1179	-	-	-
Mov Cap-2 Maneuver	210	-	-	-	-	-
Stage 1	696	-	-	-	-	-
Stage 2	425	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	17	1.9	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1179	-	320	-	-
HCM Lane V/C Ratio	0.107	-	0.066	-	-
HCM Control Delay (s)	8.4	0	17	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0.4	-	0.2	-	-

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	10	50	10	520	460	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	53	11	547	484	11

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1057	489	495	0	-	0
Stage 1	489	-	-	-	-	-
Stage 2	568	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	249	579	1069	-	-	-
Stage 1	616	-	-	-	-	-
Stage 2	567	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	245	579	1069	-	-	-
Mov Cap-2 Maneuver	245	-	-	-	-	-
Stage 1	616	-	-	-	-	-
Stage 2	558	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13.8	0.2	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1069	-	472	-	-
HCM Lane V/C Ratio	0.01	-	0.134	-	-
HCM Control Delay (s)	8.4	0	13.8	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.5	-	-

Intersection	
Int Delay, s/veh	0.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	280	30	10	220	30	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	304	33	11	239	33	11

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	337	0	582	321
Stage 1	-	-	-	-	321	-
Stage 2	-	-	-	-	261	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1222	-	475	720
Stage 1	-	-	-	-	735	-
Stage 2	-	-	-	-	783	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1222	-	470	720
Mov Cap-2 Maneuver	-	-	-	-	558	-
Stage 1	-	-	-	-	735	-
Stage 2	-	-	-	-	775	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	11.6
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	591	-	-	1222	-
HCM Lane V/C Ratio	0.074	-	-	0.009	-
HCM Control Delay (s)	11.6	-	-	8	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0	-

Intersection	
Int Delay, s/veh	1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	380	20	20	230	30	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	400	21	21	242	32	11

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	421	0	695	411
Stage 1	-	-	-	-	411	-
Stage 2	-	-	-	-	284	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1138	-	408	641
Stage 1	-	-	-	-	669	-
Stage 2	-	-	-	-	764	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1138	-	399	641
Mov Cap-2 Maneuver	-	-	-	-	503	-
Stage 1	-	-	-	-	669	-
Stage 2	-	-	-	-	748	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.7	12.3
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	532	-	-	1138	-
HCM Lane V/C Ratio	0.079	-	-	0.018	-
HCM Control Delay (s)	12.3	-	-	8.2	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.3	-	-	0.1	-

Intersection	
Int Delay, s/veh	1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	320	40	10	260	40	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	348	43	11	283	43	11

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	391	0	674	370
Stage 1	-	-	-	-	370	-
Stage 2	-	-	-	-	304	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1168	-	420	676
Stage 1	-	-	-	-	699	-
Stage 2	-	-	-	-	748	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1168	-	415	676
Mov Cap-2 Maneuver	-	-	-	-	517	-
Stage 1	-	-	-	-	699	-
Stage 2	-	-	-	-	740	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	12.4
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	543	-	-	1168	-
HCM Lane V/C Ratio	0.1	-	-	0.009	-
HCM Control Delay (s)	12.4	-	-	8.1	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.3	-	-	0	-

Intersection	
Int Delay, s/veh	0.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	420	40	20	270	30	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	442	42	21	284	32	11

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	484	0	789	463
Stage 1	-	-	-	-	463	-
Stage 2	-	-	-	-	326	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1079	-	359	599
Stage 1	-	-	-	-	634	-
Stage 2	-	-	-	-	731	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1079	-	351	599
Mov Cap-2 Maneuver	-	-	-	-	466	-
Stage 1	-	-	-	-	634	-
Stage 2	-	-	-	-	714	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.6	13
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	493	-	-	1079	-
HCM Lane V/C Ratio	0.085	-	-	0.02	-
HCM Control Delay (s)	13	-	-	8.4	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.3	-	-	0.1	-

Intersection	
Int Delay, s/veh	0.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	310	30	10	310	30	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	337	33	11	337	33	11

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	370	0	712	353
Stage 1	-	-	-	-	353	-
Stage 2	-	-	-	-	359	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1189	-	399	691
Stage 1	-	-	-	-	711	-
Stage 2	-	-	-	-	707	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1189	-	395	691
Mov Cap-2 Maneuver	-	-	-	-	395	-
Stage 1	-	-	-	-	711	-
Stage 2	-	-	-	-	699	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	14
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	442	-	-	1189	-
HCM Lane V/C Ratio	0.098	-	-	0.009	-
HCM Control Delay (s)	14	-	-	8.1	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.3	-	-	0	-

Intersection	
Int Delay, s/veh	1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	480	20	20	250	30	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	505	21	21	263	32	11

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	526	0	821	516
Stage 1	-	-	-	-	516	-
Stage 2	-	-	-	-	305	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1041	-	344	559
Stage 1	-	-	-	-	599	-
Stage 2	-	-	-	-	748	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1041	-	336	559
Mov Cap-2 Maneuver	-	-	-	-	336	-
Stage 1	-	-	-	-	599	-
Stage 2	-	-	-	-	730	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.6	15.9
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	373	-	-	1041	-
HCM Lane V/C Ratio	0.113	-	-	0.02	-
HCM Control Delay (s)	15.9	-	-	8.5	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	0.4	-	-	0.1	-

Intersection	
Int Delay, s/veh	1.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	350	40	10	360	40	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	380	43	11	391	43	11

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	424	0	815	402
Stage 1	-	-	-	-	402	-
Stage 2	-	-	-	-	413	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1135	-	347	648
Stage 1	-	-	-	-	676	-
Stage 2	-	-	-	-	668	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1135	-	343	648
Mov Cap-2 Maneuver	-	-	-	-	343	-
Stage 1	-	-	-	-	676	-
Stage 2	-	-	-	-	660	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	16.1
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	379	-	-	1135	-
HCM Lane V/C Ratio	0.143	-	-	0.01	-
HCM Control Delay (s)	16.1	-	-	8.2	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	0.5	-	-	0	-

Intersection	
Int Delay, s/veh	1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	530	30	20	290	30	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	558	32	21	305	32	11

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	589	0	921	574
Stage 1	-	-	-	-	574	-
Stage 2	-	-	-	-	347	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	986	-	300	518
Stage 1	-	-	-	-	563	-
Stage 2	-	-	-	-	716	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	986	-	292	518
Mov Cap-2 Maneuver	-	-	-	-	292	-
Stage 1	-	-	-	-	563	-
Stage 2	-	-	-	-	697	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.6	17.6
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	328	-	-	986	-
HCM Lane V/C Ratio	0.128	-	-	0.021	-
HCM Control Delay (s)	17.6	-	-	8.7	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	0.4	-	-	0.1	-

Rodel Output: Gostlin and Sheffield (2022 No-Build - AM)

Rodel - C:\Users\jseyer\Documents\TXFR to server\PW\Workshare\Chicago\Rodel Project\Gostlin and Sheffield_2022 No-Build.rod

File View Help

Project: Gostlin and Sheffield | Date: 29-Jun-2017 | Model: Rodel Win1 | Timeslice: 7.5 | Full Geometry | Peak: AM | Feet | RHD

Name: No-Build | Flows: 2022 | Delay: Queuing | Results: Veh / Peak60/15m | Synthetic Flow Profile | Conf: 50 | Light | 34

	Approach Geometry						Entry Geometry					Circ Geom			Exit Geometry				Entry Capacity Mods	
	Leg Name	•	Bearing	G	V	n	E	n	L'	R	Φ	D	C	n	Ex	n	Vx	n	-+ Cap (v/h)	Xwalk Fact
1	Sheffield SB	Y	0	0	10.00	1	18.00	1	33.00	55.00	30.00	150.00	18.00	1	18.00	1	10.00	1	0	1.000
2	Gostlin EB	Y	73	0	10.00	1	18.00	1	50.00	200.00	30.00	150.00	18.00	1	18.00	1	10.00	1	0	1.000
3	Sheffield NB	Y	180	0	10.00	1	18.00	1	33.00	100.00	30.00	150.00	18.00	1	18.00	1	10.00	1	0	1.000
4	Gostlin WB	Y	270	0	10.00	1	18.00	1	33.00	110.00	30.00	150.00	18.00	1	18.00	1	10.00	1	0	1.000

	Volume Modifiers			Turning Volumes (veh/hr)					Arrival Volume Ratios			Arrival Volume Times (min)			PHF
	Leg Name	%Truck	Factor			U-Turn	Exit-3	Exit-2	Exit-1	Bypass	Ratio1	Ratio2	Ratio3	Time1	Time2	Time3	
1	Sheffield SB	5.0	1.00			0	10	10	40	0	0.750	1.125	0.750	0	30	60	
2	Gostlin EB	10.0	1.00			0	10	160	0	0	0.750	1.125	0.750	0	30	60	
3	Sheffield NB	10.0	1.00			0	210	10	10	0	0.750	1.125	0.750	0	30	60	
4	Gostlin WB	5.0	1.00			0	10	350	10	0	0.750	1.125	0.750	0	30	60	

Calibration | Accidents | Economics | Bypass | Run

	Peak 60min Results	Bypass Type	Flow Rate (veh/hr)		Opp Rate (veh/hr)		Capacity (veh/hr)		Ave VCR		Ave Del (sec/veh)			Max Q (veh)		Max Q95% (veh)		LOS A-F		
			Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Leg	Entry	Bypass	Entry	Bypass	Entry	Byp	Leg
1	Sheffield SB	None	60		570		746		0.0833		4.98		4.98	0.10		0.26		A		A
2	Gostlin EB	None	170		30		980		0.1773		3.95		3.95	0.22		0.57		A		A
3	Sheffield NB	None	230		180		876		0.2693		4.89		4.89	0.37		0.97		A		A
4	Gostlin WB	None	370		230		938		0.4059		5.89		5.89	0.75		1.93		A		A
All	Intersection												5.15							A

Results 60 | Results 15 | Int / Slope - 60 | Int / Slope - 15 | Economics | Global Results

Rodel Output: Gostlin and Sheffield (2022 No-Build - PM)

Rodel - C:\Users\jseyer\Documents\TXFR to server\PW\Workshare\Chicago\Rodel Project\Gostlin and Sheffield_2022 No-Build.rod

File View Help

Project: Gostlin and Sheffield | Date: 29-Jun-2017 | Model: Rodel Win1 | Timeslice: 7.5 | Full Geometry | Peak: PM | Feet | RHD

Name: No-Build | Flows: 2022 | Delay: Queuing | Results: Veh / Peak60/15m | Synthetic Flow Profile | Conf: 50 | Light | 32

	Approach Geometry						Entry Geometry					Circ Geom			Exit Geometry				Entry Capacity Mods	
	Leg Name	•	Bearing	G	V	n	E	n	L'	R	Φ	D	C	n	Ex	n	Vx	n	-+ Cap (v/h)	Xwalk Fact
1	Sheffield SB	Y	0	0	10.00	1	18.00	1	33.00	55.00	30.00	150.00	18.00	1	18.00	1	10.00	1	0	1.000
2	Gostlin EB	Y	73	0	10.00	1	18.00	1	50.00	200.00	30.00	150.00	18.00	1	18.00	1	10.00	1	0	1.000
3	Sheffield NB	Y	180	0	10.00	1	18.00	1	33.00	100.00	30.00	150.00	18.00	1	18.00	1	10.00	1	0	1.000
4	Gostlin WB	Y	270	0	10.00	1	18.00	1	33.00	110.00	30.00	150.00	18.00	1	18.00	1	10.00	1	0	1.000

	Volume Modifiers			Turning Volumes (veh/hr)					Arrival Volume Ratios			Arrival Volume Times (min)			PHF
	Leg Name	%Truck	Factor			U-Turn	Exit-3	Exit-2	Exit-1	Bypass	Ratio1	Ratio2	Ratio3	Time1	Time2	Time3	
1	Sheffield SB	5.0	1.00			0	10	30	60	0	0.750	1.125	0.750	0	30	60	
2	Gostlin EB	10.0	1.00			0	40	410	0	0	0.750	1.125	0.750	0	30	60	
3	Sheffield NB	5.0	1.00			0	230	10	10	0	0.750	1.125	0.750	0	30	60	
4	Gostlin WB	10.0	1.00			0	10	400	10	0	0.750	1.125	0.750	0	30	60	

Calibration | Accidents | Economics | Bypass | Run

	Peak 60min Results	Bypass Type	Flow Rate (veh/hr)		Opp Rate (veh/hr)		Capacity (veh/hr)		Ave VCR		Ave Del (sec/veh)			Max Q (veh)		Max Q95% (veh)		LOS A-F		
			Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Leg	Entry	Bypass	Entry	Bypass	Entry	Byp	Leg
1	Sheffield SB	None	100		640		707		0.1470		5.63		5.63	0.19		0.50		A		A
2	Gostlin EB	None	450		50		970		0.4761		5.86		5.86	0.90		2.32		A		A
3	Sheffield NB	None	250		460		815		0.3174		5.98		5.98	0.52		1.34		A		A
4	Gostlin WB	None	420		280		836		0.5191		7.30		7.30	1.09		2.79		A		A
All	Intersection												6.36							A

Results 60 | Results 15 | Int / Slope - 60 | Int / Slope - 15 | Economics | Global Results

Rodel Output: Gostlin and Sheffield (2040 No-Build - AM)

Rodel - C:\Users\jseyer\Documents\TXFR to server\PW\Workshare\Chicago\Rodel Project\Gostlin and Sheffield_No-Build.rod

File View Help

Project: Gostlin and Sheffield | Date: 29-Jun-2017 | Model: Rodel Win1 | Timeslice: 7.5 | Full Geometry | Peak: AM | Feet | RHD

Name: No-Build | Flows: 2040 | Delay: Queuing | Results: Veh / Peak60/15m | Synthetic Flow Profile | Conf: 50 | Light | 29

	Approach Geometry						Entry Geometry					Circ Geom			Exit Geometry				Entry Capacity Mods	
	Leg Name	•	Bearing	G	V	n	E	n	L'	R	Φ	D	C	n	Ex	n	Vx	n	-+ Cap (v/h)	Xwalk Fact
1	Sheffield SB	Y	0	0	10.00	1	18.00	1	33.00	55.00	30.00	150.00	18.00	1	18.00	1	10.00	1	0	1.000
2	Gostlin EB	Y	73	0	10.00	1	18.00	1	50.00	200.00	30.00	150.00	18.00	1	18.00	1	10.00	1	0	1.000
3	Sheffield NB	Y	180	0	10.00	1	18.00	1	33.00	100.00	30.00	150.00	18.00	1	18.00	1	10.00	1	0	1.000
4	Gostlin WB	Y	270	0	10.00	1	18.00	1	33.00	110.00	30.00	150.00	18.00	1	18.00	1	10.00	1	0	1.000

	Volume Modifiers			Turning Volumes (veh/hr)					Arrival Volume Ratios			Arrival Volume Times (min)			PHF
	Leg Name	%Truck	Factor			U-Turn	Exit-3	Exit-2	Exit-1	Bypass	Ratio1	Ratio2	Ratio3	Time1	Time2	Time3	
1	Sheffield SB	5.0	1.00			0	20	20	50	0	0.750	1.125	0.750	0	30	60	
2	Gostlin EB	10.0	1.00			0	20	170	0	0	0.750	1.125	0.750	0	30	60	
3	Sheffield NB	10.0	1.00			0	230	20	20	0	0.750	1.125	0.750	0	30	60	
4	Gostlin WB	5.0	1.00			0	20	390	20	0	0.750	1.125	0.750	0	30	60	

Calibration | Accidents | Economics | Bypass | Run

	Peak 60min Results	Bypass Type	Flow Rate (veh/hr)		Opp Rate (veh/hr)		Capacity (veh/hr)		Ave VCR		Ave Del (sec/veh)			Max Q (veh)		Max Q95% (veh)		LOS A-F		
			Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Leg	Entry	Bypass	Entry	Bypass	Entry	Byp	Leg
1	Sheffield SB	None	90		640		711		0.1314		5.50		5.50	0.17		0.44		A		A
2	Gostlin EB	None	190		60		966		0.2012		4.11		4.11	0.25		0.66		A		A
3	Sheffield NB	None	270		210		862		0.3217		5.31		5.31	0.48		1.25		A		A
4	Gostlin WB	None	430		270		917		0.4840		6.84		6.84	1.04		2.67		A		A
All	Intersection												5.76							A

Results 60 | Results 15 | Int / Slope - 60 | Int / Slope - 15 | Economics | Global Results

Rodel Output: Gostlin and Sheffield (2040 No-Build - PM)

Rodel - C:\Users\jseyer\Documents\TXFR to server\PW\Workshare\Chicago\Rodel Project\Gostlin and Sheffield_No-Build.rod

File View Help

Project: Gostlin and Sheffield | Date: 29-Jun-2017 | Model: Rodel Win1 | Timeslice: 7.5 | Full Geometry | Peak: PM | Feet | RHD

Name: No-Build | Flows: 2040 | Delay: Queuing | Results: Veh / Peak60/15m | Synthetic Flow Profile | Conf: 50 | Light | 31

	Approach Geometry						Entry Geometry					Circ Geom			Exit Geometry				Entry Capacity Mods	
	Leg Name	•	Bearing	G	V	n	E	n	L'	R	Φ	D	C	n	Ex	n	Vx	n	-+ Cap (v/h)	Xwalk Fact
1	Sheffield SB		0	0	10.00	1	18.00	1	33.00	55.00	30.00	150.00	18.00	1	18.00	1	10.00	1	0	1.000
2	Gostlin EB		73	0	10.00	1	18.00	1	50.00	200.00	30.00	150.00	18.00	1	18.00	1	10.00	1	0	1.000
3	Sheffield NB		180	0	10.00	1	18.00	1	33.00	100.00	30.00	150.00	18.00	1	18.00	1	10.00	1	0	1.000
4	Gostlin WB		270	0	10.00	1	18.00	1	33.00	110.00	30.00	150.00	18.00	1	18.00	1	10.00	1	0	1.000

	Volume Modifiers			Turning Volumes (veh/hr)						Arrival Volume Ratios			Arrival Volume Times (min)			PHF
	Leg Name	%Truck	Factor			U-Turn	Exit-3	Exit-2	Exit-1	Bypass	Ratio1	Ratio2	Ratio3	Time1	Time2	Time3	
1	Sheffield SB	5.0	1.00			0	20	40	70	0	0.750	1.125	0.750	0	30	60	
2	Gostlin EB	10.0	1.00			0	50	450	0	0	0.750	1.125	0.750	0	30	60	
3	Sheffield NB	5.0	1.00			0	250	20	20	0	0.750	1.125	0.750	0	30	60	
4	Gostlin WB	10.0	1.00			0	20	440	20	0	0.750	1.125	0.750	0	30	60	

Calibration | Accidents | Economics | Bypass | Run

	Peak 60min Results	Bypass Type	Flow Rate (veh/hr)		Opp Rate (veh/hr)		Capacity (veh/hr)		Ave VCR		Ave Del (sec/veh)			Max Q (veh)		Max Q95% (veh)		LOS A-F		
			Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Leg	Entry	Bypass	Entry	Bypass	Entry	Byp	Leg
1	Sheffield SB	None	130		710		672		0.2020		6.31		6.31	0.28		0.75		A		A
2	Gostlin EB	None	500		80		956		0.5380		6.59		6.59	1.15		2.94		A		A
3	Sheffield NB	None	290		520		784		0.3842		6.85		6.85	0.70		1.82		A		A
4	Gostlin WB	None	480		320		818		0.6091		8.81		8.81	1.56		3.95		A		A
All	Intersection												7.38							A

Results 60 | Results 15 | Int / Slope - 60 | Int / Slope - 15 | Economics | Global Results

Rodel Output: Gostlin and Sheffield (2022 Build - AM)

Rodel - C:\Users\jseyer\Documents\TXFR to server\PW\Workshare\Chicago\Rodel Project\Gostlin and Sheffield_2022 Build.rod

File View Help

Project: Gostlin and Sheffield | Date: 29-Jun-2017 | Model: Rodel Win1 | Timeslice: 7.5 | Full Geometry | Peak: AM | Feet | RHD

Name: Build | Flows: 2022 | Delay: Queuing | Results: Veh / Peak60/15m | Synthetic Flow Profile | Conf: 50 | Light | 35

	Approach Geometry						Entry Geometry					Circ Geom			Exit Geometry				Entry Capacity Mods	
	Leg Name	•	Bearing	G	V	n	E	n	L'	R	Φ	D	C	n	Ex	n	Vx	n	-+ Cap (v/h)	Xwalk Fact
1	Sheffield SB	Y	0	0	10.00	1	18.00	1	33.00	55.00	30.00	150.00	18.00	1	18.00	1	10.00	1	0	1.000
2	Gostlin EB	Y	73	0	10.00	1	18.00	1	50.00	200.00	30.00	150.00	18.00	1	18.00	1	10.00	1	0	1.000
3	Sheffield NB	Y	180	0	10.00	1	18.00	1	33.00	100.00	30.00	150.00	18.00	1	18.00	1	10.00	1	0	1.000
4	Gostlin WB	Y	270	0	10.00	1	18.00	1	33.00	110.00	30.00	150.00	18.00	1	18.00	1	10.00	1	0	1.000

	Volume Modifiers			Turning Volumes (veh/hr)						Arrival Volume Ratios			Arrival Volume Times (min)			PHF
	Leg Name	%Truck	Factor			U-Turn	Exit-3	Exit-2	Exit-1	Bypass	Ratio1	Ratio2	Ratio3	Time1	Time2	Time3	
1	Sheffield SB	5.0	1.00			0	10	20	40	0	0.750	1.125	0.750	0	30	60	
2	Gostlin EB	10.0	1.00			0	10	170	0	0	0.750	1.125	0.750	0	30	60	
3	Sheffield NB	10.0	1.00			0	220	20	10	0	0.750	1.125	0.750	0	30	60	
4	Gostlin WB	5.0	1.00			0	10	350	10	0	0.750	1.125	0.750	0	30	60	

Calibration | Accidents | Economics | Bypass | Run

	Peak 60min Results	Bypass Type	Flow Rate (veh/hr)		Opp Rate (veh/hr)		Capacity (veh/hr)		Ave VCR		Ave Del (sec/veh)			Max Q (veh)		Max Q95% (veh)		LOS A-F		
			Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Leg	Entry	Bypass	Entry	Bypass	Entry	Byp	Leg
1	Sheffield SB	None	70		580		741		0.0979		5.09		5.09	0.12		0.31		A		A
2	Gostlin EB	None	180		40		975		0.1887		4.01		4.01	0.23		0.61		A		A
3	Sheffield NB	None	250		190		872		0.2945		5.07		5.07	0.42		1.10		A		A
4	Gostlin WB	None	370		250		928		0.4108		6.00		6.00	0.76		1.98		A		A
All	Intersection												5.25							A

Results 60 | Results 15 | Int / Slope - 60 | Int / Slope - 15 | Economics | Global Results

Rodel Output: Gostlin and Sheffield (2022 Build - PM)

Rodel - C:\Users\jseyer\Documents\TXFR to server\PW\Workshare\Chicago\Rodel Project\Gostlin and Sheffield_2022 Build.rod

File View Help

Project: Gostlin and Sheffield | Date: 29-Jun-2017 | Model: Rodel Win1 | Timeslice: 7.5 | Full Geometry | Peak: PM | Feet | RHD

Name: Build | Flows: 2022 | Delay: Queuing | Results: Veh / Peak60/15m | Synthetic Flow Profile | Conf: 50 | Light | 37

	Approach Geometry						Entry Geometry					Circ Geom			Exit Geometry				Entry Capacity Mods	
	Leg Name	•	Bearing	G	V	n	E	n	L'	R	Φ	D	C	n	Ex	n	Vx	n	-+ Cap (v/h)	Xwalk Fact
1	Sheffield SB	Y	0	0	10.00	1	18.00	1	33.00	55.00	30.00	150.00	18.00	1	18.00	1	10.00	1	0	1.000
2	Gostlin EB	Y	73	0	10.00	1	18.00	1	50.00	200.00	30.00	150.00	18.00	1	18.00	1	10.00	1	0	1.000
3	Sheffield NB	Y	180	0	10.00	1	18.00	1	33.00	100.00	30.00	150.00	18.00	1	18.00	1	10.00	1	0	1.000
4	Gostlin WB	Y	270	0	10.00	1	18.00	1	33.00	110.00	30.00	150.00	18.00	1	18.00	1	10.00	1	0	1.000
																...		...		
																...		...		

	Volume Modifiers			Turning Volumes (veh/hr)						Arrival Volume Ratios			Arrival Volume Times (min)			PHF
	Leg Name	%Truck	Factor			U-Turn	Exit-3	Exit-2	Exit-1	Bypass	Ratio1	Ratio2	Ratio3	Time1	Time2	Time3	
1	Sheffield SB	5.0	1.00			0	10	40	60	0	0.750	1.125	0.750	0	30	60	
2	Gostlin EB	10.0	1.00			0	40	410	0	0	0.750	1.125	0.750	0	30	60	
3	Sheffield NB	5.0	1.00			0	240	20	10	0	0.750	1.125	0.750	0	30	60	
4	Gostlin WB	10.0	1.00			0	10	410	10	0	0.750	1.125	0.750	0	30	60	

Calibration | Accidents | Economics | Bypass | Run

	Peak 60min Results	Bypass Type	Flow Rate (veh/hr)		Opp Rate (veh/hr)		Capacity (veh/hr)		Ave VCR		Ave Del (sec/veh)			Max Q (veh)		Max Q95% (veh)		LOS A-F		
			Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Leg	Entry	Bypass	Entry	Bypass	Entry	Byp	Leg
1	Sheffield SB	None	110		660		697		0.1642		5.82		5.82	0.22		0.57		A		A
2	Gostlin EB	None	450		60		965		0.4785		5.91		5.91	0.91		2.34		A		A
3	Sheffield NB	None	270		460		815		0.3429		6.20		6.20	0.58		1.51		A		A
4	Gostlin WB	None	430		300		827		0.5379		7.63		7.63	1.17		3.00		A		A
All	Intersection												6.55							A

Results 60 | Results 15 | Int / Slope - 60 | Int / Slope - 15 | Economics | Global Results

Rodel Output: Gostlin and Sheffield (2040 Build - AM)

Rodel - C:\Users\jseyer\Documents\TXFR to server\PW\Workshare\Chicago\Rodel Project\Gostlin and Sheffield_2040 Build.rod

File View Help

Project: Gostlin and Sheffield | Date: 29-Jun-2017 | Model: Rodel Win1 | Timeslice: 7.5 | Full Geometry | Peak: AM | Feet | RHD

Name: Build | Flows: 2040 | Delay: Queuing | Results: Veh / Peak60/15m | Synthetic Flow Profile | Conf: 50 | Light | 34

	Approach Geometry						Entry Geometry					Circ Geom			Exit Geometry				Entry Capacity Mods	
	Leg Name	•	Bearing	G	V	n	E	n	L'	R	Φ	D	C	n	Ex	n	Vx	n	-+ Cap (v/h)	Xwalk Fact
1	Sheffield SB	Y	0	0	10.00	1	18.00	1	33.00	55.00	30.00	150.00	18.00	1	18.00	1	10.00	1	0	1.000
2	Gostlin EB	Y	73	0	10.00	1	18.00	1	50.00	200.00	30.00	150.00	18.00	1	18.00	1	10.00	1	0	1.000
3	Sheffield NB	Y	180	0	10.00	1	18.00	1	33.00	100.00	30.00	150.00	18.00	1	18.00	1	10.00	1	0	1.000
4	Gostlin WB	Y	270	0	10.00	1	18.00	1	33.00	110.00	30.00	150.00	18.00	1	18.00	1	10.00	1	0	1.000

	Volume Modifiers			Turning Volumes (veh/hr)					Arrival Volume Ratios			Arrival Volume Times (min)			PHF
	Leg Name	%Truck	Factor			U-Turn	Exit-3	Exit-2	Exit-1	Bypass	Ratio1	Ratio2	Ratio3	Time1	Time2	Time3	
1	Sheffield SB	5.0	1.00			0	20	30	50	0	0.750	1.125	0.750	0	30	60	
2	Gostlin EB	10.0	1.00			0	20	180	0	0	0.750	1.125	0.750	0	30	60	
3	Sheffield NB	10.0	1.00			0	240	30	20	0	0.750	1.125	0.750	0	30	60	
4	Gostlin WB	5.0	1.00			0	20	390	20	0	0.750	1.125	0.750	0	30	60	

Calibration | Accidents | Economics | Bypass | Run

	Peak 60min Results	Bypass Type	Flow Rate (veh/hr)		Opp Rate (veh/hr)		Capacity (veh/hr)		Ave VCR		Ave Del (sec/veh)			Max Q (veh)		Max Q95% (veh)		LOS A-F		
			Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Leg	Entry	Bypass	Entry	Bypass	Entry	Byp	Leg
1	Sheffield SB	None	100		650		706		0.1472		5.63		5.63	0.19		0.50		A		A
2	Gostlin EB	None	200		70		961		0.2129		4.18		4.18	0.27		0.71		A		A
3	Sheffield NB	None	290		220		858		0.3477		5.52		5.52	0.54		1.40		A		A
4	Gostlin WB	None	430		290		907		0.4899		6.99		6.99	1.07		2.74		A		A
All	Intersection												5.89							A

Results 60 | Results 15 | Int / Slope - 60 | Int / Slope - 15 | Economics | Global Results

Rodel Output: Gostlin and Sheffield (2040 Build - PM)

Rodel - C:\Users\jseyer\Documents\TXFR to server\PW\Workshare\Chicago\Rodel Project\Gostlin and Sheffield_2040 Build.rod

File View Help

Project: Gostlin and Sheffield | Date: 29-Jun-2017 | Model: Rodel Win1 | Timeslice: 7.5 | Full Geometry | Peak: PM | Feet | RHD

Name: Build | Flows: 2040 | Delay: Queuing | Results: Veh / Peak60/15m | Synthetic Flow Profile | Conf: 50 | Light | 32

	Approach Geometry						Entry Geometry					Circ Geom			Exit Geometry				Entry Capacity Mods	
	Leg Name	•	Bearing	G	V	n	E	n	L'	R	Φ	D	C	n	Ex	n	Vx	n	-+ Cap (v/h)	Xwalk Fact
1	Sheffield SB		0	0	10.00	1	18.00	1	33.00	55.00	30.00	150.00	18.00	1	18.00	1	10.00	1	0	1.000
2	Gostlin EB		73	0	10.00	1	18.00	1	50.00	200.00	30.00	150.00	18.00	1	18.00	1	10.00	1	0	1.000
3	Sheffield NB		180	0	10.00	1	18.00	1	33.00	100.00	30.00	150.00	18.00	1	18.00	1	10.00	1	0	1.000
4	Gostlin WB		270	0	10.00	1	18.00	1	33.00	110.00	30.00	150.00	18.00	1	18.00	1	10.00	1	0	1.000

	Volume Modifiers			Turning Volumes (veh/hr)					Arrival Volume Ratios			Arrival Volume Times (min)			PHF
	Leg Name	%Truck	Factor			U-Turn	Exit-3	Exit-2	Exit-1	Bypass	Ratio1	Ratio2	Ratio3	Time1	Time2	Time3	
1	Sheffield SB	5.0	1.00			0	20	50	70	0	0.750	1.125	0.750	0	30	60	
2	Gostlin EB	10.0	1.00			0	50	450	0	0	0.750	1.125	0.750	0	30	60	
3	Sheffield NB	5.0	1.00			0	260	30	20	0	0.750	1.125	0.750	0	30	60	
4	Gostlin WB	10.0	1.00			0	20	450	20	0	0.750	1.125	0.750	0	30	60	

Calibration | Accidents | Economics | Bypass | Run

	Peak 60min Results	Bypass Type	Flow Rate (veh/hr)		Opp Rate (veh/hr)		Capacity (veh/hr)		Ave VCR		Ave Del (sec/veh)			Max Q (veh)		Max Q95% (veh)		LOS A-F		
			Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Leg	Entry	Bypass	Entry	Bypass	Entry	Byp	Leg
1	Sheffield SB	None	140		730		662		0.2211		6.56		6.56	0.32		0.84		A		A
2	Gostlin EB	None	500		90		951		0.5407		6.65		6.65	1.16		2.97		A		A
3	Sheffield NB	None	310		520		784		0.4109		7.13		7.13	0.79		2.04		A		A
4	Gostlin WB	None	490		340		808		0.6298		9.30		9.30	1.70		4.29		A		A
All	Intersection												7.65							A

Results 60 | Results 15 | Int / Slope - 60 | Int / Slope - 15 | Economics | Global Results

Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	10	10	10	10	10	10	10	210	10	10	270	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	50	-	-	50	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	75	75	75	75	75	75	75	75	75	75	75	75
Heavy Vehicles, %	0	0	0	0	0	0	0	19	0	0	19	0
Mvmt Flow	13	13	13	13	13	13	13	280	13	13	360	13

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	720	713	367	720	713	287	373	0	0	293	0	0
Stage 1	393	393	-	313	313	-	-	-	-	-	-	-
Stage 2	327	320	-	407	400	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	346	360	683	346	360	757	1197	-	-	1280	-	-
Stage 1	636	609	-	702	661	-	-	-	-	-	-	-
Stage 2	690	656	-	625	605	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	327	352	683	326	352	757	1197	-	-	1280	-	-
Mov Cap-2 Maneuver	440	443	-	435	442	-	-	-	-	-	-	-
Stage 1	629	603	-	694	654	-	-	-	-	-	-	-
Stage 2	657	649	-	593	599	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.8	12.7	0.3	0.3
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1197	-	-	500	510	1280	-	-
HCM Lane V/C Ratio	0.011	-	-	0.08	0.078	0.01	-	-
HCM Control Delay (s)	8	-	-	12.8	12.7	7.8	-	-
HCM Lane LOS	A	-	-	B	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.3	0.3	0	-	-

Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	10	10	10	10	10	10	10	230	10	10	360	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	50	-	-	50	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	5	5	5	0	18	0	0	11	0
Mvmt Flow	11	11	11	11	11	11	11	242	11	11	379	11

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	684	679	384	684	679	247	389	0	0	253	0	0
Stage 1	405	405	-	268	268	-	-	-	-	-	-	-
Stage 2	279	274	-	416	411	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.15	6.55	6.25	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.15	5.55	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.15	5.55	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.545	4.045	3.345	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	365	376	668	359	370	784	1181	-	-	1324	-	-
Stage 1	626	602	-	731	682	-	-	-	-	-	-	-
Stage 2	732	687	-	608	590	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	349	369	668	342	364	784	1181	-	-	1324	-	-
Mov Cap-2 Maneuver	457	455	-	443	447	-	-	-	-	-	-	-
Stage 1	620	597	-	724	676	-	-	-	-	-	-	-
Stage 2	704	681	-	583	585	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.5	12.4	0.3	0.2
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1181	-	-	510	520	1324	-	-
HCM Lane V/C Ratio	0.009	-	-	0.062	0.061	0.008	-	-
HCM Control Delay (s)	8.1	-	-	12.5	12.4	7.7	-	-
HCM Lane LOS	A	-	-	B	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0.2	0	-	-

Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	10	10	10	10	10	10	20	250	10	10	310	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	50	-	-	50	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	75	75	75	75	75	75	75	75	75	75	75	75
Heavy Vehicles, %	0	0	0	0	0	0	0	19	0	0	19	0
Mvmt Flow	13	13	13	13	13	13	27	333	13	13	413	13

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	854	847	420	853	846	340	427	0	0	347	0	0
Stage 1	447	447	-	393	393	-	-	-	-	-	-	-
Stage 2	407	400	-	460	453	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	281	301	638	281	301	707	1143	-	-	1223	-	-
Stage 1	595	577	-	636	609	-	-	-	-	-	-	-
Stage 2	625	605	-	585	573	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	262	291	638	261	291	707	1143	-	-	1223	-	-
Mov Cap-2 Maneuver	383	395	-	378	391	-	-	-	-	-	-	-
Stage 1	581	571	-	621	595	-	-	-	-	-	-	-
Stage 2	585	591	-	553	567	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	13.8	13.7	0.6	0.2
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1143	-	-	447	453	1223	-	-
HCM Lane V/C Ratio	0.023	-	-	0.089	0.088	0.011	-	-
HCM Control Delay (s)	8.2	-	-	13.8	13.7	8	-	-
HCM Lane LOS	A	-	-	B	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.3	0.3	0	-	-

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	10	10	10	10	10	10	10	270	10	10	420	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	50	-	-	50	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	5	5	5	0	18	0	0	11	0
Mvmt Flow	11	11	11	11	11	11	11	284	11	11	442	11

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	789	784	447	790	785	289	453	0	0	295	0	0
Stage 1	468	468	-	311	311	-	-	-	-	-	-	-
Stage 2	321	316	-	479	474	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.15	6.55	6.25	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.15	5.55	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.15	5.55	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.545	4.045	3.345	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	311	327	616	304	321	743	1118	-	-	1278	-	-
Stage 1	579	565	-	693	653	-	-	-	-	-	-	-
Stage 2	695	659	-	562	553	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	296	321	616	289	315	743	1118	-	-	1278	-	-
Mov Cap-2 Maneuver	413	418	-	399	409	-	-	-	-	-	-	-
Stage 1	573	560	-	686	647	-	-	-	-	-	-	-
Stage 2	667	653	-	537	548	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	13.3	13.1	0.3	0.2
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1118	-	-	466	476	1278	-	-
HCM Lane V/C Ratio	0.009	-	-	0.068	0.066	0.008	-	-
HCM Control Delay (s)	8.3	-	-	13.3	13.1	7.8	-	-
HCM Lane LOS	A	-	-	B	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0.2	0	-	-

Intersection	
Int Delay, s/veh	3.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	10	20	20	10	50	10	50	210	10	10	270	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	50	-	-	50	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	75	75	75	75	75	75	75	75	75	75	75	75
Heavy Vehicles, %	0	0	0	0	0	0	0	19	0	0	19	0
Mvmt Flow	13	27	27	13	67	13	67	280	13	13	360	13

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	853	820	367	840	820	287	373	0	0	293	0	0
Stage 1	393	393	-	420	420	-	-	-	-	-	-	-
Stage 2	460	427	-	420	400	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	281	312	683	287	312	757	1197	-	-	1280	-	-
Stage 1	636	609	-	615	593	-	-	-	-	-	-	-
Stage 2	585	589	-	615	605	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	227	292	683	249	292	757	1197	-	-	1280	-	-
Mov Cap-2 Maneuver	340	393	-	355	382	-	-	-	-	-	-	-
Stage 1	600	603	-	581	560	-	-	-	-	-	-	-
Stage 2	478	556	-	559	599	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	14.2	16.5	1.5	0.3
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1197	-	-	456	406	1280	-	-
HCM Lane V/C Ratio	0.056	-	-	0.146	0.23	0.01	-	-
HCM Control Delay (s)	8.2	-	-	14.2	16.5	7.8	-	-
HCM Lane LOS	A	-	-	B	C	A	-	-
HCM 95th %tile Q(veh)	0.2	-	-	0.5	0.9	0	-	-

Intersection	
Int Delay, s/veh	2.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	10	50	50	10	10	10	10	230	10	10	360	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	50	-	-	50	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	5	5	5	0	18	0	0	11	0
Mvmt Flow	11	53	53	11	11	11	11	242	11	11	379	11

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	684	679	384	726	679	247	389	0	0	253	0	0
Stage 1	405	405	-	268	268	-	-	-	-	-	-	-
Stage 2	279	274	-	458	411	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.15	6.55	6.25	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.15	5.55	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.15	5.55	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.545	4.045	3.345	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	365	376	668	336	370	784	1181	-	-	1324	-	-
Stage 1	626	602	-	731	682	-	-	-	-	-	-	-
Stage 2	732	687	-	577	590	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	349	369	668	278	364	784	1181	-	-	1324	-	-
Mov Cap-2 Maneuver	457	455	-	376	447	-	-	-	-	-	-	-
Stage 1	620	597	-	724	676	-	-	-	-	-	-	-
Stage 2	704	681	-	481	585	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	13.6	12.9	0.3	0.2
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1181	-	-	532	486	1324	-	-
HCM Lane V/C Ratio	0.009	-	-	0.218	0.065	0.008	-	-
HCM Control Delay (s)	8.1	-	-	13.6	12.9	7.7	-	-
HCM Lane LOS	A	-	-	B	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.8	0.2	0	-	-

Intersection	
Int Delay, s/veh	3.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	10	20	20	10	50	10	50	250	10	10	310	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	50	-	-	50	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	75	75	75	75	75	75	75	75	75	75	75	75
Heavy Vehicles, %	0	0	0	0	0	0	0	19	0	0	19	0
Mvmt Flow	13	27	27	13	67	13	67	333	13	13	413	13

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	960	927	420	946	926	340	427	0	0	347	0	0
Stage 1	447	447	-	473	473	-	-	-	-	-	-	-
Stage 2	513	480	-	473	453	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	238	270	638	243	271	707	1143	-	-	1223	-	-
Stage 1	595	577	-	576	562	-	-	-	-	-	-	-
Stage 2	548	558	-	576	573	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	189	251	638	208	252	707	1143	-	-	1223	-	-
Mov Cap-2 Maneuver	306	360	-	319	349	-	-	-	-	-	-	-
Stage 1	560	571	-	542	529	-	-	-	-	-	-	-
Stage 2	442	525	-	521	567	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	15.2	17.9	1.3	0.2
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1143	-	-	418	371	1223	-	-
HCM Lane V/C Ratio	0.058	-	-	0.159	0.252	0.011	-	-
HCM Control Delay (s)	8.3	-	-	15.2	17.9	8	-	-
HCM Lane LOS	A	-	-	C	C	A	-	-
HCM 95th %tile Q(veh)	0.2	-	-	0.6	1	0	-	-

Intersection	
Int Delay, s/veh	2.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	10	50	50	10	10	10	10	270	10	10	420	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	50	-	-	50	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	5	5	5	0	18	0	0	11	0
Mvmt Flow	11	53	53	11	11	11	11	284	11	11	442	11

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	789	784	447	832	785	289	453	0	0	295	0	0
Stage 1	468	468	-	311	311	-	-	-	-	-	-	-
Stage 2	321	316	-	521	474	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.15	6.55	6.25	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.15	5.55	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.15	5.55	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.545	4.045	3.345	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	311	327	616	285	321	743	1118	-	-	1278	-	-
Stage 1	579	565	-	693	653	-	-	-	-	-	-	-
Stage 2	695	659	-	533	553	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	296	321	616	232	315	743	1118	-	-	1278	-	-
Mov Cap-2 Maneuver	413	418	-	336	409	-	-	-	-	-	-	-
Stage 1	573	560	-	686	647	-	-	-	-	-	-	-
Stage 2	667	653	-	438	548	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	14.6	13.7	0.3	0.2
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1118	-	-	489	443	1278	-	-
HCM Lane V/C Ratio	0.009	-	-	0.237	0.071	0.008	-	-
HCM Control Delay (s)	8.3	-	-	14.6	13.7	7.8	-	-
HCM Lane LOS	A	-	-	B	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.9	0.2	0	-	-

Intersection	
Int Delay, s/veh	0.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	10	10	220	10	10	280
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	1	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	11	239	11	11	304

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	571	245	0	0	250	0
Stage 1	245	-	-	-	-	-
Stage 2	326	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	482	794	-	-	1316	-
Stage 1	796	-	-	-	-	-
Stage 2	731	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	477	794	-	-	1316	-
Mov Cap-2 Maneuver	562	-	-	-	-	-
Stage 1	796	-	-	-	-	-
Stage 2	724	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.7	0	0.3
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	658	1316	-
HCM Lane V/C Ratio	-	-	0.033	0.008	-
HCM Control Delay (s)	-	-	10.7	7.8	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection	
Int Delay, s/veh	0.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	10	10	240	10	10	370
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	1	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	50	13	0	0	9
Mvmt Flow	11	11	253	11	11	389

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	669	258	0	0	263	0
Stage 1	258	-	-	-	-	-
Stage 2	411	-	-	-	-	-
Critical Hdwy	6.4	6.7	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.75	-	-	2.2	-
Pot Cap-1 Maneuver	426	677	-	-	1313	-
Stage 1	790	-	-	-	-	-
Stage 2	674	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	421	677	-	-	1313	-
Mov Cap-2 Maneuver	519	-	-	-	-	-
Stage 1	790	-	-	-	-	-
Stage 2	667	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.4	0	0.2
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	588	1313	-
HCM Lane V/C Ratio	-	-	0.036	0.008	-
HCM Control Delay (s)	-	-	11.4	7.8	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection	
Int Delay, s/veh	0.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	10	10	270	10	10	320
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	1	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	11	293	11	11	348

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	669	299	0	0	304	0
Stage 1	299	-	-	-	-	-
Stage 2	370	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	423	741	-	-	1257	-
Stage 1	752	-	-	-	-	-
Stage 2	699	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	418	741	-	-	1257	-
Mov Cap-2 Maneuver	519	-	-	-	-	-
Stage 1	752	-	-	-	-	-
Stage 2	691	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.1	0	0.2
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	610	1257	-
HCM Lane V/C Ratio	-	-	0.036	0.009	-
HCM Control Delay (s)	-	-	11.1	7.9	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection	
Int Delay, s/veh	0.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	10	10	280	10	10	430
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	1	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	50	13	0	0	9
Mvmt Flow	11	11	295	11	11	453

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	774	300	0	0	305	0
Stage 1	300	-	-	-	-	-
Stage 2	474	-	-	-	-	-
Critical Hdwy	6.4	6.7	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.75	-	-	2.2	-
Pot Cap-1 Maneuver	370	640	-	-	1267	-
Stage 1	756	-	-	-	-	-
Stage 2	630	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	366	640	-	-	1267	-
Mov Cap-2 Maneuver	475	-	-	-	-	-
Stage 1	756	-	-	-	-	-
Stage 2	622	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.9	0	0.2
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	545	1267	-
HCM Lane V/C Ratio	-	-	0.039	0.008	-
HCM Control Delay (s)	-	-	11.9	7.9	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection	
Int Delay, s/veh	2.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	10	20	20	10	50	10	50	270	10	10	300	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	22	22	11	54	11	54	293	11	11	326	11

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	793	766	332	783	767	299	337	0	0	304	0	0
Stage 1	353	353	-	408	408	-	-	-	-	-	-	-
Stage 2	440	413	-	375	359	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	306	333	710	311	332	741	1222	-	-	1257	-	-
Stage 1	664	631	-	620	597	-	-	-	-	-	-	-
Stage 2	596	594	-	646	627	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	257	312	710	275	311	741	1222	-	-	1257	-	-
Mov Cap-2 Maneuver	366	409	-	383	400	-	-	-	-	-	-	-
Stage 1	629	624	-	587	565	-	-	-	-	-	-	-
Stage 2	503	563	-	598	620	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	13.5	15.3	1.2	0.2
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1222	-	-	479	425	1257	-	-
HCM Lane V/C Ratio	0.044	-	-	0.113	0.179	0.009	-	-
HCM Control Delay (s)	8.1	0	-	13.5	15.3	7.9	0	-
HCM Lane LOS	A	A	-	B	C	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.4	0.6	0	-	-

Intersection	
Int Delay, s/veh	2.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	10	50	50	10	10	10	10	250	10	10	420	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	0	2	50	2	13	0	0	9	2
Mvmt Flow	11	53	53	11	11	11	11	263	11	11	442	11

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	768	763	447	810	763	268	453	0	0	274	0	0
Stage 1	468	468	-	289	289	-	-	-	-	-	-	-
Stage 2	300	295	-	521	474	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.1	6.52	6.7	4.12	-	-	4.1	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.1	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.1	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.5	4.018	3.75	2.218	-	-	2.2	-	-
Pot Cap-1 Maneuver	319	334	612	301	334	668	1108	-	-	1301	-	-
Stage 1	575	561	-	723	673	-	-	-	-	-	-	-
Stage 2	709	669	-	542	558	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	303	326	612	244	326	668	1108	-	-	1301	-	-
Mov Cap-2 Maneuver	417	420	-	345	418	-	-	-	-	-	-	-
Stage 1	568	555	-	714	665	-	-	-	-	-	-	-
Stage 2	679	661	-	443	552	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	14.6	13.8	0.3	0.2
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1108	-	-	489	442	1301	-	-
HCM Lane V/C Ratio	0.01	-	-	0.237	0.071	0.008	-	-
HCM Control Delay (s)	8.3	0	-	14.6	13.8	7.8	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.9	0.2	0	-	-

Intersection	
Int Delay, s/veh	2.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	10	20	10	10	50	10	50	320	10	10	340	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	22	11	11	54	11	54	348	11	11	370	11

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	892	864	375	875	864	353	380	0	0	359	0	0
Stage 1	397	397	-	462	462	-	-	-	-	-	-	-
Stage 2	495	467	-	413	402	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	263	292	671	270	292	691	1178	-	-	1200	-	-
Stage 1	629	603	-	580	565	-	-	-	-	-	-	-
Stage 2	556	562	-	616	600	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	218	272	671	241	272	691	1178	-	-	1200	-	-
Mov Cap-2 Maneuver	331	376	-	354	369	-	-	-	-	-	-	-
Stage 1	593	596	-	547	533	-	-	-	-	-	-	-
Stage 2	463	530	-	577	593	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	14.9	16.3	1.1	0.2
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1178	-	-	407	393	1200	-	-
HCM Lane V/C Ratio	0.046	-	-	0.107	0.194	0.009	-	-
HCM Control Delay (s)	8.2	0	-	14.9	16.3	8	0	-
HCM Lane LOS	A	A	-	B	C	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.4	0.7	0	-	-

Intersection	
Int Delay, s/veh	2.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	10	50	50	10	10	10	10	290	10	10	480	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	0	2	50	2	13	0	0	9	2
Mvmt Flow	11	53	53	11	11	11	11	305	11	11	505	11

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	874	869	511	916	869	311	516	0	0	316	0	0
Stage 1	532	532	-	332	332	-	-	-	-	-	-	-
Stage 2	342	337	-	584	537	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.1	6.52	6.7	4.12	-	-	4.1	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.1	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.1	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.5	4.018	3.75	2.218	-	-	2.2	-	-
Pot Cap-1 Maneuver	270	290	563	255	290	630	1050	-	-	1256	-	-
Stage 1	531	526	-	686	644	-	-	-	-	-	-	-
Stage 2	673	641	-	501	523	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	255	283	563	203	283	630	1050	-	-	1256	-	-
Mov Cap-2 Maneuver	376	386	-	309	383	-	-	-	-	-	-	-
Stage 1	524	520	-	677	636	-	-	-	-	-	-	-
Stage 2	642	633	-	403	517	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	15.8	14.7	0.3	0.2
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1050	-	-	449	404	1256	-	-
HCM Lane V/C Ratio	0.01	-	-	0.258	0.078	0.008	-	-
HCM Control Delay (s)	8.5	0	-	15.8	14.7	7.9	0	-
HCM Lane LOS	A	A	-	C	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	1	0.3	0	-	-

Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	10	30	30	220	280	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	50	-	-	-
Veh in Median Storage, #	1	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	70	70	70	70	70	70
Heavy Vehicles, %	0	19	12	22	26	0
Mvmt Flow	14	43	43	314	400	14

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	807	407	414	0	-	0
Stage 1	407	-	-	-	-	-
Stage 2	400	-	-	-	-	-
Critical Hdwy	6.4	6.39	4.22	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.471	2.308	-	-	-
Pot Cap-1 Maneuver	354	609	1093	-	-	-
Stage 1	676	-	-	-	-	-
Stage 2	681	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	340	609	1093	-	-	-
Mov Cap-2 Maneuver	459	-	-	-	-	-
Stage 1	676	-	-	-	-	-
Stage 2	654	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.1	1	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1093	-	563	-	-
HCM Lane V/C Ratio	0.039	-	0.101	-	-
HCM Control Delay (s)	8.4	-	12.1	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.3	-	-

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	10	30	20	240	370	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	50	-	-	-
Veh in Median Storage, #	1	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	12	10	0
Mvmt Flow	11	32	21	253	389	11

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	690	395	400	0	-	0
Stage 1	395	-	-	-	-	-
Stage 2	295	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	414	659	1170	-	-	-
Stage 1	685	-	-	-	-	-
Stage 2	760	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	407	659	1170	-	-	-
Mov Cap-2 Maneuver	511	-	-	-	-	-
Stage 1	685	-	-	-	-	-
Stage 2	746	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.3	0.6	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1170	-	615	-	-
HCM Lane V/C Ratio	0.018	-	0.068	-	-
HCM Control Delay (s)	8.1	-	11.3	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.2	-	-

Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	10	40	30	270	320	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	50	-	-	-
Veh in Median Storage, #	1	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	70	70	70	70	70	70
Heavy Vehicles, %	0	19	12	22	26	0
Mvmt Flow	14	57	43	386	457	14

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	935	464	471	0	-	0
Stage 1	464	-	-	-	-	-
Stage 2	471	-	-	-	-	-
Critical Hdwy	6.4	6.39	4.22	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.471	2.308	-	-	-
Pot Cap-1 Maneuver	297	565	1040	-	-	-
Stage 1	637	-	-	-	-	-
Stage 2	632	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	285	565	1040	-	-	-
Mov Cap-2 Maneuver	413	-	-	-	-	-
Stage 1	637	-	-	-	-	-
Stage 2	606	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.9	0.9	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1040	-	526	-	-
HCM Lane V/C Ratio	0.041	-	0.136	-	-
HCM Control Delay (s)	8.6	-	12.9	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.5	-	-

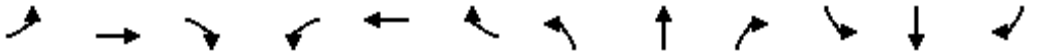
Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	10	30	20	280	430	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	50	-	-	-
Veh in Median Storage, #	1	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	12	10	0
Mvmt Flow	11	32	21	295	453	11

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	795	458	463	0	-	0
Stage 1	458	-	-	-	-	-
Stage 2	337	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	359	607	1109	-	-	-
Stage 1	641	-	-	-	-	-
Stage 2	728	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	352	607	1109	-	-	-
Mov Cap-2 Maneuver	468	-	-	-	-	-
Stage 1	641	-	-	-	-	-
Stage 2	714	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.9	0.6	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1109	-	565	-	-
HCM Lane V/C Ratio	0.019	-	0.075	-	-
HCM Control Delay (s)	8.3	-	11.9	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.2	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	60	100	40	170	130	320	60	1040	200	180	480	20
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1980	1776	1881	2000	1863	1863	1863	1900	1881	1797	1900
Adj Flow Rate, veh/h	71	119	48	202	155	381	71	1238	238	214	571	24
Adj No. of Lanes	1	1	1	1	1	1	1	2	0	1	2	0
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	2	1	7	1	0	2	2	2	2	1	5	5
Cap, veh/h	287	469	410	369	474	512	467	1377	262	247	1723	72
Arrive On Green	0.04	0.24	0.24	0.04	0.24	0.24	0.03	0.46	0.46	0.09	0.52	0.52
Sat Flow, veh/h	1774	1980	1509	1792	2000	1583	1774	2967	566	1792	3339	140
Grp Volume(v), veh/h	71	119	48	202	155	381	71	734	742	214	292	303
Grp Sat Flow(s),veh/h/ln	1774	1980	1509	1792	2000	1583	1774	1770	1763	1792	1707	1772
Q Serve(g_s), s	3.3	5.4	2.6	4.5	7.1	23.7	2.3	42.0	43.0	7.2	11.0	11.0
Cycle Q Clear(g_c), s	3.3	5.4	2.6	4.5	7.1	23.7	2.3	42.0	43.0	7.2	11.0	11.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.32	1.00		0.08
Lane Grp Cap(c), veh/h	287	469	410	369	474	512	467	821	818	247	881	914
V/C Ratio(X)	0.25	0.25	0.12	0.55	0.33	0.74	0.15	0.89	0.91	0.87	0.33	0.33
Avail Cap(c_a), veh/h	287	484	421	369	489	524	478	849	846	360	1005	1043
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.3	34.2	30.3	35.9	34.9	33.3	14.6	27.1	27.4	26.8	15.6	15.6
Incr Delay (d2), s/veh	0.4	0.3	0.1	1.7	0.4	5.6	0.1	11.7	13.2	14.0	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	3.0	5.4	2.0	6.3	7.1	16.6	2.0	30.9	31.8	11.8	9.0	9.3
LnGrp Delay(d),s/veh	30.7	34.5	30.4	37.6	35.3	38.9	14.8	38.8	40.6	40.9	15.8	15.8
LnGrp LOS	C	C	C	D	D	D	B	D	D	D	B	B
Approach Vol, veh/h		238			738			1547			809	
Approach Delay, s/veh		32.6			37.8			38.5			22.5	
Approach LOS		C			D			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.0	57.3	8.0	32.2	7.3	63.0	8.0	32.2
Change Period (Y+Rc), s	3.5	6.0	3.5	6.0	3.5	6.0	3.5	6.0
Max Green Setting (Gmax), s	16.5	53.0	4.5	27.0	4.5	65.0	4.5	27.0
Max Q Clear Time (g_c+I1), s	9.2	45.0	6.5	7.4	4.3	13.0	5.3	25.7
Green Ext Time (p_c), s	0.3	6.2	0.0	2.9	0.0	20.7	0.0	0.5

Intersection Summary	
HCM 2010 Ctrl Delay	34.0
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	40	110	250	300	200	260	60	590	370	490	1220	70
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	2000	1881	1881	1980	1881	1900	1870	1900	1881	1882	1900
Adj Flow Rate, veh/h	42	115	260	312	208	271	62	615	385	510	1271	73
Adj No. of Lanes	1	1	1	1	1	1	1	2	0	1	2	0
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
Percent Heavy Veh, %	0	0	1	1	1	1	0	2	2	1	1	1
Cap, veh/h	225	242	248	370	450	762	240	696	436	540	1879	108
Arrive On Green	0.03	0.12	0.12	0.13	0.23	0.23	0.03	0.33	0.33	0.25	0.55	0.55
Sat Flow, veh/h	1810	2000	1599	1792	1980	1599	1810	2100	1314	1792	3438	197
Grp Volume(v), veh/h	42	115	260	312	208	271	62	520	480	510	660	684
Grp Sat Flow(s),veh/h/ln	1810	2000	1599	1792	1980	1599	1810	1776	1638	1792	1788	1847
Q Serve(g_s), s	2.3	6.2	14.0	15.5	10.5	12.4	2.6	32.1	32.1	26.2	30.7	30.8
Cycle Q Clear(g_c), s	2.3	6.2	14.0	15.5	10.5	12.4	2.6	32.1	32.1	26.2	30.7	30.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.80	1.00		0.11
Lane Grp Cap(c), veh/h	225	242	248	370	450	762	240	589	543	540	977	1010
V/C Ratio(X)	0.19	0.48	1.05	0.84	0.46	0.36	0.26	0.88	0.88	0.94	0.68	0.68
Avail Cap(c_a), veh/h	276	242	248	370	450	762	248	599	552	596	1035	1070
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.9	47.4	48.9	38.7	38.6	19.1	24.3	36.6	36.6	31.3	18.9	18.9
Incr Delay (d2), s/veh	0.4	1.4	69.9	16.0	0.7	0.3	0.6	14.5	15.5	22.8	1.6	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.1	6.3	22.9	7.1	9.8	9.4	2.4	25.1	23.6	26.5	21.9	22.6
LnGrp Delay(d),s/veh	43.3	48.9	118.8	54.7	39.4	19.4	24.8	51.1	52.1	54.2	20.5	20.5
LnGrp LOS	D	D	F	D	D	B	C	D	D	D	C	C
Approach Vol, veh/h		417			791			1062			1854	
Approach Delay, s/veh		91.9			38.6			50.0			29.8	
Approach LOS		F			D			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	32.4	44.3	19.0	20.0	7.5	69.3	6.7	32.3
Change Period (Y+Rc), s	3.5	6.0	3.5	6.0	3.5	6.0	3.5	6.0
Max Green Setting (Gmax), s	32.5	39.0	15.5	14.0	4.5	67.0	6.5	23.0
Max Q Clear Time (g_c+I1), s	28.2	34.1	17.5	16.0	4.6	32.8	4.3	14.4
Green Ext Time (p_c), s	0.7	4.3	0.0	0.0	0.0	20.0	0.0	2.5

Intersection Summary	
HCM 2010 Ctrl Delay	42.9
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	70	130	50	230	170	420	80	1300	250	270	730	30
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1980	1776	1881	2000	1863	1863	1863	1900	1881	1797	1900
Adj Flow Rate, veh/h	83	155	60	274	202	500	95	1548	298	321	869	36
Adj No. of Lanes	1	1	1	1	1	1	1	2	0	1	2	0
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	2	1	7	1	0	2	2	2	2	1	5	5
Cap, veh/h	229	446	340	314	450	574	360	1314	247	306	1810	75
Arrive On Green	0.04	0.22	0.22	0.04	0.22	0.22	0.04	0.44	0.44	0.14	0.54	0.54
Sat Flow, veh/h	1774	1980	1509	1792	2000	1583	1774	2976	558	1792	3342	138
Grp Volume(v), veh/h	83	155	60	274	202	500	95	904	942	321	444	461
Grp Sat Flow(s),veh/h/ln	1774	1980	1509	1792	2000	1583	1774	1770	1764	1792	1707	1773
Q Serve(g_s), s	4.3	7.9	3.9	4.5	10.4	27.0	3.5	53.0	53.0	16.5	19.3	19.3
Cycle Q Clear(g_c), s	4.3	7.9	3.9	4.5	10.4	27.0	3.5	53.0	53.0	16.5	19.3	19.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.32	1.00		0.08
Lane Grp Cap(c), veh/h	229	446	340	314	450	574	360	782	779	306	925	960
V/C Ratio(X)	0.36	0.35	0.18	0.87	0.45	0.87	0.26	1.16	1.21	1.05	0.48	0.48
Avail Cap(c_a), veh/h	229	446	340	314	450	574	360	782	779	306	925	960
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.7	39.1	37.5	46.3	40.1	35.6	17.5	33.5	33.5	40.6	17.0	17.0
Incr Delay (d2), s/veh	1.0	0.5	0.2	22.6	0.7	13.7	0.4	84.8	105.7	64.5	0.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	4.4	1.6	8.9	5.9	17.5	1.7	44.2	48.6	15.6	9.1	9.4
LnGrp Delay(d),s/veh	35.7	39.6	37.8	68.9	40.8	49.3	17.8	118.3	139.2	105.1	17.4	17.4
LnGrp LOS	D	D	D	E	D	D	B	F	F	F	B	B
Approach Vol, veh/h		298			976			1941			1226	
Approach Delay, s/veh		38.1			53.1			123.5			40.4	
Approach LOS		D			D			F			D	

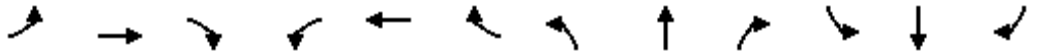
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.0	59.0	8.0	33.0	8.0	71.0	8.0	33.0
Change Period (Y+Rc), s	3.5	6.0	3.5	6.0	3.5	6.0	3.5	6.0
Max Green Setting (Gmax), s	16.5	53.0	4.5	27.0	4.5	65.0	4.5	27.0
Max Q Clear Time (g_c+I1), s	18.5	55.0	6.5	9.9	5.5	21.3	6.3	29.0
Green Ext Time (p_c), s	0.0	0.0	0.0	3.8	0.0	30.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	79.4
HCM 2010 LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	50	140	330	390	270	340	80	740	460	750	1870	100
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	2000	1881	1881	1980	1881	1900	1870	1900	1881	1882	1900
Adj Flow Rate, veh/h	52	146	344	406	281	354	83	771	479	781	1948	104
Adj No. of Lanes	1	1	1	1	1	1	1	2	0	1	2	0
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
Percent Heavy Veh, %	0	0	1	1	1	1	0	2	2	1	1	1
Cap, veh/h	188	233	187	334	419	771	128	687	423	545	1929	102
Arrive On Green	0.03	0.12	0.12	0.13	0.21	0.21	0.04	0.32	0.32	0.27	0.56	0.56
Sat Flow, veh/h	1810	2000	1599	1792	1980	1599	1810	2114	1302	1792	3455	183
Grp Volume(v), veh/h	52	146	344	406	281	354	83	647	603	781	1000	1052
Grp Sat Flow(s),veh/h/ln	1810	2000	1599	1792	1980	1599	1810	1776	1640	1792	1788	1850
Q Serve(g_s), s	3.0	8.3	14.0	15.5	15.7	17.7	3.7	39.0	39.0	32.5	67.0	67.0
Cycle Q Clear(g_c), s	3.0	8.3	14.0	15.5	15.7	17.7	3.7	39.0	39.0	32.5	67.0	67.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.79	1.00		0.10
Lane Grp Cap(c), veh/h	188	233	187	334	419	771	128	577	533	545	998	1033
V/C Ratio(X)	0.28	0.63	1.84	1.21	0.67	0.46	0.65	1.12	1.13	1.43	1.00	1.02
Avail Cap(c_a), veh/h	223	233	187	334	419	771	128	577	533	545	998	1033
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.6	50.5	53.0	43.2	43.5	20.7	31.9	40.5	40.5	36.8	26.5	26.5
Incr Delay (d2), s/veh	0.8	5.2	399.8	120.8	4.1	0.4	11.0	75.1	80.6	205.0	28.8	32.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.8	8.6	48.4	20.2	14.0	12.5	4.0	56.0	53.2	88.3	73.3	77.9
LnGrp Delay(d),s/veh	45.4	55.7	452.8	164.0	47.6	21.1	42.9	115.6	121.1	241.8	55.3	59.3
LnGrp LOS	D	E	F	F	D	C	D	F	F	F	F	F
Approach Vol, veh/h		542			1041			1333			2833	
Approach Delay, s/veh		306.8			84.0			113.6			108.2	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	36.0	45.0	19.0	20.0	8.0	73.0	7.6	31.4
Change Period (Y+Rc), s	3.5	6.0	3.5	6.0	3.5	6.0	3.5	6.0
Max Green Setting (Gmax), s	32.5	39.0	15.5	14.0	4.5	67.0	6.5	23.0
Max Q Clear Time (g_c+I1), s	34.5	41.0	17.5	16.0	5.7	69.0	5.0	19.7
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7

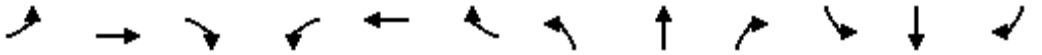
Intersection Summary	
HCM 2010 Ctrl Delay	123.8
HCM 2010 LOS	F



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	60	120	70	170	240	320	230	1040	200	180	480	20
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1980	1776	1881	2000	1863	1863	1863	1900	1881	1797	1900
Adj Flow Rate, veh/h	71	143	83	202	286	381	274	1238	238	214	571	24
Adj No. of Lanes	1	1	1	1	1	1	1	2	0	1	2	0
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	2	1	7	1	0	2	2	2	2	1	5	5
Cap, veh/h	222	471	420	345	475	513	472	1375	262	247	1701	71
Arrive On Green	0.04	0.24	0.24	0.04	0.24	0.24	0.04	0.46	0.46	0.09	0.51	0.51
Sat Flow, veh/h	1774	1980	1509	1792	2000	1583	1774	2967	566	1792	3339	140
Grp Volume(v), veh/h	71	143	83	202	286	381	274	734	742	214	292	303
Grp Sat Flow(s),veh/h/ln	1774	1980	1509	1792	2000	1583	1774	1770	1763	1792	1707	1772
Q Serve(g_s), s	3.3	6.6	4.6	4.5	14.1	23.7	4.5	42.1	43.2	7.3	11.2	11.2
Cycle Q Clear(g_c), s	3.3	6.6	4.6	4.5	14.1	23.7	4.5	42.1	43.2	7.3	11.2	11.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.32	1.00		0.08
Lane Grp Cap(c), veh/h	222	471	420	345	475	513	472	820	817	247	870	903
V/C Ratio(X)	0.32	0.30	0.20	0.59	0.60	0.74	0.58	0.90	0.91	0.87	0.34	0.34
Avail Cap(c_a), veh/h	222	483	429	345	488	523	472	847	844	359	1002	1041
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.0	34.7	30.5	36.7	37.5	33.3	20.2	27.2	27.5	27.0	16.1	16.1
Incr Delay (d2), s/veh	0.8	0.4	0.2	2.6	2.0	5.5	1.8	11.8	13.3	14.2	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	3.0	6.5	3.5	6.7	12.7	16.6	7.8	31.0	32.1	11.8	9.1	9.4
LnGrp Delay(d),s/veh	31.9	35.0	30.7	39.2	39.5	38.8	22.0	39.1	40.8	41.1	16.3	16.3
LnGrp LOS	C	D	C	D	D	D	C	D	D	D	B	B
Approach Vol, veh/h		297			869			1750			809	
Approach Delay, s/veh		33.1			39.1			37.1			22.9	
Approach LOS		C			D			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.1	57.3	8.0	32.3	8.0	62.4	8.0	32.3
Change Period (Y+Rc), s	3.5	6.0	3.5	6.0	3.5	6.0	3.5	6.0
Max Green Setting (Gmax), s	16.5	53.0	4.5	27.0	4.5	65.0	4.5	27.0
Max Q Clear Time (g_c+I1), s	9.3	45.2	6.5	8.6	6.5	13.2	5.3	25.7
Green Ext Time (p_c), s	0.3	6.1	0.0	3.8	0.0	20.6	0.0	0.6

Intersection Summary	
HCM 2010 Ctrl Delay	34.2
HCM 2010 LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	40	200	380	300	220	260	90	590	370	490	1220	70
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	2000	1881	1881	1980	1881	1900	1870	1900	1881	1882	1900
Adj Flow Rate, veh/h	42	208	396	312	229	271	94	615	385	510	1271	73
Adj No. of Lanes	1	1	1	1	1	1	1	2	0	1	2	0
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
Percent Heavy Veh, %	0	0	1	1	1	1	0	2	2	1	1	1
Cap, veh/h	258	383	386	312	517	824	238	630	394	521	1733	99
Arrive On Green	0.03	0.19	0.19	0.10	0.26	0.26	0.05	0.30	0.30	0.25	0.50	0.50
Sat Flow, veh/h	1810	2000	1599	1792	1980	1599	1810	2100	1314	1792	3438	197
Grp Volume(v), veh/h	42	208	396	312	229	271	94	520	480	510	660	684
Grp Sat Flow(s),veh/h/ln	1810	2000	1599	1792	1980	1599	1810	1776	1638	1792	1788	1847
Q Serve(g_s), s	2.2	11.3	23.0	11.5	11.6	11.9	4.3	34.8	34.8	29.5	34.8	35.0
Cycle Q Clear(g_c), s	2.2	11.3	23.0	11.5	11.6	11.9	4.3	34.8	34.8	29.5	34.8	35.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.80	1.00		0.11
Lane Grp Cap(c), veh/h	258	383	386	312	517	824	238	533	491	521	901	931
V/C Ratio(X)	0.16	0.54	1.02	1.00	0.44	0.33	0.39	0.98	0.98	0.98	0.73	0.73
Avail Cap(c_a), veh/h	263	383	386	312	517	824	246	533	491	521	901	931
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.6	43.8	45.5	41.6	37.1	17.0	27.3	41.6	41.6	35.8	23.4	23.4
Incr Delay (d2), s/veh	0.3	1.6	52.2	51.0	0.6	0.2	1.1	32.8	34.4	33.9	3.1	3.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.0	10.6	33.1	8.0	10.6	9.0	3.9	29.6	27.8	29.2	24.8	25.7
LnGrp Delay(d),s/veh	37.9	45.3	97.7	92.5	37.7	17.2	28.4	74.4	76.0	69.7	26.5	26.5
LnGrp LOS	D	D	F	F	D	B	C	E	E	E	C	C
Approach Vol, veh/h		646			812			1094			1854	
Approach Delay, s/veh		77.0			51.9			71.2			38.4	
Approach LOS		E			D			E			D	

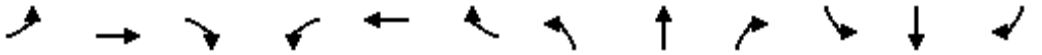
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	34.0	42.0	15.0	29.0	9.5	66.5	6.7	37.3
Change Period (Y+Rc), s	3.5	6.0	3.5	6.0	3.5	6.0	3.5	6.0
Max Green Setting (Gmax), s	30.5	36.0	11.5	23.0	6.5	60.0	3.5	31.0
Max Q Clear Time (g_c+I1), s	31.5	36.8	13.5	25.0	6.3	37.0	4.2	13.9
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	15.6	0.0	4.5

Intersection Summary	
HCM 2010 Ctrl Delay	54.7
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	70	160	100	230	350	420	350	1300	250	270	730	30
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1980	1776	1881	2000	1863	1863	1863	1900	1881	1797	1900
Adj Flow Rate, veh/h	83	190	119	274	417	500	417	1548	298	321	869	36
Adj No. of Lanes	1	1	1	1	1	1	1	2	0	1	2	0
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	2	1	7	1	0	2	2	2	2	1	5	5
Cap, veh/h	139	446	396	281	450	574	360	1314	247	306	1810	75
Arrive On Green	0.04	0.22	0.22	0.04	0.22	0.22	0.04	0.44	0.44	0.14	0.54	0.54
Sat Flow, veh/h	1774	1980	1509	1792	2000	1583	1774	2976	558	1792	3342	138
Grp Volume(v), veh/h	83	190	119	274	417	500	417	904	942	321	444	461
Grp Sat Flow(s),veh/h/ln	1774	1980	1509	1792	2000	1583	1774	1770	1764	1792	1707	1773
Q Serve(g_s), s	4.3	9.9	7.6	4.5	24.5	27.0	4.5	53.0	53.0	16.5	19.3	19.3
Cycle Q Clear(g_c), s	4.3	9.9	7.6	4.5	24.5	27.0	4.5	53.0	53.0	16.5	19.3	19.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.32	1.00		0.08
Lane Grp Cap(c), veh/h	139	446	396	281	450	574	360	782	779	306	925	960
V/C Ratio(X)	0.60	0.43	0.30	0.98	0.93	0.87	1.16	1.16	1.21	1.05	0.48	0.48
Avail Cap(c_a), veh/h	139	446	396	281	450	574	360	782	779	306	925	960
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.1	39.9	35.4	48.0	45.5	35.6	35.0	33.5	33.5	40.6	17.0	17.0
Incr Delay (d2), s/veh	6.8	0.6	0.4	46.8	25.3	13.7	97.9	84.8	105.7	64.5	0.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	4.2	9.3	5.8	15.9	23.4	24.4	17.6	79.6	87.5	28.1	14.1	14.5
LnGrp Delay(d),s/veh	43.8	40.5	35.8	94.8	70.8	49.3	132.8	118.3	139.2	105.1	17.4	17.4
LnGrp LOS	D	D	D	F	E	D	F	F	F	F	B	B
Approach Vol, veh/h		392			1191			2263			1226	
Approach Delay, s/veh		39.8			67.3			129.7			40.4	
Approach LOS		D			E			F			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.0	59.0	8.0	33.0	8.0	71.0	8.0	33.0
Change Period (Y+Rc), s	3.5	6.0	3.5	6.0	3.5	6.0	3.5	6.0
Max Green Setting (Gmax), s	16.5	53.0	4.5	27.0	4.5	65.0	4.5	27.0
Max Q Clear Time (g_c+I1), s	18.5	55.0	6.5	11.9	6.5	21.3	6.3	29.0
Green Ext Time (p_c), s	0.0	0.0	0.0	5.2	0.0	30.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	86.5
HCM 2010 LOS	F



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	50	280	540	390	290	340	120	740	460	750	1870	100
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	2000	1881	1881	1980	1881	1900	1870	1900	1881	1882	1900
Adj Flow Rate, veh/h	52	292	562	406	302	354	125	771	479	781	1948	104
Adj No. of Lanes	1	1	1	1	1	1	1	2	0	1	2	0
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
Percent Heavy Veh, %	0	0	1	1	1	1	0	2	2	1	1	1
Cap, veh/h	157	333	366	188	396	780	172	687	423	575	1902	101
Arrive On Green	0.03	0.17	0.17	0.06	0.20	0.20	0.06	0.32	0.32	0.29	0.55	0.55
Sat Flow, veh/h	1810	2000	1599	1792	1980	1599	1810	2114	1302	1792	3455	183
Grp Volume(v), veh/h	52	292	562	406	302	354	125	647	603	781	1000	1052
Grp Sat Flow(s),veh/h/ln	1810	2000	1599	1792	1980	1599	1810	1776	1640	1792	1788	1850
Q Serve(g_s), s	2.9	17.1	20.0	7.5	17.3	17.5	5.5	39.0	39.0	34.5	66.1	66.1
Cycle Q Clear(g_c), s	2.9	17.1	20.0	7.5	17.3	17.5	5.5	39.0	39.0	34.5	66.1	66.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.79	1.00		0.10
Lane Grp Cap(c), veh/h	157	333	366	188	396	780	172	577	533	575	984	1018
V/C Ratio(X)	0.33	0.88	1.54	2.16	0.76	0.45	0.73	1.12	1.13	1.36	1.02	1.03
Avail Cap(c_a), veh/h	157	333	366	188	396	780	233	577	533	575	984	1018
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.7	48.8	46.3	44.5	45.3	20.2	30.6	40.5	40.5	36.3	27.0	27.0
Incr Delay (d2), s/veh	1.2	22.0	255.2	540.6	8.5	0.4	7.1	75.1	80.6	172.2	32.6	37.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.6	17.0	68.5	50.7	15.7	12.4	5.4	56.0	53.2	83.7	74.1	79.0
LnGrp Delay(d),s/veh	42.0	70.8	301.4	585.1	53.8	20.7	37.7	115.6	121.1	208.5	59.6	64.1
LnGrp LOS	D	E	F	F	D	C	D	F	F	F	F	F
Approach Vol, veh/h		906			1062			1375			2833	
Approach Delay, s/veh		212.2			245.9			110.9			102.3	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	38.0	45.0	11.0	26.0	10.9	72.1	7.0	30.0
Change Period (Y+Rc), s	3.5	6.0	3.5	6.0	3.5	6.0	3.5	6.0
Max Green Setting (Gmax), s	34.5	39.0	7.5	20.0	11.5	62.0	3.5	24.0
Max Q Clear Time (g_c+I1), s	36.5	41.0	9.5	22.0	7.5	68.1	4.9	19.5
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.1	0.0	0.0	2.7

Intersection Summary	
HCM 2010 Ctrl Delay	145.0
HCM 2010 LOS	F

Notes

User approved pedestrian interval to be less than phase max green.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	40	30	10	70	20	30	20	300	60	40	170	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1792	1776	1900	1863	1786	1900	1727	1905	1792	1792	1923	1900
Adj Flow Rate, veh/h	48	36	12	83	24	36	24	357	71	48	202	12
Adj No. of Lanes	1	1	0	1	1	0	1	1	1	1	1	1
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	6	5	5	2	10	10	10	5	6	6	4	0
Cap, veh/h	293	94	31	318	59	88	597	810	648	490	850	714
Arrive On Green	0.04	0.07	0.07	0.06	0.09	0.09	0.02	0.43	0.43	0.04	0.44	0.44
Sat Flow, veh/h	1707	1276	425	1774	646	969	1645	1905	1524	1707	1923	1615
Grp Volume(v), veh/h	48	0	48	83	0	60	24	357	71	48	202	12
Grp Sat Flow(s),veh/h/ln	1707	0	1701	1774	0	1615	1645	1905	1524	1707	1923	1615
Q Serve(g_s), s	1.2	0.0	1.3	2.0	0.0	1.6	0.4	6.2	1.3	0.7	3.1	0.2
Cycle Q Clear(g_c), s	1.2	0.0	1.3	2.0	0.0	1.6	0.4	6.2	1.3	0.7	3.1	0.2
Prop In Lane	1.00		0.25	1.00		0.60	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	293	0	126	318	0	147	597	810	648	490	850	714
V/C Ratio(X)	0.16	0.00	0.38	0.26	0.00	0.41	0.04	0.44	0.11	0.10	0.24	0.02
Avail Cap(c_a), veh/h	461	0	832	462	0	790	787	810	648	659	850	714
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.0	0.0	20.7	18.6	0.0	20.2	7.3	9.6	8.1	7.4	8.2	7.4
Incr Delay (d2), s/veh	0.3	0.0	1.9	0.4	0.0	1.8	0.0	1.7	0.3	0.1	0.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.0	0.0	1.2	1.8	0.0	1.5	0.3	6.6	1.1	0.6	3.2	0.2
LnGrp Delay(d),s/veh	19.3	0.0	22.6	19.1	0.0	22.0	7.3	11.3	8.5	7.4	8.8	7.4
LnGrp LOS	B		C	B		C	A	B	A	A	A	A
Approach Vol, veh/h		96			143			452			262	
Approach Delay, s/veh		21.0			20.3			10.6			8.5	
Approach LOS		C			C			B			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.4	26.0	6.2	9.5	4.6	26.8	5.4	10.3
Change Period (Y+Rc), s	3.5	6.0	3.5	6.0	3.5	6.0	3.5	6.0
Max Green Setting (Gmax), s	6.5	20.0	6.5	23.0	6.5	20.0	6.5	23.0
Max Q Clear Time (g_c+I1), s	2.7	8.2	4.0	3.3	2.4	5.1	3.2	3.6
Green Ext Time (p_c), s	0.0	2.7	0.0	0.5	0.0	3.0	0.0	0.5

Intersection Summary	
HCM 2010 Ctrl Delay	12.5
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	40	50	30	110	60	100	30	280	130	90	430	40
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1881	1877	1900	1900	1961	1863	1863	1980	1900
Adj Flow Rate, veh/h	41	52	31	113	62	103	31	289	134	93	443	41
Adj No. of Lanes	1	1	0	1	1	0	1	1	1	1	1	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	1	0	0	0	2	2	2	1	0
Cap, veh/h	279	127	75	366	98	162	419	759	613	510	824	672
Arrive On Green	0.03	0.11	0.11	0.07	0.15	0.15	0.03	0.39	0.39	0.06	0.42	0.42
Sat Flow, veh/h	1810	1117	666	1792	635	1055	1810	1961	1583	1774	1980	1615
Grp Volume(v), veh/h	41	0	83	113	0	165	31	289	134	93	443	41
Grp Sat Flow(s),veh/h/ln	1810	0	1783	1792	0	1690	1810	1961	1583	1774	1980	1615
Q Serve(g_s), s	1.0	0.0	2.2	2.8	0.0	4.7	0.5	5.5	2.9	1.6	8.7	0.8
Cycle Q Clear(g_c), s	1.0	0.0	2.2	2.8	0.0	4.7	0.5	5.5	2.9	1.6	8.7	0.8
Prop In Lane	1.00		0.37	1.00		0.62	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	279	0	202	366	0	260	419	759	613	510	824	672
V/C Ratio(X)	0.15	0.00	0.41	0.31	0.00	0.63	0.07	0.38	0.22	0.18	0.54	0.06
Avail Cap(c_a), veh/h	444	0	793	457	0	752	597	759	613	632	824	672
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.3	0.0	21.3	17.7	0.0	20.5	9.5	11.4	10.6	8.7	11.3	9.0
Incr Delay (d2), s/veh	0.2	0.0	1.3	0.5	0.0	2.6	0.1	1.5	0.8	0.2	2.5	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.9	0.0	2.1	2.5	0.0	4.3	0.5	5.9	2.5	1.4	9.0	0.7
LnGrp Delay(d),s/veh	19.5	0.0	22.6	18.2	0.0	23.1	9.6	12.8	11.4	8.9	13.8	9.2
LnGrp LOS	B		C	B		C	A	B	B	A	B	A
Approach Vol, veh/h		124			278			454			577	
Approach Delay, s/veh		21.6			21.1			12.2			12.7	
Approach LOS		C			C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.4	26.0	7.4	11.9	4.9	27.5	5.3	13.9
Change Period (Y+Rc), s	3.5	6.0	3.5	6.0	3.5	6.0	3.5	6.0
Max Green Setting (Gmax), s	6.5	20.0	6.5	23.0	6.5	20.0	6.5	23.0
Max Q Clear Time (g_c+I1), s	3.6	7.5	4.8	4.2	2.5	10.7	3.0	6.7
Green Ext Time (p_c), s	0.0	4.1	0.0	1.3	0.0	3.5	0.0	1.3

Intersection Summary	
HCM 2010 Ctrl Delay	14.9
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	50	30	10	80	20	40	20	320	60	50	210	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1792	1776	1900	1863	1792	1900	1727	1905	1792	1792	1923	1900
Adj Flow Rate, veh/h	60	36	12	95	24	48	24	381	71	60	250	12
Adj No. of Lanes	1	1	0	1	1	0	1	1	1	1	1	1
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	6	5	5	2	10	10	10	5	6	6	4	0
Cap, veh/h	296	97	32	332	51	102	555	794	635	472	846	711
Arrive On Green	0.05	0.08	0.08	0.07	0.10	0.10	0.02	0.42	0.42	0.05	0.44	0.44
Sat Flow, veh/h	1707	1276	425	1774	535	1069	1645	1905	1524	1707	1923	1615
Grp Volume(v), veh/h	60	0	48	95	0	72	24	381	71	60	250	12
Grp Sat Flow(s),veh/h/ln	1707	0	1701	1774	0	1604	1645	1905	1524	1707	1923	1615
Q Serve(g_s), s	1.5	0.0	1.3	2.3	0.0	2.0	0.4	7.0	1.4	0.9	4.0	0.2
Cycle Q Clear(g_c), s	1.5	0.0	1.3	2.3	0.0	2.0	0.4	7.0	1.4	0.9	4.0	0.2
Prop In Lane	1.00		0.25	1.00		0.67	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	296	0	129	332	0	153	555	794	635	472	846	711
V/C Ratio(X)	0.20	0.00	0.37	0.29	0.00	0.47	0.04	0.48	0.11	0.13	0.30	0.02
Avail Cap(c_a), veh/h	449	0	815	457	0	769	741	794	635	625	846	711
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.2	0.0	21.1	18.7	0.0	20.6	7.7	10.2	8.6	7.7	8.6	7.6
Incr Delay (d2), s/veh	0.3	0.0	1.8	0.5	0.0	2.2	0.0	2.1	0.4	0.1	0.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	0.7	1.2	0.0	1.0	0.2	4.1	0.6	0.4	2.3	0.1
LnGrp Delay(d),s/veh	19.5	0.0	22.9	19.2	0.0	22.8	7.8	12.3	8.9	7.8	9.5	7.6
LnGrp LOS	B		C	B		C	A	B	A	A	A	A
Approach Vol, veh/h		108			167			476			322	
Approach Delay, s/veh		21.0			20.7			11.5			9.2	
Approach LOS		C			C			B			A	

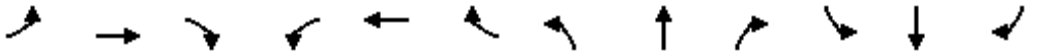
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.7	26.0	6.6	9.6	4.6	27.1	5.7	10.6
Change Period (Y+Rc), s	3.5	6.0	3.5	6.0	3.5	6.0	3.5	6.0
Max Green Setting (Gmax), s	6.5	20.0	6.5	23.0	6.5	20.0	6.5	23.0
Max Q Clear Time (g_c+I1), s	2.9	9.0	4.3	3.3	2.4	6.0	3.5	4.0
Green Ext Time (p_c), s	0.0	3.0	0.0	0.6	0.0	3.4	0.0	0.6

Intersection Summary	
HCM 2010 Ctrl Delay	13.2
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	40	50	30	110	70	120	30	310	140	110	520	50
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1881	1876	1900	1900	1961	1863	1863	1980	1900
Adj Flow Rate, veh/h	41	52	31	113	72	124	31	320	144	113	536	52
Adj No. of Lanes	1	1	0	1	1	0	1	1	1	1	1	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	1	0	0	0	2	2	2	1	0
Cap, veh/h	273	148	88	387	107	184	345	736	594	479	811	661
Arrive On Green	0.03	0.13	0.13	0.07	0.17	0.17	0.03	0.38	0.38	0.06	0.41	0.41
Sat Flow, veh/h	1810	1117	666	1792	620	1068	1810	1961	1583	1774	1980	1615
Grp Volume(v), veh/h	41	0	83	113	0	196	31	320	144	113	536	52
Grp Sat Flow(s),veh/h/ln	1810	0	1783	1792	0	1688	1810	1961	1583	1774	1980	1615
Q Serve(g_s), s	1.0	0.0	2.3	2.8	0.0	5.8	0.6	6.5	3.3	2.0	11.7	1.0
Cycle Q Clear(g_c), s	1.0	0.0	2.3	2.8	0.0	5.8	0.6	6.5	3.3	2.0	11.7	1.0
Prop In Lane	1.00		0.37	1.00		0.63	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	273	0	236	387	0	291	345	736	594	479	811	661
V/C Ratio(X)	0.15	0.00	0.35	0.29	0.00	0.67	0.09	0.44	0.24	0.24	0.66	0.08
Avail Cap(c_a), veh/h	432	0	769	473	0	728	516	736	594	585	811	661
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.1	0.0	21.0	17.5	0.0	20.7	10.6	12.4	11.5	9.3	12.7	9.6
Incr Delay (d2), s/veh	0.3	0.0	0.9	0.4	0.0	2.7	0.1	1.9	1.0	0.3	4.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.9	0.0	2.1	2.6	0.0	5.2	0.5	6.9	2.9	1.8	11.6	0.9
LnGrp Delay(d),s/veh	19.3	0.0	21.9	17.9	0.0	23.4	10.7	14.3	12.4	9.6	17.0	9.8
LnGrp LOS	B		C	B		C	B	B	B	A	B	A
Approach Vol, veh/h		124			309			495			701	
Approach Delay, s/veh		21.1			21.4			13.5			15.2	
Approach LOS		C			C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.8	26.0	7.4	13.1	5.0	27.8	5.3	15.2
Change Period (Y+Rc), s	3.5	6.0	3.5	6.0	3.5	6.0	3.5	6.0
Max Green Setting (Gmax), s	6.5	20.0	6.5	23.0	6.5	20.0	6.5	23.0
Max Q Clear Time (g_c+I1), s	4.0	8.5	4.8	4.3	2.6	13.7	3.0	7.8
Green Ext Time (p_c), s	0.1	4.6	0.0	1.6	0.0	3.1	0.0	1.4

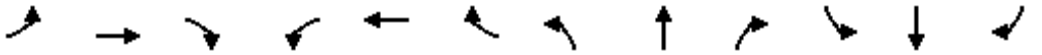
Intersection Summary	
HCM 2010 Ctrl Delay	16.3
HCM 2010 LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	40	30	10	70	20	30	20	470	60	40	200	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1792	1776	1900	1863	1786	1900	1727	1905	1792	1792	1923	1900
Adj Flow Rate, veh/h	44	33	11	78	22	33	22	522	67	44	222	11
Adj No. of Lanes	1	1	0	1	1	0	1	1	1	1	1	1
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
Percent Heavy Veh, %	6	5	5	2	10	10	10	5	6	6	4	0
Cap, veh/h	292	92	31	316	58	87	584	817	653	387	855	718
Arrive On Green	0.04	0.07	0.07	0.05	0.09	0.09	0.02	0.43	0.43	0.04	0.44	0.44
Sat Flow, veh/h	1707	1276	425	1774	646	969	1645	1905	1524	1707	1923	1615
Grp Volume(v), veh/h	44	0	44	78	0	55	22	522	67	44	222	11
Grp Sat Flow(s),veh/h/ln	1707	0	1701	1774	0	1615	1645	1905	1524	1707	1923	1615
Q Serve(g_s), s	1.1	0.0	1.1	1.9	0.0	1.5	0.3	10.1	1.2	0.7	3.4	0.2
Cycle Q Clear(g_c), s	1.1	0.0	1.1	1.9	0.0	1.5	0.3	10.1	1.2	0.7	3.4	0.2
Prop In Lane	1.00		0.25	1.00		0.60	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	292	0	123	316	0	145	584	817	653	387	855	718
V/C Ratio(X)	0.15	0.00	0.36	0.25	0.00	0.38	0.04	0.64	0.10	0.11	0.26	0.02
Avail Cap(c_a), veh/h	466	0	838	466	0	796	778	817	653	561	855	718
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.0	0.0	20.6	18.6	0.0	20.0	7.2	10.5	8.0	8.0	8.1	7.2
Incr Delay (d2), s/veh	0.2	0.0	1.8	0.4	0.0	1.6	0.0	3.8	0.3	0.1	0.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.9	0.0	1.1	1.7	0.0	1.3	0.3	10.1	1.0	0.6	3.5	0.2
LnGrp Delay(d),s/veh	19.2	0.0	22.4	19.0	0.0	21.7	7.3	14.3	8.3	8.1	8.9	7.3
LnGrp LOS	B		C	B		C	A	B	A	A	A	A
Approach Vol, veh/h		88			133			611			277	
Approach Delay, s/veh		20.8			20.1			13.4			8.7	
Approach LOS		C			C			B			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.2	26.0	6.0	9.4	4.5	26.7	5.2	10.2
Change Period (Y+Rc), s	3.5	6.0	3.5	6.0	3.5	6.0	3.5	6.0
Max Green Setting (Gmax), s	6.5	20.0	6.5	23.0	6.5	20.0	6.5	23.0
Max Q Clear Time (g_c+I1), s	2.7	12.1	3.9	3.1	2.3	5.4	3.1	3.5
Green Ext Time (p_c), s	0.0	2.9	0.0	0.4	0.0	4.2	0.0	0.4

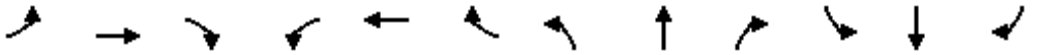
Intersection Summary	
HCM 2010 Ctrl Delay	13.6
HCM 2010 LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	40	50	30	100	60	110	30	310	130	90	570	40
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1881	1876	1900	1900	1961	1863	1863	1980	1900
Adj Flow Rate, veh/h	44	56	33	111	67	122	33	344	144	100	633	44
Adj No. of Lanes	1	1	0	1	1	0	1	1	1	1	1	1
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
Percent Heavy Veh, %	0	0	0	1	0	0	0	2	2	2	1	0
Cap, veh/h	279	148	87	380	101	184	288	741	598	461	806	657
Arrive On Green	0.04	0.13	0.13	0.07	0.17	0.17	0.03	0.38	0.38	0.06	0.41	0.41
Sat Flow, veh/h	1810	1122	661	1792	597	1087	1810	1961	1583	1774	1980	1615
Grp Volume(v), veh/h	44	0	89	111	0	189	33	344	144	100	633	44
Grp Sat Flow(s),veh/h/ln	1810	0	1783	1792	0	1684	1810	1961	1583	1774	1980	1615
Q Serve(g_s), s	1.1	0.0	2.4	2.7	0.0	5.6	0.6	7.0	3.3	1.8	14.8	0.9
Cycle Q Clear(g_c), s	1.1	0.0	2.4	2.7	0.0	5.6	0.6	7.0	3.3	1.8	14.8	0.9
Prop In Lane	1.00		0.37	1.00		0.65	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	279	0	236	380	0	285	288	741	598	461	806	657
V/C Ratio(X)	0.16	0.00	0.38	0.29	0.00	0.66	0.11	0.46	0.24	0.22	0.79	0.07
Avail Cap(c_a), veh/h	436	0	775	470	0	732	458	741	598	576	806	657
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.9	0.0	21.0	17.5	0.0	20.6	11.2	12.4	11.3	9.4	13.7	9.6
Incr Delay (d2), s/veh	0.3	0.0	1.0	0.4	0.0	2.7	0.2	2.1	1.0	0.2	7.6	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.0	0.0	2.3	2.5	0.0	5.0	0.5	7.5	2.9	1.6	14.7	0.8
LnGrp Delay(d),s/veh	19.2	0.0	22.0	18.0	0.0	23.2	11.4	14.5	12.2	9.7	21.3	9.8
LnGrp LOS	B		C	B		C	B	B	B	A	C	A
Approach Vol, veh/h		133			300			521			777	
Approach Delay, s/veh		21.0			21.3			13.7			19.1	
Approach LOS		C			C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.6	26.0	7.4	13.0	5.0	27.5	5.4	15.0
Change Period (Y+Rc), s	3.5	6.0	3.5	6.0	3.5	6.0	3.5	6.0
Max Green Setting (Gmax), s	6.5	20.0	6.5	23.0	6.5	20.0	6.5	23.0
Max Q Clear Time (g_c+I1), s	3.8	9.0	4.7	4.4	2.6	16.8	3.1	7.6
Green Ext Time (p_c), s	0.0	5.1	0.0	1.5	0.0	2.0	0.0	1.4

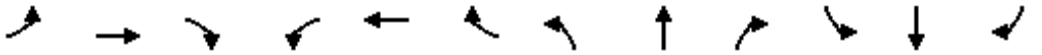
Intersection Summary	
HCM 2010 Ctrl Delay	18.0
HCM 2010 LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	50	30	10	80	20	40	20	590	60	50	260	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1792	1776	1900	1863	1792	1900	1727	1905	1792	1792	1923	1900
Adj Flow Rate, veh/h	56	33	11	89	22	44	22	656	67	56	289	11
Adj No. of Lanes	1	1	0	1	1	0	1	1	1	1	1	1
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
Percent Heavy Veh, %	6	5	5	2	10	10	10	5	6	6	4	0
Cap, veh/h	294	95	32	328	49	98	530	801	641	308	853	716
Arrive On Green	0.04	0.07	0.07	0.06	0.09	0.09	0.02	0.42	0.42	0.04	0.44	0.44
Sat Flow, veh/h	1707	1276	425	1774	535	1069	1645	1905	1524	1707	1923	1615
Grp Volume(v), veh/h	56	0	44	89	0	66	22	656	67	56	289	11
Grp Sat Flow(s),veh/h/ln	1707	0	1701	1774	0	1604	1645	1905	1524	1707	1923	1615
Q Serve(g_s), s	1.4	0.0	1.2	2.2	0.0	1.9	0.4	14.5	1.3	0.9	4.7	0.2
Cycle Q Clear(g_c), s	1.4	0.0	1.2	2.2	0.0	1.9	0.4	14.5	1.3	0.9	4.7	0.2
Prop In Lane	1.00		0.25	1.00		0.67	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	294	0	127	328	0	147	530	801	641	308	853	716
V/C Ratio(X)	0.19	0.00	0.35	0.27	0.00	0.45	0.04	0.82	0.10	0.18	0.34	0.02
Avail Cap(c_a), veh/h	453	0	823	462	0	776	720	801	641	466	853	716
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.1	0.0	20.9	18.7	0.0	20.4	7.6	12.2	8.3	9.4	8.7	7.4
Incr Delay (d2), s/veh	0.3	0.0	1.6	0.4	0.0	2.1	0.0	9.1	0.3	0.3	1.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.2	0.0	1.1	1.9	0.0	1.6	0.3	14.6	1.1	0.7	4.9	0.2
LnGrp Delay(d),s/veh	19.4	0.0	22.5	19.1	0.0	22.6	7.7	21.3	8.7	9.7	9.7	7.5
LnGrp LOS	B		C	B		C	A	C	A	A	A	A
Approach Vol, veh/h		100			155			745			356	
Approach Delay, s/veh		20.8			20.6			19.8			9.7	
Approach LOS		C			C			B			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.6	26.0	6.4	9.6	4.5	27.1	5.6	10.4
Change Period (Y+Rc), s	3.5	6.0	3.5	6.0	3.5	6.0	3.5	6.0
Max Green Setting (Gmax), s	6.5	20.0	6.5	23.0	6.5	20.0	6.5	23.0
Max Q Clear Time (g_c+I1), s	2.9	16.5	4.2	3.2	2.4	6.7	3.4	3.9
Green Ext Time (p_c), s	0.0	2.0	0.0	0.5	0.0	5.2	0.0	0.5

Intersection Summary	
HCM 2010 Ctrl Delay	17.3
HCM 2010 LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	40	50	30	110	70	120	30	350	140	110	730	50
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1881	1876	1900	1900	1961	1863	1863	1980	1900
Adj Flow Rate, veh/h	44	56	33	122	78	133	33	389	156	122	811	56
Adj No. of Lanes	1	1	0	1	1	0	1	1	1	1	1	1
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
Percent Heavy Veh, %	0	0	0	1	0	0	0	2	2	2	1	0
Cap, veh/h	273	155	91	396	113	193	185	721	582	431	802	654
Arrive On Green	0.04	0.14	0.14	0.08	0.18	0.18	0.03	0.37	0.37	0.07	0.41	0.41
Sat Flow, veh/h	1810	1122	661	1792	624	1064	1810	1961	1583	1774	1980	1615
Grp Volume(v), veh/h	44	0	89	122	0	211	33	389	156	122	811	56
Grp Sat Flow(s),veh/h/ln	1810	0	1783	1792	0	1689	1810	1961	1583	1774	1980	1615
Q Serve(g_s), s	1.1	0.0	2.5	3.1	0.0	6.4	0.6	8.5	3.8	2.2	22.0	1.2
Cycle Q Clear(g_c), s	1.1	0.0	2.5	3.1	0.0	6.4	0.6	8.5	3.8	2.2	22.0	1.2
Prop In Lane	1.00		0.37	1.00		0.63	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	273	0	246	396	0	306	185	721	582	431	802	654
V/C Ratio(X)	0.16	0.00	0.36	0.31	0.00	0.69	0.18	0.54	0.27	0.28	1.01	0.09
Avail Cap(c_a), veh/h	425	0	754	469	0	714	348	721	582	525	802	654
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.2	0.0	21.3	17.3	0.0	20.8	13.8	13.6	12.1	9.9	16.2	10.0
Incr Delay (d2), s/veh	0.3	0.0	0.9	0.4	0.0	2.8	0.5	2.9	1.1	0.4	34.6	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.0	0.0	2.3	2.8	0.0	5.7	0.6	8.8	3.2	2.0	35.1	1.0
LnGrp Delay(d),s/veh	19.5	0.0	22.2	17.8	0.0	23.6	14.2	16.5	13.2	10.3	50.8	10.2
LnGrp LOS	B		C	B		C	B	B	B	B	F	B
Approach Vol, veh/h		133			333			578			989	
Approach Delay, s/veh		21.3			21.5			15.5			43.5	
Approach LOS		C			C			B			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.1	26.0	7.8	13.5	5.1	28.0	5.4	15.9
Change Period (Y+Rc), s	3.5	6.0	3.5	6.0	3.5	6.0	3.5	6.0
Max Green Setting (Gmax), s	6.5	20.0	6.5	23.0	6.5	20.0	6.5	23.0
Max Q Clear Time (g_c+I1), s	4.2	10.5	5.1	4.5	2.6	24.0	3.1	8.4
Green Ext Time (p_c), s	0.1	5.7	0.0	1.7	0.0	0.0	0.0	1.5

Intersection Summary	
HCM 2010 Ctrl Delay	30.4
HCM 2010 LOS	C

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	50	30	30	600	280	50
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	100	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	53	32	32	632	295	53

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1016	321	347	0	-	0
Stage 1	321	-	-	-	-	-
Stage 2	695	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	264	720	1212	-	-	-
Stage 1	735	-	-	-	-	-
Stage 2	495	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	257	720	1212	-	-	-
Mov Cap-2 Maneuver	374	-	-	-	-	-
Stage 1	735	-	-	-	-	-
Stage 2	482	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	14.7	0.4	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1212	-	456	-	-
HCM Lane V/C Ratio	0.026	-	0.185	-	-
HCM Control Delay (s)	8.1	-	14.7	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.7	-	-

Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	40	30	30	410	820	40
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	100	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	42	32	32	432	863	42

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1379	884	905	0	-	0
Stage 1	884	-	-	-	-	-
Stage 2	495	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	159	344	752	-	-	-
Stage 1	404	-	-	-	-	-
Stage 2	613	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	152	344	752	-	-	-
Mov Cap-2 Maneuver	284	-	-	-	-	-
Stage 1	404	-	-	-	-	-
Stage 2	587	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	20.4	0.7	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	752	-	307	-	-
HCM Lane V/C Ratio	0.042	-	0.24	-	-
HCM Control Delay (s)	10	-	20.4	-	-
HCM Lane LOS	A	-	C	-	-
HCM 95th %tile Q(veh)	0.1	-	0.9	-	-

Intersection	
Int Delay, s/veh	2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	70	50	50	800	390	70
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	200	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	74	53	53	842	411	74

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1394	447	484	0	-	0
Stage 1	447	-	-	-	-	-
Stage 2	947	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	156	612	1079	-	-	-
Stage 1	644	-	-	-	-	-
Stage 2	377	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	148	612	1079	-	-	-
Mov Cap-2 Maneuver	270	-	-	-	-	-
Stage 1	644	-	-	-	-	-
Stage 2	358	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	20.8	0.5	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1079	-	352	-	-
HCM Lane V/C Ratio	0.049	-	0.359	-	-
HCM Control Delay (s)	8.5	-	20.8	-	-
HCM Lane LOS	A	-	C	-	-
HCM 95th %tile Q(veh)	0.2	-	1.6	-	-

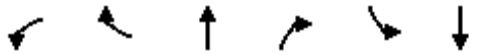
Intersection	
Int Delay, s/veh	2.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	60	40	40	550	1200	60
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	200	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	63	42	42	579	1263	63

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1958	1295	1326	0	-	0
Stage 1	1295	-	-	-	-	-
Stage 2	663	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	70	198	521	-	-	-
Stage 1	257	-	-	-	-	-
Stage 2	512	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	64	198	521	-	-	-
Mov Cap-2 Maneuver	178	-	-	-	-	-
Stage 1	257	-	-	-	-	-
Stage 2	471	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	47.4	0.8	0
HCM LOS	E		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	521	-	185	-	-
HCM Lane V/C Ratio	0.081	-	0.569	-	-
HCM Control Delay (s)	12.5	-	47.4	-	-
HCM Lane LOS	B	-	E	-	-
HCM 95th %tile Q(veh)	0.3	-	3	-	-



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	120	60	350	100	10	140
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1810	1900	1833	1900	1900	1980
Adj Flow Rate, veh/h	141	71	412	118	12	165
Adj No. of Lanes	1	1	1	0	1	1
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	5	0	3	3	0	1
Cap, veh/h	402	377	746	214	480	1254
Arrive On Green	0.23	0.23	0.54	0.54	0.05	0.63
Sat Flow, veh/h	1723	1615	1371	393	1810	1980
Grp Volume(v), veh/h	141	71	0	530	12	165
Grp Sat Flow(s),veh/h/ln	1723	1615	0	1763	1810	1980
Q Serve(g_s), s	6.1	3.2	0.0	17.6	0.2	3.0
Cycle Q Clear(g_c), s	6.1	3.2	0.0	17.6	0.2	3.0
Prop In Lane	1.00	1.00		0.22	1.00	
Lane Grp Cap(c), veh/h	402	377	0	960	480	1254
V/C Ratio(X)	0.35	0.19	0.00	0.55	0.03	0.13
Avail Cap(c_a), veh/h	402	377	0	960	480	1254
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.8	27.7	0.0	13.4	8.8	6.6
Incr Delay (d2), s/veh	2.4	1.1	0.0	2.3	0.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	5.8	2.8	0.0	14.1	0.2	3.0
LnGrp Delay(d),s/veh	31.2	28.8	0.0	15.6	8.9	6.8
LnGrp LOS	C	C		B	A	A
Approach Vol, veh/h	212		530			177
Approach Delay, s/veh	30.4		15.6			7.0
Approach LOS	C		B			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	8.0	55.0				63.0		27.0
Change Period (Y+Rc), s	3.5	6.0				6.0		6.0
Max Green Setting (Gmax), s	4.5	49.0				57.0		21.0
Max Q Clear Time (g_c+I1), s	2.2	19.6				5.0		8.1
Green Ext Time (p_c), s	0.0	4.5				4.8		0.5

Intersection Summary	
HCM 2010 Ctrl Delay	17.4
HCM 2010 LOS	B

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	230	20	200	200	70	470
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1881	1863	1900	1900	1961
Adj Flow Rate, veh/h	253	22	220	220	77	516
Adj No. of Lanes	1	1	1	0	1	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	1	2	2	0	2
Cap, veh/h	483	426	342	342	441	1046
Arrive On Green	0.27	0.27	0.40	0.40	0.08	0.53
Sat Flow, veh/h	1810	1599	856	856	1810	1961
Grp Volume(v), veh/h	253	22	0	440	77	516
Grp Sat Flow(s),veh/h/ln	1810	1599	0	1712	1810	1961
Q Serve(g_s), s	7.2	0.6	0.0	12.5	1.3	10.0
Cycle Q Clear(g_c), s	7.2	0.6	0.0	12.5	1.3	10.0
Prop In Lane	1.00	1.00		0.50	1.00	
Lane Grp Cap(c), veh/h	483	426	0	685	441	1046
V/C Ratio(X)	0.52	0.05	0.00	0.64	0.17	0.49
Avail Cap(c_a), veh/h	483	426	0	685	441	1046
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.8	16.4	0.0	14.5	9.5	8.9
Incr Delay (d2), s/veh	4.0	0.2	0.0	4.6	0.9	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	7.3	0.5	0.0	11.0	1.3	9.7
LnGrp Delay(d),s/veh	22.8	16.6	0.0	19.1	10.3	10.5
LnGrp LOS	C	B		B	B	B
Approach Vol, veh/h	275		440			593
Approach Delay, s/veh	22.3		19.1			10.5
Approach LOS	C		B			B

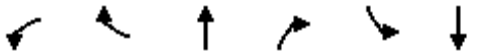
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	8.0	30.0				38.0		22.0
Change Period (Y+Rc), s	3.5	6.0				6.0		6.0
Max Green Setting (Gmax), s	4.5	24.0				32.0		16.0
Max Q Clear Time (g_c+I1), s	3.3	14.5				12.0		9.2
Green Ext Time (p_c), s	0.0	4.0				5.9		0.4

Intersection Summary	
HCM 2010 Ctrl Delay	15.9
HCM 2010 LOS	B

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	160	80	440	120	10	210
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1810	1900	1833	1900	1900	1980
Adj Flow Rate, veh/h	188	94	518	141	12	247
Adj No. of Lanes	1	1	1	0	1	1
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	5	0	3	3	0	1
Cap, veh/h	402	377	756	206	386	1254
Arrive On Green	0.23	0.23	0.54	0.54	0.05	0.63
Sat Flow, veh/h	1723	1615	1389	378	1810	1980
Grp Volume(v), veh/h	188	94	0	659	12	247
Grp Sat Flow(s),veh/h/ln	1723	1615	0	1767	1810	1980
Q Serve(g_s), s	8.4	4.3	0.0	24.4	0.2	4.7
Cycle Q Clear(g_c), s	8.4	4.3	0.0	24.4	0.2	4.7
Prop In Lane	1.00	1.00		0.21	1.00	
Lane Grp Cap(c), veh/h	402	377	0	962	386	1254
V/C Ratio(X)	0.47	0.25	0.00	0.69	0.03	0.20
Avail Cap(c_a), veh/h	402	377	0	962	386	1254
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.7	28.1	0.0	14.9	10.6	6.9
Incr Delay (d2), s/veh	3.9	1.6	0.0	4.0	0.1	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.5	2.1	0.0	12.8	0.1	2.7
LnGrp Delay(d),s/veh	33.6	29.7	0.0	18.9	10.7	7.3
LnGrp LOS	C	C		B	B	A
Approach Vol, veh/h	282		659			259
Approach Delay, s/veh	32.3		18.9			7.4
Approach LOS	C		B			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	8.0	55.0				63.0		27.0
Change Period (Y+Rc), s	3.5	6.0				6.0		6.0
Max Green Setting (Gmax), s	4.5	49.0				57.0		21.0
Max Q Clear Time (g_c+I1), s	2.2	26.4				6.7		10.4
Green Ext Time (p_c), s	0.0	6.0				6.9		0.6

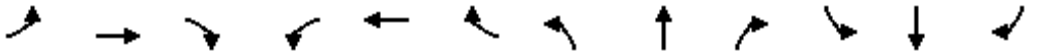
Intersection Summary	
HCM 2010 Ctrl Delay	19.5
HCM 2010 LOS	B



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	300	30	250	250	100	710
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1881	1863	1900	1900	1961
Adj Flow Rate, veh/h	330	33	275	275	110	780
Adj No. of Lanes	1	1	1	0	1	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	1	2	2	0	2
Cap, veh/h	483	426	342	342	357	1046
Arrive On Green	0.27	0.27	0.40	0.40	0.08	0.53
Sat Flow, veh/h	1810	1599	856	856	1810	1961
Grp Volume(v), veh/h	330	33	0	550	110	780
Grp Sat Flow(s),veh/h/ln	1810	1599	0	1712	1810	1961
Q Serve(g_s), s	9.8	0.9	0.0	17.0	1.9	18.5
Cycle Q Clear(g_c), s	9.8	0.9	0.0	17.0	1.9	18.5
Prop In Lane	1.00	1.00		0.50	1.00	
Lane Grp Cap(c), veh/h	483	426	0	685	357	1046
V/C Ratio(X)	0.68	0.08	0.00	0.80	0.31	0.75
Avail Cap(c_a), veh/h	483	426	0	685	357	1046
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.7	16.5	0.0	15.9	11.2	10.8
Incr Delay (d2), s/veh	7.7	0.4	0.0	9.7	2.2	4.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	9.9	0.8	0.0	14.9	2.0	16.6
LnGrp Delay(d),s/veh	27.4	16.8	0.0	25.6	13.4	15.7
LnGrp LOS	C	B		C	B	B
Approach Vol, veh/h	363		550			890
Approach Delay, s/veh	26.4		25.6			15.4
Approach LOS	C		C			B

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	8.0	30.0				38.0		22.0
Change Period (Y+Rc), s	3.5	6.0				6.0		6.0
Max Green Setting (Gmax), s	4.5	24.0				32.0		16.0
Max Q Clear Time (g_c+I1), s	3.9	19.0				20.5		11.8
Green Ext Time (p_c), s	0.0	3.3				6.5		0.5

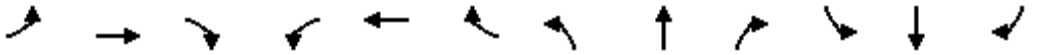
Intersection Summary	
HCM 2010 Ctrl Delay	20.7
HCM 2010 LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	10	10	10	170	230	60	140	360	150	10	150	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	2000	1900	1810	1892	1900	1900	1829	1900	1863	1882	1900
Adj Flow Rate, veh/h	11	11	11	189	256	67	156	400	167	11	167	11
Adj No. of Lanes	1	1	0	1	1	0	1	1	0	1	1	0
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
Percent Heavy Veh, %	0	0	0	5	0	0	0	3	3	2	1	1
Cap, veh/h	163	98	98	429	316	83	707	634	265	347	800	53
Arrive On Green	0.01	0.11	0.11	0.12	0.22	0.22	0.07	0.52	0.52	0.01	0.46	0.46
Sat Flow, veh/h	1810	919	919	1723	1447	379	1810	1227	512	1774	1747	115
Grp Volume(v), veh/h	11	0	22	189	0	323	156	0	567	11	0	178
Grp Sat Flow(s),veh/h/ln	1810	0	1838	1723	0	1825	1810	0	1739	1774	0	1862
Q Serve(g_s), s	0.4	0.0	0.8	7.0	0.0	12.8	3.2	0.0	17.9	0.3	0.0	4.4
Cycle Q Clear(g_c), s	0.4	0.0	0.8	7.0	0.0	12.8	3.2	0.0	17.9	0.3	0.0	4.4
Prop In Lane	1.00		0.50	1.00		0.21	1.00		0.29	1.00		0.06
Lane Grp Cap(c), veh/h	163	0	196	429	0	398	707	0	899	347	0	853
V/C Ratio(X)	0.07	0.00	0.11	0.44	0.00	0.81	0.22	0.00	0.63	0.03	0.00	0.21
Avail Cap(c_a), veh/h	254	0	649	482	0	812	763	0	899	437	0	853
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	30.3	0.0	30.9	24.0	0.0	28.4	8.7	0.0	13.2	12.1	0.0	12.4
Incr Delay (d2), s/veh	0.2	0.0	0.3	0.7	0.0	4.0	0.2	0.0	3.4	0.0	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.4	0.0	0.8	6.1	0.0	11.2	2.9	0.0	14.4	0.2	0.0	4.2
LnGrp Delay(d),s/veh	30.4	0.0	31.1	24.8	0.0	32.4	8.9	0.0	16.6	12.2	0.0	13.0
LnGrp LOS	C		C	C		C	A		B	B		B
Approach Vol, veh/h		33			512			723			189	
Approach Delay, s/veh		30.9			29.6			14.9			12.9	
Approach LOS		C			C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	4.1	45.5	12.7	14.1	8.6	41.0	4.1	22.7
Change Period (Y+Rc), s	3.5	6.0	3.5	6.0	3.5	6.0	3.5	6.0
Max Green Setting (Gmax), s	4.5	38.0	11.5	27.0	7.5	35.0	4.5	34.0
Max Q Clear Time (g_c+I1), s	2.3	19.9	9.0	2.8	5.2	6.4	2.4	14.8
Green Ext Time (p_c), s	0.0	4.4	0.1	2.0	0.1	5.0	0.0	1.8

Intersection Summary	
HCM 2010 Ctrl Delay	20.2
HCM 2010 LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	10	190	110	270	10	20	10	200	240	70	480	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1863	1887	1900	1900	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	11	211	122	300	11	22	11	222	267	78	533	11
Adj No. of Lanes	1	1	0	1	1	0	1	1	0	1	1	0
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
Percent Heavy Veh, %	0	0	0	2	0	0	0	2	2	2	2	2
Cap, veh/h	430	261	151	344	187	374	249	288	346	276	741	15
Arrive On Green	0.01	0.23	0.23	0.11	0.33	0.33	0.01	0.37	0.37	0.04	0.41	0.41
Sat Flow, veh/h	1810	1131	654	1774	562	1125	1810	771	928	1774	1819	38
Grp Volume(v), veh/h	11	0	333	300	0	33	11	0	489	78	0	544
Grp Sat Flow(s),veh/h/ln	1810	0	1785	1774	0	1687	1810	0	1699	1774	0	1857
Q Serve(g_s), s	0.4	0.0	13.7	8.5	0.0	1.0	0.3	0.0	19.7	2.0	0.0	19.1
Cycle Q Clear(g_c), s	0.4	0.0	13.7	8.5	0.0	1.0	0.3	0.0	19.7	2.0	0.0	19.1
Prop In Lane	1.00		0.37	1.00		0.67	1.00		0.55	1.00		0.02
Lane Grp Cap(c), veh/h	430	0	412	344	0	561	249	0	634	276	0	756
V/C Ratio(X)	0.03	0.00	0.81	0.87	0.00	0.06	0.04	0.00	0.77	0.28	0.00	0.72
Avail Cap(c_a), veh/h	566	0	872	344	0	889	339	0	634	303	0	756
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	22.6	0.0	28.3	22.8	0.0	17.7	16.7	0.0	21.5	16.3	0.0	19.3
Incr Delay (d2), s/veh	0.0	0.0	3.8	21.1	0.0	0.0	0.1	0.0	8.8	0.6	0.0	5.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.3	0.0	11.6	7.7	0.0	0.9	0.3	0.0	16.2	1.8	0.0	16.3
LnGrp Delay(d),s/veh	22.7	0.0	32.0	43.9	0.0	17.7	16.8	0.0	30.3	16.8	0.0	25.2
LnGrp LOS	C		C	D		B	B		C	B		C
Approach Vol, veh/h		344			333			500			622	
Approach Delay, s/veh		31.7			41.3			30.0			24.1	
Approach LOS		C			D			C			C	

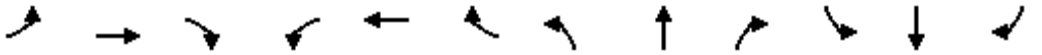
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.8	35.0	12.0	24.0	4.1	37.7	4.1	31.8
Change Period (Y+Rc), s	3.5	6.0	3.5	6.0	3.5	6.0	3.5	6.0
Max Green Setting (Gmax), s	4.5	29.0	8.5	38.0	4.5	29.0	6.5	41.0
Max Q Clear Time (g_c+I1), s	4.0	21.7	10.5	15.7	2.3	21.1	2.4	3.0
Green Ext Time (p_c), s	0.0	3.6	0.0	2.3	0.0	3.8	0.0	2.5

Intersection Summary	
HCM 2010 Ctrl Delay	30.4
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	10	10	10	230	370	80	230	450	190	10	220	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	2000	1900	1810	1893	1900	1900	1829	1900	1863	1882	1900
Adj Flow Rate, veh/h	11	11	11	256	411	89	256	500	211	11	244	11
Adj No. of Lanes	1	1	1	1	1	0	1	1	0	1	1	0
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
Percent Heavy Veh, %	0	0	0	5	0	0	0	3	3	2	1	1
Cap, veh/h	137	347	358	551	466	101	554	575	243	168	769	35
Arrive On Green	0.01	0.17	0.17	0.14	0.31	0.31	0.05	0.47	0.47	0.01	0.43	0.43
Sat Flow, veh/h	1810	2000	1615	1723	1509	327	1810	1222	516	1774	1787	81
Grp Volume(v), veh/h	11	11	11	256	0	500	256	0	711	11	0	255
Grp Sat Flow(s),veh/h/ln	1810	2000	1615	1723	0	1836	1810	0	1738	1774	0	1868
Q Serve(g_s), s	0.5	0.4	0.5	10.7	0.0	24.0	4.5	0.0	34.1	0.3	0.0	8.4
Cycle Q Clear(g_c), s	0.5	0.4	0.5	10.7	0.0	24.0	4.5	0.0	34.1	0.3	0.0	8.4
Prop In Lane	1.00		1.00	1.00		0.18	1.00		0.30	1.00		0.04
Lane Grp Cap(c), veh/h	137	347	358	551	0	567	554	0	818	168	0	804
V/C Ratio(X)	0.08	0.03	0.03	0.46	0.00	0.88	0.46	0.00	0.87	0.07	0.00	0.32
Avail Cap(c_a), veh/h	250	430	426	796	0	790	554	0	818	240	0	804
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	32.1	31.9	28.3	23.9	0.0	30.5	17.3	0.0	22.0	19.8	0.0	17.5
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.6	0.0	8.7	0.6	0.0	12.1	0.2	0.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.4	0.4	0.4	8.9	0.0	19.5	4.9	0.0	26.1	0.3	0.0	8.1
LnGrp Delay(d),s/veh	32.3	32.0	28.4	24.5	0.0	39.2	17.9	0.0	34.1	19.9	0.0	18.5
LnGrp LOS	C	C	C	C		D	B		C	B		B
Approach Vol, veh/h		33			756			967			266	
Approach Delay, s/veh		30.9			34.2			29.8			18.6	
Approach LOS		C			C			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	4.2	49.8	16.8	22.1	8.0	46.0	4.2	34.7
Change Period (Y+Rc), s	3.5	6.0	3.5	6.0	3.5	6.0	3.5	6.0
Max Green Setting (Gmax), s	4.5	40.0	26.5	20.0	4.5	40.0	6.5	40.0
Max Q Clear Time (g_c+I1), s	2.3	36.1	12.7	2.5	6.5	10.4	2.5	26.0
Green Ext Time (p_c), s	0.0	2.1	0.6	2.9	0.0	7.2	0.0	2.6

Intersection Summary	
HCM 2010 Ctrl Delay	30.0
HCM 2010 LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	10	300	180	360	10	30	40	260	310	100	720	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	2000	1900	1863	1886	1900	1900	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	11	333	200	400	11	33	44	289	344	111	800	11
Adj No. of Lanes	1	1	1	1	1	0	1	1	0	1	1	0
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
Percent Heavy Veh, %	0	0	0	2	0	0	0	2	2	2	2	2
Cap, veh/h	339	375	340	375	142	426	128	337	401	218	829	11
Arrive On Green	0.01	0.19	0.19	0.16	0.34	0.34	0.02	0.43	0.43	0.04	0.45	0.45
Sat Flow, veh/h	1810	2000	1615	1774	416	1248	1810	776	924	1774	1834	25
Grp Volume(v), veh/h	11	333	200	400	0	44	44	0	633	111	0	811
Grp Sat Flow(s),veh/h/ln	1810	2000	1615	1774	0	1664	1810	0	1700	1774	0	1859
Q Serve(g_s), s	0.5	17.6	12.1	17.5	0.0	1.9	1.5	0.0	36.4	3.8	0.0	45.9
Cycle Q Clear(g_c), s	0.5	17.6	12.1	17.5	0.0	1.9	1.5	0.0	36.4	3.8	0.0	45.9
Prop In Lane	1.00		1.00	1.00		0.75	1.00		0.54	1.00		0.01
Lane Grp Cap(c), veh/h	339	375	340	375	0	567	128	0	738	218	0	840
V/C Ratio(X)	0.03	0.89	0.59	1.07	0.00	0.08	0.34	0.00	0.86	0.51	0.00	0.96
Avail Cap(c_a), veh/h	383	406	366	375	0	567	161	0	738	218	0	840
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	35.3	42.9	38.5	30.3	0.0	24.1	25.9	0.0	27.6	22.9	0.0	28.8
Incr Delay (d2), s/veh	0.0	19.8	2.1	65.4	0.0	0.1	1.6	0.0	12.3	2.0	0.0	23.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.5	17.4	9.4	17.0	0.0	1.6	1.4	0.0	26.8	3.5	0.0	37.8
LnGrp Delay(d),s/veh	35.3	62.7	40.6	95.8	0.0	24.2	27.4	0.0	40.0	24.9	0.0	52.4
LnGrp LOS	D	E	D	F		C	C		D	C		D
Approach Vol, veh/h		544			444			677			922	
Approach Delay, s/veh		54.0			88.7			39.2			49.1	
Approach LOS		D			F			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.0	53.0	21.0	26.3	6.0	55.0	4.3	42.9
Change Period (Y+Rc), s	3.5	6.0	3.5	6.0	3.5	6.0	3.5	6.0
Max Green Setting (Gmax), s	4.5	47.0	17.5	22.0	4.5	47.0	3.5	36.0
Max Q Clear Time (g_c+I1), s	5.8	38.4	19.5	19.6	3.5	47.9	2.5	3.9
Green Ext Time (p_c), s	0.0	5.7	0.0	0.7	0.0	0.0	0.0	3.1

Intersection Summary	
HCM 2010 Ctrl Delay	54.3
HCM 2010 LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

Intersection	
Int Delay, s/veh	2.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	60	50	410	60	20	210
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	110	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	0	0	4	2	11	3
Mvmt Flow	69	57	471	69	23	241

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	758	471	0	0	471	0
Stage 1	471	-	-	-	-	-
Stage 2	287	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.21	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.299	-
Pot Cap-1 Maneuver	378	597	-	-	1045	-
Stage 1	632	-	-	-	-	-
Stage 2	766	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	370	597	-	-	1045	-
Mov Cap-2 Maneuver	479	-	-	-	-	-
Stage 1	632	-	-	-	-	-
Stage 2	749	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	14	0	0.7
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	526	1045	-
HCM Lane V/C Ratio	-	-	0.24	0.022	-
HCM Control Delay (s)	-	-	14	8.5	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.9	0.1	-

Intersection	
Int Delay, s/veh	1.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	80	20	370	80	50	600
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	110	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	2	0	5	2
Mvmt Flow	89	22	411	89	56	667

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1189	411	0	0	411	0
Stage 1	411	-	-	-	-	-
Stage 2	778	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.15	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.245	-
Pot Cap-1 Maneuver	210	645	-	-	1132	-
Stage 1	674	-	-	-	-	-
Stage 2	456	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	200	645	-	-	1132	-
Mov Cap-2 Maneuver	325	-	-	-	-	-
Stage 1	674	-	-	-	-	-
Stage 2	433	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	19.3	0	0.6
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	361	1132	-
HCM Lane V/C Ratio	-	-	0.308	0.049	-
HCM Control Delay (s)	-	-	19.3	8.3	-
HCM Lane LOS	-	-	C	A	-
HCM 95th %tile Q(veh)	-	-	1.3	0.2	-

Intersection	
Int Delay, s/veh	2.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	80	60	510	80	20	330
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	110	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	0	0	4	2	11	3
Mvmt Flow	92	69	586	92	23	379

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1011	586	0	0	586	0
Stage 1	586	-	-	-	-	-
Stage 2	425	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.21	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.299	-
Pot Cap-1 Maneuver	268	514	-	-	946	-
Stage 1	560	-	-	-	-	-
Stage 2	664	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	261	514	-	-	946	-
Mov Cap-2 Maneuver	392	-	-	-	-	-
Stage 1	560	-	-	-	-	-
Stage 2	648	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	18	0	0.5
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	436	946	-
HCM Lane V/C Ratio	-	-	0.369	0.024	-
HCM Control Delay (s)	-	-	18	8.9	-
HCM Lane LOS	-	-	C	A	-
HCM 95th %tile Q(veh)	-	-	1.7	0.1	-

Intersection	
Int Delay, s/veh	2.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	90	20	470	100	80	910
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	110	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	2	0	5	2
Mvmt Flow	100	22	522	111	89	1011

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1711	522	0	0	522	0
Stage 1	522	-	-	-	-	-
Stage 2	1189	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.15	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.245	-
Pot Cap-1 Maneuver	101	559	-	-	1029	-
Stage 1	599	-	-	-	-	-
Stage 2	292	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 92	559	-	-	1029	-
Mov Cap-2 Maneuver	203	-	-	-	-	-
Stage 1	599	-	-	-	-	-
Stage 2	267	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	37.1	0	0.7
HCM LOS	E		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	230	1029	-
HCM Lane V/C Ratio	-	-	0.531	0.086	-
HCM Control Delay (s)	-	-	37.1	8.8	-
HCM Lane LOS	-	-	E	A	-
HCM 95th %tile Q(veh)	-	-	2.8	0.3	-

Notes

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

Intersection	
Int Delay, s/veh	2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	60	50	580	60	20	240
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	110	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	4	2	11	3
Mvmt Flow	67	56	644	67	22	267

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	955	644	0	0	644	0
Stage 1	644	-	-	-	-	-
Stage 2	311	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.21	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.299	-
Pot Cap-1 Maneuver	289	476	-	-	899	-
Stage 1	527	-	-	-	-	-
Stage 2	748	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	282	476	-	-	899	-
Mov Cap-2 Maneuver	402	-	-	-	-	-
Stage 1	527	-	-	-	-	-
Stage 2	730	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	16.6	0	0.7
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	433	899	-
HCM Lane V/C Ratio	-	-	0.282	0.025	-
HCM Control Delay (s)	-	-	16.6	9.1	-
HCM Lane LOS	-	-	C	A	-
HCM 95th %tile Q(veh)	-	-	1.1	0.1	-

Intersection	
Int Delay, s/veh	2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	80	20	400	80	50	740
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	110	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	2	0	5	2
Mvmt Flow	89	22	444	89	56	822

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1377	444	0	0	444	0
Stage 1	444	-	-	-	-	-
Stage 2	933	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.15	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.245	-
Pot Cap-1 Maneuver	161	618	-	-	1100	-
Stage 1	651	-	-	-	-	-
Stage 2	386	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	153	618	-	-	1100	-
Mov Cap-2 Maneuver	276	-	-	-	-	-
Stage 1	651	-	-	-	-	-
Stage 2	366	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	23	0	0.5
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	310	1100	-
HCM Lane V/C Ratio	-	-	0.358	0.051	-
HCM Control Delay (s)	-	-	23	8.4	-
HCM Lane LOS	-	-	C	A	-
HCM 95th %tile Q(veh)	-	-	1.6	0.2	-

Intersection	
Int Delay, s/veh	2.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	80	60	780	80	20	310
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	110	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	4	2	11	3
Mvmt Flow	89	67	867	89	22	344

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1256	867	0	0	867	0
Stage 1	867	-	-	-	-	-
Stage 2	389	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.21	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.299	-
Pot Cap-1 Maneuver	191	355	-	-	740	-
Stage 1	415	-	-	-	-	-
Stage 2	689	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	185	355	-	-	740	-
Mov Cap-2 Maneuver	311	-	-	-	-	-
Stage 1	415	-	-	-	-	-
Stage 2	669	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	25.5	0	0.6
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	328	740	-
HCM Lane V/C Ratio	-	-	0.474	0.03	-
HCM Control Delay (s)	-	-	25.5	10	-
HCM Lane LOS	-	-	D	B	-
HCM 95th %tile Q(veh)	-	-	2.4	0.1	-

Intersection	
Int Delay, s/veh	2.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	90	20	510	100	60	950
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	110	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	2	0	5	2
Mvmt Flow	100	22	567	111	67	1056

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1756	567	0	0	567	0
Stage 1	567	-	-	-	-	-
Stage 2	1189	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.15	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.245	-
Pot Cap-1 Maneuver	~ 95	527	-	-	990	-
Stage 1	572	-	-	-	-	-
Stage 2	292	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 89	527	-	-	990	-
Mov Cap-2 Maneuver	202	-	-	-	-	-
Stage 1	572	-	-	-	-	-
Stage 2	272	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	37.7	0	0.5
HCM LOS	E		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	228	990	-
HCM Lane V/C Ratio	-	-	0.536	0.067	-
HCM Control Delay (s)	-	-	37.7	8.9	-
HCM Lane LOS	-	-	E	A	-
HCM 95th %tile Q(veh)	-	-	2.9	0.2	-

Notes

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

Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	50	30	20	410	250	20
Conflicting Peds, #/hr	0	1	1	0	0	1
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	100	-	-	85
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	2	0	6	4	1	7
Mvmt Flow	56	34	22	461	281	22

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	788	283	282	0	-	0
Stage 1	282	-	-	-	-	-
Stage 2	506	-	-	-	-	-
Critical Hdwy	6.42	6.2	4.16	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.3	2.254	-	-	-
Pot Cap-1 Maneuver	360	761	1258	-	-	-
Stage 1	766	-	-	-	-	-
Stage 2	606	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	353	760	1257	-	-	-
Mov Cap-2 Maneuver	461	-	-	-	-	-
Stage 1	765	-	-	-	-	-
Stage 2	595	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13	0.4	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1257	-	541	-	-
HCM Lane V/C Ratio	0.018	-	0.166	-	-
HCM Control Delay (s)	7.9	-	13	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.6	-	-

Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	40	40	40	400	610	70
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	100	-	-	85
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	9	0	3	1	2	0
Mvmt Flow	47	47	47	471	718	82

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1283	718	718	0	-	0
Stage 1	718	-	-	-	-	-
Stage 2	565	-	-	-	-	-
Critical Hdwy	6.49	6.2	4.13	-	-	-
Critical Hdwy Stg 1	5.49	-	-	-	-	-
Critical Hdwy Stg 2	5.49	-	-	-	-	-
Follow-up Hdwy	3.581	3.3	2.227	-	-	-
Pot Cap-1 Maneuver	176	432	878	-	-	-
Stage 1	471	-	-	-	-	-
Stage 2	555	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	167	432	878	-	-	-
Mov Cap-2 Maneuver	302	-	-	-	-	-
Stage 1	471	-	-	-	-	-
Stage 2	525	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	18.8	0.8	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	878	-	355	-	-
HCM Lane V/C Ratio	0.054	-	0.265	-	-
HCM Control Delay (s)	9.3	-	18.8	-	-
HCM Lane LOS	A	-	C	-	-
HCM 95th %tile Q(veh)	0.2	-	1	-	-

Intersection	
Int Delay, s/veh	1.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	60	40	30	490	390	20
Conflicting Peds, #/hr	0	1	1	0	0	1
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	100	-	-	85
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	2	0	6	4	1	7
Mvmt Flow	67	45	34	551	438	22

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1057	440	439	0	-	0
Stage 1	439	-	-	-	-	-
Stage 2	618	-	-	-	-	-
Critical Hdwy	6.42	6.2	4.16	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.3	2.254	-	-	-
Pot Cap-1 Maneuver	249	621	1100	-	-	-
Stage 1	650	-	-	-	-	-
Stage 2	538	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	241	620	1099	-	-	-
Mov Cap-2 Maneuver	372	-	-	-	-	-
Stage 1	649	-	-	-	-	-
Stage 2	521	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	15.9	0.5	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1099	-	443	-	-
HCM Lane V/C Ratio	0.031	-	0.254	-	-
HCM Control Delay (s)	8.4	-	15.9	-	-
HCM Lane LOS	A	-	C	-	-
HCM 95th %tile Q(veh)	0.1	-	1	-	-

Intersection	
Int Delay, s/veh	2.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	50	50	50	490	750	80
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	100	-	-	85
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	9	0	3	1	2	0
Mvmt Flow	59	59	59	576	882	94

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1576	882	882	0	-	0
Stage 1	882	-	-	-	-	-
Stage 2	694	-	-	-	-	-
Critical Hdwy	6.49	6.2	4.13	-	-	-
Critical Hdwy Stg 1	5.49	-	-	-	-	-
Critical Hdwy Stg 2	5.49	-	-	-	-	-
Follow-up Hdwy	3.581	3.3	2.227	-	-	-
Pot Cap-1 Maneuver	116	348	763	-	-	-
Stage 1	393	-	-	-	-	-
Stage 2	483	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	107	348	763	-	-	-
Mov Cap-2 Maneuver	239	-	-	-	-	-
Stage 1	393	-	-	-	-	-
Stage 2	446	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	26.5	0.9	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	763	-	283	-	-
HCM Lane V/C Ratio	0.077	-	0.416	-	-
HCM Control Delay (s)	10.1	-	26.5	-	-
HCM Lane LOS	B	-	D	-	-
HCM 95th %tile Q(veh)	0.2	-	1.9	-	-

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	50	30	20	580	280	20
Conflicting Peds, #/hr	0	1	1	0	0	1
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	100	-	-	85
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	0	6	4	1	7
Mvmt Flow	56	33	22	644	311	22

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1001	313	312	0	-	0
Stage 1	312	-	-	-	-	-
Stage 2	689	-	-	-	-	-
Critical Hdwy	6.42	6.2	4.16	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.3	2.254	-	-	-
Pot Cap-1 Maneuver	269	732	1226	-	-	-
Stage 1	742	-	-	-	-	-
Stage 2	498	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	264	731	1225	-	-	-
Mov Cap-2 Maneuver	381	-	-	-	-	-
Stage 1	741	-	-	-	-	-
Stage 2	489	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	14.6	0.3	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1225	-	464	-	-
HCM Lane V/C Ratio	0.018	-	0.192	-	-
HCM Control Delay (s)	8	-	14.6	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.7	-	-

Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	40	40	40	430	750	70
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	100	-	-	85
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	9	0	3	1	2	0
Mvmt Flow	44	44	44	478	833	78

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1400	833	833	0	-	0
Stage 1	833	-	-	-	-	-
Stage 2	567	-	-	-	-	-
Critical Hdwy	6.49	6.2	4.13	-	-	-
Critical Hdwy Stg 1	5.49	-	-	-	-	-
Critical Hdwy Stg 2	5.49	-	-	-	-	-
Follow-up Hdwy	3.581	3.3	2.227	-	-	-
Pot Cap-1 Maneuver	149	372	796	-	-	-
Stage 1	415	-	-	-	-	-
Stage 2	554	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	141	372	796	-	-	-
Mov Cap-2 Maneuver	274	-	-	-	-	-
Stage 1	415	-	-	-	-	-
Stage 2	523	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	20.8	0.8	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	796	-	316	-	-
HCM Lane V/C Ratio	0.056	-	0.281	-	-
HCM Control Delay (s)	9.8	-	20.8	-	-
HCM Lane LOS	A	-	C	-	-
HCM 95th %tile Q(veh)	0.2	-	1.1	-	-

Intersection	
Int Delay, s/veh	1.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	60	40	30	760	360	20
Conflicting Peds, #/hr	0	1	1	0	0	1
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	100	-	-	85
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	0	6	4	1	7
Mvmt Flow	67	44	33	844	400	22

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1312	402	401	0	-	0
Stage 1	401	-	-	-	-	-
Stage 2	911	-	-	-	-	-
Critical Hdwy	6.42	6.2	4.16	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.3	2.254	-	-	-
Pot Cap-1 Maneuver	175	653	1136	-	-	-
Stage 1	676	-	-	-	-	-
Stage 2	392	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	170	652	1135	-	-	-
Mov Cap-2 Maneuver	291	-	-	-	-	-
Stage 1	675	-	-	-	-	-
Stage 2	380	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	18.6	0.3	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1135	-	374	-	-
HCM Lane V/C Ratio	0.029	-	0.297	-	-
HCM Control Delay (s)	8.3	-	18.6	-	-
HCM Lane LOS	A	-	C	-	-
HCM 95th %tile Q(veh)	0.1	-	1.2	-	-

Intersection	
Int Delay, s/veh	2.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	50	50	50	530	960	80
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	100	-	-	85
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	9	0	3	1	2	0
Mvmt Flow	56	56	56	589	1067	89

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1767	1067	1067	0	-	0
Stage 1	1067	-	-	-	-	-
Stage 2	700	-	-	-	-	-
Critical Hdwy	6.49	6.2	4.13	-	-	-
Critical Hdwy Stg 1	5.49	-	-	-	-	-
Critical Hdwy Stg 2	5.49	-	-	-	-	-
Follow-up Hdwy	3.581	3.3	2.227	-	-	-
Pot Cap-1 Maneuver	88	272	649	-	-	-
Stage 1	321	-	-	-	-	-
Stage 2	480	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	80	272	649	-	-	-
Mov Cap-2 Maneuver	205	-	-	-	-	-
Stage 1	321	-	-	-	-	-
Stage 2	439	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	33.6	1	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	649	-	234	-	-
HCM Lane V/C Ratio	0.086	-	0.475	-	-
HCM Control Delay (s)	11.1	-	33.6	-	-
HCM Lane LOS	B	-	D	-	-
HCM 95th %tile Q(veh)	0.3	-	2.4	-	-

Intersection	
Intersection Delay, s/veh	8.9
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	10	170	10	0	10	130	20	0	10	20	30
Peak Hour Factor	0.92	0.89	0.89	0.89	0.92	0.89	0.89	0.89	0.92	0.89	0.89	0.89
Heavy Vehicles, %	2	0	0	0	2	0	1	0	2	0	0	0
Mvmt Flow	0	11	191	11	0	11	146	22	0	11	22	34
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	9.2	8.8	8.1
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	17%	5%	6%	56%
Vol Thru, %	33%	89%	81%	33%
Vol Right, %	50%	5%	12%	11%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	60	190	160	90
LT Vol	10	10	10	50
Through Vol	20	170	130	30
RT Vol	30	10	20	10
Lane Flow Rate	67	213	180	101
Geometry Grp	1	1	1	1
Degree of Util (X)	0.087	0.266	0.224	0.138
Departure Headway (Hd)	4.659	4.49	4.487	4.919
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	767	798	800	727
Service Time	2.702	2.523	2.52	2.96
HCM Lane V/C Ratio	0.087	0.267	0.225	0.139
HCM Control Delay	8.1	9.2	8.8	8.8
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.3	1.1	0.9	0.5

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	50	30	10
Peak Hour Factor	0.92	0.89	0.89	0.89
Heavy Vehicles, %	2	0	24	0
Mvmt Flow	0	56	34	11
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	8.8
HCM LOS	A

Lane

Intersection	
Intersection Delay, s/veh	12.9
Intersection LOS	B

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	10	270	20	0	50	280	70	0	20	40	50
Peak Hour Factor	0.92	0.94	0.94	0.94	0.92	0.94	0.94	0.94	0.92	0.94	0.94	0.94
Heavy Vehicles, %	2	0	0	0	2	0	1	0	2	0	0	0
Mvmt Flow	0	11	287	21	0	53	298	74	0	21	43	53
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	12.4	14.7	10.1
HCM LOS	B	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	18%	3%	12%	60%
Vol Thru, %	36%	90%	70%	30%
Vol Right, %	45%	7%	17%	10%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	110	300	400	100
LT Vol	20	10	50	60
Through Vol	40	270	280	30
RT Vol	50	20	70	10
Lane Flow Rate	117	319	426	106
Geometry Grp	1	1	1	1
Degree of Util (X)	0.187	0.454	0.584	0.179
Departure Headway (Hd)	5.738	5.122	4.944	6.051
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	624	702	728	591
Service Time	3.786	3.159	2.978	4.101
HCM Lane V/C Ratio	0.188	0.454	0.585	0.179
HCM Control Delay	10.1	12.4	14.7	10.4
HCM Lane LOS	B	B	B	B
HCM 95th-tile Q	0.7	2.4	3.8	0.6

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	60	30	10
Peak Hour Factor	0.92	0.94	0.94	0.94
Heavy Vehicles, %	2	0	24	0
Mvmt Flow	0	64	32	11
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	10.4
HCM LOS	B

Lane

Intersection	
Intersection Delay, s/veh	9.9
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	10	220	10	0	10	160	30	0	20	30	40
Peak Hour Factor	0.92	0.89	0.89	0.89	0.92	0.89	0.89	0.89	0.92	0.89	0.89	0.89
Heavy Vehicles, %	2	0	0	0	2	0	1	0	2	0	0	0
Mvmt Flow	0	11	247	11	0	11	180	34	0	22	34	45
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	10.5	9.8	9
HCM LOS	B	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	22%	4%	5%	58%
Vol Thru, %	33%	92%	80%	33%
Vol Right, %	44%	4%	15%	8%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	90	240	200	120
LT Vol	20	10	10	70
Through Vol	30	220	160	40
RT Vol	40	10	30	10
Lane Flow Rate	101	270	225	135
Geometry Grp	1	1	1	1
Degree of Util (X)	0.141	0.356	0.296	0.197
Departure Headway (Hd)	5.03	4.756	4.749	5.259
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	705	750	751	676
Service Time	3.12	2.824	2.821	3.344
HCM Lane V/C Ratio	0.143	0.36	0.3	0.2
HCM Control Delay	9	10.5	9.8	9.7
HCM Lane LOS	A	B	A	A
HCM 95th-tile Q	0.5	1.6	1.2	0.7

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	70	40	10
Peak Hour Factor	0.92	0.89	0.89	0.89
Heavy Vehicles, %	2	0	24	0
Mvmt Flow	0	79	45	11
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	9.7
HCM LOS	A

Lane

Intersection	
Intersection Delay, s/veh	19.9
Intersection LOS	C

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	10	350	20	0	60	350	90	0	20	50	60
Peak Hour Factor	0.92	0.94	0.94	0.94	0.92	0.94	0.94	0.94	0.92	0.94	0.94	0.94
Heavy Vehicles, %	2	0	0	0	2	0	1	0	2	0	0	0
Mvmt Flow	0	11	372	21	0	64	372	96	0	21	53	64
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	17.7	25.6	11.7
HCM LOS	C	D	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	15%	3%	12%	67%
Vol Thru, %	38%	92%	70%	25%
Vol Right, %	46%	5%	18%	8%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	130	380	500	120
LT Vol	20	10	60	80
Through Vol	50	350	350	30
RT Vol	60	20	90	10
Lane Flow Rate	138	404	532	128
Geometry Grp	1	1	1	1
Degree of Util (X)	0.251	0.626	0.789	0.244
Departure Headway (Hd)	6.541	5.675	5.34	6.893
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	552	639	670	523
Service Time	4.549	3.675	3.436	4.901
HCM Lane V/C Ratio	0.25	0.632	0.794	0.245
HCM Control Delay	11.7	17.7	25.6	12.1
HCM Lane LOS	B	C	D	B
HCM 95th-tile Q	1	4.4	7.8	0.9

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	80	30	10
Peak Hour Factor	0.92	0.94	0.94	0.94
Heavy Vehicles, %	2	0	24	0
Mvmt Flow	0	85	32	11
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	12.1
HCM LOS	B

Lane

Intersection	
Intersection Delay, s/veh	8.9
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	10	170	10	0	20	130	20	0	10	20	40
Peak Hour Factor	0.92	0.89	0.89	0.89	0.92	0.89	0.89	0.89	0.92	0.89	0.89	0.89
Heavy Vehicles, %	2	0	0	0	2	0	1	0	2	0	0	0
Mvmt Flow	0	11	191	11	0	22	146	22	0	11	22	45
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	9.2	9	8.2
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	14%	5%	12%	56%
Vol Thru, %	29%	89%	76%	33%
Vol Right, %	57%	5%	12%	11%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	70	190	170	90
LT Vol	10	10	20	50
Through Vol	20	170	130	30
RT Vol	40	10	20	10
Lane Flow Rate	79	213	191	101
Geometry Grp	1	1	1	1
Degree of Util (X)	0.101	0.269	0.24	0.139
Departure Headway (Hd)	4.644	4.532	4.532	4.965
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	768	792	791	720
Service Time	2.691	2.568	2.569	3.011
HCM Lane V/C Ratio	0.103	0.269	0.241	0.14
HCM Control Delay	8.2	9.2	9	8.8
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.3	1.1	0.9	0.5

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	50	30	10
Peak Hour Factor	0.92	0.89	0.89	0.89
Heavy Vehicles, %	2	0	24	0
Mvmt Flow	0	56	34	11
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	8.8
HCM LOS	A

Lane

Intersection	
Intersection Delay, s/veh	13.3
Intersection LOS	B

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	10	270	20	0	60	280	70	0	20	40	60
Peak Hour Factor	0.92	0.94	0.94	0.94	0.92	0.94	0.94	0.94	0.92	0.94	0.94	0.94
Heavy Vehicles, %	2	0	0	0	2	0	1	0	2	0	0	0
Mvmt Flow	0	11	287	21	0	64	298	74	0	21	43	64
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	12.6	15.4	10.3
HCM LOS	B	C	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	17%	3%	15%	60%
Vol Thru, %	33%	90%	68%	30%
Vol Right, %	50%	7%	17%	10%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	120	300	410	100
LT Vol	20	10	60	60
Through Vol	40	270	280	30
RT Vol	60	20	70	10
Lane Flow Rate	128	319	436	106
Geometry Grp	1	1	1	1
Degree of Util (X)	0.204	0.459	0.605	0.181
Departure Headway (Hd)	5.751	5.181	4.994	6.12
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	622	696	724	585
Service Time	3.805	3.222	3.031	4.174
HCM Lane V/C Ratio	0.206	0.458	0.602	0.181
HCM Control Delay	10.3	12.6	15.4	10.5
HCM Lane LOS	B	B	C	B
HCM 95th-tile Q	0.8	2.4	4.1	0.7

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	60	30	10
Peak Hour Factor	0.92	0.94	0.94	0.94
Heavy Vehicles, %	2	0	24	0
Mvmt Flow	0	64	32	11
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	10.5
HCM LOS	B

Lane

Intersection	
Intersection Delay, s/veh	10.1
Intersection LOS	B

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	10	220	10	0	20	160	30	0	20	30	50
Peak Hour Factor	0.92	0.89	0.89	0.89	0.92	0.89	0.89	0.89	0.92	0.89	0.89	0.89
Heavy Vehicles, %	2	0	0	0	2	0	1	0	2	0	0	0
Mvmt Flow	0	11	247	11	0	22	180	34	0	22	34	56
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	10.6	10.1	9.1
HCM LOS	B	B	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	20%	4%	10%	58%
Vol Thru, %	30%	92%	76%	33%
Vol Right, %	50%	4%	14%	8%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	100	240	210	120
LT Vol	20	10	20	70
Through Vol	30	220	160	40
RT Vol	50	10	30	10
Lane Flow Rate	112	270	236	135
Geometry Grp	1	1	1	1
Degree of Util (X)	0.157	0.36	0.314	0.199
Departure Headway (Hd)	5.026	4.802	4.795	5.309
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	704	742	741	669
Service Time	3.125	2.879	2.875	3.404
HCM Lane V/C Ratio	0.159	0.364	0.318	0.202
HCM Control Delay	9.1	10.6	10.1	9.7
HCM Lane LOS	A	B	B	A
HCM 95th-tile Q	0.6	1.6	1.3	0.7

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	70	40	10
Peak Hour Factor	0.92	0.89	0.89	0.89
Heavy Vehicles, %	2	0	24	0
Mvmt Flow	0	79	45	11
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	9.7
HCM LOS	A

Lane

Intersection	
Intersection Delay, s/veh	21.2
Intersection LOS	C

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	10	350	20	0	70	350	90	0	20	50	70
Peak Hour Factor	0.92	0.94	0.94	0.94	0.92	0.94	0.94	0.94	0.92	0.94	0.94	0.94
Heavy Vehicles, %	2	0	0	0	2	0	1	0	2	0	0	0
Mvmt Flow	0	11	372	21	0	74	372	96	0	21	53	74
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	18.2	28	12
HCM LOS	C	D	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	14%	3%	14%	67%
Vol Thru, %	36%	92%	69%	25%
Vol Right, %	50%	5%	18%	8%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	140	380	510	120
LT Vol	20	10	70	80
Through Vol	50	350	350	30
RT Vol	70	20	90	10
Lane Flow Rate	149	404	543	128
Geometry Grp	1	1	1	1
Degree of Util (X)	0.272	0.634	0.814	0.248
Departure Headway (Hd)	6.579	5.761	5.506	6.991
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	548	631	662	516
Service Time	4.589	3.761	3.506	5
HCM Lane V/C Ratio	0.272	0.64	0.82	0.248
HCM Control Delay	12	18.2	28	12.3
HCM Lane LOS	B	C	D	B
HCM 95th-tile Q	1.1	4.5	8.4	1

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	80	30	10
Peak Hour Factor	0.92	0.94	0.94	0.94
Heavy Vehicles, %	2	0	24	0
Mvmt Flow	0	85	32	11
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	12.3
HCM LOS	B

Lane

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	10	540	10	20	880	30	10	20	60	20	20	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1839	1900	1610	1864	1900	1900	1900	1900	1900	1848	1900
Adj Flow Rate, veh/h	11	614	11	23	1000	34	11	23	68	23	23	11
Adj No. of Lanes	1	2	0	1	2	0	1	1	0	0	1	0
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
Percent Heavy Veh, %	0	3	3	18	2	2	0	0	0	7	7	7
Cap, veh/h	435	2530	45	556	2547	87	204	45	132	81	46	18
Arrive On Green	0.01	0.72	0.72	0.02	0.73	0.73	0.01	0.11	0.11	0.06	0.06	0.06
Sat Flow, veh/h	1810	3511	63	1533	3495	119	1810	424	1254	500	773	304
Grp Volume(v), veh/h	11	305	320	23	507	527	11	0	91	57	0	0
Grp Sat Flow(s),veh/h/ln	1810	1747	1827	1533	1771	1843	1810	0	1679	1578	0	0
Q Serve(g_s), s	0.2	5.9	5.9	0.4	10.9	10.9	0.6	0.0	5.1	2.3	0.0	0.0
Cycle Q Clear(g_c), s	0.2	5.9	5.9	0.4	10.9	10.9	0.6	0.0	5.1	3.4	0.0	0.0
Prop In Lane	1.00		0.03	1.00		0.06	1.00		0.75	0.40		0.19
Lane Grp Cap(c), veh/h	435	1259	1316	556	1291	1343	204	0	177	145	0	0
V/C Ratio(X)	0.03	0.24	0.24	0.04	0.39	0.39	0.05	0.00	0.51	0.39	0.00	0.00
Avail Cap(c_a), veh/h	497	1259	1316	596	1291	1343	266	0	487	375	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	4.2	4.7	4.7	3.6	5.1	5.1	41.6	0.0	42.3	45.7	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.5	0.4	0.0	0.9	0.9	0.1	0.0	2.3	1.7	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	3.0	3.1	0.2	5.5	5.7	0.3	0.0	2.5	1.6	0.0	0.0
LnGrp Delay(d),s/veh	4.2	5.2	5.2	3.7	6.0	6.0	41.7	0.0	44.6	47.5	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	D		D	D		
Approach Vol, veh/h		636			1057			102			57	
Approach Delay, s/veh		5.2			6.0			44.3			47.5	
Approach LOS		A			A			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s		16.6	5.4	78.1	4.6	12.0	4.6	78.9
Change Period (Y+Rc), s		6.0	3.5	6.0	3.5	6.0	3.5	6.0
Max Green Setting (Gmax), s		29.0	4.5	51.0	4.5	21.0	4.5	51.0
Max Q Clear Time (g_c+I1), s		7.1	2.4	7.9	2.6	5.4	2.2	12.9
Green Ext Time (p_c), s		0.8	0.0	13.9	0.0	0.7	0.0	13.4

Intersection Summary	
HCM 2010 Ctrl Delay	9.1
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	20	930	30	100	810	50	30	50	90	30	50	20
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1882	1900	1900	1882	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	21	959	31	103	835	52	31	52	93	31	52	21
Adj No. of Lanes	1	2	0	1	2	0	1	1	0	0	1	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	1	1	0	1	1	0	0	0	0	0	0
Cap, veh/h	513	2224	72	438	2231	139	260	96	172	86	91	32
Arrive On Green	0.02	0.63	0.63	0.08	1.00	1.00	0.02	0.16	0.16	0.09	0.09	0.09
Sat Flow, veh/h	1810	3532	114	1810	3420	213	1810	612	1095	361	963	335
Grp Volume(v), veh/h	21	485	505	103	437	450	31	0	145	104	0	0
Grp Sat Flow(s),veh/h/ln	1810	1788	1859	1810	1788	1844	1810	0	1707	1659	0	0
Q Serve(g_s), s	0.4	12.4	12.4	1.8	0.0	0.0	1.3	0.0	7.0	3.3	0.0	0.0
Cycle Q Clear(g_c), s	0.4	12.4	12.4	1.8	0.0	0.0	1.3	0.0	7.0	5.3	0.0	0.0
Prop In Lane	1.00		0.06	1.00		0.12	1.00		0.64	0.30		0.20
Lane Grp Cap(c), veh/h	513	1125	1170	438	1167	1203	260	0	268	208	0	0
V/C Ratio(X)	0.04	0.43	0.43	0.24	0.37	0.37	0.12	0.00	0.54	0.50	0.00	0.00
Avail Cap(c_a), veh/h	571	1125	1170	495	1167	1203	308	0	550	431	0	0
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	5.7	8.5	8.5	5.9	0.0	0.0	33.8	0.0	34.9	39.2	0.0	0.0
Incr Delay (d2), s/veh	0.0	1.2	1.2	0.3	0.9	0.9	0.2	0.0	1.7	1.8	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	6.4	6.7	0.9	0.3	0.3	0.7	0.0	3.4	2.6	0.0	0.0
LnGrp Delay(d),s/veh	5.7	9.7	9.6	6.1	0.9	0.9	34.0	0.0	36.6	41.1	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	C		D	D		
Approach Vol, veh/h		1011			990			176			104	
Approach Delay, s/veh		9.6			1.4			36.2			41.1	
Approach LOS		A			A			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s		20.1	7.2	62.7	5.7	14.5	5.1	64.7
Change Period (Y+Rc), s		6.0	3.5	6.0	3.5	6.0	3.5	6.0
Max Green Setting (Gmax), s		29.0	6.5	39.0	4.5	21.0	4.5	41.0
Max Q Clear Time (g_c+I1), s		9.0	3.8	14.4	3.3	7.3	2.4	2.0
Green Ext Time (p_c), s		1.4	0.0	13.1	0.0	1.2	0.0	16.2

Intersection Summary	
HCM 2010 Ctrl Delay	9.5
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	10	710	10	30	1090	30	20	30	80	20	30	20
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1841	1900	1610	1864	1900	1900	1900	1900	1900	1845	1900
Adj Flow Rate, veh/h	11	807	11	34	1239	34	23	34	91	23	34	23
Adj No. of Lanes	1	2	0	1	2	0	1	1	0	0	1	0
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
Percent Heavy Veh, %	0	3	3	18	2	2	0	0	0	7	7	7
Cap, veh/h	331	2437	33	454	2478	68	225	60	160	72	62	35
Arrive On Green	0.01	0.69	0.69	0.02	0.70	0.70	0.02	0.13	0.13	0.08	0.08	0.08
Sat Flow, veh/h	1810	3531	48	1533	3520	97	1810	458	1226	330	815	462
Grp Volume(v), veh/h	11	400	418	34	623	650	23	0	125	80	0	0
Grp Sat Flow(s),veh/h/ln	1810	1749	1831	1533	1771	1847	1810	0	1684	1606	0	0
Q Serve(g_s), s	0.2	9.2	9.2	0.6	16.1	16.1	1.1	0.0	7.0	2.7	0.0	0.0
Cycle Q Clear(g_c), s	0.2	9.2	9.2	0.6	16.1	16.1	1.1	0.0	7.0	4.7	0.0	0.0
Prop In Lane	1.00		0.03	1.00		0.05	1.00		0.73	0.29		0.29
Lane Grp Cap(c), veh/h	331	1207	1263	454	1246	1300	225	0	220	169	0	0
V/C Ratio(X)	0.03	0.33	0.33	0.07	0.50	0.50	0.10	0.00	0.57	0.47	0.00	0.00
Avail Cap(c_a), veh/h	393	1207	1263	485	1246	1300	272	0	488	377	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	5.6	6.2	6.2	4.6	6.8	6.8	39.6	0.0	40.8	44.7	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.7	0.7	0.1	1.4	1.4	0.2	0.0	2.3	2.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	4.6	4.8	0.3	8.3	8.6	0.6	0.0	3.4	2.3	0.0	0.0
LnGrp Delay(d),s/veh	5.7	7.0	6.9	4.7	8.2	8.1	39.8	0.0	43.1	46.8	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	D		D	D		
Approach Vol, veh/h		829			1307			148			80	
Approach Delay, s/veh		6.9			8.1			42.6			46.8	
Approach LOS		A			A			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s		19.1	5.9	75.0	5.4	13.7	4.6	76.4
Change Period (Y+Rc), s		6.0	3.5	6.0	3.5	6.0	3.5	6.0
Max Green Setting (Gmax), s		29.0	4.5	51.0	4.5	21.0	4.5	51.0
Max Q Clear Time (g_c+I1), s		9.0	2.6	11.2	3.1	6.7	2.2	18.1
Green Ext Time (p_c), s		1.1	0.0	19.5	0.0	1.0	0.0	17.8

Intersection Summary	
HCM 2010 Ctrl Delay	11.1
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	20	1220	30	120	1000	70	30	60	120	40	70	20
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1882	1900	1900	1882	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	21	1258	31	124	1031	72	31	62	124	41	72	21
Adj No. of Lanes	1	2	0	1	2	0	1	1	0	0	1	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	1	1	0	1	1	0	0	0	0	0	0
Cap, veh/h	422	2122	52	327	2116	148	274	105	210	94	118	30
Arrive On Green	0.02	0.60	0.60	0.09	1.00	1.00	0.02	0.19	0.19	0.12	0.12	0.12
Sat Flow, veh/h	1810	3564	88	1810	3392	237	1810	567	1133	338	962	242
Grp Volume(v), veh/h	21	631	658	124	544	559	31	0	186	134	0	0
Grp Sat Flow(s),veh/h/ln	1810	1788	1864	1810	1788	1840	1810	0	1700	1542	0	0
Q Serve(g_s), s	0.4	19.9	19.9	2.4	0.0	0.0	1.3	0.0	9.0	4.3	0.0	0.0
Cycle Q Clear(g_c), s	0.4	19.9	19.9	2.4	0.0	0.0	1.3	0.0	9.0	7.6	0.0	0.0
Prop In Lane	1.00		0.05	1.00		0.13	1.00		0.67	0.31		0.16
Lane Grp Cap(c), veh/h	422	1064	1110	327	1116	1148	274	0	316	242	0	0
V/C Ratio(X)	0.05	0.59	0.59	0.38	0.49	0.49	0.11	0.00	0.59	0.55	0.00	0.00
Avail Cap(c_a), veh/h	479	1064	1110	374	1116	1148	321	0	548	417	0	0
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	6.8	11.4	11.4	8.7	0.0	0.0	31.6	0.0	33.5	37.9	0.0	0.0
Incr Delay (d2), s/veh	0.0	2.4	2.3	0.7	1.5	1.5	0.2	0.0	1.8	2.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	10.4	10.8	1.2	0.5	0.5	0.7	0.0	4.4	3.3	0.0	0.0
LnGrp Delay(d),s/veh	6.8	13.8	13.7	9.4	1.5	1.5	31.8	0.0	35.3	39.9	0.0	0.0
LnGrp LOS	A	B	B	A	A	A	C		D	D		
Approach Vol, veh/h		1310			1227			217			134	
Approach Delay, s/veh		13.7			2.3			34.8			39.9	
Approach LOS		B			A			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s		22.7	7.7	59.6	5.7	17.1	5.1	62.2
Change Period (Y+Rc), s		6.0	3.5	6.0	3.5	6.0	3.5	6.0
Max Green Setting (Gmax), s		29.0	6.5	39.0	4.5	21.0	4.5	41.0
Max Q Clear Time (g_c+I1), s		11.0	4.4	21.9	3.3	9.6	2.4	2.0
Green Ext Time (p_c), s		1.8	0.1	13.1	0.0	1.4	0.0	23.3

Intersection Summary	
HCM 2010 Ctrl Delay	11.6
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	30	540	10	20	880	60	10	20	60	30	20	20
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1839	1900	1610	1865	1900	1900	1900	1900	1900	1863	1900
Adj Flow Rate, veh/h	34	614	11	23	1000	68	11	23	68	34	23	23
Adj No. of Lanes	1	2	0	1	2	0	1	1	0	0	1	0
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
Percent Heavy Veh, %	0	3	3	18	2	2	0	0	0	7	7	7
Cap, veh/h	423	2473	44	543	2353	160	214	52	153	92	44	34
Arrive On Green	0.02	0.70	0.70	0.02	0.70	0.70	0.01	0.12	0.12	0.08	0.08	0.08
Sat Flow, veh/h	1810	3511	63	1533	3367	229	1810	424	1254	530	578	447
Grp Volume(v), veh/h	34	305	320	23	526	542	11	0	91	80	0	0
Grp Sat Flow(s),veh/h/ln	1810	1747	1827	1533	1772	1824	1810	0	1679	1554	0	0
Q Serve(g_s), s	0.5	6.3	6.3	0.4	12.7	12.7	0.5	0.0	5.0	3.6	0.0	0.0
Cycle Q Clear(g_c), s	0.5	6.3	6.3	0.4	12.7	12.7	0.5	0.0	5.0	4.9	0.0	0.0
Prop In Lane	1.00		0.03	1.00		0.13	1.00		0.75	0.42		0.29
Lane Grp Cap(c), veh/h	423	1231	1287	543	1238	1275	214	0	204	170	0	0
V/C Ratio(X)	0.08	0.25	0.25	0.04	0.42	0.42	0.05	0.00	0.45	0.47	0.00	0.00
Avail Cap(c_a), veh/h	460	1231	1287	583	1238	1275	276	0	487	372	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	4.8	5.3	5.3	4.2	6.4	6.4	40.1	0.0	40.8	44.9	0.0	0.0
Incr Delay (d2), s/veh	0.1	0.5	0.5	0.0	1.1	1.0	0.1	0.0	1.5	2.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	3.1	3.3	0.2	6.5	6.7	0.3	0.0	2.4	2.3	0.0	0.0
LnGrp Delay(d),s/veh	4.8	5.8	5.8	4.2	7.5	7.5	40.2	0.0	42.3	46.9	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	D		D	D		
Approach Vol, veh/h		659			1091			102			80	
Approach Delay, s/veh		5.7			7.4			42.1			46.9	
Approach LOS		A			A			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s		18.2	5.4	76.4	4.6	13.6	5.9	75.9
Change Period (Y+Rc), s		6.0	3.5	6.0	3.5	6.0	3.5	6.0
Max Green Setting (Gmax), s		29.0	4.5	51.0	4.5	21.0	4.5	51.0
Max Q Clear Time (g_c+I1), s		7.0	2.4	8.3	2.5	6.9	2.5	14.7
Green Ext Time (p_c), s		0.9	0.0	14.4	0.0	0.8	0.0	13.7

Intersection Summary	
HCM 2010 Ctrl Delay	10.3
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	30	930	30	100	810	60	30	50	90	50	50	40
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1882	1900	1900	1882	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	31	959	31	103	835	62	31	52	93	52	52	41
Adj No. of Lanes	1	2	0	1	2	0	1	1	0	0	1	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	1	1	0	1	1	0	0	0	0	0	0
Cap, veh/h	502	2122	69	416	2086	155	277	114	203	110	85	55
Arrive On Green	0.02	0.60	0.60	0.08	1.00	1.00	0.02	0.19	0.19	0.12	0.12	0.12
Sat Flow, veh/h	1810	3532	114	1810	3376	251	1810	612	1095	453	689	450
Grp Volume(v), veh/h	31	485	505	103	442	455	31	0	145	145	0	0
Grp Sat Flow(s),veh/h/ln	1810	1788	1859	1810	1788	1838	1810	0	1707	1592	0	0
Q Serve(g_s), s	0.6	13.4	13.4	2.0	0.0	0.0	1.3	0.0	6.8	5.8	0.0	0.0
Cycle Q Clear(g_c), s	0.6	13.4	13.4	2.0	0.0	0.0	1.3	0.0	6.8	7.8	0.0	0.0
Prop In Lane	1.00		0.06	1.00		0.14	1.00		0.64	0.36		0.28
Lane Grp Cap(c), veh/h	502	1074	1116	416	1105	1136	277	0	317	250	0	0
V/C Ratio(X)	0.06	0.45	0.45	0.25	0.40	0.40	0.11	0.00	0.46	0.58	0.00	0.00
Avail Cap(c_a), veh/h	549	1074	1116	472	1105	1136	324	0	550	420	0	0
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	6.4	9.8	9.8	7.0	0.0	0.0	31.6	0.0	32.6	37.9	0.0	0.0
Incr Delay (d2), s/veh	0.1	1.4	1.3	0.3	1.1	1.1	0.2	0.0	1.0	2.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	7.0	7.3	1.0	0.3	0.3	0.7	0.0	3.3	3.6	0.0	0.0
LnGrp Delay(d),s/veh	6.5	11.2	11.2	7.3	1.1	1.1	31.8	0.0	33.6	40.0	0.0	0.0
LnGrp LOS	A	B	B	A	A	A	C		C	D		
Approach Vol, veh/h		1021			1000			176			145	
Approach Delay, s/veh		11.1			1.7			33.3			40.0	
Approach LOS		B			A			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s		22.7	7.2	60.1	5.7	17.1	5.7	61.6
Change Period (Y+Rc), s		6.0	3.5	6.0	3.5	6.0	3.5	6.0
Max Green Setting (Gmax), s		29.0	6.5	39.0	4.5	21.0	4.5	41.0
Max Q Clear Time (g_c+I1), s		8.8	4.0	15.4	3.3	9.8	2.6	2.0
Green Ext Time (p_c), s		1.7	0.0	12.9	0.0	1.3	0.0	16.3

Intersection Summary	
HCM 2010 Ctrl Delay	10.5
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	30	710	10	30	1090	60	20	30	80	40	30	30
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1841	1900	1610	1865	1900	1900	1900	1900	1900	1861	1900
Adj Flow Rate, veh/h	34	807	11	34	1239	68	23	34	91	45	34	34
Adj No. of Lanes	1	2	0	1	2	0	1	1	0	0	1	0
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
Percent Heavy Veh, %	0	3	3	18	2	2	0	0	0	7	7	7
Cap, veh/h	320	2353	32	436	2276	125	242	71	189	100	59	47
Arrive On Green	0.02	0.67	0.67	0.02	0.67	0.67	0.02	0.15	0.15	0.10	0.10	0.10
Sat Flow, veh/h	1810	3531	48	1533	3415	187	1810	458	1226	493	586	464
Grp Volume(v), veh/h	34	400	418	34	642	665	23	0	125	113	0	0
Grp Sat Flow(s),veh/h/ln	1810	1749	1831	1533	1771	1831	1810	0	1684	1543	0	0
Q Serve(g_s), s	0.6	9.9	9.9	0.7	19.0	19.0	1.1	0.0	6.8	5.3	0.0	0.0
Cycle Q Clear(g_c), s	0.6	9.9	9.9	0.7	19.0	19.0	1.1	0.0	6.8	7.0	0.0	0.0
Prop In Lane	1.00		0.03	1.00		0.10	1.00		0.73	0.40		0.30
Lane Grp Cap(c), veh/h	320	1165	1220	436	1180	1220	242	0	260	205	0	0
V/C Ratio(X)	0.11	0.34	0.34	0.08	0.54	0.55	0.10	0.00	0.48	0.55	0.00	0.00
Avail Cap(c_a), veh/h	357	1165	1220	467	1180	1220	289	0	488	369	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	6.8	7.2	7.2	5.4	8.7	8.7	37.5	0.0	38.6	43.5	0.0	0.0
Incr Delay (d2), s/veh	0.1	0.8	0.8	0.1	1.8	1.8	0.2	0.0	1.4	2.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	4.9	5.1	0.3	9.7	10.0	0.6	0.0	3.3	3.1	0.0	0.0
LnGrp Delay(d),s/veh	7.0	8.0	8.0	5.5	10.5	10.5	37.7	0.0	40.0	45.8	0.0	0.0
LnGrp LOS	A	A	A	A	B	B	D		D	D		
Approach Vol, veh/h		852			1341			148			113	
Approach Delay, s/veh		8.0			10.4			39.6			45.8	
Approach LOS		A			B			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s		21.4	5.9	72.6	5.4	16.0	5.9	72.6
Change Period (Y+Rc), s		6.0	3.5	6.0	3.5	6.0	3.5	6.0
Max Green Setting (Gmax), s		29.0	4.5	51.0	4.5	21.0	4.5	51.0
Max Q Clear Time (g_c+I1), s		8.8	2.7	11.9	3.1	9.0	2.6	21.0
Green Ext Time (p_c), s		1.3	0.0	19.9	0.0	1.0	0.0	17.3

Intersection Summary	
HCM 2010 Ctrl Delay	12.9
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	30	1220	30	120	1000	80	30	60	120	60	70	40
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1882	1900	1900	1883	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	31	1258	31	124	1031	82	31	62	124	62	72	41
Adj No. of Lanes	1	2	0	1	2	0	1	1	0	0	1	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	1	1	0	1	1	0	0	0	0	0	0
Cap, veh/h	414	2015	50	311	1982	158	291	121	242	118	110	53
Arrive On Green	0.02	0.57	0.57	0.10	1.00	1.00	0.02	0.21	0.21	0.15	0.15	0.15
Sat Flow, veh/h	1810	3564	88	1810	3356	267	1810	567	1133	421	733	353
Grp Volume(v), veh/h	31	631	658	124	549	564	31	0	186	175	0	0
Grp Sat Flow(s),veh/h/ln	1810	1788	1864	1810	1788	1835	1810	0	1700	1507	0	0
Q Serve(g_s), s	0.6	21.3	21.4	2.6	0.0	0.0	1.3	0.0	8.7	7.1	0.0	0.0
Cycle Q Clear(g_c), s	0.6	21.3	21.4	2.6	0.0	0.0	1.3	0.0	8.7	10.1	0.0	0.0
Prop In Lane	1.00		0.05	1.00		0.15	1.00		0.67	0.35		0.23
Lane Grp Cap(c), veh/h	414	1011	1054	311	1056	1083	291	0	363	281	0	0
V/C Ratio(X)	0.07	0.62	0.62	0.40	0.52	0.52	0.11	0.00	0.51	0.62	0.00	0.00
Avail Cap(c_a), veh/h	461	1011	1054	353	1056	1083	338	0	548	408	0	0
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	7.7	13.1	13.1	10.1	0.0	0.0	29.5	0.0	31.3	36.7	0.0	0.0
Incr Delay (d2), s/veh	0.1	2.9	2.8	0.8	1.8	1.8	0.2	0.0	1.1	2.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	11.3	11.8	1.3	0.5	0.5	0.6	0.0	4.2	4.4	0.0	0.0
LnGrp Delay(d),s/veh	7.8	16.0	15.9	10.9	1.8	1.8	29.7	0.0	32.4	39.0	0.0	0.0
LnGrp LOS	A	B	B	B	A	A	C		C	D		
Approach Vol, veh/h		1320			1237			217			175	
Approach Delay, s/veh		15.8			2.7			32.0			39.0	
Approach LOS		B			A			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s		25.2	7.9	56.9	5.7	19.6	5.7	59.1
Change Period (Y+Rc), s		6.0	3.5	6.0	3.5	6.0	3.5	6.0
Max Green Setting (Gmax), s		29.0	6.5	39.0	4.5	21.0	4.5	41.0
Max Q Clear Time (g_c+I1), s		10.7	4.6	23.4	3.3	12.1	2.6	2.0
Green Ext Time (p_c), s		2.1	0.0	12.2	0.0	1.4	0.0	23.5

Intersection Summary	
HCM 2010 Ctrl Delay	12.9
HCM 2010 LOS	B

Intersection	
Int Delay, s/veh	3.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	10	20	50	60	50	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	22	54	65	54	11

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	234	60	65	0	-	0
Stage 1	60	-	-	-	-	-
Stage 2	174	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	754	1005	1537	-	-	-
Stage 1	963	-	-	-	-	-
Stage 2	856	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	727	1005	1537	-	-	-
Mov Cap-2 Maneuver	727	-	-	-	-	-
Stage 1	963	-	-	-	-	-
Stage 2	825	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.2	3.4	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1537	-	891	-	-
HCM Lane V/C Ratio	0.035	-	0.037	-	-
HCM Control Delay (s)	7.4	0	9.2	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.1	-	-

Intersection	
Int Delay, s/veh	2.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	10	40	20	120	100	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	43	22	130	109	11

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	288	114	120	0	-	0
Stage 1	114	-	-	-	-	-
Stage 2	174	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	702	939	1468	-	-	-
Stage 1	911	-	-	-	-	-
Stage 2	856	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	691	939	1468	-	-	-
Mov Cap-2 Maneuver	691	-	-	-	-	-
Stage 1	911	-	-	-	-	-
Stage 2	842	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.4	1.1	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1468	-	876	-	-
HCM Lane V/C Ratio	0.015	-	0.062	-	-
HCM Control Delay (s)	7.5	0	9.4	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-

Intersection	
Int Delay, s/veh	3.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	10	30	50	70	60	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	33	54	76	65	11

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	256	71	76	0	-	0
Stage 1	71	-	-	-	-	-
Stage 2	185	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	733	991	1523	-	-	-
Stage 1	952	-	-	-	-	-
Stage 2	847	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	706	991	1523	-	-	-
Mov Cap-2 Maneuver	706	-	-	-	-	-
Stage 1	952	-	-	-	-	-
Stage 2	816	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.2	3.1	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1523	-	900	-	-
HCM Lane V/C Ratio	0.036	-	0.048	-	-
HCM Control Delay (s)	7.5	0	9.2	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.2	-	-

Intersection	
Int Delay, s/veh	1.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	10	40	20	150	110	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	43	22	163	120	11

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	332	125	130	0	-	0
Stage 1	125	-	-	-	-	-
Stage 2	207	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	663	926	1455	-	-	-
Stage 1	901	-	-	-	-	-
Stage 2	828	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	652	926	1455	-	-	-
Mov Cap-2 Maneuver	652	-	-	-	-	-
Stage 1	901	-	-	-	-	-
Stage 2	814	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.5	0.9	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1455	-	854	-	-
HCM Lane V/C Ratio	0.015	-	0.064	-	-
HCM Control Delay (s)	7.5	0	9.5	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	20	60	40	90	50	50	20	1090	60	40	730	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1792	1863	1900	1881	1869	1845	1473	1747	1900	1900	1699	1900
Adj Flow Rate, veh/h	21	63	42	95	53	53	21	1147	63	42	768	11
Adj No. of Lanes	1	1	0	1	1	1	1	2	0	1	2	0
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
Percent Heavy Veh, %	6	0	0	1	7	3	29	9	9	0	12	12
Cap, veh/h	281	181	121	253	327	270	402	2122	116	320	2160	31
Arrive On Green	0.17	0.17	0.17	0.17	0.17	0.17	0.66	0.66	0.66	0.66	0.66	0.66
Sat Flow, veh/h	1221	1038	692	1283	1869	1546	546	3200	176	469	3258	47
Grp Volume(v), veh/h	21	0	105	95	53	53	21	595	615	42	380	399
Grp Sat Flow(s),veh/h/ln	1221	0	1729	1283	1869	1546	546	1660	1716	469	1614	1691
Q Serve(g_s), s	1.1	0.0	3.9	5.2	1.8	2.2	1.3	13.9	13.9	3.8	7.7	7.7
Cycle Q Clear(g_c), s	2.9	0.0	3.9	9.1	1.8	2.2	9.0	13.9	13.9	17.8	7.7	7.7
Prop In Lane	1.00		0.40	1.00		1.00	1.00		0.10	1.00		0.03
Lane Grp Cap(c), veh/h	281	0	302	253	327	270	402	1100	1138	320	1070	1121
V/C Ratio(X)	0.07	0.00	0.35	0.38	0.16	0.20	0.05	0.54	0.54	0.13	0.36	0.36
Avail Cap(c_a), veh/h	547	0	678	532	733	607	402	1100	1138	320	1070	1121
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.1	0.0	26.8	30.8	25.9	26.1	7.5	6.5	6.5	11.2	5.5	5.5
Incr Delay (d2), s/veh	0.1	0.0	0.7	0.9	0.2	0.4	0.2	1.9	1.8	0.8	0.9	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	1.9	1.9	0.9	1.0	0.2	6.9	7.1	0.6	3.7	3.8
LnGrp Delay(d),s/veh	27.2	0.0	27.5	31.7	26.1	26.4	7.7	8.4	8.4	12.1	6.4	6.4
LnGrp LOS	C		C	C	C	C	A	A	A	B	A	A
Approach Vol, veh/h		126			201			1231			821	
Approach Delay, s/veh		27.4			28.9			8.4			6.7	
Approach LOS		C			C			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		55.0		18.9		55.0		18.9
Change Period (Y+Rc), s		6.0		6.0		6.0		6.0
Max Green Setting (Gmax), s		49.0		29.0		49.0		29.0
Max Q Clear Time (g_c+I1), s		15.9		5.9		19.8		11.1
Green Ext Time (p_c), s		18.0		1.3		16.8		1.2

Intersection Summary	
HCM 2010 Ctrl Delay	10.6
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	20	70	30	90	90	90	50	760	140	60	1200	30
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98		0.98	0.98		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1889	1900	1900	1980	1900	1845	1818	1900	1863	1863	1900
Adj Flow Rate, veh/h	21	74	32	95	95	95	53	800	147	63	1263	32
Adj No. of Lanes	1	1	0	1	1	1	1	2	0	1	2	0
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
Percent Heavy Veh, %	0	0	0	0	1	0	3	5	5	2	2	2
Cap, veh/h	264	226	98	263	360	286	292	1914	352	407	2318	59
Arrive On Green	0.18	0.18	0.18	0.18	0.18	0.18	0.66	0.66	0.66	0.66	0.66	0.66
Sat Flow, veh/h	1192	1241	537	1284	1980	1575	420	2912	535	590	3527	89
Grp Volume(v), veh/h	21	0	106	95	95	95	53	474	473	63	633	662
Grp Sat Flow(s),veh/h/ln	1192	0	1778	1284	1980	1575	420	1727	1720	590	1770	1847
Q Serve(g_s), s	1.1	0.0	3.9	5.2	3.1	3.9	5.8	9.7	9.7	4.2	14.2	14.3
Cycle Q Clear(g_c), s	4.2	0.0	3.9	9.0	3.1	3.9	20.0	9.7	9.7	13.9	14.2	14.3
Prop In Lane	1.00		0.30	1.00		1.00	1.00		0.31	1.00		0.05
Lane Grp Cap(c), veh/h	264	0	323	263	360	286	292	1135	1131	407	1163	1214
V/C Ratio(X)	0.08	0.00	0.33	0.36	0.26	0.33	0.18	0.42	0.42	0.15	0.54	0.55
Avail Cap(c_a), veh/h	511	0	692	530	770	613	292	1135	1131	407	1163	1214
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.0	0.0	26.5	30.5	26.2	26.6	12.2	6.0	6.0	9.3	6.8	6.8
Incr Delay (d2), s/veh	0.1	0.0	0.6	0.8	0.4	0.7	1.4	1.1	1.1	0.8	1.8	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	1.9	1.9	1.7	1.7	0.8	4.8	4.8	0.8	7.5	7.8
LnGrp Delay(d),s/veh	28.2	0.0	27.1	31.3	26.6	27.2	13.5	7.2	7.2	10.1	8.7	8.6
LnGrp LOS	C		C	C	C	C	B	A	A	B	A	A
Approach Vol, veh/h		127			285			1000			1358	
Approach Delay, s/veh		27.3			28.4			7.5			8.7	
Approach LOS		C			C			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		55.0		19.6		55.0		19.6
Change Period (Y+Rc), s		6.0		6.0		6.0		6.0
Max Green Setting (Gmax), s		49.0		29.0		49.0		29.0
Max Q Clear Time (g_c+I1), s		22.0		6.2		16.3		11.0
Green Ext Time (p_c), s		18.8		1.7		21.4		1.6

Intersection Summary	
HCM 2010 Ctrl Delay	11.1
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	30	70	50	110	60	60	20	1300	70	40	870	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1792	1861	1900	1881	1869	1845	1473	1747	1900	1900	1699	1900
Adj Flow Rate, veh/h	32	74	53	116	63	63	21	1368	74	42	916	11
Adj No. of Lanes	1	1	0	1	1	1	1	2	0	1	2	0
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
Percent Heavy Veh, %	6	0	0	1	7	3	29	9	9	0	12	12
Cap, veh/h	300	200	143	265	372	309	334	2061	111	236	2101	25
Arrive On Green	0.20	0.20	0.20	0.20	0.20	0.20	0.64	0.64	0.64	0.64	0.64	0.64
Sat Flow, veh/h	1201	1004	719	1260	1869	1549	475	3204	173	376	3266	39
Grp Volume(v), veh/h	32	0	127	116	63	63	21	707	735	42	453	474
Grp Sat Flow(s),veh/h/ln	1201	0	1724	1260	1869	1549	475	1660	1717	376	1614	1692
Q Serve(g_s), s	1.7	0.0	4.9	6.7	2.1	2.6	1.7	20.2	20.3	6.0	10.6	10.6
Cycle Q Clear(g_c), s	3.9	0.0	4.9	11.5	2.1	2.6	12.3	20.2	20.3	26.3	10.6	10.6
Prop In Lane	1.00		0.42	1.00		1.00	1.00		0.10	1.00		0.02
Lane Grp Cap(c), veh/h	300	0	343	265	372	309	334	1068	1104	236	1038	1088
V/C Ratio(X)	0.11	0.00	0.37	0.44	0.17	0.20	0.06	0.66	0.67	0.18	0.44	0.44
Avail Cap(c_a), veh/h	518	0	656	494	712	590	334	1068	1104	236	1038	1088
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.9	0.0	26.4	31.4	25.3	25.5	9.8	8.4	8.5	16.7	6.7	6.7
Incr Delay (d2), s/veh	0.2	0.0	0.7	1.1	0.2	0.3	0.4	3.2	3.2	1.6	1.3	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	2.4	2.4	1.1	1.1	0.3	10.0	10.4	0.7	5.0	5.3
LnGrp Delay(d),s/veh	27.0	0.0	27.0	32.5	25.5	25.8	10.2	11.7	11.6	18.3	8.1	8.0
LnGrp LOS	C		C	C	C	C	B	B	B	B	A	A
Approach Vol, veh/h		159			242			1463			969	
Approach Delay, s/veh		27.0			28.9			11.6			8.5	
Approach LOS		C			C			B			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		55.0		21.2		55.0		21.2
Change Period (Y+Rc), s		6.0		6.0		6.0		6.0
Max Green Setting (Gmax), s		49.0		29.0		49.0		29.0
Max Q Clear Time (g_c+I1), s		22.3		6.9		28.3		13.5
Green Ext Time (p_c), s		19.3		1.7		15.9		1.5

Intersection Summary	
HCM 2010 Ctrl Delay	12.9
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	20	80	40	110	100	110	60	910	170	70	1430	30
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.98	0.98		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1887	1900	1900	1980	1900	1845	1818	1900	1863	1863	1900
Adj Flow Rate, veh/h	21	84	42	116	105	116	63	958	179	74	1505	32
Adj No. of Lanes	1	1	0	1	1	1	1	2	0	1	2	0
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
Percent Heavy Veh, %	0	0	0	0	1	0	3	5	5	2	2	2
Cap, veh/h	276	237	119	271	399	318	220	1863	348	323	2273	48
Arrive On Green	0.20	0.20	0.20	0.20	0.20	0.20	0.64	0.64	0.64	0.64	0.64	0.64
Sat Flow, veh/h	1161	1178	589	1264	1980	1579	333	2904	542	493	3543	75
Grp Volume(v), veh/h	21	0	126	116	105	116	63	569	568	74	751	786
Grp Sat Flow(s),veh/h/ln	1161	0	1768	1264	1980	1579	333	1727	1719	493	1770	1849
Q Serve(g_s), s	1.2	0.0	4.7	6.6	3.4	4.8	11.1	13.5	13.5	7.2	20.2	20.3
Cycle Q Clear(g_c), s	4.6	0.0	4.7	11.3	3.4	4.8	31.4	13.5	13.5	20.7	20.2	20.3
Prop In Lane	1.00		0.33	1.00		1.00	1.00		0.32	1.00		0.04
Lane Grp Cap(c), veh/h	276	0	356	271	399	318	220	1108	1103	323	1135	1186
V/C Ratio(X)	0.08	0.00	0.35	0.43	0.26	0.36	0.29	0.51	0.51	0.23	0.66	0.66
Avail Cap(c_a), veh/h	483	0	671	497	752	599	220	1108	1103	323	1135	1186
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.7	0.0	26.2	31.1	25.7	26.3	18.3	7.3	7.3	12.9	8.5	8.5
Incr Delay (d2), s/veh	0.1	0.0	0.6	1.1	0.3	0.7	3.3	1.7	1.7	1.6	3.0	2.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	2.3	2.4	1.9	2.2	1.2	6.9	6.8	1.1	10.5	11.0
LnGrp Delay(d),s/veh	27.8	0.0	26.8	32.2	26.1	27.0	21.6	9.0	9.1	14.5	11.6	11.5
LnGrp LOS	C		C	C	C	C	C	A	A	B	B	B
Approach Vol, veh/h		147			337			1200			1611	
Approach Delay, s/veh		27.0			28.5			9.7			11.7	
Approach LOS		C			C			A			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		55.0		21.4		55.0		21.4
Change Period (Y+Rc), s		6.0		6.0		6.0		6.0
Max Green Setting (Gmax), s		49.0		29.0		49.0		29.0
Max Q Clear Time (g_c+I1), s		33.4		6.7		22.7		13.3
Green Ext Time (p_c), s		13.8		2.0		21.8		1.8

Intersection Summary	
HCM 2010 Ctrl Delay	13.3
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	30	60	40	100	60	50	20	1090	60	40	740	20
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1792	1863	1900	1881	1869	1845	1473	1747	1900	1900	1701	1900
Adj Flow Rate, veh/h	32	63	42	105	63	53	21	1147	63	42	779	21
Adj No. of Lanes	1	1	0	1	1	1	1	2	0	1	2	0
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
Percent Heavy Veh, %	6	0	0	1	7	3	29	9	9	0	12	12
Cap, veh/h	282	188	126	262	339	281	390	2104	116	315	2114	57
Arrive On Green	0.18	0.18	0.18	0.18	0.18	0.18	0.66	0.66	0.66	0.66	0.66	0.66
Sat Flow, veh/h	1210	1038	692	1284	1869	1547	535	3200	176	469	3215	87
Grp Volume(v), veh/h	32	0	105	105	63	53	21	595	615	42	392	408
Grp Sat Flow(s),veh/h/ln	1210	0	1730	1284	1869	1547	535	1660	1716	469	1616	1686
Q Serve(g_s), s	1.7	0.0	3.9	5.8	2.1	2.2	1.4	14.2	14.3	3.9	8.2	8.2
Cycle Q Clear(g_c), s	3.8	0.0	3.9	9.7	2.1	2.2	9.5	14.2	14.3	18.2	8.2	8.2
Prop In Lane	1.00		0.40	1.00		1.00	1.00		0.10	1.00		0.05
Lane Grp Cap(c), veh/h	282	0	314	262	339	281	390	1091	1128	315	1063	1109
V/C Ratio(X)	0.11	0.00	0.33	0.40	0.19	0.19	0.05	0.54	0.55	0.13	0.37	0.37
Avail Cap(c_a), veh/h	533	0	673	528	727	602	390	1091	1128	315	1063	1109
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.5	0.0	26.6	30.8	25.8	25.9	7.9	6.8	6.8	11.7	5.8	5.8
Incr Delay (d2), s/veh	0.2	0.0	0.6	1.0	0.3	0.3	0.3	2.0	1.9	0.9	1.0	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	1.9	2.1	1.1	1.0	0.2	7.0	7.3	0.6	3.9	4.0
LnGrp Delay(d),s/veh	27.6	0.0	27.2	31.8	26.1	26.2	8.2	8.8	8.7	12.5	6.8	6.7
LnGrp LOS	C		C	C	C	C	A	A	A	B	A	A
Approach Vol, veh/h		137			221			1231			842	
Approach Delay, s/veh		27.3			28.8			8.7			7.0	
Approach LOS		C			C			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		55.0		19.5		55.0		19.5
Change Period (Y+Rc), s		6.0		6.0		6.0		6.0
Max Green Setting (Gmax), s		49.0		29.0		49.0		29.0
Max Q Clear Time (g_c+I1), s		16.3		5.9		20.2		11.7
Green Ext Time (p_c), s		18.2		1.5		16.9		1.3

Intersection Summary	
HCM 2010 Ctrl Delay	11.0
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	30	80	30	90	90	90	50	770	150	60	1200	40
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98		0.98	0.98		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1890	1900	1900	1980	1900	1845	1818	1900	1863	1863	1900
Adj Flow Rate, veh/h	32	84	32	95	95	95	53	811	158	63	1263	42
Adj No. of Lanes	1	1	0	1	1	1	1	2	0	1	2	0
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
Percent Heavy Veh, %	0	0	0	0	1	0	3	5	5	2	2	2
Cap, veh/h	269	241	92	261	368	293	286	1884	367	395	2285	76
Arrive On Green	0.19	0.19	0.19	0.19	0.19	0.19	0.65	0.65	0.65	0.65	0.65	0.65
Sat Flow, veh/h	1192	1295	493	1274	1980	1576	416	2882	561	577	3495	116
Grp Volume(v), veh/h	32	0	116	95	95	95	53	486	483	63	639	666
Grp Sat Flow(s),veh/h/ln	1192	0	1788	1274	1980	1576	416	1727	1716	577	1770	1842
Q Serve(g_s), s	1.8	0.0	4.2	5.3	3.1	3.9	5.9	10.2	10.2	4.4	14.7	14.7
Cycle Q Clear(g_c), s	4.8	0.0	4.2	9.5	3.1	3.9	20.6	10.2	10.2	14.6	14.7	14.7
Prop In Lane	1.00		0.28	1.00		1.00	1.00		0.33	1.00		0.06
Lane Grp Cap(c), veh/h	269	0	333	261	368	293	286	1129	1122	395	1157	1204
V/C Ratio(X)	0.12	0.00	0.35	0.36	0.26	0.32	0.18	0.43	0.43	0.16	0.55	0.55
Avail Cap(c_a), veh/h	508	0	692	517	766	610	286	1129	1122	395	1157	1204
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.1	0.0	26.5	30.7	26.1	26.4	12.6	6.2	6.2	9.8	7.0	7.0
Incr Delay (d2), s/veh	0.2	0.0	0.6	0.8	0.4	0.6	1.4	1.2	1.2	0.9	1.9	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	2.2	1.9	1.7	1.7	0.8	5.1	5.1	0.8	7.7	8.0
LnGrp Delay(d),s/veh	28.3	0.0	27.2	31.5	26.4	27.1	14.0	7.4	7.5	10.6	8.9	8.9
LnGrp LOS	C		C	C	C	C	B	A	A	B	A	A
Approach Vol, veh/h		148			285			1022			1368	
Approach Delay, s/veh		27.4			28.3			7.8			9.0	
Approach LOS		C			C			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		55.0		19.9		55.0		19.9
Change Period (Y+Rc), s		6.0		6.0		6.0		6.0
Max Green Setting (Gmax), s		49.0		29.0		49.0		29.0
Max Q Clear Time (g_c+I1), s		22.6		6.8		16.7		11.5
Green Ext Time (p_c), s		18.8		1.8		21.6		1.7

Intersection Summary	
HCM 2010 Ctrl Delay	11.5
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	40	70	50	120	70	60	20	1300	70	40	880	20
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1792	1861	1900	1881	1869	1845	1473	1747	1900	1900	1700	1900
Adj Flow Rate, veh/h	42	74	53	126	74	63	21	1368	74	42	926	21
Adj No. of Lanes	1	1	0	1	1	1	1	2	0	1	2	0
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
Percent Heavy Veh, %	6	0	0	1	7	3	29	9	9	0	12	12
Cap, veh/h	299	207	148	273	384	319	323	2044	110	232	2061	47
Arrive On Green	0.21	0.21	0.21	0.21	0.21	0.21	0.64	0.64	0.64	0.64	0.64	0.64
Sat Flow, veh/h	1189	1005	720	1260	1869	1550	466	3204	173	376	3230	73
Grp Volume(v), veh/h	42	0	127	126	74	63	21	707	735	42	463	484
Grp Sat Flow(s),veh/h/ln	1189	0	1724	1260	1869	1550	466	1660	1717	376	1615	1687
Q Serve(g_s), s	2.3	0.0	4.9	7.3	2.5	2.6	1.8	20.6	20.8	6.1	11.2	11.2
Cycle Q Clear(g_c), s	4.8	0.0	4.9	12.2	2.5	2.6	13.0	20.6	20.8	26.9	11.2	11.2
Prop In Lane	1.00		0.42	1.00		1.00	1.00		0.10	1.00		0.04
Lane Grp Cap(c), veh/h	299	0	355	273	384	319	323	1059	1095	232	1031	1077
V/C Ratio(X)	0.14	0.00	0.36	0.46	0.19	0.20	0.06	0.67	0.67	0.18	0.45	0.45
Avail Cap(c_a), veh/h	504	0	651	490	706	585	323	1059	1095	232	1031	1077
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.2	0.0	26.2	31.4	25.2	25.3	10.4	8.8	8.8	17.3	7.1	7.1
Incr Delay (d2), s/veh	0.2	0.0	0.6	1.2	0.2	0.3	0.4	3.3	3.3	1.7	1.4	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	2.4	2.6	1.3	1.1	0.3	10.2	10.6	0.7	5.3	5.5
LnGrp Delay(d),s/veh	27.4	0.0	26.8	32.6	25.5	25.6	10.7	12.1	12.1	19.0	8.5	8.4
LnGrp LOS	C		C	C	C	C	B	B	B	B	A	A
Approach Vol, veh/h		169			263			1463			989	
Approach Delay, s/veh		26.9			28.9			12.1			8.9	
Approach LOS		C			C			B			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		55.0		21.8		55.0		21.8
Change Period (Y+Rc), s		6.0		6.0		6.0		6.0
Max Green Setting (Gmax), s		49.0		29.0		49.0		29.0
Max Q Clear Time (g_c+I1), s		22.8		6.9		28.9		14.2
Green Ext Time (p_c), s		19.2		1.8		15.6		1.6

Intersection Summary	
HCM 2010 Ctrl Delay	13.4
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	30	90	40	110	100	110	60	920	180	70	1430	30
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.98	0.98		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1888	1900	1900	1980	1900	1845	1818	1900	1863	1863	1900
Adj Flow Rate, veh/h	32	95	42	116	105	116	63	968	189	74	1505	32
Adj No. of Lanes	1	1	0	1	1	1	1	2	0	1	2	0
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
Percent Heavy Veh, %	0	0	0	0	1	0	3	5	5	2	2	2
Cap, veh/h	281	254	112	269	408	325	217	1838	358	313	2260	48
Arrive On Green	0.21	0.21	0.21	0.21	0.21	0.21	0.64	0.64	0.64	0.64	0.64	0.64
Sat Flow, veh/h	1161	1233	545	1253	1980	1580	333	2881	562	484	3543	75
Grp Volume(v), veh/h	32	0	137	116	105	116	63	580	577	74	751	786
Grp Sat Flow(s),veh/h/ln	1161	0	1778	1253	1980	1580	333	1727	1716	484	1770	1849
Q Serve(g_s), s	1.8	0.0	5.1	6.7	3.4	4.8	11.3	14.1	14.1	7.6	20.5	20.6
Cycle Q Clear(g_c), s	5.2	0.0	5.1	11.8	3.4	4.8	31.9	14.1	14.1	21.7	20.5	20.6
Prop In Lane	1.00		0.31	1.00		1.00	1.00		0.33	1.00		0.04
Lane Grp Cap(c), veh/h	281	0	366	269	408	325	217	1102	1094	313	1129	1179
V/C Ratio(X)	0.11	0.00	0.37	0.43	0.26	0.36	0.29	0.53	0.53	0.24	0.67	0.67
Avail Cap(c_a), veh/h	481	0	671	484	747	596	217	1102	1094	313	1129	1179
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.8	0.0	26.2	31.3	25.6	26.1	18.8	7.6	7.6	13.5	8.8	8.8
Incr Delay (d2), s/veh	0.2	0.0	0.6	1.1	0.3	0.7	3.4	1.8	1.8	1.8	3.1	3.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	2.6	2.4	1.9	2.2	1.2	7.2	7.1	1.2	10.8	11.2
LnGrp Delay(d),s/veh	27.9	0.0	26.9	32.4	25.9	26.8	22.2	9.4	9.4	15.3	11.9	11.8
LnGrp LOS	C		C	C	C	C	C	A	A	B	B	B
Approach Vol, veh/h		169			337			1220			1611	
Approach Delay, s/veh		27.1			28.5			10.1			12.0	
Approach LOS		C			C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		55.0		21.8		55.0		21.8
Change Period (Y+Rc), s		6.0		6.0		6.0		6.0
Max Green Setting (Gmax), s		49.0		29.0		49.0		29.0
Max Q Clear Time (g_c+I1), s		33.9		7.2		23.7		13.8
Green Ext Time (p_c), s		13.5		2.1		21.3		1.9

Intersection Summary	
HCM 2010 Ctrl Delay	13.7
HCM 2010 LOS	B

Intersection	
Intersection Delay, s/veh	8.7
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	10	10	10	0	50	10	70	0	10	120	20
Peak Hour Factor	0.92	0.81	0.81	0.81	0.92	0.81	0.81	0.81	0.92	0.81	0.81	0.81
Heavy Vehicles, %	2	0	0	0	2	0	0	0	2	0	1	0
Mvmt Flow	0	12	12	12	0	62	12	86	0	12	148	25
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	8	8.6	8.8
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	7%	33%	38%	15%
Vol Thru, %	80%	33%	8%	77%
Vol Right, %	13%	33%	54%	8%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	150	30	130	130
LT Vol	10	10	50	20
Through Vol	120	10	10	100
RT Vol	20	10	70	10
Lane Flow Rate	185	37	160	160
Geometry Grp	1	1	1	1
Degree of Util (X)	0.23	0.049	0.2	0.203
Departure Headway (Hd)	4.474	4.752	4.486	4.55
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	802	751	799	788
Service Time	2.507	2.795	2.521	2.584
HCM Lane V/C Ratio	0.231	0.049	0.2	0.203
HCM Control Delay	8.8	8	8.6	8.7
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.9	0.2	0.7	0.8

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	20	100	10
Peak Hour Factor	0.92	0.81	0.81	0.81
Heavy Vehicles, %	2	0	0	0
Mvmt Flow	0	25	123	12
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	8.7
HCM LOS	A

Lane

Intersection	
Intersection Delay, s/veh	9.7
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	10	10	10	0	40	10	50	0	10	130	30
Peak Hour Factor	0.92	0.77	0.77	0.77	0.92	0.77	0.77	0.77	0.92	0.77	0.77	0.77
Heavy Vehicles, %	2	0	0	0	2	0	0	0	2	0	0	0
Mvmt Flow	0	13	13	13	0	52	13	65	0	13	169	39
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	8.5	9	9.4
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	6%	33%	40%	23%
Vol Thru, %	76%	33%	10%	73%
Vol Right, %	18%	33%	50%	5%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	170	30	100	220
LT Vol	10	10	40	50
Through Vol	130	10	10	160
RT Vol	30	10	50	10
Lane Flow Rate	221	39	130	286
Geometry Grp	1	1	1	1
Degree of Util (X)	0.279	0.055	0.176	0.364
Departure Headway (Hd)	4.548	5.099	4.876	4.584
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	786	697	731	783
Service Time	2.594	3.168	2.934	2.627
HCM Lane V/C Ratio	0.281	0.056	0.178	0.365
HCM Control Delay	9.4	8.5	9	10.3
HCM Lane LOS	A	A	A	B
HCM 95th-tile Q	1.1	0.2	0.6	1.7

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	50	160	10
Peak Hour Factor	0.92	0.77	0.77	0.77
Heavy Vehicles, %	2	0	1	0
Mvmt Flow	0	65	208	13
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	10.3
HCM LOS	B

Lane

Intersection	
Intersection Delay, s/veh	11.8
Intersection LOS	B

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	10	10	10	0	80	10	120	0	10	220	30
Peak Hour Factor	0.92	0.81	0.81	0.81	0.92	0.81	0.81	0.81	0.92	0.81	0.81	0.81
Heavy Vehicles, %	2	0	0	0	2	0	0	0	2	0	1	0
Mvmt Flow	0	12	12	12	0	99	12	148	0	12	272	37
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	9.2	11.4	12.3
HCM LOS	A	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	4%	33%	38%	17%
Vol Thru, %	85%	33%	5%	78%
Vol Right, %	12%	33%	57%	4%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	260	30	210	230
LT Vol	10	10	80	40
Through Vol	220	10	10	180
RT Vol	30	10	120	10
Lane Flow Rate	321	37	259	284
Geometry Grp	1	1	1	1
Degree of Util (X)	0.453	0.06	0.377	0.409
Departure Headway (Hd)	5.076	5.8	5.239	5.191
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	709	616	687	693
Service Time	3.106	3.848	3.274	3.223
HCM Lane V/C Ratio	0.453	0.06	0.377	0.41
HCM Control Delay	12.3	9.2	11.4	11.8
HCM Lane LOS	B	A	B	B
HCM 95th-tile Q	2.4	0.2	1.8	2

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	40	180	10
Peak Hour Factor	0.92	0.81	0.81	0.81
Heavy Vehicles, %	2	0	0	0
Mvmt Flow	0	49	222	12
Number of Lanes	0	0	1	0

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

Lane

Intersection	
Intersection Delay, s/veh	17.2
Intersection LOS	C

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	10	20	10	0	70	10	90	0	10	230	40
Peak Hour Factor	0.92	0.77	0.77	0.77	0.92	0.77	0.77	0.77	0.92	0.77	0.77	0.77
Heavy Vehicles, %	2	0	0	0	2	0	0	0	2	0	0	0
Mvmt Flow	0	13	26	13	0	91	13	117	0	13	299	52
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	10.4	12.5	14.9
HCM LOS	B	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	4%	25%	41%	21%
Vol Thru, %	82%	50%	6%	76%
Vol Right, %	14%	25%	53%	3%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	280	40	170	380
LT Vol	10	10	70	80
Through Vol	230	20	10	290
RT Vol	40	10	90	10
Lane Flow Rate	364	52	221	494
Geometry Grp	1	1	1	1
Degree of Util (X)	0.547	0.096	0.367	0.731
Departure Headway (Hd)	5.419	6.677	5.983	5.336
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	662	540	598	676
Service Time	3.484	4.677	4.059	3.394
HCM Lane V/C Ratio	0.55	0.096	0.37	0.731
HCM Control Delay	14.9	10.4	12.5	21.6
HCM Lane LOS	B	B	B	C
HCM 95th-tile Q	3.3	0.3	1.7	6.4

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	80	290	10
Peak Hour Factor	0.92	0.77	0.77	0.77
Heavy Vehicles, %	2	0	1	0
Mvmt Flow	0	104	377	13
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	21.6
HCM LOS	C

Lane

Intersection	
Intersection Delay, s/veh	9
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	10	10	10	0	60	10	70	0	10	130	30
Peak Hour Factor	0.92	0.81	0.81	0.81	0.92	0.81	0.81	0.81	0.92	0.81	0.81	0.81
Heavy Vehicles, %	2	0	0	0	2	0	0	0	2	0	1	0
Mvmt Flow	0	12	12	12	0	74	12	86	0	12	160	37
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	8.2	9	9.2
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	6%	33%	43%	14%
Vol Thru, %	76%	33%	7%	79%
Vol Right, %	18%	33%	50%	7%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	170	30	140	140
LT Vol	10	10	60	20
Through Vol	130	10	10	110
RT Vol	30	10	70	10
Lane Flow Rate	210	37	173	173
Geometry Grp	1	1	1	1
Degree of Util (X)	0.263	0.05	0.221	0.222
Departure Headway (Hd)	4.504	4.864	4.606	4.622
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	795	733	778	774
Service Time	2.542	2.919	2.649	2.662
HCM Lane V/C Ratio	0.264	0.05	0.222	0.224
HCM Control Delay	9.2	8.2	9	9
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	1.1	0.2	0.8	0.8

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	20	110	10
Peak Hour Factor	0.92	0.81	0.81	0.81
Heavy Vehicles, %	2	0	0	0
Mvmt Flow	0	25	136	12
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	9
HCM LOS	A

Lane

Intersection	
Intersection Delay, s/veh	10
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	10	10	10	0	50	10	50	0	10	140	40
Peak Hour Factor	0.92	0.77	0.77	0.77	0.92	0.77	0.77	0.77	0.92	0.77	0.77	0.77
Heavy Vehicles, %	2	0	0	0	2	0	0	0	2	0	0	0
Mvmt Flow	0	13	13	13	0	65	13	65	0	13	182	52
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	8.6	9.3	9.8
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	5%	33%	45%	22%
Vol Thru, %	74%	33%	9%	74%
Vol Right, %	21%	33%	45%	4%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	190	30	110	230
LT Vol	10	10	50	50
Through Vol	140	10	10	170
RT Vol	40	10	50	10
Lane Flow Rate	247	39	143	299
Geometry Grp	1	1	1	1
Degree of Util (X)	0.315	0.056	0.199	0.386
Departure Headway (Hd)	4.589	5.22	5.008	4.656
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	780	679	711	768
Service Time	2.644	3.305	3.076	2.71
HCM Lane V/C Ratio	0.317	0.057	0.201	0.389
HCM Control Delay	9.8	8.6	9.3	10.6
HCM Lane LOS	A	A	A	B
HCM 95th-tile Q	1.4	0.2	0.7	1.8

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	50	170	10
Peak Hour Factor	0.92	0.77	0.77	0.77
Heavy Vehicles, %	2	0	1	0
Mvmt Flow	0	65	221	13
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	10.6
HCM LOS	B

Lane

Intersection	
Intersection Delay, s/veh	12.4
Intersection LOS	B

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	10	10	10	0	90	10	120	0	10	220	40
Peak Hour Factor	0.92	0.81	0.81	0.81	0.92	0.81	0.81	0.81	0.92	0.81	0.81	0.81
Heavy Vehicles, %	2	0	0	0	2	0	0	0	2	0	1	0
Mvmt Flow	0	12	12	12	0	111	12	148	0	12	272	49
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	9.4	12	12.8
HCM LOS	A	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	4%	33%	41%	16%
Vol Thru, %	81%	33%	5%	80%
Vol Right, %	15%	33%	55%	4%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	270	30	220	250
LT Vol	10	10	90	40
Through Vol	220	10	10	200
RT Vol	40	10	120	10
Lane Flow Rate	333	37	272	309
Geometry Grp	1	1	1	1
Degree of Util (X)	0.477	0.061	0.405	0.452
Departure Headway (Hd)	5.156	5.963	5.371	5.273
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	697	599	668	682
Service Time	3.193	4.021	3.411	3.31
HCM Lane V/C Ratio	0.478	0.062	0.407	0.453
HCM Control Delay	12.8	9.4	12	12.6
HCM Lane LOS	B	A	B	B
HCM 95th-tile Q	2.6	0.2	2	2.4

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	40	200	10
Peak Hour Factor	0.92	0.81	0.81	0.81
Heavy Vehicles, %	2	0	0	0
Mvmt Flow	0	49	247	12
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	12.6
HCM LOS	B

Lane

Intersection	
Intersection Delay, s/veh	19
Intersection LOS	C

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	10	20	10	0	80	10	90	0	10	240	50
Peak Hour Factor	0.92	0.77	0.77	0.77	0.92	0.77	0.77	0.77	0.92	0.77	0.77	0.77
Heavy Vehicles, %	2	0	0	0	2	0	0	0	2	0	0	0
Mvmt Flow	0	13	26	13	0	104	13	117	0	13	312	65
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	10.7	13.3	16.5
HCM LOS	B	B	C

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	3%	25%	44%	21%
Vol Thru, %	80%	50%	6%	77%
Vol Right, %	17%	25%	50%	3%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	300	40	180	390
LT Vol	10	10	80	80
Through Vol	240	20	10	300
RT Vol	50	10	90	10
Lane Flow Rate	390	52	234	506
Geometry Grp	1	1	1	1
Degree of Util (X)	0.596	0.099	0.398	0.767
Departure Headway (Hd)	5.509	6.895	6.135	5.451
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	651	523	582	658
Service Time	3.586	4.895	4.224	3.521
HCM Lane V/C Ratio	0.599	0.099	0.402	0.769
HCM Control Delay	16.5	10.7	13.3	24.3
HCM Lane LOS	C	B	B	C
HCM 95th-tile Q	3.9	0.3	1.9	7.2

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	80	300	10
Peak Hour Factor	0.92	0.77	0.77	0.77
Heavy Vehicles, %	2	0	1	0
Mvmt Flow	0	104	390	13
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	24.3
HCM LOS	C

Lane

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	60	80	160	70	100	30	220	1080	30	20	800	60
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1851	1900	1900	1961	1827	1881	1745	1900	1900	1721	1900
Adj Flow Rate, veh/h	63	84	168	74	105	32	232	1137	32	21	842	63
Adj No. of Lanes	1	1	0	1	1	1	1	2	0	1	2	0
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
Percent Heavy Veh, %	2	4	4	0	2	4	1	9	9	0	11	11
Cap, veh/h	296	101	202	186	507	401	417	1920	54	268	1596	119
Arrive On Green	0.18	0.18	0.18	0.04	0.26	0.26	0.08	0.58	0.58	0.01	0.52	0.52
Sat Flow, veh/h	1245	551	1103	1810	1961	1551	1792	3294	93	1810	3085	231
Grp Volume(v), veh/h	63	0	252	74	105	32	232	572	597	21	446	459
Grp Sat Flow(s),veh/h/ln	1245	0	1654	1810	1961	1551	1792	1658	1729	1810	1635	1680
Q Serve(g_s), s	4.6	0.0	15.6	3.4	4.5	1.7	6.1	23.4	23.4	0.6	19.3	19.3
Cycle Q Clear(g_c), s	4.6	0.0	15.6	3.4	4.5	1.7	6.1	23.4	23.4	0.6	19.3	19.3
Prop In Lane	1.00		0.67	1.00		1.00	1.00		0.05	1.00		0.14
Lane Grp Cap(c), veh/h	296	0	303	186	507	401	417	966	1008	268	846	869
V/C Ratio(X)	0.21	0.00	0.83	0.40	0.21	0.08	0.56	0.59	0.59	0.08	0.53	0.53
Avail Cap(c_a), veh/h	419	0	466	186	700	554	487	966	1008	321	846	869
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.4	0.0	41.9	33.2	30.9	29.9	12.5	14.1	14.1	13.2	17.0	17.0
Incr Delay (d2), s/veh	0.4	0.0	7.5	1.4	0.2	0.1	1.2	2.7	2.6	0.1	2.3	2.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	0.0	7.8	1.8	2.4	0.7	3.1	11.4	11.8	0.3	9.2	9.5
LnGrp Delay(d),s/veh	37.7	0.0	49.3	34.6	31.1	30.0	13.6	16.8	16.7	13.3	19.4	19.3
LnGrp LOS	D		D	C	C	C	B	B	B	B	B	B
Approach Vol, veh/h		315			211			1401			926	
Approach Delay, s/veh		47.0			32.2			16.2			19.2	
Approach LOS		D			C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6		8
Phs Duration (G+Y+Rc), s	4.9	68.0	8.0	25.5	11.8	61.0		33.5
Change Period (Y+Rc), s	3.5	6.0	3.5	6.0	3.5	6.0		6.0
Max Green Setting (Gmax), s	4.5	62.0	4.5	30.0	12.5	54.0		38.0
Max Q Clear Time (g_c+I1), s	2.6	25.4	5.4	17.6	8.1	21.3		6.5
Green Ext Time (p_c), s	0.0	18.6	0.0	1.9	0.3	17.6		2.5

Intersection Summary	
HCM 2010 Ctrl Delay	21.8
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	80	210	180	70	110	50	190	870	120	70	1230	50
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.97	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1881	1863	1900	1900	2000	1900	1900	1801	1900	1900	1828	1900
Adj Flow Rate, veh/h	84	221	189	74	116	53	200	916	126	74	1295	53
Adj No. of Lanes	1	1	0	1	1	1	1	2	0	1	2	0
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
Percent Heavy Veh, %	1	2	2	0	0	0	0	6	6	0	4	4
Cap, veh/h	364	230	197	141	636	501	256	1566	215	292	1635	67
Arrive On Green	0.25	0.25	0.25	0.04	0.32	0.32	0.07	0.52	0.52	0.03	0.48	0.48
Sat Flow, veh/h	1211	916	784	1810	2000	1578	1810	3021	415	1810	3401	139
Grp Volume(v), veh/h	84	0	410	74	116	53	200	519	523	74	661	687
Grp Sat Flow(s),veh/h/ln	1211	0	1700	1810	2000	1578	1810	1711	1725	1810	1737	1803
Q Serve(g_s), s	6.7	0.0	28.5	3.5	5.0	2.8	6.4	25.1	25.1	2.5	38.1	38.2
Cycle Q Clear(g_c), s	6.7	0.0	28.5	3.5	5.0	2.8	6.4	25.1	25.1	2.5	38.1	38.2
Prop In Lane	1.00		0.46	1.00		1.00	1.00		0.24	1.00		0.08
Lane Grp Cap(c), veh/h	364	0	426	141	636	501	256	887	895	292	835	867
V/C Ratio(X)	0.23	0.00	0.96	0.52	0.18	0.11	0.78	0.58	0.58	0.25	0.79	0.79
Avail Cap(c_a), veh/h	364	0	426	141	636	501	316	887	895	298	835	867
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.1	0.0	44.2	34.2	29.5	28.8	24.1	19.9	19.9	16.7	26.0	26.0
Incr Delay (d2), s/veh	0.3	0.0	33.6	3.5	0.1	0.1	9.7	2.8	2.8	0.5	7.6	7.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	0.0	17.3	1.9	2.8	1.2	4.0	12.5	12.6	1.2	19.9	20.7
LnGrp Delay(d),s/veh	36.4	0.0	77.9	37.8	29.7	28.9	33.8	22.7	22.7	17.2	33.6	33.4
LnGrp LOS	D		E	D	C	C	C	C	C	B	C	C
Approach Vol, veh/h		494			243			1242			1422	
Approach Delay, s/veh		70.8			32.0			24.5			32.6	
Approach LOS		E			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6		8
Phs Duration (G+Y+Rc), s	7.6	68.0	8.0	36.0	12.1	63.5		44.0
Change Period (Y+Rc), s	3.5	6.0	3.5	6.0	3.5	6.0		6.0
Max Green Setting (Gmax), s	4.5	62.0	4.5	30.0	12.5	54.0		38.0
Max Q Clear Time (g_c+I1), s	4.5	27.1	5.5	30.5	8.4	40.2		7.0
Green Ext Time (p_c), s	0.0	22.1	0.0	0.0	0.2	11.0		3.9

Intersection Summary	
HCM 2010 Ctrl Delay	35.2
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	70	100	190	90	120	40	260	1290	40	20	950	70
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1850	1900	1900	1961	1827	1881	1746	1900	1900	1721	1900
Adj Flow Rate, veh/h	74	105	200	95	126	42	274	1358	42	21	1000	74
Adj No. of Lanes	1	1	0	1	1	1	1	2	0	1	2	0
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
Percent Heavy Veh, %	2	4	4	0	2	4	1	9	9	0	11	11
Cap, veh/h	322	121	231	175	557	441	356	1853	57	188	1495	111
Arrive On Green	0.21	0.21	0.21	0.04	0.28	0.28	0.09	0.56	0.56	0.01	0.48	0.48
Sat Flow, veh/h	1211	570	1086	1810	1961	1551	1792	3284	101	1810	3087	228
Grp Volume(v), veh/h	74	0	305	95	126	42	274	685	715	21	530	544
Grp Sat Flow(s),veh/h/ln	1211	0	1657	1810	1961	1551	1792	1658	1727	1810	1635	1680
Q Serve(g_s), s	5.7	0.0	19.8	4.5	5.5	2.2	8.2	34.2	34.3	0.7	27.6	27.6
Cycle Q Clear(g_c), s	5.7	0.0	19.8	4.5	5.5	2.2	8.2	34.2	34.3	0.7	27.6	27.6
Prop In Lane	1.00		0.66	1.00		1.00	1.00		0.06	1.00		0.14
Lane Grp Cap(c), veh/h	322	0	352	175	557	441	356	935	974	188	792	814
V/C Ratio(X)	0.23	0.00	0.87	0.54	0.23	0.10	0.77	0.73	0.73	0.11	0.67	0.67
Avail Cap(c_a), veh/h	390	0	446	175	668	529	391	935	974	238	792	814
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.9	0.0	42.4	33.7	30.5	29.4	18.8	18.0	18.1	17.3	21.9	21.9
Incr Delay (d2), s/veh	0.4	0.0	13.7	3.4	0.2	0.1	8.3	5.1	4.9	0.3	4.5	4.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	0.0	10.4	2.4	3.0	1.0	5.1	16.9	17.6	0.3	13.3	13.7
LnGrp Delay(d),s/veh	37.2	0.0	56.1	37.0	30.8	29.5	27.1	23.1	23.0	17.6	26.4	26.3
LnGrp LOS	D		E	D	C	C	C	C	C	B	C	C
Approach Vol, veh/h		379			263			1674			1095	
Approach Delay, s/veh		52.4			32.8			23.7			26.2	
Approach LOS		D			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6		8
Phs Duration (G+Y+Rc), s	4.9	68.9	8.0	29.7	13.8	60.0		37.7
Change Period (Y+Rc), s	3.5	6.0	3.5	6.0	3.5	6.0		6.0
Max Green Setting (Gmax), s	4.5	62.0	4.5	30.0	12.5	54.0		38.0
Max Q Clear Time (g_c+I1), s	2.7	36.3	6.5	21.8	10.2	29.6		7.5
Green Ext Time (p_c), s	0.0	18.6	0.0	1.9	0.2	17.9		3.1

Intersection Summary	
HCM 2010 Ctrl Delay	28.4
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	100	250	210	80	130	50	230	1030	140	80	1470	60
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.97	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1881	1863	1900	1900	2000	1900	1900	1801	1900	1900	1828	1900
Adj Flow Rate, veh/h	105	263	221	84	137	53	242	1084	147	84	1547	63
Adj No. of Lanes	1	1	0	1	1	1	1	2	0	1	2	0
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
Percent Heavy Veh, %	1	2	2	0	0	0	0	6	6	0	4	4
Cap, veh/h	357	231	194	128	633	500	248	1564	212	241	1531	62
Arrive On Green	0.25	0.25	0.25	0.04	0.32	0.32	0.10	0.52	0.52	0.04	0.45	0.45
Sat Flow, veh/h	1188	925	777	1810	2000	1578	1810	3027	410	1810	3402	138
Grp Volume(v), veh/h	105	0	484	84	137	53	242	612	619	84	788	822
Grp Sat Flow(s),veh/h/ln	1188	0	1701	1810	2000	1578	1810	1711	1726	1810	1737	1803
Q Serve(g_s), s	8.7	0.0	30.0	4.1	6.0	2.8	12.0	32.3	32.4	3.0	54.0	54.0
Cycle Q Clear(g_c), s	8.7	0.0	30.0	4.1	6.0	2.8	12.0	32.3	32.4	3.0	54.0	54.0
Prop In Lane	1.00		0.46	1.00		1.00	1.00		0.24	1.00		0.08
Lane Grp Cap(c), veh/h	357	0	425	128	633	500	248	884	892	241	782	811
V/C Ratio(X)	0.29	0.00	1.14	0.66	0.22	0.11	0.97	0.69	0.69	0.35	1.01	1.01
Avail Cap(c_a), veh/h	357	0	425	128	633	500	248	884	892	241	782	811
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.0	0.0	45.0	34.7	30.1	29.0	39.3	21.8	21.9	19.6	33.0	33.0
Incr Delay (d2), s/veh	0.5	0.0	87.0	11.6	0.2	0.1	49.6	4.4	4.4	0.9	34.1	35.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	0.0	24.3	2.4	3.3	1.2	11.4	16.2	16.4	1.5	33.2	34.7
LnGrp Delay(d),s/veh	37.5	0.0	132.0	46.3	30.2	29.1	88.9	26.3	26.3	20.4	67.1	68.0
LnGrp LOS	D		F	D	C	C	F	C	C	C	F	F
Approach Vol, veh/h		589			274			1473			1694	
Approach Delay, s/veh		115.1			35.0			36.6			65.2	
Approach LOS		F			C			D			E	

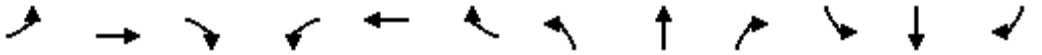
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6		8
Phs Duration (G+Y+Rc), s	8.0	68.0	8.0	36.0	16.0	60.0		44.0
Change Period (Y+Rc), s	3.5	6.0	3.5	6.0	3.5	6.0		6.0
Max Green Setting (Gmax), s	4.5	62.0	4.5	30.0	12.5	54.0		38.0
Max Q Clear Time (g_c+I1), s	5.0	34.4	6.1	32.0	14.0	56.0		8.0
Green Ext Time (p_c), s	0.0	22.3	0.0	0.0	0.0	0.0		4.7

Intersection Summary	
HCM 2010 Ctrl Delay	60.0
HCM 2010 LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	60	90	170	70	150	30	270	1080	30	20	800	70
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1850	1900	1900	1961	1827	1881	1745	1900	1900	1723	1900
Adj Flow Rate, veh/h	63	95	179	74	158	32	284	1137	32	21	842	74
Adj No. of Lanes	1	1	0	1	1	1	1	2	0	1	2	0
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
Percent Heavy Veh, %	2	4	4	0	2	4	1	9	9	0	11	11
Cap, veh/h	299	113	213	182	529	418	419	1896	53	261	1504	132
Arrive On Green	0.20	0.20	0.20	0.04	0.27	0.27	0.09	0.58	0.58	0.01	0.49	0.49
Sat Flow, veh/h	1187	575	1083	1810	1961	1551	1792	3294	93	1810	3044	268
Grp Volume(v), veh/h	63	0	274	74	158	32	284	572	597	21	453	463
Grp Sat Flow(s),veh/h/ln	1187	0	1657	1810	1961	1551	1792	1658	1729	1810	1637	1675
Q Serve(g_s), s	4.9	0.0	17.4	3.5	7.0	1.7	8.1	24.4	24.5	0.6	21.1	21.1
Cycle Q Clear(g_c), s	4.9	0.0	17.4	3.5	7.0	1.7	8.1	24.4	24.5	0.6	21.1	21.1
Prop In Lane	1.00		0.65	1.00		1.00	1.00		0.05	1.00		0.16
Lane Grp Cap(c), veh/h	299	0	326	182	529	418	419	954	995	261	809	828
V/C Ratio(X)	0.21	0.00	0.84	0.41	0.30	0.08	0.68	0.60	0.60	0.08	0.56	0.56
Avail Cap(c_a), veh/h	392	0	455	182	682	539	455	954	995	312	809	828
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.2	0.0	42.3	33.4	31.7	29.8	14.6	15.0	15.0	14.6	19.3	19.3
Incr Delay (d2), s/veh	0.3	0.0	9.7	1.4	0.3	0.1	3.6	2.8	2.7	0.1	2.8	2.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	0.0	8.8	1.8	3.8	0.7	4.3	11.9	12.3	0.3	10.2	10.4
LnGrp Delay(d),s/veh	37.6	0.0	52.0	34.8	32.0	29.8	18.2	17.8	17.7	14.7	22.1	22.1
LnGrp LOS	D		D	C	C	C	B	B	B	B	C	C
Approach Vol, veh/h		337			264			1453			937	
Approach Delay, s/veh		49.3			32.5			17.9			21.9	
Approach LOS		D			C			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6		8
Phs Duration (G+Y+Rc), s	4.9	68.9	8.0	27.5	13.8	60.0		35.5
Change Period (Y+Rc), s	3.5	6.0	3.5	6.0	3.5	6.0		6.0
Max Green Setting (Gmax), s	4.5	62.0	4.5	30.0	12.5	54.0		38.0
Max Q Clear Time (g_c+I1), s	2.6	26.5	5.5	19.4	10.1	23.1		9.0
Green Ext Time (p_c), s	0.0	18.5	0.0	2.1	0.2	17.2		2.9

Intersection Summary	
HCM 2010 Ctrl Delay	24.0
HCM 2010 LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	90	260	220	70	120	50	200	870	120	70	1230	50
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.97	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1881	1863	1900	1900	2000	1900	1900	1801	1900	1900	1828	1900
Adj Flow Rate, veh/h	95	274	232	74	126	53	211	916	126	74	1295	53
Adj No. of Lanes	1	1	0	1	1	1	1	2	0	1	2	0
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
Percent Heavy Veh, %	1	2	2	0	0	0	0	6	6	0	4	4
Cap, veh/h	360	230	195	105	608	480	264	1636	225	293	1686	69
Arrive On Green	0.25	0.25	0.25	0.03	0.30	0.30	0.07	0.54	0.54	0.03	0.50	0.50
Sat Flow, veh/h	1200	921	780	1810	2000	1577	1810	3021	415	1810	3401	139
Grp Volume(v), veh/h	95	0	506	74	126	53	211	519	523	74	661	687
Grp Sat Flow(s),veh/h/ln	1200	0	1701	1810	2000	1577	1810	1711	1726	1810	1737	1803
Q Serve(g_s), s	7.7	0.0	30.0	3.0	5.6	2.9	6.6	23.9	23.9	2.5	37.1	37.3
Cycle Q Clear(g_c), s	7.7	0.0	30.0	3.0	5.6	2.9	6.6	23.9	23.9	2.5	37.1	37.3
Prop In Lane	1.00		0.46	1.00		1.00	1.00		0.24	1.00		0.08
Lane Grp Cap(c), veh/h	360	0	425	105	608	480	264	927	935	293	861	894
V/C Ratio(X)	0.26	0.00	1.19	0.70	0.21	0.11	0.80	0.56	0.56	0.25	0.77	0.77
Avail Cap(c_a), veh/h	360	0	425	105	608	480	264	927	935	293	861	894
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.7	0.0	45.0	39.5	31.0	30.1	23.5	18.1	18.1	16.0	24.6	24.6
Incr Delay (d2), s/veh	0.4	0.0	106.7	19.0	0.2	0.1	15.7	2.4	2.4	0.4	6.5	6.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	0.0	26.7	1.5	3.1	1.3	4.7	11.9	12.0	1.2	19.4	20.1
LnGrp Delay(d),s/veh	37.0	0.0	151.7	58.5	31.2	30.2	39.2	20.5	20.5	16.4	31.1	31.0
LnGrp LOS	D		F	E	C	C	D	C	C	B	C	C
Approach Vol, veh/h		601			253			1253			1422	
Approach Delay, s/veh		133.6			38.9			23.7			30.3	
Approach LOS		F			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6		8
Phs Duration (G+Y+Rc), s	6.5	71.0	6.5	36.0	12.0	65.5		42.5
Change Period (Y+Rc), s	3.5	6.0	3.5	6.0	3.5	6.0		6.0
Max Green Setting (Gmax), s	3.0	65.0	3.0	30.0	8.5	59.5		36.5
Max Q Clear Time (g_c+I1), s	4.5	25.9	5.0	32.0	8.6	39.3		7.6
Green Ext Time (p_c), s	0.0	23.6	0.0	0.0	0.0	15.0		4.8

Intersection Summary	
HCM 2010 Ctrl Delay	46.1
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	70	110	200	90	190	40	280	1290	40	20	960	80
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1850	1900	1900	1961	1827	1881	1746	1900	1900	1722	1900
Adj Flow Rate, veh/h	74	116	211	95	200	42	295	1358	42	21	1011	84
Adj No. of Lanes	1	1	0	1	1	1	1	2	0	1	2	0
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
Percent Heavy Veh, %	2	4	4	0	2	4	1	9	9	0	11	11
Cap, veh/h	305	132	240	170	576	456	350	1833	57	182	1442	120
Arrive On Green	0.22	0.22	0.22	0.04	0.29	0.29	0.10	0.56	0.56	0.01	0.47	0.47
Sat Flow, veh/h	1132	589	1071	1810	1961	1551	1792	3284	101	1810	3059	254
Grp Volume(v), veh/h	74	0	327	95	200	42	295	685	715	21	541	554
Grp Sat Flow(s),veh/h/ln	1132	0	1659	1810	1961	1551	1792	1658	1727	1810	1636	1677
Q Serve(g_s), s	6.3	0.0	21.8	4.5	9.2	2.3	9.3	35.6	35.8	0.7	29.9	29.9
Cycle Q Clear(g_c), s	7.5	0.0	21.8	4.5	9.2	2.3	9.3	35.6	35.8	0.7	29.9	29.9
Prop In Lane	1.00		0.65	1.00		1.00	1.00		0.06	1.00		0.15
Lane Grp Cap(c), veh/h	305	0	372	170	576	456	350	925	964	182	771	790
V/C Ratio(X)	0.24	0.00	0.88	0.56	0.35	0.09	0.84	0.74	0.74	0.12	0.70	0.70
Avail Cap(c_a), veh/h	347	0	434	170	650	514	367	925	964	230	771	790
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.9	0.0	43.0	34.3	31.8	29.4	20.9	19.1	19.1	18.5	23.9	23.9
Incr Delay (d2), s/veh	0.4	0.0	16.6	4.1	0.4	0.1	15.6	5.3	5.1	0.3	5.3	5.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	0.0	11.7	2.4	5.1	1.0	6.1	17.5	18.3	0.4	14.6	15.0
LnGrp Delay(d),s/veh	38.3	0.0	59.5	38.3	32.2	29.4	36.5	24.4	24.2	18.8	29.2	29.1
LnGrp LOS	D		E	D	C	C	D	C	C	B	C	C
Approach Vol, veh/h		401			337			1695			1116	
Approach Delay, s/veh		55.6			33.6			26.4			28.9	
Approach LOS		E			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6		8
Phs Duration (G+Y+Rc), s	5.0	70.0	8.0	31.7	14.9	60.0		39.7
Change Period (Y+Rc), s	3.5	6.0	3.5	6.0	3.5	6.0		6.0
Max Green Setting (Gmax), s	4.5	62.0	4.5	30.0	12.5	54.0		38.0
Max Q Clear Time (g_c+I1), s	2.7	37.8	6.5	23.8	11.3	31.9		11.2
Green Ext Time (p_c), s	0.0	18.0	0.0	1.9	0.1	16.7		3.7

Intersection Summary	
HCM 2010 Ctrl Delay	31.2
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	100	310	240	80	140	50	240	1030	140	80	1470	60
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.97	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1881	1863	1900	1900	2000	1900	1900	1801	1900	1900	1828	1900
Adj Flow Rate, veh/h	105	326	253	84	147	53	253	1084	147	84	1547	63
Adj No. of Lanes	1	1	0	1	1	1	1	2	0	1	2	0
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
Percent Heavy Veh, %	1	2	2	0	0	0	0	6	6	0	4	4
Cap, veh/h	353	240	187	105	608	480	212	1640	222	236	1687	68
Arrive On Green	0.25	0.25	0.25	0.03	0.30	0.30	0.07	0.54	0.54	0.03	0.50	0.50
Sat Flow, veh/h	1177	962	746	1810	2000	1577	1810	3027	410	1810	3402	138
Grp Volume(v), veh/h	105	0	579	84	147	53	253	612	619	84	788	822
Grp Sat Flow(s),veh/h/ln	1177	0	1708	1810	2000	1577	1810	1711	1726	1810	1737	1803
Q Serve(g_s), s	8.8	0.0	30.0	3.0	6.6	2.9	8.5	30.6	30.8	2.8	50.2	50.7
Cycle Q Clear(g_c), s	8.9	0.0	30.0	3.0	6.6	2.9	8.5	30.6	30.8	2.8	50.2	50.7
Prop In Lane	1.00		0.44	1.00		1.00	1.00		0.24	1.00		0.08
Lane Grp Cap(c), veh/h	353	0	427	105	608	480	212	927	935	236	861	894
V/C Ratio(X)	0.30	0.00	1.36	0.80	0.24	0.11	1.20	0.66	0.66	0.36	0.91	0.92
Avail Cap(c_a), veh/h	353	0	427	105	608	480	212	927	935	236	861	894
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.2	0.0	45.0	42.0	31.4	30.1	33.9	19.6	19.7	17.7	27.9	28.0
Incr Delay (d2), s/veh	0.5	0.0	175.0	33.7	0.2	0.1	124.9	3.7	3.7	0.9	15.8	16.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	0.0	34.9	2.3	3.7	1.3	14.3	15.4	15.6	1.4	27.6	29.1
LnGrp Delay(d),s/veh	37.6	0.0	220.0	75.7	31.6	30.2	158.8	23.3	23.3	18.6	43.7	44.0
LnGrp LOS	D		F	E	C	C	F	C	C	B	D	D
Approach Vol, veh/h		684			284			1484			1694	
Approach Delay, s/veh		192.0			44.3			46.4			42.6	
Approach LOS		F			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6		8
Phs Duration (G+Y+Rc), s	6.5	71.0	6.5	36.0	12.0	65.5		42.5
Change Period (Y+Rc), s	3.5	6.0	3.5	6.0	3.5	6.0		6.0
Max Green Setting (Gmax), s	3.0	65.0	3.0	30.0	8.5	59.5		36.5
Max Q Clear Time (g_c+I1), s	4.8	32.8	5.0	32.0	10.5	52.7		8.6
Green Ext Time (p_c), s	0.0	25.3	0.0	0.0	0.0	6.3		5.6

Intersection Summary	
HCM 2010 Ctrl Delay	68.7
HCM 2010 LOS	E

Intersection	
Intersection Delay, s/veh	10.2
Intersection LOS	B

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	10	180	90	0	10	190	20	0	90	30	10
Peak Hour Factor	0.92	0.97	0.97	0.97	0.92	0.97	0.97	0.97	0.92	0.97	0.97	0.97
Heavy Vehicles, %	2	0	1	4	2	0	3	0	2	0	0	50
Mvmt Flow	0	10	186	93	0	10	196	21	0	93	31	10
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	10.6	10.2	9.9
HCM LOS	B	B	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	69%	4%	5%	25%
Vol Thru, %	23%	64%	86%	42%
Vol Right, %	8%	32%	9%	33%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	130	280	220	120
LT Vol	90	10	10	30
Through Vol	30	180	190	50
RT Vol	10	90	20	40
Lane Flow Rate	134	289	227	124
Geometry Grp	1	1	1	1
Degree of Util (X)	0.204	0.374	0.307	0.18
Departure Headway (Hd)	5.469	4.664	4.969	5.251
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	659	762	728	687
Service Time	3.472	2.758	2.969	3.256
HCM Lane V/C Ratio	0.203	0.379	0.312	0.18
HCM Control Delay	9.9	10.6	10.2	9.4
HCM Lane LOS	A	B	B	A
HCM 95th-tile Q	0.8	1.7	1.3	0.7

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	30	50	40
Peak Hour Factor	0.92	0.97	0.97	0.97
Heavy Vehicles, %	2	0	0	7
Mvmt Flow	0	31	52	41
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	9.4
HCM LOS	A

Lane

Intersection	
Intersection Delay, s/veh	12
Intersection LOS	B

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	30	230	140	0	10	200	20	0	60	40	10
Peak Hour Factor	0.92	0.95	0.95	0.95	0.92	0.95	0.95	0.95	0.92	0.95	0.95	0.95
Heavy Vehicles, %	2	0	1	1	2	0	2	0	2	2	0	0
Mvmt Flow	0	32	242	147	0	11	211	21	0	63	42	11
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	13.8	10.9	10.3
HCM LOS	B	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	55%	7%	4%	15%
Vol Thru, %	36%	58%	87%	46%
Vol Right, %	9%	35%	9%	38%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	110	400	230	130
LT Vol	60	30	10	20
Through Vol	40	230	200	60
RT Vol	10	140	20	50
Lane Flow Rate	116	421	242	137
Geometry Grp	1	1	1	1
Degree of Util (X)	0.189	0.561	0.347	0.212
Departure Headway (Hd)	5.89	4.796	5.167	5.567
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	608	754	695	645
Service Time	3.936	2.824	3.201	3.609
HCM Lane V/C Ratio	0.191	0.558	0.348	0.212
HCM Control Delay	10.3	13.8	10.9	10.1
HCM Lane LOS	B	B	B	B
HCM 95th-tile Q	0.7	3.5	1.6	0.8

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	20	60	50
Peak Hour Factor	0.92	0.95	0.95	0.95
Heavy Vehicles, %	2	0	0	0
Mvmt Flow	0	21	63	53
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	10.1
HCM LOS	B

Lane

Intersection	
Intersection Delay, s/veh	12
Intersection LOS	B

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	20	220	100	0	20	230	10	0	110	40	10
Peak Hour Factor	0.92	0.97	0.97	0.97	0.92	0.97	0.97	0.97	0.92	0.97	0.97	0.97
Heavy Vehicles, %	2	0	1	4	2	0	3	0	2	0	0	50
Mvmt Flow	0	21	227	103	0	21	237	10	0	113	41	10
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	13	11.9	11.1
HCM LOS	B	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	69%	6%	8%	29%
Vol Thru, %	25%	65%	88%	43%
Vol Right, %	6%	29%	4%	29%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	160	340	260	140
LT Vol	110	20	20	40
Through Vol	40	220	230	60
RT Vol	10	100	10	40
Lane Flow Rate	165	351	268	144
Geometry Grp	1	1	1	1
Degree of Util (X)	0.269	0.493	0.397	0.229
Departure Headway (Hd)	5.879	5.064	5.326	5.715
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	609	712	673	626
Service Time	3.934	3.107	3.373	3.772
HCM Lane V/C Ratio	0.271	0.493	0.398	0.23
HCM Control Delay	11.1	13	11.9	10.5
HCM Lane LOS	B	B	B	B
HCM 95th-tile Q	1.1	2.7	1.9	0.9

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	40	60	40
Peak Hour Factor	0.92	0.97	0.97	0.97
Heavy Vehicles, %	2	0	0	7
Mvmt Flow	0	41	62	41
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	10.5
HCM LOS	B

Lane

Intersection	
Intersection Delay, s/veh	15.9
Intersection LOS	C

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	40	270	170	0	10	240	30	0	70	40	10
Peak Hour Factor	0.92	0.95	0.95	0.95	0.92	0.95	0.95	0.95	0.92	0.95	0.95	0.95
Heavy Vehicles, %	2	0	1	1	2	0	2	0	2	2	0	0
Mvmt Flow	0	42	284	179	0	11	253	32	0	74	42	11
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	20.1	13.1	11.4
HCM LOS	C	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	58%	8%	4%	12%
Vol Thru, %	33%	56%	86%	50%
Vol Right, %	8%	35%	11%	38%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	120	480	280	160
LT Vol	70	40	10	20
Through Vol	40	270	240	80
RT Vol	10	170	30	60
Lane Flow Rate	126	505	295	168
Geometry Grp	1	1	1	1
Degree of Util (X)	0.226	0.716	0.452	0.283
Departure Headway (Hd)	6.446	5.1	5.524	6.05
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	552	707	648	589
Service Time	4.537	3.159	3.595	4.135
HCM Lane V/C Ratio	0.228	0.714	0.455	0.285
HCM Control Delay	11.4	20.1	13.1	11.5
HCM Lane LOS	B	C	B	B
HCM 95th-tile Q	0.9	6.1	2.3	1.2

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	20	80	60
Peak Hour Factor	0.92	0.95	0.95	0.95
Heavy Vehicles, %	2	0	0	0
Mvmt Flow	0	21	84	63
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	11.5
HCM LOS	B

Lane

Intersection	
Intersection Delay, s/veh	13
Intersection LOS	B

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	20	190	100	0	10	290	20	0	170	30	10
Peak Hour Factor	0.92	0.97	0.97	0.97	0.92	0.97	0.97	0.97	0.92	0.97	0.97	0.97
Heavy Vehicles, %	2	0	1	4	2	0	3	0	2	0	0	50
Mvmt Flow	0	21	196	103	0	10	299	21	0	175	31	10
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	13.3	14	12.6
HCM LOS	B	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	81%	6%	3%	21%
Vol Thru, %	14%	61%	91%	36%
Vol Right, %	5%	32%	6%	43%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	210	310	320	140
LT Vol	170	20	10	30
Through Vol	30	190	290	50
RT Vol	10	100	20	60
Lane Flow Rate	216	320	330	144
Geometry Grp	1	1	1	1
Degree of Util (X)	0.365	0.476	0.502	0.236
Departure Headway (Hd)	6.063	5.36	5.481	5.891
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	589	668	653	605
Service Time	4.139	3.426	3.547	3.976
HCM Lane V/C Ratio	0.367	0.479	0.505	0.238
HCM Control Delay	12.6	13.3	14	10.8
HCM Lane LOS	B	B	B	B
HCM 95th-tile Q	1.7	2.6	2.8	0.9

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	30	50	60
Peak Hour Factor	0.92	0.97	0.97	0.97
Heavy Vehicles, %	2	0	0	7
Mvmt Flow	0	31	52	62
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	10.8
HCM LOS	B

Lane

Intersection	
Intersection Delay, s/veh	19.3
Intersection LOS	C

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	50	310	200	0	10	210	20	0	70	40	10
Peak Hour Factor	0.92	0.95	0.95	0.95	0.92	0.95	0.95	0.95	0.92	0.95	0.95	0.95
Heavy Vehicles, %	2	0	1	1	2	0	2	0	2	2	0	0
Mvmt Flow	0	53	326	211	0	11	221	21	0	74	42	11
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	26.1	12.2	11.5
HCM LOS	D	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	58%	9%	4%	14%
Vol Thru, %	33%	55%	88%	43%
Vol Right, %	8%	36%	8%	43%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	120	560	240	140
LT Vol	70	50	10	20
Through Vol	40	310	210	60
RT Vol	10	200	20	60
Lane Flow Rate	126	589	253	147
Geometry Grp	1	1	1	1
Degree of Util (X)	0.227	0.814	0.391	0.25
Departure Headway (Hd)	6.479	4.974	5.578	6.108
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	551	725	642	584
Service Time	4.561	3.025	3.645	4.186
HCM Lane V/C Ratio	0.229	0.812	0.394	0.252
HCM Control Delay	11.5	26.1	12.2	11.2
HCM Lane LOS	B	D	B	B
HCM 95th-tile Q	0.9	8.6	1.9	1

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	20	60	60
Peak Hour Factor	0.92	0.95	0.95	0.95
Heavy Vehicles, %	2	0	0	0
Mvmt Flow	0	21	63	63
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	11.2
HCM LOS	B

Lane

Intersection	
Intersection Delay, s/veh	15.3
Intersection LOS	C

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	30	240	110	0	60	270	20	0	140	40	10
Peak Hour Factor	0.92	0.97	0.97	0.97	0.92	0.97	0.97	0.97	0.92	0.97	0.97	0.97
Heavy Vehicles, %	2	0	1	4	2	0	3	0	2	0	0	50
Mvmt Flow	0	31	247	113	0	62	278	21	0	144	41	10
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	16.8	16.4	13.2
HCM LOS	C	C	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	74%	8%	17%	25%
Vol Thru, %	21%	63%	77%	44%
Vol Right, %	5%	29%	6%	31%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	190	380	350	160
LT Vol	140	30	60	40
Through Vol	40	240	270	70
RT Vol	10	110	20	50
Lane Flow Rate	196	392	361	165
Geometry Grp	1	1	1	1
Degree of Util (X)	0.357	0.601	0.573	0.294
Departure Headway (Hd)	6.564	5.64	5.835	6.41
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	550	642	621	562
Service Time	4.574	3.64	3.835	4.42
HCM Lane V/C Ratio	0.356	0.611	0.581	0.294
HCM Control Delay	13.2	16.8	16.4	12.1
HCM Lane LOS	B	C	C	B
HCM 95th-tile Q	1.6	4	3.6	1.2

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	40	70	50
Peak Hour Factor	0.92	0.97	0.97	0.97
Heavy Vehicles, %	2	0	0	7
Mvmt Flow	0	41	72	52
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	12.1
HCM LOS	B

Lane

Intersection	
Intersection Delay, s/veh	36.9
Intersection LOS	E

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	60	350	210	0	10	250	30	0	120	50	10
Peak Hour Factor	0.92	0.95	0.95	0.95	0.92	0.95	0.95	0.95	0.92	0.95	0.95	0.95
Heavy Vehicles, %	2	0	1	1	2	0	2	0	2	2	0	0
Mvmt Flow	0	63	368	221	0	11	263	32	0	126	53	11
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	59.4	16.3	14.6
HCM LOS	F	C	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	67%	10%	3%	12%
Vol Thru, %	28%	56%	86%	47%
Vol Right, %	6%	34%	10%	41%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	180	620	290	170
LT Vol	120	60	10	20
Through Vol	50	350	250	80
RT Vol	10	210	30	70
Lane Flow Rate	189	653	305	179
Geometry Grp	1	1	1	1
Degree of Util (X)	0.378	1	0.532	0.342
Departure Headway (Hd)	7.18	5.711	6.27	6.878
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	500	640	571	521
Service Time	5.234	3.711	4.343	4.947
HCM Lane V/C Ratio	0.378	1.02	0.534	0.344
HCM Control Delay	14.6	59.4	16.3	13.5
HCM Lane LOS	B	F	C	B
HCM 95th-tile Q	1.7	15.4	3.1	1.5

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	20	80	70
Peak Hour Factor	0.92	0.95	0.95	0.95
Heavy Vehicles, %	2	0	0	0
Mvmt Flow	0	21	84	74
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	13.5
HCM LOS	B

Lane

Intersection	
Intersection Delay, s/veh	14.1
Intersection LOS	B

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	30	240	110	0	60	270	20	0	140	40	10
Peak Hour Factor	0.92	0.97	0.97	0.97	0.92	0.97	0.97	0.97	0.92	0.97	0.97	0.97
Heavy Vehicles, %	2	0	1	4	2	0	3	0	2	0	0	50
Mvmt Flow	0	31	247	113	0	62	278	21	0	144	41	10
Number of Lanes	0	0	1	1	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	2	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	13.3	16.7	13
HCM LOS	B	C	B

Lane	NBLn1	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	74%	11%	0%	17%	25%
Vol Thru, %	21%	89%	0%	77%	44%
Vol Right, %	5%	0%	100%	6%	31%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	190	270	110	350	160
LT Vol	140	30	0	60	40
Through Vol	40	240	0	270	70
RT Vol	10	0	110	20	50
Lane Flow Rate	196	278	113	361	165
Geometry Grp	2	7	7	5	2
Degree of Util (X)	0.349	0.483	0.173	0.581	0.291
Departure Headway (Hd)	6.522	6.252	5.501	5.794	6.36
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	554	571	645	617	569
Service Time	4.522	4.044	3.292	3.884	4.36
HCM Lane V/C Ratio	0.354	0.487	0.175	0.585	0.29
HCM Control Delay	13	14.8	9.5	16.7	11.9
HCM Lane LOS	B	B	A	C	B
HCM 95th-tile Q	1.6	2.6	0.6	3.7	1.2

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	40	70	50
Peak Hour Factor	0.92	0.97	0.97	0.97
Heavy Vehicles, %	2	0	0	7
Mvmt Flow	0	41	72	52
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	11.9
HCM LOS	B

Lane

Intersection	
Intersection Delay, s/veh	18
Intersection LOS	C

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	60	350	210	0	10	250	30	0	120	50	10
Peak Hour Factor	0.92	0.95	0.95	0.95	0.92	0.95	0.95	0.95	0.92	0.95	0.95	0.95
Heavy Vehicles, %	2	0	1	1	2	0	2	0	2	2	0	0
Mvmt Flow	0	63	368	221	0	11	263	32	0	126	53	11
Number of Lanes	0	0	1	1	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	2	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	21.3	16.2	14.1
HCM LOS	C	C	B

Lane	NBLn1	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	67%	15%	0%	3%	12%
Vol Thru, %	28%	85%	0%	86%	47%
Vol Right, %	6%	0%	100%	10%	41%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	180	410	210	290	170
LT Vol	120	60	0	10	20
Through Vol	50	350	0	250	80
RT Vol	10	0	210	30	70
Lane Flow Rate	189	432	221	305	179
Geometry Grp	2	7	7	5	2
Degree of Util (X)	0.368	0.756	0.34	0.531	0.333
Departure Headway (Hd)	6.999	6.442	5.672	6.267	6.697
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	515	565	639	577	539
Service Time	5.026	4.142	3.372	4.295	4.725
HCM Lane V/C Ratio	0.367	0.765	0.346	0.529	0.332
HCM Control Delay	14.1	26.4	11.3	16.2	13
HCM Lane LOS	B	D	B	C	B
HCM 95th-tile Q	1.7	6.7	1.5	3.1	1.5

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	20	80	70
Peak Hour Factor	0.92	0.95	0.95	0.95
Heavy Vehicles, %	2	0	0	0
Mvmt Flow	0	21	84	74
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	13
HCM LOS	B

Lane

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	10	10	10	90	10	280	10	450	80	160	250	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1881	2000	1863	1267	1884	1900	1810	1847	1900
Adj Flow Rate, veh/h	11	11	11	95	11	295	11	474	84	168	263	11
Adj No. of Lanes	0	1	0	1	1	1	1	2	0	1	2	0
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
Percent Heavy Veh, %	0	0	0	1	0	2	50	1	1	5	3	3
Cap, veh/h	144	142	112	406	440	349	494	1595	281	550	1969	82
Arrive On Green	0.22	0.22	0.22	0.22	0.22	0.22	0.01	0.52	0.52	0.06	0.57	0.57
Sat Flow, veh/h	376	645	510	1398	2000	1583	1206	3043	536	1723	3433	143
Grp Volume(v), veh/h	33	0	0	95	11	295	11	278	280	168	134	140
Grp Sat Flow(s),veh/h/ln	1531	0	0	1398	2000	1583	1206	1790	1789	1723	1754	1822
Q Serve(g_s), s	0.0	0.0	0.0	3.0	0.3	14.0	0.3	6.8	6.9	3.3	2.8	2.8
Cycle Q Clear(g_c), s	1.1	0.0	0.0	4.1	0.3	14.0	0.3	6.8	6.9	3.3	2.8	2.8
Prop In Lane	0.33		0.33	1.00		1.00	1.00		0.30	1.00		0.08
Lane Grp Cap(c), veh/h	399	0	0	406	440	349	494	938	938	550	1006	1045
V/C Ratio(X)	0.08	0.00	0.00	0.23	0.02	0.85	0.02	0.30	0.30	0.31	0.13	0.13
Avail Cap(c_a), veh/h	617	0	0	616	741	587	554	938	938	550	1006	1045
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.2	0.0	0.0	25.3	23.9	29.2	8.6	10.5	10.5	7.3	7.7	7.7
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.3	0.0	5.8	0.0	0.8	0.8	0.3	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	0.0	1.7	0.2	6.6	0.1	3.5	3.6	1.6	1.4	1.5
LnGrp Delay(d),s/veh	24.3	0.0	0.0	25.6	23.9	35.0	8.7	11.3	11.3	7.6	8.0	8.0
LnGrp LOS	C			C	C	C	A	B	B	A	A	A
Approach Vol, veh/h		33			401			569			442	
Approach Delay, s/veh		24.3			32.5			11.3			7.8	
Approach LOS		C			C			B			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	8.0	47.0		23.2	4.1	50.9		23.2
Change Period (Y+Rc), s	3.5	6.0		6.0	3.5	6.0		6.0
Max Green Setting (Gmax), s	4.5	41.0		29.0	4.5	41.0		29.0
Max Q Clear Time (g_c+I1), s	5.3	8.9		3.1	2.3	4.8		16.0
Green Ext Time (p_c), s	0.0	5.1		1.5	0.0	5.2		1.3

Intersection Summary	
HCM 2010 Ctrl Delay	16.4
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	10	10	10	160	20	130	20	370	360	240	510	240
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1875	1900	1881	2000	1863	1900	1872	1900	1900	1875	1900
Adj Flow Rate, veh/h	11	11	11	168	21	137	21	389	379	253	537	253
Adj No. of Lanes	0	1	0	1	1	1	1	2	0	1	2	0
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
Percent Heavy Veh, %	0	0	0	1	0	2	0	1	1	0	1	1
Cap, veh/h	120	112	83	322	310	245	475	1010	902	520	1439	676
Arrive On Green	0.15	0.15	0.15	0.15	0.15	0.15	0.01	0.57	0.57	0.06	0.62	0.62
Sat Flow, veh/h	344	722	533	1395	2000	1580	1810	1778	1588	1810	2337	1097
Grp Volume(v), veh/h	33	0	0	168	21	137	21	389	379	253	409	381
Grp Sat Flow(s),veh/h/ln	1599	0	0	1395	2000	1580	1810	1778	1588	1810	1781	1652
Q Serve(g_s), s	0.0	0.0	0.0	6.8	0.6	5.8	0.4	8.7	9.8	4.0	8.3	8.3
Cycle Q Clear(g_c), s	1.2	0.0	0.0	8.0	0.6	5.8	0.4	8.7	9.8	4.0	8.3	8.3
Prop In Lane	0.33		0.33	1.00		1.00	1.00		1.00	1.00		0.66
Lane Grp Cap(c), veh/h	314	0	0	322	310	245	475	1010	902	520	1097	1018
V/C Ratio(X)	0.10	0.00	0.00	0.52	0.07	0.56	0.04	0.39	0.42	0.49	0.37	0.37
Avail Cap(c_a), veh/h	689	0	0	667	803	635	562	1010	902	520	1097	1018
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.3	0.0	0.0	29.0	26.0	28.2	6.5	8.6	8.8	6.4	6.9	6.9
Incr Delay (d2), s/veh	0.1	0.0	0.0	1.3	0.1	2.0	0.0	1.1	1.4	0.7	1.0	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	0.0	3.3	0.4	2.6	0.2	4.5	4.6	2.0	4.3	4.0
LnGrp Delay(d),s/veh	26.4	0.0	0.0	30.3	26.1	30.2	6.6	9.7	10.3	7.1	7.9	8.0
LnGrp LOS	C			C	C	C	A	A	B	A	A	A
Approach Vol, veh/h		33			326			789			1043	
Approach Delay, s/veh		26.4			30.0			9.9			7.7	
Approach LOS		C			C			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	8.0	47.0		17.2	4.5	50.5		17.2
Change Period (Y+Rc), s	3.5	6.0		6.0	3.5	6.0		6.0
Max Green Setting (Gmax), s	4.5	41.0		29.0	4.5	41.0		29.0
Max Q Clear Time (g_c+I1), s	6.0	11.8		3.2	2.4	10.3		10.0
Green Ext Time (p_c), s	0.0	11.7		1.2	0.0	11.9		1.1

Intersection Summary	
HCM 2010 Ctrl Delay	12.1
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	10	10	10	100	10	340	10	540	90	190	300	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1881	2000	1863	1267	1884	1900	1810	1846	1900
Adj Flow Rate, veh/h	11	11	11	105	11	358	11	568	95	200	316	11
Adj No. of Lanes	0	1	0	1	1	1	1	2	0	1	2	0
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
Percent Heavy Veh, %	0	0	0	1	0	2	50	1	1	5	3	3
Cap, veh/h	157	156	128	453	514	407	453	1533	256	470	1889	66
Arrive On Green	0.26	0.26	0.26	0.26	0.26	0.26	0.01	0.50	0.50	0.05	0.55	0.55
Sat Flow, veh/h	384	608	496	1398	2000	1583	1206	3071	512	1723	3459	120
Grp Volume(v), veh/h	33	0	0	105	11	358	11	330	333	200	160	167
Grp Sat Flow(s),veh/h/ln	1488	0	0	1398	2000	1583	1206	1790	1793	1723	1754	1825
Q Serve(g_s), s	0.0	0.0	0.0	3.5	0.3	17.8	0.4	9.3	9.4	4.5	3.7	3.8
Cycle Q Clear(g_c), s	1.1	0.0	0.0	4.6	0.3	17.8	0.4	9.3	9.4	4.5	3.7	3.8
Prop In Lane	0.33		0.33	1.00		1.00	1.00		0.29	1.00		0.07
Lane Grp Cap(c), veh/h	441	0	0	453	514	407	453	894	895	470	958	997
V/C Ratio(X)	0.07	0.00	0.00	0.23	0.02	0.88	0.02	0.37	0.37	0.43	0.17	0.17
Avail Cap(c_a), veh/h	577	0	0	587	706	559	510	894	895	470	958	997
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.1	0.0	0.0	24.3	22.8	29.3	10.1	12.6	12.6	9.4	9.3	9.3
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.3	0.0	11.6	0.0	1.2	1.2	0.6	0.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	0.0	1.9	0.2	9.1	0.1	4.9	4.9	2.1	1.9	2.0
LnGrp Delay(d),s/veh	23.2	0.0	0.0	24.5	22.8	40.8	10.1	13.8	13.8	10.0	9.7	9.7
LnGrp LOS	C			C	C	D	B	B	B	B	A	A
Approach Vol, veh/h		33			474			674			527	
Approach Delay, s/veh		23.2			36.8			13.7			9.8	
Approach LOS		C			D			B			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	8.0	47.0		27.1	4.2	50.8		27.1
Change Period (Y+Rc), s	3.5	6.0		6.0	3.5	6.0		6.0
Max Green Setting (Gmax), s	4.5	41.0		29.0	4.5	41.0		29.0
Max Q Clear Time (g_c+I1), s	6.5	11.4		3.1	2.4	5.8		19.8
Green Ext Time (p_c), s	0.0	6.3		1.8	0.0	6.5		1.3

Intersection Summary	
HCM 2010 Ctrl Delay	19.1
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	10	10	20	190	20	150	20	440	430	280	610	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1872	1900	1881	2000	1863	1900	1872	1900	1900	1881	1900
Adj Flow Rate, veh/h	11	11	21	200	21	158	21	463	453	295	642	11
Adj No. of Lanes	0	1	0	1	1	1	1	2	0	1	2	0
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
Percent Heavy Veh, %	0	0	0	1	0	2	0	1	1	0	1	1
Cap, veh/h	104	102	139	351	355	280	528	983	878	439	2154	37
Arrive On Green	0.18	0.18	0.18	0.18	0.18	0.18	0.01	0.55	0.55	0.06	0.60	0.60
Sat Flow, veh/h	242	576	781	1383	2000	1581	1810	1778	1588	1810	3594	62
Grp Volume(v), veh/h	43	0	0	200	21	158	21	463	453	295	319	334
Grp Sat Flow(s),veh/h/ln	1599	0	0	1383	2000	1581	1810	1778	1588	1810	1787	1868
Q Serve(g_s), s	0.0	0.0	0.0	8.2	0.6	6.8	0.4	11.7	13.2	4.5	6.5	6.5
Cycle Q Clear(g_c), s	1.6	0.0	0.0	9.8	0.6	6.8	0.4	11.7	13.2	4.5	6.5	6.5
Prop In Lane	0.26		0.49	1.00		1.00	1.00		1.00	1.00		0.03
Lane Grp Cap(c), veh/h	345	0	0	351	355	280	528	983	878	439	1071	1120
V/C Ratio(X)	0.12	0.00	0.00	0.57	0.06	0.56	0.04	0.47	0.52	0.67	0.30	0.30
Avail Cap(c_a), veh/h	670	0	0	646	782	618	612	983	878	439	1071	1120
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.7	0.0	0.0	28.9	25.4	27.9	7.1	10.0	10.4	10.2	7.2	7.2
Incr Delay (d2), s/veh	0.2	0.0	0.0	1.5	0.1	1.8	0.0	1.6	2.2	4.0	0.7	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	0.0	4.0	0.4	3.1	0.2	6.1	6.3	3.3	3.4	3.6
LnGrp Delay(d),s/veh	25.9	0.0	0.0	30.4	25.4	29.6	7.1	11.6	12.5	14.2	8.0	7.9
LnGrp LOS	C			C	C	C	A	B	B	B	A	A
Approach Vol, veh/h		43			379			937			948	
Approach Delay, s/veh		25.9			29.8			12.0			9.9	
Approach LOS		C			C			B			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	8.0	47.0		19.2	4.6	50.4		19.2
Change Period (Y+Rc), s	3.5	6.0		6.0	3.5	6.0		6.0
Max Green Setting (Gmax), s	4.5	41.0		29.0	4.5	41.0		29.0
Max Q Clear Time (g_c+I1), s	6.5	15.2		3.6	2.4	8.5		11.8
Green Ext Time (p_c), s	0.0	11.1		1.4	0.0	12.2		1.3

Intersection Summary	
HCM 2010 Ctrl Delay	14.3
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	10	10	10	100	10	290	10	450	170	170	250	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1881	2000	1863	1267	1886	1900	1810	1847	1900
Adj Flow Rate, veh/h	11	11	11	105	11	305	11	474	179	179	263	11
Adj No. of Lanes	0	1	0	1	1	1	1	2	0	1	2	0
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
Percent Heavy Veh, %	0	0	0	1	0	2	50	1	1	5	3	3
Cap, veh/h	146	145	115	413	453	359	490	1327	498	498	1953	81
Arrive On Green	0.23	0.23	0.23	0.23	0.23	0.23	0.01	0.52	0.52	0.06	0.57	0.57
Sat Flow, veh/h	378	638	508	1398	2000	1583	1206	2552	957	1723	3433	143
Grp Volume(v), veh/h	33	0	0	105	11	305	11	332	321	179	134	140
Grp Sat Flow(s),veh/h/ln	1524	0	0	1398	2000	1583	1206	1792	1717	1723	1754	1822
Q Serve(g_s), s	0.0	0.0	0.0	3.5	0.3	14.6	0.3	8.6	8.7	3.6	2.8	2.8
Cycle Q Clear(g_c), s	1.1	0.0	0.0	4.6	0.3	14.6	0.3	8.6	8.7	3.6	2.8	2.8
Prop In Lane	0.33		0.33	1.00		1.00	1.00		0.56	1.00		0.08
Lane Grp Cap(c), veh/h	406	0	0	413	453	359	490	932	893	498	998	1036
V/C Ratio(X)	0.08	0.00	0.00	0.25	0.02	0.85	0.02	0.36	0.36	0.36	0.13	0.14
Avail Cap(c_a), veh/h	611	0	0	611	736	582	549	932	893	498	998	1036
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.0	0.0	0.0	25.3	23.7	29.2	8.9	11.2	11.2	7.9	7.9	7.9
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.3	0.0	6.6	0.0	1.1	1.1	0.4	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	0.0	1.9	0.2	7.0	0.1	4.5	4.4	1.7	1.4	1.5
LnGrp Delay(d),s/veh	24.1	0.0	0.0	25.6	23.7	35.8	8.9	12.2	12.3	8.3	8.2	8.2
LnGrp LOS	C			C	C	D	A	B	B	A	A	A
Approach Vol, veh/h		33			421			664			453	
Approach Delay, s/veh		24.1			33.0			12.2			8.3	
Approach LOS		C			C			B			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	8.0	47.0		23.9	4.1	50.9		23.9
Change Period (Y+Rc), s	3.5	6.0		6.0	3.5	6.0		6.0
Max Green Setting (Gmax), s	4.5	41.0		29.0	4.5	41.0		29.0
Max Q Clear Time (g_c+I1), s	5.6	10.7		3.1	2.3	4.8		16.6
Green Ext Time (p_c), s	0.0	5.9		1.6	0.0	6.1		1.3

Intersection Summary	
HCM 2010 Ctrl Delay	16.9
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	10	10	10	230	20	140	20	370	370	250	510	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1875	1900	1881	2000	1863	1900	1872	1900	1900	1881	1900
Adj Flow Rate, veh/h	11	11	11	242	21	147	21	389	389	263	537	11
Adj No. of Lanes	0	1	0	1	1	1	1	2	0	1	2	0
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
Percent Heavy Veh, %	0	0	0	1	0	2	0	1	1	0	1	1
Cap, veh/h	141	137	107	385	409	323	560	951	849	470	2073	42
Arrive On Green	0.20	0.20	0.20	0.20	0.20	0.20	0.01	0.53	0.53	0.06	0.58	0.58
Sat Flow, veh/h	381	670	525	1396	2000	1581	1810	1778	1588	1810	3579	73
Grp Volume(v), veh/h	33	0	0	242	21	147	21	389	389	263	268	280
Grp Sat Flow(s),veh/h/ln	1576	0	0	1396	2000	1581	1810	1778	1588	1810	1787	1866
Q Serve(g_s), s	0.0	0.0	0.0	11.2	0.6	6.3	0.4	10.0	11.6	4.5	5.7	5.7
Cycle Q Clear(g_c), s	1.2	0.0	0.0	12.4	0.6	6.3	0.4	10.0	11.6	4.5	5.7	5.7
Prop In Lane	0.33		0.33	1.00		1.00	1.00		1.00	1.00		0.04
Lane Grp Cap(c), veh/h	385	0	0	385	409	323	560	951	849	470	1035	1081
V/C Ratio(X)	0.09	0.00	0.00	0.63	0.05	0.45	0.04	0.41	0.46	0.56	0.26	0.26
Avail Cap(c_a), veh/h	648	0	0	628	756	598	640	951	849	470	1035	1081
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.7	0.0	0.0	29.1	24.5	26.7	7.9	10.6	11.0	9.2	8.0	8.0
Incr Delay (d2), s/veh	0.1	0.0	0.0	1.7	0.1	1.0	0.0	1.3	1.8	1.5	0.6	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	0.0	5.1	0.4	2.8	0.2	5.2	5.4	2.5	2.9	3.1
LnGrp Delay(d),s/veh	24.8	0.0	0.0	30.7	24.6	27.7	8.0	11.9	12.8	10.7	8.6	8.6
LnGrp LOS	C			C	C	C	A	B	B	B	A	A
Approach Vol, veh/h		33			410			799			811	
Approach Delay, s/veh		24.8			29.4			12.2			9.3	
Approach LOS		C			C			B			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	8.0	47.0		21.7	4.6	50.4		21.7
Change Period (Y+Rc), s	3.5	6.0		6.0	3.5	6.0		6.0
Max Green Setting (Gmax), s	4.5	41.0		29.0	4.5	41.0		29.0
Max Q Clear Time (g_c+I1), s	6.5	13.6		3.2	2.4	7.7		14.4
Green Ext Time (p_c), s	0.0	9.1		1.5	0.0	9.7		1.3

Intersection Summary	
HCM 2010 Ctrl Delay	14.7
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	10	10	10	120	10	350	10	540	210	210	300	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1881	2000	1863	1267	1886	1900	1810	1846	1900
Adj Flow Rate, veh/h	11	11	11	126	11	368	11	568	221	221	316	11
Adj No. of Lanes	0	1	0	1	1	1	1	2	0	1	2	0
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
Percent Heavy Veh, %	0	0	0	1	0	2	50	1	1	5	3	3
Cap, veh/h	159	158	130	460	526	417	450	1251	485	412	1873	65
Arrive On Green	0.26	0.26	0.26	0.26	0.26	0.26	0.01	0.50	0.50	0.05	0.54	0.54
Sat Flow, veh/h	385	602	494	1398	2000	1583	1206	2525	980	1723	3459	120
Grp Volume(v), veh/h	33	0	0	126	11	368	11	403	386	221	160	167
Grp Sat Flow(s),veh/h/ln	1481	0	0	1398	2000	1583	1206	1792	1713	1723	1754	1825
Q Serve(g_s), s	0.0	0.0	0.0	4.5	0.3	18.5	0.4	12.1	12.2	4.5	3.8	3.8
Cycle Q Clear(g_c), s	1.1	0.0	0.0	5.7	0.3	18.5	0.4	12.1	12.2	4.5	3.8	3.8
Prop In Lane	0.33		0.33	1.00		1.00	1.00		0.57	1.00		0.07
Lane Grp Cap(c), veh/h	448	0	0	460	526	417	450	887	848	412	950	988
V/C Ratio(X)	0.07	0.00	0.00	0.27	0.02	0.88	0.02	0.45	0.46	0.54	0.17	0.17
Avail Cap(c_a), veh/h	571	0	0	582	701	555	506	887	848	412	950	988
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.9	0.0	0.0	24.5	22.6	29.3	10.3	13.6	13.6	11.7	9.6	9.6
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.3	0.0	12.4	0.0	1.7	1.8	1.4	0.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	0.0	2.4	0.2	9.5	0.1	6.3	6.1	1.9	1.9	2.0
LnGrp Delay(d),s/veh	23.0	0.0	0.0	24.8	22.6	41.7	10.3	15.3	15.4	13.1	10.0	10.0
LnGrp LOS	C			C	C	D	B	B	B	B	A	A
Approach Vol, veh/h		33			505			800			548	
Approach Delay, s/veh		23.0			37.1			15.3			11.2	
Approach LOS		C			D			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	8.0	47.0		27.8	4.2	50.8		27.8
Change Period (Y+Rc), s	3.5	6.0		6.0	3.5	6.0		6.0
Max Green Setting (Gmax), s	4.5	41.0		29.0	4.5	41.0		29.0
Max Q Clear Time (g_c+I1), s	6.5	14.2		3.1	2.4	5.8		20.5
Green Ext Time (p_c), s	0.0	7.3		1.9	0.0	7.8		1.3

Intersection Summary	
HCM 2010 Ctrl Delay	20.1
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	10	10	20	280	20	160	20	440	440	290	610	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1872	1900	1881	2000	1863	1900	1872	1900	1900	1881	1900
Adj Flow Rate, veh/h	11	11	21	295	21	168	21	463	463	305	642	11
Adj No. of Lanes	0	1	0	1	1	1	1	2	0	1	2	0
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
Percent Heavy Veh, %	0	0	0	1	0	2	0	1	1	0	1	1
Cap, veh/h	123	127	186	431	482	381	475	907	810	380	1984	34
Arrive On Green	0.24	0.24	0.24	0.24	0.24	0.24	0.01	0.51	0.51	0.06	0.55	0.55
Sat Flow, veh/h	279	528	770	1384	2000	1581	1810	1778	1588	1810	3594	62
Grp Volume(v), veh/h	43	0	0	295	21	168	21	463	463	305	319	334
Grp Sat Flow(s),veh/h/ln	1577	0	0	1384	2000	1581	1810	1778	1588	1810	1787	1868
Q Serve(g_s), s	0.0	0.0	0.0	14.4	0.6	7.3	0.4	13.9	16.2	4.5	7.8	7.8
Cycle Q Clear(g_c), s	1.6	0.0	0.0	15.9	0.6	7.3	0.4	13.9	16.2	4.5	7.8	7.8
Prop In Lane	0.26		0.49	1.00		1.00	1.00		1.00	1.00		0.03
Lane Grp Cap(c), veh/h	436	0	0	431	482	381	475	907	810	380	987	1032
V/C Ratio(X)	0.10	0.00	0.00	0.68	0.04	0.44	0.04	0.51	0.57	0.80	0.32	0.32
Avail Cap(c_a), veh/h	618	0	0	597	722	571	551	907	810	380	987	1032
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.7	0.0	0.0	29.0	23.4	25.9	9.3	13.0	13.6	17.5	9.8	9.8
Incr Delay (d2), s/veh	0.1	0.0	0.0	1.9	0.0	0.8	0.0	2.0	2.9	11.7	0.9	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	0.0	6.5	0.4	3.3	0.2	7.2	7.7	5.7	4.0	4.2
LnGrp Delay(d),s/veh	23.8	0.0	0.0	30.9	23.4	26.7	9.4	15.1	16.5	29.2	10.7	10.6
LnGrp LOS	C			C	C	C	A	B	B	C	B	B
Approach Vol, veh/h		43			484			947			958	
Approach Delay, s/veh		23.8			29.1			15.7			16.6	
Approach LOS		C			C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	8.0	47.0		25.4	4.6	50.4		25.4
Change Period (Y+Rc), s	3.5	6.0		6.0	3.5	6.0		6.0
Max Green Setting (Gmax), s	4.5	41.0		29.0	4.5	41.0		29.0
Max Q Clear Time (g_c+I1), s	6.5	18.2		3.6	2.4	9.8		17.9
Green Ext Time (p_c), s	0.0	10.6		1.8	0.0	12.1		1.4

Intersection Summary	
HCM 2010 Ctrl Delay	18.8
HCM 2010 LOS	B

Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	100	280	340	180	20	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	2	2	0	0	0
Mvmt Flow	105	295	358	189	21	11

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	547	0	-	0	958	453
Stage 1	-	-	-	-	453	-
Stage 2	-	-	-	-	505	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1033	-	-	-	288	611
Stage 1	-	-	-	-	645	-
Stage 2	-	-	-	-	610	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1033	-	-	-	253	611
Mov Cap-2 Maneuver	-	-	-	-	253	-
Stage 1	-	-	-	-	645	-
Stage 2	-	-	-	-	536	-

Approach	EB	WB	SB
HCM Control Delay, s	2.3	0	17.7
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1033	-	-	-	314
HCM Lane V/C Ratio	0.102	-	-	-	0.101
HCM Control Delay (s)	8.9	0	-	-	17.7
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.3	-	-	-	0.3

Intersection	
Int Delay, s/veh	5.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	10	410	320	20	150	80
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	2	2	0	0	0
Mvmt Flow	11	432	337	21	158	84

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	358	0	-	0	800	347
Stage 1	-	-	-	-	347	-
Stage 2	-	-	-	-	453	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1212	-	-	-	357	701
Stage 1	-	-	-	-	720	-
Stage 2	-	-	-	-	645	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1212	-	-	-	353	701
Mov Cap-2 Maneuver	-	-	-	-	353	-
Stage 1	-	-	-	-	720	-
Stage 2	-	-	-	-	637	-

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	23.9
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1212	-	-	-	427
HCM Lane V/C Ratio	0.009	-	-	-	0.567
HCM Control Delay (s)	8	0	-	-	23.9
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	3.4

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	50	330	90	0	380	70	0	0	0	30	0	20
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	2	0	0	2	0	0	0	0	0	0	0
Mvmt Flow	53	347	95	0	400	74	0	0	0	32	0	21

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	474	0	0	442	0	0	947	974	395	937	984	437
Stage 1	-	-	-	-	-	-	500	500	-	437	437	-
Stage 2	-	-	-	-	-	-	447	474	-	500	547	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1099	-	-	1129	-	-	243	254	659	247	250	624
Stage 1	-	-	-	-	-	-	557	546	-	602	583	-
Stage 2	-	-	-	-	-	-	595	561	-	557	521	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1099	-	-	1129	-	-	223	237	659	235	234	624
Mov Cap-2 Maneuver	-	-	-	-	-	-	223	237	-	235	234	-
Stage 1	-	-	-	-	-	-	521	511	-	563	583	-
Stage 2	-	-	-	-	-	-	575	561	-	521	487	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.9	0	0	18.8
HCM LOS			A	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	1099	-	-	1129	-	-	313
HCM Lane V/C Ratio	-	0.048	-	-	-	-	-	0.168
HCM Control Delay (s)	0	8.4	0	-	0	-	-	18.8
HCM Lane LOS	A	A	A	-	A	-	-	C
HCM 95th %tile Q(veh)	-	0.2	-	-	0	-	-	0.6

Intersection	
Int Delay, s/veh	5.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	20	430	0	0	360	20	0	0	30	110	0	70
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	2	0	0	2	0	0	0	0	0	0	0
Mvmt Flow	21	453	0	0	379	21	0	0	32	116	0	74

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	400	0	0	453	0	0	921	895	453	884	884	389
Stage 1	-	-	-	-	-	-	495	495	-	389	389	-
Stage 2	-	-	-	-	-	-	426	400	-	495	495	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1170	-	-	1118	-	-	253	282	611	268	286	664
Stage 1	-	-	-	-	-	-	560	549	-	639	612	-
Stage 2	-	-	-	-	-	-	610	605	-	560	549	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1170	-	-	1118	-	-	221	275	611	249	279	664
Mov Cap-2 Maneuver	-	-	-	-	-	-	221	275	-	249	279	-
Stage 1	-	-	-	-	-	-	547	536	-	624	612	-
Stage 2	-	-	-	-	-	-	542	605	-	518	536	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.4	0	11.2	29.8
HCM LOS			B	D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	611	1170	-	-	1118	-	-	329
HCM Lane V/C Ratio	0.052	0.018	-	-	-	-	-	0.576
HCM Control Delay (s)	11.2	8.1	0	-	0	-	-	29.8
HCM Lane LOS	B	A	A	-	A	-	-	D
HCM 95th %tile Q(veh)	0.2	0.1	-	-	0	-	-	3.4

Intersection	
Int Delay, s/veh	2.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	10	220	10	10	290	20	10	10	20	40	10	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	1	1	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	0	2	0	0	2	7	0	0	0	0	25	0
Mvmt Flow	11	242	11	11	319	22	11	11	22	44	11	11

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	342	0	0	254	0	0	634	634	248	640	629	331
Stage 1	-	-	-	-	-	-	270	270	-	353	353	-
Stage 2	-	-	-	-	-	-	364	364	-	287	276	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.75	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.75	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.75	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4.225	3.3
Pot Cap-1 Maneuver	1228	-	-	1323	-	-	395	399	796	391	370	715
Stage 1	-	-	-	-	-	-	740	690	-	668	592	-
Stage 2	-	-	-	-	-	-	659	627	-	725	642	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1228	-	-	1323	-	-	374	390	795	366	362	714
Mov Cap-2 Maneuver	-	-	-	-	-	-	374	390	-	366	362	-
Stage 1	-	-	-	-	-	-	732	683	-	661	586	-
Stage 2	-	-	-	-	-	-	630	620	-	687	635	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	0.2	12.6	15.8
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	516	1228	-	-	1323	-	-	398
HCM Lane V/C Ratio	0.085	0.009	-	-	0.008	-	-	0.166
HCM Control Delay (s)	12.6	8	0	-	7.7	0	-	15.8
HCM Lane LOS	B	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.3	0	-	-	0	-	-	0.6

Intersection	
Int Delay, s/veh	2.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	10	340	10	30	240	50	10	10	20	30	10	10
Conflicting Peds, #/hr	1	0	0	0	0	1	0	0	1	1	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	0	0	0	0	1	2	0	0	8	0	0	0
Mvmt Flow	10	354	10	31	250	52	10	10	21	31	10	10

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	303	0	0	366	0	0	731	747	361	737	726	278
Stage 1	-	-	-	-	-	-	381	381	-	340	340	-
Stage 2	-	-	-	-	-	-	350	366	-	397	386	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.28	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.372	3.5	4	3.3
Pot Cap-1 Maneuver	1269	-	-	1204	-	-	340	344	670	337	354	766
Stage 1	-	-	-	-	-	-	645	617	-	679	643	-
Stage 2	-	-	-	-	-	-	671	626	-	633	614	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1268	-	-	1203	-	-	317	329	669	308	339	765
Mov Cap-2 Maneuver	-	-	-	-	-	-	317	329	-	308	339	-
Stage 1	-	-	-	-	-	-	638	610	-	672	623	-
Stage 2	-	-	-	-	-	-	630	606	-	596	607	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0.8	14.1	16.8
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	436	1268	-	-	1203	-	-	357
HCM Lane V/C Ratio	0.096	0.008	-	-	0.026	-	-	0.146
HCM Control Delay (s)	14.1	7.9	0	-	8.1	0	-	16.8
HCM Lane LOS	B	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.3	0	-	-	0.1	-	-	0.5

Intersection	
Int Delay, s/veh	2.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	10	260	10	10	340	20	10	10	20	50	10	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	1	1	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	0	2	0	0	2	7	0	0	0	0	25	0
Mvmt Flow	11	286	11	11	374	22	11	11	22	55	11	11

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	397	0	0	298	0	0	733	733	292	739	728	386
Stage 1	-	-	-	-	-	-	314	314	-	408	408	-
Stage 2	-	-	-	-	-	-	419	419	-	331	320	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.75	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.75	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.75	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4.225	3.3
Pot Cap-1 Maneuver	1173	-	-	1275	-	-	339	350	752	336	324	666
Stage 1	-	-	-	-	-	-	701	660	-	624	559	-
Stage 2	-	-	-	-	-	-	616	593	-	687	613	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1173	-	-	1275	-	-	319	342	751	313	316	665
Mov Cap-2 Maneuver	-	-	-	-	-	-	319	342	-	313	316	-
Stage 1	-	-	-	-	-	-	693	652	-	617	552	-
Stage 2	-	-	-	-	-	-	587	586	-	648	606	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	0.2	13.7	18.7
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	459	1173	-	-	1275	-	-	339
HCM Lane V/C Ratio	0.096	0.009	-	-	0.009	-	-	0.227
HCM Control Delay (s)	13.7	8.1	0	-	7.8	0	-	18.7
HCM Lane LOS	B	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.3	0	-	-	0	-	-	0.9

Intersection	
Int Delay, s/veh	2.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	10	410	10	30	290	60	10	10	20	40	10	10
Conflicting Peds, #/hr	1	0	0	0	0	1	0	0	1	1	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	0	0	0	0	1	2	0	0	8	0	0	0
Mvmt Flow	10	427	10	31	302	62	10	10	21	42	10	10

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	366	0	0	439	0	0	861	882	434	867	856	335
Stage 1	-	-	-	-	-	-	454	454	-	397	397	-
Stage 2	-	-	-	-	-	-	407	428	-	470	459	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.28	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.372	3.5	4	3.3
Pot Cap-1 Maneuver	1204	-	-	1132	-	-	278	287	609	275	297	712
Stage 1	-	-	-	-	-	-	589	573	-	633	607	-
Stage 2	-	-	-	-	-	-	625	588	-	578	570	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1203	-	-	1131	-	-	257	273	608	248	283	711
Mov Cap-2 Maneuver	-	-	-	-	-	-	257	273	-	248	283	-
Stage 1	-	-	-	-	-	-	582	566	-	626	585	-
Stage 2	-	-	-	-	-	-	583	567	-	541	563	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0.7	16	21.1
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	369	1203	-	-	1131	-	-	285
HCM Lane V/C Ratio	0.113	0.009	-	-	0.028	-	-	0.219
HCM Control Delay (s)	16	8	0	-	8.3	0	-	21.1
HCM Lane LOS	C	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.4	0	-	-	0.1	-	-	0.8

Intersection	
Int Delay, s/veh	2.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	10	320	10	10	300	20	10	10	20	40	10	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	1	1	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	0	2	0	0	2	7	0	0	0	0	25	0
Mvmt Flow	11	352	11	11	330	22	11	11	22	44	11	11

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	353	0	0	364	0	0	755	755	358	761	750	342
Stage 1	-	-	-	-	-	-	380	380	-	364	364	-
Stage 2	-	-	-	-	-	-	375	375	-	397	386	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.75	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.75	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.75	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4.225	3.3
Pot Cap-1 Maneuver	1217	-	-	1206	-	-	328	340	691	325	314	705
Stage 1	-	-	-	-	-	-	646	617	-	659	585	-
Stage 2	-	-	-	-	-	-	650	621	-	633	572	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1217	-	-	1206	-	-	309	332	690	301	307	704
Mov Cap-2 Maneuver	-	-	-	-	-	-	309	332	-	301	307	-
Stage 1	-	-	-	-	-	-	638	610	-	651	578	-
Stage 2	-	-	-	-	-	-	621	614	-	595	565	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0.2	14.2	18.4
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	437	1217	-	-	1206	-	-	334
HCM Lane V/C Ratio	0.101	0.009	-	-	0.009	-	-	0.197
HCM Control Delay (s)	14.2	8	0	-	8	0	-	18.4
HCM Lane LOS	B	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.3	0	-	-	0	-	-	0.7

Intersection	
Int Delay, s/veh	2.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	10	350	10	30	320	50	10	10	20	30	10	10
Conflicting Peds, #/hr	1	0	0	0	0	1	0	0	1	1	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	0	0	0	0	1	2	0	0	8	0	0	0
Mvmt Flow	10	365	10	31	333	52	10	10	21	31	10	10

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	386	0	0	376	0	0	825	841	372	830	820	361
Stage 1	-	-	-	-	-	-	392	392	-	423	423	-
Stage 2	-	-	-	-	-	-	433	449	-	407	397	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.28	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.372	3.5	4	3.3
Pot Cap-1 Maneuver	1184	-	-	1194	-	-	294	303	661	292	312	688
Stage 1	-	-	-	-	-	-	637	610	-	613	591	-
Stage 2	-	-	-	-	-	-	605	576	-	625	607	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1183	-	-	1193	-	-	272	289	660	265	298	687
Mov Cap-2 Maneuver	-	-	-	-	-	-	272	289	-	265	298	-
Stage 1	-	-	-	-	-	-	629	603	-	606	571	-
Stage 2	-	-	-	-	-	-	565	557	-	588	600	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0.6	15.2	18.9
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	393	1183	-	-	1193	-	-	310
HCM Lane V/C Ratio	0.106	0.009	-	-	0.026	-	-	0.168
HCM Control Delay (s)	15.2	8.1	0	-	8.1	0	-	18.9
HCM Lane LOS	C	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.4	0	-	-	0.1	-	-	0.6

Intersection	
Int Delay, s/veh	2.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	10	390	10	10	360	20	10	10	20	50	10	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	1	1	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	0	2	0	0	2	7	0	0	0	0	25	0
Mvmt Flow	11	429	11	11	396	22	11	11	22	55	11	11

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	419	0	0	441	0	0	898	898	435	904	893	408
Stage 1	-	-	-	-	-	-	457	457	-	430	430	-
Stage 2	-	-	-	-	-	-	441	441	-	474	463	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.75	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.75	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.75	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4.225	3.3
Pot Cap-1 Maneuver	1151	-	-	1130	-	-	262	281	625	260	258	648
Stage 1	-	-	-	-	-	-	587	571	-	607	546	-
Stage 2	-	-	-	-	-	-	599	580	-	575	527	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1151	-	-	1130	-	-	244	273	624	238	251	647
Mov Cap-2 Maneuver	-	-	-	-	-	-	244	273	-	238	251	-
Stage 1	-	-	-	-	-	-	579	563	-	599	538	-
Stage 2	-	-	-	-	-	-	569	572	-	537	520	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0.2	16.2	24.1
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	365	1151	-	-	1130	-	-	264
HCM Lane V/C Ratio	0.12	0.01	-	-	0.01	-	-	0.291
HCM Control Delay (s)	16.2	8.2	0	-	8.2	0	-	24.1
HCM Lane LOS	C	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.4	0	-	-	0	-	-	1.2

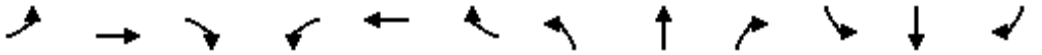
Intersection	
Int Delay, s/veh	2.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	10	430	10	30	390	60	10	10	20	40	10	10
Conflicting Peds, #/hr	1	0	0	0	0	1	0	0	1	1	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	0	0	0	0	1	2	0	0	8	0	0	0
Mvmt Flow	10	448	10	31	406	62	10	10	21	42	10	10

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	470	0	0	459	0	0	986	1007	455	992	981	440
Stage 1	-	-	-	-	-	-	475	475	-	501	501	-
Stage 2	-	-	-	-	-	-	511	532	-	491	480	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.28	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.372	3.5	4	3.3
Pot Cap-1 Maneuver	1102	-	-	1113	-	-	229	243	593	227	251	621
Stage 1	-	-	-	-	-	-	574	561	-	556	546	-
Stage 2	-	-	-	-	-	-	549	529	-	563	558	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1101	-	-	1112	-	-	209	231	592	203	238	620
Mov Cap-2 Maneuver	-	-	-	-	-	-	209	231	-	203	238	-
Stage 1	-	-	-	-	-	-	567	554	-	549	525	-
Stage 2	-	-	-	-	-	-	509	508	-	526	551	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0.5	17.9	25.8
HCM LOS			C	D

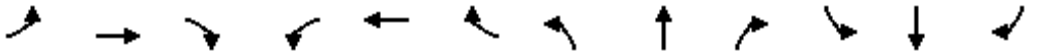
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	320	1101	-	-	1112	-	-	235
HCM Lane V/C Ratio	0.13	0.009	-	-	0.028	-	-	0.266
HCM Control Delay (s)	17.9	8.3	0	-	8.3	0	-	25.8
HCM Lane LOS	C	A	A	-	A	A	-	D
HCM 95th %tile Q(veh)	0.4	0	-	-	0.1	-	-	1



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	20	40	180	130	40	50	80	1270	100	30	990	20
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1885	1900	1881	1879	1900	1881	1782	1900	1827	1794	1900
Adj Flow Rate, veh/h	21	42	189	137	42	53	84	1337	105	32	1042	21
Adj No. of Lanes	1	1	0	1	1	0	1	2	0	1	2	0
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
Percent Heavy Veh, %	0	0	0	1	0	0	1	7	7	4	6	6
Cap, veh/h	352	78	353	227	198	250	327	1863	146	195	1941	39
Arrive On Green	0.26	0.26	0.26	0.26	0.26	0.26	0.03	0.59	0.59	0.02	0.57	0.57
Sat Flow, veh/h	1321	299	1347	1156	756	954	1792	3181	249	1740	3418	69
Grp Volume(v), veh/h	21	0	231	137	0	95	84	709	733	32	520	543
Grp Sat Flow(s),veh/h/ln	1321	0	1647	1156	0	1711	1792	1693	1738	1740	1705	1782
Q Serve(g_s), s	1.4	0.0	13.8	13.2	0.0	5.0	2.2	34.2	34.5	0.9	21.7	21.7
Cycle Q Clear(g_c), s	6.4	0.0	13.8	27.0	0.0	5.0	2.2	34.2	34.5	0.9	21.7	21.7
Prop In Lane	1.00		0.82	1.00		0.56	1.00		0.14	1.00		0.04
Lane Grp Cap(c), veh/h	352	0	432	227	0	448	327	991	1018	195	968	1012
V/C Ratio(X)	0.06	0.00	0.54	0.60	0.00	0.21	0.26	0.72	0.72	0.16	0.54	0.54
Avail Cap(c_a), veh/h	387	0	475	257	0	493	398	991	1018	234	968	1012
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.5	0.0	36.2	47.8	0.0	33.0	11.8	16.9	17.0	15.1	15.4	15.4
Incr Delay (d2), s/veh	0.1	0.0	1.0	3.2	0.0	0.2	0.4	4.4	4.4	0.4	2.1	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	6.4	4.4	0.0	2.4	1.1	17.0	17.7	0.4	10.7	11.1
LnGrp Delay(d),s/veh	35.6	0.0	37.3	51.0	0.0	33.2	12.2	21.3	21.4	15.5	17.5	17.4
LnGrp LOS	D		D	D		C	B	C	C	B	B	B
Approach Vol, veh/h		252			232			1526			1095	
Approach Delay, s/veh		37.1			43.7			20.8			17.4	
Approach LOS		D			D			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	5.4	73.0		36.0	7.5	70.9		36.0
Change Period (Y+Rc), s	3.5	6.0		6.0	3.5	6.0		6.0
Max Green Setting (Gmax), s	4.5	67.0		33.0	8.5	63.0		33.0
Max Q Clear Time (g_c+I1), s	2.9	36.5		15.8	4.2	23.7		29.0
Green Ext Time (p_c), s	0.0	21.3		2.5	0.1	25.3		1.0

Intersection Summary	
HCM 2010 Ctrl Delay	22.7
HCM 2010 LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	20	50	170	140	40	40	100	1280	180	40	1450	20
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1885	1900	1900	1872	1900	1900	1833	1900	1900	1845	1900
Adj Flow Rate, veh/h	21	53	179	147	42	42	105	1347	189	42	1526	21
Adj No. of Lanes	1	1	0	1	1	0	1	2	0	1	2	0
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
Percent Heavy Veh, %	0	0	0	0	0	0	0	4	4	0	3	3
Cap, veh/h	362	99	334	227	227	227	212	1796	250	185	2002	28
Arrive On Green	0.26	0.26	0.26	0.26	0.26	0.26	0.04	0.58	0.58	0.02	0.57	0.57
Sat Flow, veh/h	1331	374	1262	1166	858	858	1810	3071	427	1810	3541	49
Grp Volume(v), veh/h	21	0	232	147	0	84	105	759	777	42	755	792
Grp Sat Flow(s),veh/h/ln	1331	0	1635	1166	0	1716	1810	1742	1757	1810	1753	1837
Q Serve(g_s), s	1.5	0.0	14.4	14.7	0.0	4.5	2.8	38.0	39.0	1.2	39.0	39.1
Cycle Q Clear(g_c), s	6.0	0.0	14.4	29.1	0.0	4.5	2.8	38.0	39.0	1.2	39.0	39.1
Prop In Lane	1.00		0.77	1.00		0.50	1.00		0.24	1.00		0.03
Lane Grp Cap(c), veh/h	362	0	432	227	0	454	212	1019	1027	185	991	1038
V/C Ratio(X)	0.06	0.00	0.54	0.65	0.00	0.19	0.49	0.75	0.76	0.23	0.76	0.76
Avail Cap(c_a), veh/h	370	0	441	234	0	463	225	1019	1027	217	991	1038
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.0	0.0	37.4	49.8	0.0	33.7	19.2	18.1	18.3	16.9	19.7	19.7
Incr Delay (d2), s/veh	0.1	0.0	1.2	5.8	0.0	0.2	1.8	5.0	5.2	0.6	5.5	5.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	6.7	5.1	0.0	2.1	1.8	19.5	20.2	0.6	20.2	21.1
LnGrp Delay(d),s/veh	36.1	0.0	38.6	55.7	0.0	33.9	21.0	23.1	23.5	17.5	25.2	25.0
LnGrp LOS	D		D	E		C	C	C	C	B	C	C
Approach Vol, veh/h		253			231			1641			1589	
Approach Delay, s/veh		38.4			47.8			23.1			24.9	
Approach LOS		D			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	5.9	75.3		37.3	8.2	73.0		37.3
Change Period (Y+Rc), s	3.5	6.0		6.0	3.5	6.0		6.0
Max Green Setting (Gmax), s	4.5	68.0		32.0	5.5	67.0		32.0
Max Q Clear Time (g_c+I1), s	3.2	41.0		16.4	4.8	41.1		31.1
Green Ext Time (p_c), s	0.0	23.2		2.3	0.0	22.4		0.3

Intersection Summary	
HCM 2010 Ctrl Delay	26.5
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	30	50	220	160	50	60	100	1510	120	40	1180	40
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1885	1900	1881	1880	1900	1881	1782	1900	1827	1796	1900
Adj Flow Rate, veh/h	32	53	232	168	53	63	105	1589	126	42	1242	42
Adj No. of Lanes	1	1	0	1	1	0	1	2	0	1	2	0
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
Percent Heavy Veh, %	0	0	0	1	0	0	1	7	7	4	6	6
Cap, veh/h	356	86	375	203	219	261	257	1807	142	133	1844	62
Arrive On Green	0.28	0.28	0.28	0.28	0.28	0.28	0.04	0.57	0.57	0.02	0.55	0.55
Sat Flow, veh/h	1296	306	1341	1101	784	932	1792	3180	250	1740	3368	114
Grp Volume(v), veh/h	32	0	285	168	0	116	105	840	875	42	629	655
Grp Sat Flow(s),veh/h/ln	1296	0	1648	1101	0	1715	1792	1693	1738	1740	1706	1776
Q Serve(g_s), s	2.3	0.0	17.8	15.2	0.0	6.2	3.0	50.2	51.7	1.3	31.2	31.2
Cycle Q Clear(g_c), s	8.5	0.0	17.8	33.0	0.0	6.2	3.0	50.2	51.7	1.3	31.2	31.2
Prop In Lane	1.00		0.81	1.00		0.54	1.00		0.14	1.00		0.06
Lane Grp Cap(c), veh/h	356	0	461	203	0	480	257	962	987	133	934	972
V/C Ratio(X)	0.09	0.00	0.62	0.83	0.00	0.24	0.41	0.87	0.89	0.32	0.67	0.67
Avail Cap(c_a), veh/h	356	0	461	203	0	480	313	962	987	164	934	972
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.1	0.0	37.0	52.5	0.0	32.8	16.0	21.8	22.2	23.4	19.1	19.1
Incr Delay (d2), s/veh	0.1	0.0	2.5	23.6	0.0	0.3	1.0	10.9	11.6	1.3	3.9	3.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	8.4	6.8	0.0	3.0	1.5	26.2	27.7	0.7	15.5	16.3
LnGrp Delay(d),s/veh	36.2	0.0	39.5	76.1	0.0	33.1	17.0	32.7	33.8	24.7	23.0	22.9
LnGrp LOS	D		D	E		C	B	C	C	C	C	C
Approach Vol, veh/h		317			284			1820			1326	
Approach Delay, s/veh		39.1			58.5			32.3			23.0	
Approach LOS		D			E			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	5.9	73.0		39.0	8.4	70.6		39.0
Change Period (Y+Rc), s	3.5	6.0		6.0	3.5	6.0		6.0
Max Green Setting (Gmax), s	4.5	67.0		33.0	8.5	63.0		33.0
Max Q Clear Time (g_c+I1), s	3.3	53.7		19.8	5.0	33.2		35.0
Green Ext Time (p_c), s	0.0	12.2		2.8	0.1	24.9		0.0

Intersection Summary			
HCM 2010 Ctrl Delay		31.6	
HCM 2010 LOS		C	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	20	60	210	170	50	50	120	1530	210	40	1730	20
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1885	1900	1900	1872	1900	1900	1833	1900	1900	1845	1900
Adj Flow Rate, veh/h	21	63	221	179	53	53	126	1611	221	42	1821	21
Adj No. of Lanes	1	1	0	1	1	0	1	2	0	1	2	0
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
Percent Heavy Veh, %	0	0	0	0	0	0	0	4	4	0	3	3
Cap, veh/h	345	97	339	185	229	229	165	1800	243	125	1984	23
Arrive On Green	0.27	0.27	0.27	0.27	0.27	0.27	0.04	0.58	0.58	0.02	0.56	0.56
Sat Flow, veh/h	1305	362	1271	1113	858	858	1810	3085	416	1810	3550	41
Grp Volume(v), veh/h	21	0	284	179	0	106	126	897	935	42	898	944
Grp Sat Flow(s),veh/h/ln	1305	0	1634	1113	0	1716	1810	1742	1759	1810	1753	1838
Q Serve(g_s), s	1.5	0.0	18.5	13.5	0.0	5.8	3.4	53.0	56.7	1.2	55.5	55.9
Cycle Q Clear(g_c), s	7.3	0.0	18.5	32.0	0.0	5.8	3.4	53.0	56.7	1.2	55.5	55.9
Prop In Lane	1.00		0.78	1.00		0.50	1.00		0.24	1.00		0.02
Lane Grp Cap(c), veh/h	345	0	436	185	0	458	165	1016	1026	125	980	1027
V/C Ratio(X)	0.06	0.00	0.65	0.97	0.00	0.23	0.76	0.88	0.91	0.34	0.92	0.92
Avail Cap(c_a), veh/h	345	0	436	185	0	458	167	1016	1026	157	980	1027
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.2	0.0	39.0	55.2	0.0	34.3	28.0	21.4	22.2	25.3	23.9	24.0
Incr Delay (d2), s/veh	0.1	0.0	3.4	55.8	0.0	0.3	18.6	11.0	13.5	1.6	14.5	14.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	8.8	8.7	0.0	2.8	3.2	28.5	31.1	0.8	30.6	32.1
LnGrp Delay(d),s/veh	37.3	0.0	42.4	111.0	0.0	34.6	46.6	32.4	35.7	26.8	38.4	38.3
LnGrp LOS	D		D	F		C	D	C	D	C	D	D
Approach Vol, veh/h		305			285			1958			1884	
Approach Delay, s/veh		42.0			82.6			34.9			38.1	
Approach LOS		D			F			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	5.9	76.0		38.0	8.9	73.0		38.0
Change Period (Y+Rc), s	3.5	6.0		6.0	3.5	6.0		6.0
Max Green Setting (Gmax), s	4.5	68.0		32.0	5.5	67.0		32.0
Max Q Clear Time (g_c+I1), s	3.2	58.7		20.5	5.4	57.9		34.0
Green Ext Time (p_c), s	0.0	9.1		2.6	0.0	8.9		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	39.8
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	20	50	180	130	90	50	80	1320	100	30	1000	20
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1885	1900	1881	1886	1900	1881	1782	1900	1827	1794	1900
Adj Flow Rate, veh/h	21	53	189	137	95	53	84	1389	105	32	1053	21
Adj No. of Lanes	1	1	0	1	1	0	1	2	0	1	2	0
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
Percent Heavy Veh, %	0	0	0	1	0	0	1	7	7	4	6	6
Cap, veh/h	315	97	346	225	305	170	320	1855	140	180	1926	38
Arrive On Green	0.27	0.27	0.27	0.27	0.27	0.27	0.03	0.58	0.58	0.02	0.56	0.56
Sat Flow, veh/h	1259	363	1294	1145	1139	635	1792	3191	240	1740	3419	68
Grp Volume(v), veh/h	21	0	242	137	0	148	84	734	760	32	525	549
Grp Sat Flow(s),veh/h/ln	1259	0	1657	1145	0	1774	1792	1692	1739	1740	1705	1782
Q Serve(g_s), s	1.6	0.0	14.4	13.4	0.0	7.7	2.2	37.0	37.4	0.9	22.4	22.4
Cycle Q Clear(g_c), s	9.2	0.0	14.4	27.9	0.0	7.7	2.2	37.0	37.4	0.9	22.4	22.4
Prop In Lane	1.00		0.78	1.00		0.36	1.00		0.14	1.00		0.04
Lane Grp Cap(c), veh/h	315	0	443	225	0	475	320	984	1011	180	960	1004
V/C Ratio(X)	0.07	0.00	0.55	0.61	0.00	0.31	0.26	0.75	0.75	0.18	0.55	0.55
Avail Cap(c_a), veh/h	339	0	474	247	0	508	389	984	1011	219	960	1004
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.4	0.0	36.2	48.2	0.0	33.7	12.2	17.8	17.9	16.3	15.9	15.9
Incr Delay (d2), s/veh	0.1	0.0	1.1	3.7	0.0	0.4	0.4	5.1	5.1	0.5	2.2	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	6.7	4.5	0.0	3.8	1.1	18.5	19.2	0.5	11.1	11.6
LnGrp Delay(d),s/veh	37.5	0.0	37.3	51.8	0.0	34.1	12.7	23.0	23.1	16.8	18.1	18.0
LnGrp LOS	D		D	D		C	B	C	C	B	B	B
Approach Vol, veh/h		263			285			1578			1106	
Approach Delay, s/veh		37.4			42.6			22.5			18.0	
Approach LOS		D			D			C			B	

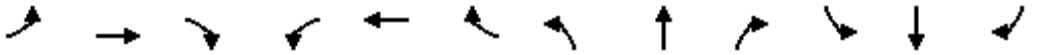
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	5.4	73.0		36.8	7.5	70.9		36.8
Change Period (Y+Rc), s	3.5	6.0		6.0	3.5	6.0		6.0
Max Green Setting (Gmax), s	4.5	67.0		33.0	8.5	63.0		33.0
Max Q Clear Time (g_c+I1), s	2.9	39.4		16.4	4.2	24.4		29.9
Green Ext Time (p_c), s	0.0	20.4		2.8	0.1	25.9		0.9

Intersection Summary	
HCM 2010 Ctrl Delay	23.9
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	20	80	170	140	50	40	100	1290	180	40	1490	20
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1887	1900	1900	1875	1900	1900	1833	1900	1900	1845	1900
Adj Flow Rate, veh/h	21	84	179	147	53	42	105	1358	189	42	1568	21
Adj No. of Lanes	1	1	0	1	1	0	1	2	0	1	2	0
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
Percent Heavy Veh, %	0	0	0	0	0	0	0	4	4	0	3	3
Cap, veh/h	358	143	304	209	260	206	202	1788	247	180	1991	27
Arrive On Green	0.27	0.27	0.27	0.27	0.27	0.27	0.04	0.58	0.58	0.02	0.56	0.56
Sat Flow, veh/h	1318	531	1132	1134	968	767	1810	3075	424	1810	3543	47
Grp Volume(v), veh/h	21	0	263	147	0	95	105	764	783	42	775	814
Grp Sat Flow(s),veh/h/ln	1318	0	1663	1134	0	1736	1810	1742	1757	1810	1753	1837
Q Serve(g_s), s	1.5	0.0	16.4	15.4	0.0	5.1	2.9	39.0	40.1	1.2	41.4	41.5
Cycle Q Clear(g_c), s	6.5	0.0	16.4	31.8	0.0	5.1	2.9	39.0	40.1	1.2	41.4	41.5
Prop In Lane	1.00		0.68	1.00		0.44	1.00		0.24	1.00		0.03
Lane Grp Cap(c), veh/h	358	0	446	209	0	466	202	1013	1022	180	985	1032
V/C Ratio(X)	0.06	0.00	0.59	0.70	0.00	0.20	0.52	0.75	0.77	0.23	0.79	0.79
Avail Cap(c_a), veh/h	358	0	446	209	0	466	213	1013	1022	212	985	1032
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.3	0.0	37.9	51.7	0.0	33.8	20.8	18.6	18.8	17.5	20.5	20.5
Incr Delay (d2), s/veh	0.1	0.0	2.0	10.2	0.0	0.2	2.1	5.2	5.5	0.7	6.3	6.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	7.8	5.4	0.0	2.5	1.9	20.2	20.9	0.6	21.5	22.8
LnGrp Delay(d),s/veh	36.4	0.0	39.9	61.9	0.0	34.0	22.9	23.8	24.3	18.1	26.8	26.7
LnGrp LOS	D		D	E		C	C	C	C	B	C	C
Approach Vol, veh/h		284			242			1652			1631	
Approach Delay, s/veh		39.7			51.0			24.0			26.5	
Approach LOS		D			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	5.9	75.3		38.0	8.2	73.0		38.0
Change Period (Y+Rc), s	3.5	6.0		6.0	3.5	6.0		6.0
Max Green Setting (Gmax), s	4.5	68.0		32.0	5.5	67.0		32.0
Max Q Clear Time (g_c+I1), s	3.2	42.1		18.4	4.9	43.5		33.8
Green Ext Time (p_c), s	0.0	22.7		2.5	0.0	20.7		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	28.0
HCM 2010 LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	30	60	220	160	100	60	140	1530	120	40	1190	40
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1885	1900	1881	1886	1900	1881	1782	1900	1827	1796	1900
Adj Flow Rate, veh/h	32	63	232	168	105	63	147	1611	126	42	1253	42
Adj No. of Lanes	1	1	0	1	1	0	1	2	0	1	2	0
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
Percent Heavy Veh, %	0	0	0	1	0	0	1	7	7	4	6	6
Cap, veh/h	314	99	364	196	309	186	267	1808	140	129	1807	61
Arrive On Green	0.28	0.28	0.28	0.28	0.28	0.28	0.05	0.57	0.57	0.02	0.54	0.54
Sat Flow, veh/h	1237	354	1302	1090	1106	663	1792	3184	247	1740	3369	113
Grp Volume(v), veh/h	32	0	295	168	0	168	147	850	887	42	634	661
Grp Sat Flow(s),veh/h/ln	1237	0	1655	1090	0	1769	1792	1693	1738	1740	1706	1776
Q Serve(g_s), s	2.5	0.0	18.4	14.6	0.0	8.9	4.2	51.5	53.1	1.3	32.4	32.4
Cycle Q Clear(g_c), s	11.4	0.0	18.4	33.0	0.0	8.9	4.2	51.5	53.1	1.3	32.4	32.4
Prop In Lane	1.00		0.79	1.00		0.38	1.00		0.14	1.00		0.06
Lane Grp Cap(c), veh/h	314	0	463	196	0	495	267	961	987	129	915	953
V/C Ratio(X)	0.10	0.00	0.64	0.86	0.00	0.34	0.55	0.88	0.90	0.32	0.69	0.69
Avail Cap(c_a), veh/h	314	0	463	196	0	495	302	961	987	160	915	953
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.3	0.0	37.2	53.1	0.0	33.8	17.6	22.1	22.5	24.1	20.2	20.2
Incr Delay (d2), s/veh	0.1	0.0	2.9	29.6	0.0	0.4	1.8	11.7	12.6	1.4	4.3	4.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	8.8	7.1	0.0	4.4	2.3	27.0	28.8	0.7	16.2	16.9
LnGrp Delay(d),s/veh	38.5	0.0	40.1	82.7	0.0	34.2	19.4	33.8	35.1	25.5	24.5	24.3
LnGrp LOS	D		D	F		C	B	C	D	C	C	C
Approach Vol, veh/h		327			336			1884			1337	
Approach Delay, s/veh		40.0			58.5			33.3			24.4	
Approach LOS		D			E			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	6.0	73.0		39.0	9.7	69.3		39.0
Change Period (Y+Rc), s	3.5	6.0		6.0	3.5	6.0		6.0
Max Green Setting (Gmax), s	4.5	67.0		33.0	8.5	63.0		33.0
Max Q Clear Time (g_c+I1), s	3.3	55.1		20.4	6.2	34.4		35.0
Green Ext Time (p_c), s	0.0	11.0		3.1	0.1	24.2		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	33.0
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	20	100	230	170	60	50	120	1540	210	40	1760	20
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1887	1900	1900	1874	1900	1900	1833	1900	1900	1845	1900
Adj Flow Rate, veh/h	21	105	242	179	63	53	126	1621	221	42	1853	21
Adj No. of Lanes	1	1	0	1	1	0	1	2	0	1	2	0
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
Percent Heavy Veh, %	0	0	0	0	0	0	0	4	4	0	3	3
Cap, veh/h	337	134	309	137	251	211	160	1802	241	123	1985	22
Arrive On Green	0.27	0.27	0.27	0.27	0.27	0.27	0.04	0.58	0.58	0.02	0.56	0.56
Sat Flow, veh/h	1293	502	1156	1050	940	791	1810	3087	413	1810	3551	40
Grp Volume(v), veh/h	21	0	347	179	0	116	126	901	941	42	913	961
Grp Sat Flow(s),veh/h/ln	1293	0	1658	1050	0	1731	1810	1742	1759	1810	1753	1838
Q Serve(g_s), s	1.6	0.0	23.3	8.7	0.0	6.3	3.4	53.5	57.4	1.2	57.5	57.9
Cycle Q Clear(g_c), s	7.9	0.0	23.3	32.0	0.0	6.3	3.4	53.5	57.4	1.2	57.5	57.9
Prop In Lane	1.00		0.70	1.00		0.46	1.00		0.23	1.00		0.02
Lane Grp Cap(c), veh/h	337	0	443	137	0	462	160	1016	1027	123	980	1027
V/C Ratio(X)	0.06	0.00	0.78	1.31	0.00	0.25	0.79	0.89	0.92	0.34	0.93	0.94
Avail Cap(c_a), veh/h	337	0	443	137	0	462	162	1016	1027	155	980	1027
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.6	0.0	40.7	57.5	0.0	34.5	28.4	21.5	22.3	25.7	24.3	24.4
Incr Delay (d2), s/veh	0.1	0.0	8.9	182.1	0.0	0.3	22.2	11.3	14.0	1.6	16.4	16.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	11.7	11.4	0.0	3.1	3.4	28.7	31.7	0.8	32.1	33.7
LnGrp Delay(d),s/veh	37.7	0.0	49.7	239.6	0.0	34.8	50.6	32.9	36.3	27.3	40.7	40.7
LnGrp LOS	D		D	F		C	D	C	D	C	D	D
Approach Vol, veh/h		368			295			1968			1916	
Approach Delay, s/veh		49.0			159.1			35.7			40.4	
Approach LOS		D			F			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	5.9	76.0		38.0	8.9	73.0		38.0
Change Period (Y+Rc), s	3.5	6.0		6.0	3.5	6.0		6.0
Max Green Setting (Gmax), s	4.5	68.0		32.0	5.5	67.0		32.0
Max Q Clear Time (g_c+I1), s	3.2	59.4		25.3	5.4	59.9		34.0
Green Ext Time (p_c), s	0.0	8.4		2.2	0.0	7.0		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	46.7
HCM 2010 LOS	D

Intersection	
Intersection Delay, s/veh	7.6
Intersection LOS	A

Movement	WBU	WBL	WBR	NBU	NBT	NBR	SBU	SBL	SBT
Vol, veh/h	0	10	60	0	20	10	0	100	30
Peak Hour Factor	0.92	0.95	0.95	0.92	0.95	0.95	0.92	0.95	0.95
Heavy Vehicles, %	2	0	0	2	3	0	2	0	13
Mvmt Flow	0	11	63	0	21	11	0	105	32
Number of Lanes	0	1	0	0	1	0	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	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	7.1	7.2	8
HCM LOS	A	A	A

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	14%	77%
Vol Thru, %	67%	0%	23%
Vol Right, %	33%	86%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	30	70	130
LT Vol	0	10	100
Through Vol	20	0	30
RT Vol	10	60	0
Lane Flow Rate	32	74	137
Geometry Grp	1	1	1
Degree of Util (X)	0.035	0.076	0.16
Departure Headway (Hd)	3.984	3.704	4.206
Convergence, Y/N	Yes	Yes	Yes
Cap	892	951	853
Service Time	2.039	1.79	2.234
HCM Lane V/C Ratio	0.036	0.078	0.161
HCM Control Delay	7.2	7.1	8
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.1	0.2	0.6

Intersection	
Intersection Delay, s/veh	7.9
Intersection LOS	A

Movement	WBU	WBL	WBR	NBU	NBT	NBR	SBU	SBL	SBT
Vol, veh/h	0	10	40	0	40	10	0	120	50
Peak Hour Factor	0.92	0.95	0.95	0.92	0.95	0.95	0.92	0.95	0.95
Heavy Vehicles, %	2	0	3	2	3	0	2	1	0
Mvmt Flow	0	11	42	0	42	11	0	126	53
Number of Lanes	0	1	0	0	1	0	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	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	7.2	7.4	8.3
HCM LOS	A	A	A

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	20%	71%
Vol Thru, %	80%	0%	29%
Vol Right, %	20%	80%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	50	50	170
LT Vol	0	10	120
Through Vol	40	0	50
RT Vol	10	40	0
Lane Flow Rate	53	53	179
Geometry Grp	1	1	1
Degree of Util (X)	0.059	0.058	0.208
Departure Headway (Hd)	4.059	3.971	4.191
Convergence, Y/N	Yes	Yes	Yes
Cap	874	907	855
Service Time	2.123	1.971	2.223
HCM Lane V/C Ratio	0.061	0.058	0.209
HCM Control Delay	7.4	7.2	8.3
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.2	0.2	0.8

Intersection	
Intersection Delay, s/veh	7.8
Intersection LOS	A

Movement	WBU	WBL	WBR	NBU	NBT	NBR	SBU	SBL	SBT
Vol, veh/h	0	10	70	0	30	10	0	110	40
Peak Hour Factor	0.92	0.95	0.95	0.92	0.95	0.95	0.92	0.95	0.95
Heavy Vehicles, %	2	0	0	2	5	0	2	0	13
Mvmt Flow	0	11	74	0	32	11	0	116	42
Number of Lanes	0	1	0	0	1	0	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	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	7.2	7.4	8.2
HCM LOS	A	A	A

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	12%	73%
Vol Thru, %	75%	0%	27%
Vol Right, %	25%	88%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	40	80	150
LT Vol	0	10	110
Through Vol	30	0	40
RT Vol	10	70	0
Lane Flow Rate	42	84	158
Geometry Grp	1	1	1
Degree of Util (X)	0.048	0.09	0.185
Departure Headway (Hd)	4.104	3.847	4.227
Convergence, Y/N	Yes	Yes	Yes
Cap	863	937	846
Service Time	2.173	1.847	2.266
HCM Lane V/C Ratio	0.049	0.09	0.187
HCM Control Delay	7.4	7.2	8.2
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.2	0.3	0.7

Intersection	
Intersection Delay, s/veh	8.2
Intersection LOS	A

Movement	WBU	WBL	WBR	NBU	NBT	NBR	SBU	SBL	SBT
Vol, veh/h	0	10	50	0	40	10	0	140	60
Peak Hour Factor	0.92	0.95	0.95	0.92	0.95	0.95	0.92	0.95	0.95
Heavy Vehicles, %	2	0	3	2	3	0	2	1	0
Mvmt Flow	0	11	53	0	42	11	0	147	63
Number of Lanes	0	1	0	0	1	0	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	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	7.3	7.4	8.6
HCM LOS	A	A	A

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	17%	70%
Vol Thru, %	80%	0%	30%
Vol Right, %	20%	83%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	50	60	200
LT Vol	0	10	140
Through Vol	40	0	60
RT Vol	10	50	0
Lane Flow Rate	53	63	211
Geometry Grp	1	1	1
Degree of Util (X)	0.06	0.071	0.246
Departure Headway (Hd)	4.101	4.019	4.208
Convergence, Y/N	Yes	Yes	Yes
Cap	862	897	851
Service Time	2.183	2.019	2.249
HCM Lane V/C Ratio	0.061	0.07	0.248
HCM Control Delay	7.4	7.3	8.6
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.2	0.2	1

Intersection	
Intersection Delay, s/veh	8
Intersection LOS	A

Movement	WBU	WBL	WBR	NBU	NBT	NBR	SBU	SBL	SBT
Vol, veh/h	0	10	110	0	60	10	0	110	40
Peak Hour Factor	0.92	0.95	0.95	0.92	0.95	0.95	0.92	0.95	0.95
Heavy Vehicles, %	2	0	0	2	5	0	2	0	13
Mvmt Flow	0	11	116	0	63	11	0	116	42
Number of Lanes	0	1	0	0	1	0	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	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	7.5	7.8	8.4
HCM LOS	A	A	A

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	8%	73%
Vol Thru, %	86%	0%	27%
Vol Right, %	14%	92%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	70	120	150
LT Vol	0	10	110
Through Vol	60	0	40
RT Vol	10	110	0
Lane Flow Rate	74	126	158
Geometry Grp	1	1	1
Degree of Util (X)	0.087	0.137	0.19
Departure Headway (Hd)	4.243	3.894	4.325
Convergence, Y/N	Yes	Yes	Yes
Cap	831	926	821
Service Time	2.339	1.894	2.395
HCM Lane V/C Ratio	0.089	0.136	0.192
HCM Control Delay	7.8	7.5	8.4
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.3	0.5	0.7

Intersection	
Intersection Delay, s/veh	8.4
Intersection LOS	A

Movement	WBU	WBL	WBR	NBU	NBT	NBR	SBU	SBL	SBT
Vol, veh/h	0	10	50	0	50	10	0	150	80
Peak Hour Factor	0.92	0.95	0.95	0.92	0.95	0.95	0.92	0.95	0.95
Heavy Vehicles, %	2	0	3	2	3	0	2	1	0
Mvmt Flow	0	11	53	0	53	11	0	158	84
Number of Lanes	0	1	0	0	1	0	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	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	7.4	7.6	8.9
HCM LOS	A	A	A

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	17%	65%
Vol Thru, %	83%	0%	35%
Vol Right, %	17%	83%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	60	60	230
LT Vol	0	10	150
Through Vol	50	0	80
RT Vol	10	50	0
Lane Flow Rate	63	63	242
Geometry Grp	1	1	1
Degree of Util (X)	0.073	0.072	0.283
Departure Headway (Hd)	4.145	4.112	4.206
Convergence, Y/N	Yes	Yes	Yes
Cap	851	877	850
Service Time	2.237	2.112	2.253
HCM Lane V/C Ratio	0.074	0.072	0.285
HCM Control Delay	7.6	7.4	8.9
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.2	0.2	1.2

Intersection	
Intersection Delay, s/veh	8.9
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	0	0	0	0	10	80	90	0	30	50	10
Peak Hour Factor	0.92	0.95	0.95	0.95	0.92	0.95	0.95	0.95	0.92	0.95	0.95	0.95
Heavy Vehicles, %	2	0	0	0	2	0	0	0	2	0	5	0
Mvmt Flow	0	0	0	0	0	11	84	95	0	32	53	11
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	0	8.7	8.3
HCM LOS	-	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	33%	0%	6%	52%
Vol Thru, %	56%	100%	44%	22%
Vol Right, %	11%	0%	50%	26%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	90	0	180	230
LT Vol	30	0	10	120
Through Vol	50	0	80	50
RT Vol	10	0	90	60
Lane Flow Rate	95	0	189	242
Geometry Grp	1	1	1	1
Degree of Util (X)	0.121	0	0.23	0.295
Departure Headway (Hd)	4.599	4.894	4.372	4.389
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	780	0	822	818
Service Time	2.628	2.932	2.397	2.414
HCM Lane V/C Ratio	0.122	0	0.23	0.296
HCM Control Delay	8.3	7.9	8.7	9.3
HCM Lane LOS	A	N	A	A
HCM 95th-tile Q	0.4	0	0.9	1.2

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	120	50	60
Peak Hour Factor	0.92	0.95	0.95	0.95
Heavy Vehicles, %	2	0	13	0
Mvmt Flow	0	126	53	63
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	9.3
HCM LOS	A

Lane

Intersection	
Intersection Delay, s/veh	9
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	40	30	20	0	10	0	60	0	0	50	10
Peak Hour Factor	0.92	0.95	0.95	0.95	0.92	0.95	0.95	0.95	0.92	0.95	0.95	0.95
Heavy Vehicles, %	2	0	0	0	2	0	0	3	2	0	3	0
Mvmt Flow	0	42	32	21	0	11	0	63	0	0	53	11
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	8.4	7.7	8
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	44%	14%	68%
Vol Thru, %	83%	33%	0%	32%
Vol Right, %	17%	22%	86%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	60	90	70	250
LT Vol	0	40	10	170
Through Vol	50	30	0	80
RT Vol	10	20	60	0
Lane Flow Rate	63	95	74	263
Geometry Grp	1	1	1	1
Degree of Util (X)	0.08	0.124	0.088	0.33
Departure Headway (Hd)	4.536	4.702	4.293	4.511
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	789	763	833	797
Service Time	2.567	2.732	2.324	2.536
HCM Lane V/C Ratio	0.08	0.125	0.089	0.33
HCM Control Delay	8	8.4	7.7	9.8
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.3	0.4	0.3	1.4

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	170	80	0
Peak Hour Factor	0.92	0.95	0.95	0.95
Heavy Vehicles, %	2	1	0	0
Mvmt Flow	0	179	84	0
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	9.8
HCM LOS	A

Lane

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	70	40	50	450	280	80
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1883	1881	1900
Adj Flow Rate, veh/h	74	42	53	474	295	84
Adj No. of Lanes	1	1	0	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	1	1	1	0
Cap, veh/h	179	160	142	1224	1387	1191
Arrive On Green	0.10	0.10	0.74	0.74	0.74	0.74
Sat Flow, veh/h	1810	1615	120	1660	1881	1615
Grp Volume(v), veh/h	74	42	527	0	295	84
Grp Sat Flow(s),veh/h/ln	1810	1615	1780	0	1881	1615
Q Serve(g_s), s	2.8	1.8	0.0	0.0	3.6	1.1
Cycle Q Clear(g_c), s	2.8	1.8	7.5	0.0	3.6	1.1
Prop In Lane	1.00	1.00	0.10			1.00
Lane Grp Cap(c), veh/h	179	160	1366	0	1387	1191
V/C Ratio(X)	0.41	0.26	0.39	0.00	0.21	0.07
Avail Cap(c_a), veh/h	593	529	1366	0	1387	1191
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	31.0	30.5	3.5	0.0	3.0	2.7
Incr Delay (d2), s/veh	1.5	0.9	0.8	0.0	0.4	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	0.8	4.1	0.0	1.9	0.5
LnGrp Delay(d),s/veh	32.5	31.4	4.3	0.0	3.3	2.8
LnGrp LOS	C	C	A		A	A
Approach Vol, veh/h	116			527	379	
Approach Delay, s/veh	32.1			4.3	3.2	
Approach LOS	C			A	A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		60.0		13.2		60.0		
Change Period (Y+Rc), s		6.0		6.0		6.0		
Max Green Setting (Gmax), s		54.0		24.0		54.0		
Max Q Clear Time (g_c+I1), s		9.5		4.8		5.6		
Green Ext Time (p_c), s		6.1		0.3		6.1		

Intersection Summary	
HCM 2010 Ctrl Delay	7.1
HCM 2010 LOS	A

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	140	130	60	370	530	120
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1884	1900	1900
Adj Flow Rate, veh/h	147	137	63	389	558	126
Adj No. of Lanes	1	1	0	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	1	1	0	0
Cap, veh/h	247	221	170	991	1247	1059
Arrive On Green	0.14	0.14	0.66	0.66	0.66	0.66
Sat Flow, veh/h	1810	1615	151	1510	1900	1614
Grp Volume(v), veh/h	147	137	452	0	558	126
Grp Sat Flow(s),veh/h/ln	1810	1615	1662	0	1900	1614
Q Serve(g_s), s	4.4	4.6	0.0	0.0	8.3	1.7
Cycle Q Clear(g_c), s	4.4	4.6	6.3	0.0	8.3	1.7
Prop In Lane	1.00	1.00	0.14			1.00
Lane Grp Cap(c), veh/h	247	221	1161	0	1247	1059
V/C Ratio(X)	0.59	0.62	0.39	0.00	0.45	0.12
Avail Cap(c_a), veh/h	1250	1115	1161	0	1247	1059
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	23.5	23.6	4.5	0.0	4.8	3.7
Incr Delay (d2), s/veh	2.3	2.8	1.0	0.0	1.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	2.2	3.5	0.0	4.6	0.8
LnGrp Delay(d),s/veh	25.8	26.4	5.5	0.0	6.0	3.9
LnGrp LOS	C	C	A		A	A
Approach Vol, veh/h	284			452	684	
Approach Delay, s/veh	26.1			5.5	5.6	
Approach LOS	C			A	A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		44.0		13.9		44.0		
Change Period (Y+Rc), s		6.0		6.0		6.0		
Max Green Setting (Gmax), s		38.0		40.0		38.0		
Max Q Clear Time (g_c+I1), s		8.3		6.6		10.3		
Green Ext Time (p_c), s		7.9		0.9		7.7		

Intersection Summary	
HCM 2010 Ctrl Delay	9.7
HCM 2010 LOS	A

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	90	40	60	540	330	100
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1883	1881	1900
Adj Flow Rate, veh/h	95	42	63	568	347	105
Adj No. of Lanes	1	1	0	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	1	1	1	0
Cap, veh/h	185	165	140	1212	1382	1186
Arrive On Green	0.10	0.10	0.73	0.73	0.73	0.73
Sat Flow, veh/h	1810	1615	117	1649	1881	1615
Grp Volume(v), veh/h	95	42	631	0	347	105
Grp Sat Flow(s),veh/h/ln	1810	1615	1767	0	1881	1615
Q Serve(g_s), s	3.7	1.8	0.0	0.0	4.4	1.4
Cycle Q Clear(g_c), s	3.7	1.8	9.8	0.0	4.4	1.4
Prop In Lane	1.00	1.00	0.10			1.00
Lane Grp Cap(c), veh/h	185	165	1352	0	1382	1186
V/C Ratio(X)	0.51	0.25	0.47	0.00	0.25	0.09
Avail Cap(c_a), veh/h	591	527	1352	0	1382	1186
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	31.3	30.4	3.9	0.0	3.2	2.8
Incr Delay (d2), s/veh	2.2	0.8	1.2	0.0	0.4	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	0.8	5.3	0.0	2.4	0.6
LnGrp Delay(d),s/veh	33.5	31.2	5.1	0.0	3.6	2.9
LnGrp LOS	C	C	A		A	A
Approach Vol, veh/h	137			631	452	
Approach Delay, s/veh	32.8			5.1	3.5	
Approach LOS	C			A	A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		60.0		13.5		60.0		
Change Period (Y+Rc), s		6.0		6.0		6.0		
Max Green Setting (Gmax), s		54.0		24.0		54.0		
Max Q Clear Time (g_c+I1), s		11.8		5.7		6.4		
Green Ext Time (p_c), s		7.9		0.3		8.0		

Intersection Summary	
HCM 2010 Ctrl Delay	7.6
HCM 2010 LOS	A

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	160	150	70	450	630	140
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1884	1900	1900
Adj Flow Rate, veh/h	168	158	74	474	663	147
Adj No. of Lanes	1	1	0	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	1	1	0	0
Cap, veh/h	260	232	161	972	1236	1050
Arrive On Green	0.14	0.14	0.65	0.65	0.65	0.65
Sat Flow, veh/h	1810	1615	140	1494	1900	1614
Grp Volume(v), veh/h	168	158	548	0	663	147
Grp Sat Flow(s),veh/h/ln	1810	1615	1634	0	1900	1614
Q Serve(g_s), s	5.1	5.4	0.0	0.0	10.9	2.0
Cycle Q Clear(g_c), s	5.1	5.4	8.4	0.0	10.9	2.0
Prop In Lane	1.00	1.00	0.14			1.00
Lane Grp Cap(c), veh/h	260	232	1133	0	1236	1050
V/C Ratio(X)	0.64	0.68	0.48	0.00	0.54	0.14
Avail Cap(c_a), veh/h	1239	1106	1133	0	1236	1050
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	23.6	23.7	5.0	0.0	5.5	3.9
Incr Delay (d2), s/veh	2.7	3.5	1.5	0.0	1.7	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	2.6	4.7	0.0	6.1	1.0
LnGrp Delay(d),s/veh	26.3	27.2	6.5	0.0	7.1	4.2
LnGrp LOS	C	C	A		A	A
Approach Vol, veh/h	326			548	810	
Approach Delay, s/veh	26.7			6.5	6.6	
Approach LOS	C			A	A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		44.0		14.4		44.0		
Change Period (Y+Rc), s		6.0		6.0		6.0		
Max Green Setting (Gmax), s		38.0		40.0		38.0		
Max Q Clear Time (g_c+I1), s		10.4		7.4		12.9		
Green Ext Time (p_c), s		10.1		1.0		9.7		

Intersection Summary	
HCM 2010 Ctrl Delay	10.5
HCM 2010 LOS	B

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	140	40	50	480	290	90
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1883	1881	1900
Adj Flow Rate, veh/h	147	42	53	505	305	95
Adj No. of Lanes	1	1	0	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	1	1	1	0
Cap, veh/h	198	177	134	1219	1371	1177
Arrive On Green	0.11	0.11	0.73	0.73	0.73	0.73
Sat Flow, veh/h	1810	1615	111	1673	1881	1615
Grp Volume(v), veh/h	147	42	558	0	305	95
Grp Sat Flow(s),veh/h/ln	1810	1615	1784	0	1881	1615
Q Serve(g_s), s	5.8	1.8	0.0	0.0	3.9	1.3
Cycle Q Clear(g_c), s	5.8	1.8	8.5	0.0	3.9	1.3
Prop In Lane	1.00	1.00	0.09			1.00
Lane Grp Cap(c), veh/h	198	177	1353	0	1371	1177
V/C Ratio(X)	0.74	0.24	0.41	0.00	0.22	0.08
Avail Cap(c_a), veh/h	586	523	1353	0	1371	1177
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	32.0	30.2	3.9	0.0	3.3	2.9
Incr Delay (d2), s/veh	5.4	0.7	0.9	0.0	0.4	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	0.8	4.7	0.0	2.1	0.6
LnGrp Delay(d),s/veh	37.4	30.9	4.8	0.0	3.6	3.0
LnGrp LOS	D	C	A		A	A
Approach Vol, veh/h	189			558	400	
Approach Delay, s/veh	35.9			4.8	3.5	
Approach LOS	D			A	A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		60.0		14.1		60.0		
Change Period (Y+Rc), s		6.0		6.0		6.0		
Max Green Setting (Gmax), s		54.0		24.0		54.0		
Max Q Clear Time (g_c+I1), s		10.5		7.8		5.9		
Green Ext Time (p_c), s		6.6		0.5		6.6		

Intersection Summary	
HCM 2010 Ctrl Delay	9.5
HCM 2010 LOS	A

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	150	130	60	380	550	180
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1884	1900	1900
Adj Flow Rate, veh/h	158	137	63	400	579	189
Adj No. of Lanes	1	1	0	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	1	1	0	0
Cap, veh/h	248	221	165	984	1246	1059
Arrive On Green	0.14	0.14	0.66	0.66	0.66	0.66
Sat Flow, veh/h	1810	1615	143	1501	1900	1614
Grp Volume(v), veh/h	158	137	463	0	579	189
Grp Sat Flow(s),veh/h/ln	1810	1615	1644	0	1900	1614
Q Serve(g_s), s	4.8	4.6	0.0	0.0	8.7	2.6
Cycle Q Clear(g_c), s	4.8	4.6	6.5	0.0	8.7	2.6
Prop In Lane	1.00	1.00	0.14			1.00
Lane Grp Cap(c), veh/h	248	221	1149	0	1246	1059
V/C Ratio(X)	0.64	0.62	0.40	0.00	0.46	0.18
Avail Cap(c_a), veh/h	1249	1115	1149	0	1246	1059
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	23.6	23.6	4.5	0.0	4.9	3.9
Incr Delay (d2), s/veh	2.7	2.8	1.1	0.0	1.2	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	2.2	3.7	0.0	4.9	1.3
LnGrp Delay(d),s/veh	26.4	26.4	5.6	0.0	6.2	4.3
LnGrp LOS	C	C	A		A	A
Approach Vol, veh/h	295			463	768	
Approach Delay, s/veh	26.4			5.6	5.7	
Approach LOS	C			A	A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		44.0		13.9		44.0		
Change Period (Y+Rc), s		6.0		6.0		6.0		
Max Green Setting (Gmax), s		38.0		40.0		38.0		
Max Q Clear Time (g_c+I1), s		8.5		6.8		10.7		
Green Ext Time (p_c), s		8.6		0.9		8.4		

Intersection Summary	
HCM 2010 Ctrl Delay	9.7
HCM 2010 LOS	A

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	170	40	60	580	340	110
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1883	1881	1900
Adj Flow Rate, veh/h	179	42	63	611	358	116
Adj No. of Lanes	1	1	0	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	1	1	1	0
Cap, veh/h	231	207	130	1185	1342	1152
Arrive On Green	0.13	0.13	0.71	0.71	0.71	0.71
Sat Flow, veh/h	1810	1615	109	1661	1881	1615
Grp Volume(v), veh/h	179	42	674	0	358	116
Grp Sat Flow(s),veh/h/ln	1810	1615	1770	0	1881	1615
Q Serve(g_s), s	7.2	1.8	0.0	0.0	5.1	1.7
Cycle Q Clear(g_c), s	7.2	1.8	12.1	0.0	5.1	1.7
Prop In Lane	1.00	1.00	0.09			1.00
Lane Grp Cap(c), veh/h	231	207	1315	0	1342	1152
V/C Ratio(X)	0.77	0.20	0.51	0.00	0.27	0.10
Avail Cap(c_a), veh/h	574	512	1315	0	1342	1152
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	31.9	29.5	4.8	0.0	3.8	3.3
Incr Delay (d2), s/veh	5.4	0.5	1.4	0.0	0.5	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.0	0.8	6.7	0.0	2.8	0.8
LnGrp Delay(d),s/veh	37.4	30.0	6.3	0.0	4.3	3.5
LnGrp LOS	D	C	A		A	A
Approach Vol, veh/h	221			674	474	
Approach Delay, s/veh	36.0			6.3	4.1	
Approach LOS	D			A	A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		60.0		15.7		60.0		
Change Period (Y+Rc), s		6.0		6.0		6.0		
Max Green Setting (Gmax), s		54.0		24.0		54.0		
Max Q Clear Time (g_c+I1), s		14.1		9.2		7.1		
Green Ext Time (p_c), s		8.6		0.5		8.8		

Intersection Summary	
HCM 2010 Ctrl Delay	10.3
HCM 2010 LOS	B

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	170	150	70	460	660	210
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1884	1900	1900
Adj Flow Rate, veh/h	179	158	74	484	695	221
Adj No. of Lanes	1	1	0	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	1	1	0	0
Cap, veh/h	263	235	156	958	1234	1048
Arrive On Green	0.15	0.15	0.65	0.65	0.65	0.65
Sat Flow, veh/h	1810	1615	133	1475	1900	1614
Grp Volume(v), veh/h	179	158	558	0	695	221
Grp Sat Flow(s),veh/h/ln	1810	1615	1608	0	1900	1614
Q Serve(g_s), s	5.5	5.4	0.0	0.0	11.8	3.3
Cycle Q Clear(g_c), s	5.5	5.4	8.6	0.0	11.8	3.3
Prop In Lane	1.00	1.00	0.13			1.00
Lane Grp Cap(c), veh/h	263	235	1114	0	1234	1048
V/C Ratio(X)	0.68	0.67	0.50	0.00	0.56	0.21
Avail Cap(c_a), veh/h	1237	1104	1114	0	1234	1048
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	23.7	23.7	5.1	0.0	5.7	4.2
Incr Delay (d2), s/veh	3.1	3.3	1.6	0.0	1.9	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	2.6	4.8	0.0	6.6	1.5
LnGrp Delay(d),s/veh	26.8	27.0	6.7	0.0	7.5	4.6
LnGrp LOS	C	C	A		A	A
Approach Vol, veh/h	337			558	916	
Approach Delay, s/veh	26.9			6.7	6.8	
Approach LOS	C			A	A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		44.0		14.5		44.0		
Change Period (Y+Rc), s		6.0		6.0		6.0		
Max Green Setting (Gmax), s		38.0		40.0		38.0		
Max Q Clear Time (g_c+I1), s		10.6		7.5		13.8		
Green Ext Time (p_c), s		11.0		1.1		10.4		

Intersection Summary	
HCM 2010 Ctrl Delay	10.5
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	40	80	40	20	130	50	90	250	20	40	170	40
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1792	1845	1900	1792	1860	1900	1900	1828	1900	1845	1835	1900
Adj Flow Rate, veh/h	42	84	42	21	137	53	95	263	21	42	179	42
Adj No. of Lanes	1	1	0	1	1	0	1	2	0	1	2	0
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
Percent Heavy Veh, %	6	0	0	6	3	3	0	3	3	3	3	3
Cap, veh/h	263	213	107	305	219	85	644	1368	109	578	1106	254
Arrive On Green	0.03	0.18	0.18	0.02	0.17	0.17	0.05	0.42	0.42	0.03	0.39	0.39
Sat Flow, veh/h	1707	1159	580	1707	1276	494	1810	3260	259	1757	2817	646
Grp Volume(v), veh/h	42	0	126	21	0	190	95	139	145	42	109	112
Grp Sat Flow(s),veh/h/ln	1707	0	1739	1707	0	1770	1810	1736	1782	1757	1743	1721
Q Serve(g_s), s	1.1	0.0	3.4	0.5	0.0	5.3	1.6	2.7	2.7	0.8	2.2	2.3
Cycle Q Clear(g_c), s	1.1	0.0	3.4	0.5	0.0	5.3	1.6	2.7	2.7	0.8	2.2	2.3
Prop In Lane	1.00		0.33	1.00		0.28	1.00		0.15	1.00		0.38
Lane Grp Cap(c), veh/h	263	0	320	305	0	304	644	729	748	578	684	675
V/C Ratio(X)	0.16	0.00	0.39	0.07	0.00	0.62	0.15	0.19	0.19	0.07	0.16	0.17
Avail Cap(c_a), veh/h	648	0	748	711	0	761	1004	729	748	976	684	675
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.9	0.0	19.2	18.0	0.0	20.5	8.7	9.8	9.8	9.3	10.5	10.6
Incr Delay (d2), s/veh	0.3	0.0	0.8	0.1	0.0	2.1	0.1	0.6	0.6	0.1	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	1.7	0.3	0.0	2.8	0.8	1.4	1.4	0.4	1.1	1.2
LnGrp Delay(d),s/veh	18.1	0.0	20.0	18.1	0.0	22.6	8.8	10.4	10.4	9.3	11.0	11.1
LnGrp LOS	B		B	B		C	A	B	B	A	B	B
Approach Vol, veh/h		168			211			379			263	
Approach Delay, s/veh		19.5			22.2			10.0			10.8	
Approach LOS		B			C			A			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	4.9	28.5	4.3	15.8	6.4	27.0	4.9	15.2
Change Period (Y+Rc), s	3.5	6.0	3.5	6.0	3.5	6.0	3.5	6.0
Max Green Setting (Gmax), s	13.5	21.0	13.5	23.0	13.5	21.0	13.5	23.0
Max Q Clear Time (g_c+I1), s	2.8	4.7	2.5	5.4	3.6	4.3	3.1	7.3
Green Ext Time (p_c), s	0.0	2.4	0.0	1.7	0.1	2.5	0.0	1.6

Intersection Summary	
HCM 2010 Ctrl Delay	14.3
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	70	230	130	40	110	60	90	240	40	70	290	60
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1881	1900	1900	1888	1900	1900	1884	1900	1900	1869	1900
Adj Flow Rate, veh/h	74	242	137	42	116	63	95	253	42	74	305	63
Adj No. of Lanes	1	1	0	1	1	0	1	2	0	1	2	0
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
Percent Heavy Veh, %	2	1	1	0	1	1	0	1	1	0	2	2
Cap, veh/h	397	304	172	235	287	156	488	1086	178	519	1003	205
Arrive On Green	0.05	0.27	0.27	0.03	0.25	0.25	0.05	0.35	0.35	0.04	0.34	0.34
Sat Flow, veh/h	1774	1129	639	1810	1152	626	1810	3080	504	1810	2940	599
Grp Volume(v), veh/h	74	0	379	42	0	179	95	146	149	74	183	185
Grp Sat Flow(s),veh/h/ln	1774	0	1768	1810	0	1777	1810	1790	1795	1810	1776	1763
Q Serve(g_s), s	1.9	0.0	12.3	1.1	0.0	5.2	2.1	3.5	3.6	1.6	4.6	4.8
Cycle Q Clear(g_c), s	1.9	0.0	12.3	1.1	0.0	5.2	2.1	3.5	3.6	1.6	4.6	4.8
Prop In Lane	1.00		0.36	1.00		0.35	1.00		0.28	1.00		0.34
Lane Grp Cap(c), veh/h	397	0	476	235	0	442	488	631	633	519	606	602
V/C Ratio(X)	0.19	0.00	0.80	0.18	0.00	0.40	0.19	0.23	0.24	0.14	0.30	0.31
Avail Cap(c_a), veh/h	704	0	661	586	0	665	786	631	633	838	606	602
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.2	0.0	20.9	17.6	0.0	19.3	12.0	14.0	14.1	12.2	14.9	14.9
Incr Delay (d2), s/veh	0.2	0.0	4.6	0.4	0.0	0.6	0.2	0.9	0.9	0.1	1.3	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	6.6	0.5	0.0	2.6	1.0	1.9	1.9	0.8	2.5	2.5
LnGrp Delay(d),s/veh	16.4	0.0	25.5	18.0	0.0	19.9	12.2	14.9	14.9	12.3	16.1	16.2
LnGrp LOS	B		C	B		B	B	B	B	B	B	B
Approach Vol, veh/h		453			221			390			442	
Approach Delay, s/veh		24.0			19.5			14.3			15.5	
Approach LOS		C			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.2	27.7	5.1	22.6	6.9	27.0	6.4	21.3
Change Period (Y+Rc), s	3.5	6.0	3.5	6.0	3.5	6.0	3.5	6.0
Max Green Setting (Gmax), s	13.5	21.0	13.5	23.0	13.5	21.0	13.5	23.0
Max Q Clear Time (g_c+I1), s	3.6	5.6	3.1	14.3	4.1	6.8	3.9	7.2
Green Ext Time (p_c), s	0.1	3.2	0.0	2.3	0.1	3.1	0.1	3.2

Intersection Summary	
HCM 2010 Ctrl Delay	18.4
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	50	100	50	30	160	60	110	300	30	40	200	60
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1792	1844	1900	1792	1859	1900	1900	1823	1900	1845	1832	1900
Adj Flow Rate, veh/h	53	105	53	32	168	63	116	316	32	42	211	63
Adj No. of Lanes	1	1	0	1	1	0	1	2	0	1	2	0
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
Percent Heavy Veh, %	6	0	0	6	3	3	0	3	3	3	3	3
Cap, veh/h	268	241	122	315	251	94	597	1301	131	522	988	287
Arrive On Green	0.03	0.21	0.21	0.02	0.19	0.19	0.06	0.41	0.41	0.03	0.37	0.37
Sat Flow, veh/h	1707	1155	583	1707	1288	483	1810	3180	320	1757	2662	775
Grp Volume(v), veh/h	53	0	158	32	0	231	116	171	177	42	136	138
Grp Sat Flow(s),veh/h/ln	1707	0	1738	1707	0	1772	1810	1732	1767	1757	1741	1696
Q Serve(g_s), s	1.4	0.0	4.5	0.8	0.0	6.8	2.1	3.7	3.7	0.8	3.0	3.2
Cycle Q Clear(g_c), s	1.4	0.0	4.5	0.8	0.0	6.8	2.1	3.7	3.7	0.8	3.0	3.2
Prop In Lane	1.00		0.34	1.00		0.27	1.00		0.18	1.00		0.46
Lane Grp Cap(c), veh/h	268	0	362	315	0	345	597	709	723	522	646	629
V/C Ratio(X)	0.20	0.00	0.44	0.10	0.00	0.67	0.19	0.24	0.24	0.08	0.21	0.22
Avail Cap(c_a), veh/h	616	0	706	686	0	720	913	709	723	896	646	629
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.8	0.0	19.5	17.9	0.0	21.1	9.4	11.0	11.0	10.6	12.1	12.2
Incr Delay (d2), s/veh	0.4	0.0	0.8	0.1	0.0	2.2	0.2	0.8	0.8	0.1	0.7	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	2.2	0.4	0.0	3.6	1.1	1.9	2.0	0.4	1.6	1.6
LnGrp Delay(d),s/veh	18.1	0.0	20.3	18.0	0.0	23.3	9.6	11.8	11.8	10.6	12.9	13.0
LnGrp LOS	B		C	B		C	A	B	B	B	B	B
Approach Vol, veh/h		211			263			464			316	
Approach Delay, s/veh		19.8			22.7			11.2			12.6	
Approach LOS		B			C			B			B	

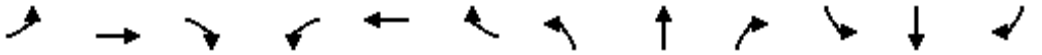
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	4.9	29.2	4.7	17.8	7.1	27.0	5.5	17.0
Change Period (Y+Rc), s	3.5	6.0	3.5	6.0	3.5	6.0	3.5	6.0
Max Green Setting (Gmax), s	13.5	21.0	13.5	23.0	13.5	21.0	13.5	23.0
Max Q Clear Time (g_c+I1), s	2.8	5.7	2.8	6.5	4.1	5.2	3.4	8.8
Green Ext Time (p_c), s	0.0	3.0	0.0	2.1	0.2	3.1	0.1	2.0

Intersection Summary	
HCM 2010 Ctrl Delay	15.4
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	80	280	150	50	130	70	100	290	40	90	340	70
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1881	1900	1900	1888	1900	1900	1883	1900	1900	1869	1900
Adj Flow Rate, veh/h	84	295	158	53	137	74	105	305	42	95	358	74
Adj No. of Lanes	1	1	0	1	1	0	1	2	0	1	2	0
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
Percent Heavy Veh, %	2	1	1	0	1	1	0	1	1	0	2	2
Cap, veh/h	415	346	185	224	324	175	435	1026	140	473	937	192
Arrive On Green	0.05	0.30	0.30	0.03	0.28	0.28	0.06	0.32	0.32	0.06	0.32	0.32
Sat Flow, veh/h	1774	1154	618	1810	1154	623	1810	3165	432	1810	2938	601
Grp Volume(v), veh/h	84	0	453	53	0	211	105	171	176	95	215	217
Grp Sat Flow(s),veh/h/ln	1774	0	1772	1810	0	1778	1810	1789	1807	1810	1776	1763
Q Serve(g_s), s	2.2	0.0	15.8	1.4	0.0	6.4	2.5	4.7	4.8	2.3	6.2	6.3
Cycle Q Clear(g_c), s	2.2	0.0	15.8	1.4	0.0	6.4	2.5	4.7	4.8	2.3	6.2	6.3
Prop In Lane	1.00		0.35	1.00		0.35	1.00		0.24	1.00		0.34
Lane Grp Cap(c), veh/h	415	0	532	224	0	500	435	580	586	473	566	562
V/C Ratio(X)	0.20	0.00	0.85	0.24	0.00	0.42	0.24	0.30	0.30	0.20	0.38	0.39
Avail Cap(c_a), veh/h	688	0	619	537	0	621	697	580	586	744	566	562
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.7	0.0	21.7	17.7	0.0	19.3	13.8	16.6	16.7	13.8	17.4	17.4
Incr Delay (d2), s/veh	0.2	0.0	9.8	0.5	0.0	0.6	0.3	1.3	1.3	0.2	1.9	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.0	9.1	0.7	0.0	3.2	1.3	2.5	2.6	1.1	3.3	3.4
LnGrp Delay(d),s/veh	16.0	0.0	31.5	18.2	0.0	19.9	14.1	17.9	18.0	14.0	19.3	19.4
LnGrp LOS	B		C	B		B	B	B	B	B	B	B
Approach Vol, veh/h		537			264			452			527	
Approach Delay, s/veh		29.1			19.5			17.1			18.4	
Approach LOS		C			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.1	27.3	5.6	25.8	7.5	27.0	6.9	24.5
Change Period (Y+Rc), s	3.5	6.0	3.5	6.0	3.5	6.0	3.5	6.0
Max Green Setting (Gmax), s	13.5	21.0	13.5	23.0	13.5	21.0	13.5	23.0
Max Q Clear Time (g_c+I1), s	4.3	6.8	3.4	17.8	4.5	8.3	4.2	8.4
Green Ext Time (p_c), s	0.1	3.7	0.1	1.9	0.1	3.6	0.1	3.8

Intersection Summary	
HCM 2010 Ctrl Delay	21.5
HCM 2010 LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	40	110	40	30	140	60	90	250	50	60	170	50
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1792	1856	1900	1792	1861	1900	1900	1806	1900	1845	1832	1900
Adj Flow Rate, veh/h	42	116	42	32	147	63	95	263	53	63	179	53
Adj No. of Lanes	1	1	0	1	1	0	1	2	0	1	2	0
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
Percent Heavy Veh, %	6	0	0	6	3	3	0	3	3	3	3	3
Cap, veh/h	263	249	90	300	230	98	625	1148	228	553	1028	296
Arrive On Green	0.03	0.19	0.19	0.02	0.19	0.19	0.05	0.40	0.40	0.04	0.39	0.39
Sat Flow, veh/h	1707	1299	470	1707	1235	529	1810	2856	567	1757	2669	768
Grp Volume(v), veh/h	42	0	158	32	0	210	95	156	160	63	115	117
Grp Sat Flow(s),veh/h/ln	1707	0	1770	1707	0	1764	1810	1716	1706	1757	1741	1697
Q Serve(g_s), s	1.1	0.0	4.3	0.8	0.0	6.0	1.7	3.3	3.4	1.2	2.4	2.5
Cycle Q Clear(g_c), s	1.1	0.0	4.3	0.8	0.0	6.0	1.7	3.3	3.4	1.2	2.4	2.5
Prop In Lane	1.00		0.27	1.00		0.30	1.00		0.33	1.00		0.45
Lane Grp Cap(c), veh/h	263	0	339	300	0	328	625	690	686	553	670	654
V/C Ratio(X)	0.16	0.00	0.47	0.11	0.00	0.64	0.15	0.23	0.23	0.11	0.17	0.18
Avail Cap(c_a), veh/h	640	0	747	687	0	744	976	690	686	924	670	654
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.7	0.0	19.6	17.6	0.0	20.5	9.1	10.7	10.8	9.5	11.0	11.1
Incr Delay (d2), s/veh	0.3	0.0	1.0	0.2	0.0	2.1	0.1	0.8	0.8	0.1	0.6	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	2.2	0.4	0.0	3.1	0.8	1.7	1.7	0.6	1.2	1.3
LnGrp Delay(d),s/veh	17.9	0.0	20.5	17.8	0.0	22.6	9.2	11.5	11.5	9.6	11.6	11.7
LnGrp LOS	B		C	B		C	A	B	B	A	B	B
Approach Vol, veh/h		200			242			411			295	
Approach Delay, s/veh		20.0			22.0			11.0			11.2	
Approach LOS		B			C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.5	27.9	4.7	16.5	6.4	27.0	5.0	16.1
Change Period (Y+Rc), s	3.5	6.0	3.5	6.0	3.5	6.0	3.5	6.0
Max Green Setting (Gmax), s	13.5	21.0	13.5	23.0	13.5	21.0	13.5	23.0
Max Q Clear Time (g_c+I1), s	3.2	5.4	2.8	6.3	3.7	4.5	3.1	8.0
Green Ext Time (p_c), s	0.1	2.7	0.0	2.0	0.1	2.7	0.0	1.9

Intersection Summary	
HCM 2010 Ctrl Delay	14.9
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	70	240	130	60	130	80	90	240	50	80	290	60
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1881	1900	1900	1888	1900	1900	1884	1900	1900	1869	1900
Adj Flow Rate, veh/h	74	253	137	63	137	84	95	253	53	84	305	63
Adj No. of Lanes	1	1	0	1	1	0	1	2	0	1	2	0
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
Percent Heavy Veh, %	2	1	1	0	1	1	0	1	1	0	2	2
Cap, veh/h	383	316	171	254	293	180	474	999	206	502	975	199
Arrive On Green	0.05	0.27	0.27	0.04	0.27	0.27	0.05	0.34	0.34	0.05	0.33	0.33
Sat Flow, veh/h	1774	1149	622	1810	1097	673	1810	2958	610	1810	2940	599
Grp Volume(v), veh/h	74	0	390	63	0	221	95	151	155	84	183	185
Grp Sat Flow(s),veh/h/ln	1774	0	1771	1810	0	1770	1810	1790	1777	1810	1776	1763
Q Serve(g_s), s	1.9	0.0	13.0	1.6	0.0	6.6	2.2	3.9	4.0	1.9	4.8	5.0
Cycle Q Clear(g_c), s	1.9	0.0	13.0	1.6	0.0	6.6	2.2	3.9	4.0	1.9	4.8	5.0
Prop In Lane	1.00		0.35	1.00		0.38	1.00		0.34	1.00		0.34
Lane Grp Cap(c), veh/h	383	0	486	254	0	473	474	604	600	502	589	585
V/C Ratio(X)	0.19	0.00	0.80	0.25	0.00	0.47	0.20	0.25	0.26	0.17	0.31	0.32
Avail Cap(c_a), veh/h	680	0	644	570	0	643	761	604	600	799	589	585
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.9	0.0	21.4	17.1	0.0	19.4	12.8	15.2	15.2	12.8	15.8	15.8
Incr Delay (d2), s/veh	0.2	0.0	5.4	0.5	0.0	0.7	0.2	1.0	1.0	0.2	1.4	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	7.0	0.8	0.0	3.3	1.1	2.1	2.1	1.0	2.6	2.7
LnGrp Delay(d),s/veh	16.2	0.0	26.8	17.6	0.0	20.1	13.0	16.2	16.2	13.0	17.1	17.2
LnGrp LOS	B		C	B		C	B	B	B	B	B	B
Approach Vol, veh/h		464			284			401			452	
Approach Delay, s/veh		25.1			19.6			15.4			16.4	
Approach LOS		C			B			B			B	

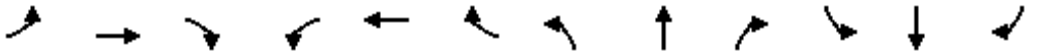
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.6	27.4	5.9	23.4	7.0	27.0	6.4	22.9
Change Period (Y+Rc), s	3.5	6.0	3.5	6.0	3.5	6.0	3.5	6.0
Max Green Setting (Gmax), s	13.5	21.0	13.5	23.0	13.5	21.0	13.5	23.0
Max Q Clear Time (g_c+I1), s	3.9	6.0	3.6	15.0	4.2	7.0	3.9	8.6
Green Ext Time (p_c), s	0.1	3.3	0.1	2.4	0.1	3.2	0.1	3.4

Intersection Summary	
HCM 2010 Ctrl Delay	19.2
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	50	130	50	40	170	70	110	300	60	70	200	60
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1792	1853	1900	1792	1861	1900	1900	1807	1900	1845	1832	1900
Adj Flow Rate, veh/h	53	137	53	42	179	74	116	316	63	74	211	63
Adj No. of Lanes	1	1	0	1	1	0	1	2	0	1	2	0
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
Percent Heavy Veh, %	6	0	0	6	3	3	0	3	3	3	3	3
Cap, veh/h	265	275	106	309	261	108	587	1101	217	505	967	282
Arrive On Green	0.03	0.22	0.22	0.03	0.21	0.21	0.06	0.38	0.38	0.04	0.36	0.36
Sat Flow, veh/h	1707	1272	492	1707	1250	517	1810	2860	563	1757	2662	775
Grp Volume(v), veh/h	53	0	190	42	0	253	116	188	191	74	136	138
Grp Sat Flow(s),veh/h/ln	1707	0	1764	1707	0	1767	1810	1716	1707	1757	1741	1696
Q Serve(g_s), s	1.4	0.0	5.5	1.1	0.0	7.6	2.3	4.4	4.5	1.5	3.1	3.3
Cycle Q Clear(g_c), s	1.4	0.0	5.5	1.1	0.0	7.6	2.3	4.4	4.5	1.5	3.1	3.3
Prop In Lane	1.00		0.28	1.00		0.29	1.00		0.33	1.00		0.46
Lane Grp Cap(c), veh/h	265	0	381	309	0	369	587	661	657	505	633	616
V/C Ratio(X)	0.20	0.00	0.50	0.14	0.00	0.69	0.20	0.28	0.29	0.15	0.22	0.22
Avail Cap(c_a), veh/h	606	0	702	662	0	703	892	661	657	840	633	616
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.6	0.0	19.9	17.5	0.0	21.1	10.2	12.3	12.3	10.7	12.7	12.7
Incr Delay (d2), s/veh	0.4	0.0	1.0	0.2	0.0	2.3	0.2	1.1	1.1	0.1	0.8	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	2.7	0.5	0.0	4.0	1.1	2.2	2.3	0.7	1.6	1.6
LnGrp Delay(d),s/veh	18.0	0.0	20.9	17.7	0.0	23.4	10.4	13.4	13.4	10.8	13.5	13.6
LnGrp LOS	B		C	B		C	B	B	B	B	B	B
Approach Vol, veh/h		243			295			495			348	
Approach Delay, s/veh		20.3			22.6			12.7			13.0	
Approach LOS		C			C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.0	28.2	5.0	18.5	7.2	27.0	5.5	18.1
Change Period (Y+Rc), s	3.5	6.0	3.5	6.0	3.5	6.0	3.5	6.0
Max Green Setting (Gmax), s	13.5	21.0	13.5	23.0	13.5	21.0	13.5	23.0
Max Q Clear Time (g_c+I1), s	3.5	6.5	3.1	7.5	4.3	5.3	3.4	9.6
Green Ext Time (p_c), s	0.1	3.1	0.0	2.4	0.2	3.2	0.1	2.2

Intersection Summary	
HCM 2010 Ctrl Delay	16.2
HCM 2010 LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	80	290	150	80	160	90	100	290	50	100	340	70
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1881	1900	1900	1888	1900	1900	1884	1900	1900	1869	1900
Adj Flow Rate, veh/h	84	305	158	84	168	95	105	305	53	105	358	74
Adj No. of Lanes	1	1	0	1	1	0	1	2	0	1	2	0
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
Percent Heavy Veh, %	2	1	1	0	1	1	0	1	1	0	2	2
Cap, veh/h	395	353	183	248	342	193	421	943	162	455	906	185
Arrive On Green	0.05	0.30	0.30	0.05	0.30	0.30	0.06	0.31	0.31	0.06	0.31	0.31
Sat Flow, veh/h	1774	1169	605	1810	1134	641	1810	3056	525	1810	2938	601
Grp Volume(v), veh/h	84	0	463	84	0	263	105	177	181	105	215	217
Grp Sat Flow(s),veh/h/ln	1774	0	1774	1810	0	1775	1810	1790	1791	1810	1776	1763
Q Serve(g_s), s	2.2	0.0	16.8	2.1	0.0	8.3	2.6	5.2	5.3	2.6	6.5	6.6
Cycle Q Clear(g_c), s	2.2	0.0	16.8	2.1	0.0	8.3	2.6	5.2	5.3	2.6	6.5	6.6
Prop In Lane	1.00		0.34	1.00		0.36	1.00		0.29	1.00		0.34
Lane Grp Cap(c), veh/h	395	0	536	248	0	535	421	552	553	455	548	544
V/C Ratio(X)	0.21	0.00	0.86	0.34	0.00	0.49	0.25	0.32	0.33	0.23	0.39	0.40
Avail Cap(c_a), veh/h	658	0	599	517	0	600	670	552	553	705	548	544
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.6	0.0	22.4	17.3	0.0	19.5	14.7	18.1	18.1	14.6	18.5	18.6
Incr Delay (d2), s/veh	0.3	0.0	11.5	0.8	0.0	0.7	0.3	1.5	1.6	0.3	2.1	2.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.0	9.9	1.1	0.0	4.1	1.3	2.8	2.9	1.3	3.5	3.5
LnGrp Delay(d),s/veh	15.8	0.0	34.0	18.1	0.0	20.2	15.1	19.6	19.7	14.9	20.6	20.7
LnGrp LOS	B		C	B		C	B	B	B	B	C	C
Approach Vol, veh/h		547			347			463			537	
Approach Delay, s/veh		31.2			19.7			18.6			19.5	
Approach LOS		C			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.6	27.0	6.9	26.6	7.6	27.0	6.9	26.5
Change Period (Y+Rc), s	3.5	6.0	3.5	6.0	3.5	6.0	3.5	6.0
Max Green Setting (Gmax), s	13.5	21.0	13.5	23.0	13.5	21.0	13.5	23.0
Max Q Clear Time (g_c+I1), s	4.6	7.3	4.1	18.8	4.6	8.6	4.2	10.3
Green Ext Time (p_c), s	0.1	3.7	0.1	1.8	0.1	3.6	0.1	3.9

Intersection Summary	
HCM 2010 Ctrl Delay	22.7
HCM 2010 LOS	C

Intersection: 13: Hohman Ave & Fayette St

Movement	EB	EB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	TR	L	T	TR	L	T	TR
Maximum Queue (ft)	161	86	74	128	48	186	73	24	127	113
Average Queue (ft)	65	23	37	32	10	84	39	6	67	37
95th Queue (ft)	119	55	68	80	32	149	74	22	117	87
Link Distance (ft)		708		725		188	188		668	668
Upstream Blk Time (%)						0				
Queuing Penalty (veh)						0				
Storage Bay Dist (ft)	100		50		100			100		
Storage Blk Time (%)	4	0	10	6		4			1	
Queuing Penalty (veh)	2	0	4	3		1			0	

Network Summary

Network wide Queuing Penalty: 10

Intersection: 13: Hohman Ave & Fayette St

Movement	EB	EB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	TR	L	T	TR	L	T	TR
Maximum Queue (ft)	160	67	53	54	124	130	117	24	115	72
Average Queue (ft)	54	26	17	17	24	62	27	8	74	37
95th Queue (ft)	104	57	48	43	63	105	71	25	110	62
Link Distance (ft)		708		725		188	188		668	668
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	100		50		100			100		
Storage Blk Time (%)	2		3	3		1			1	
Queuing Penalty (veh)	1		1	1		0			0	

Intersection: 2: Fisher St & Train at-grade crossing

Movement	EB	WB
Directions Served	T	T
Maximum Queue (ft)	314	266
Average Queue (ft)	18	12
95th Queue (ft)	132	94
Link Distance (ft)	1600	1592
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 0

Intersection: 13: KFC Driveway/Harrison Ave & Ridge Rd

Movement	EB	EB	EB	WB	WB	WB	NB	SB
Directions Served	L	T	TR	L	T	TR	LTR	LTR
Maximum Queue (ft)	24	212	201	104	281	275	191	129
Average Queue (ft)	8	116	67	27	163	115	66	29
95th Queue (ft)	26	187	139	74	238	206	134	73
Link Distance (ft)		724	724		741	741	179	659
Upstream Blk Time (%)							0	
Queuing Penalty (veh)							0	
Storage Bay Dist (ft)	100			50				
Storage Blk Time (%)		7		9	26			
Queuing Penalty (veh)		1		53	5			

Network Summary

Network wide Queuing Penalty: 60

Intersection: 13: KFC Driveway/Harrison Ave & Ridge Rd

Movement	EB	EB	EB	WB	WB	WB	NB	SB
Directions Served	L	T	TR	L	T	TR	LTR	LTR
Maximum Queue (ft)	44	344	285	104	280	272	165	73
Average Queue (ft)	18	189	157	22	161	129	85	28
95th Queue (ft)	41	297	259	73	226	223	151	62
Link Distance (ft)		724	724		741	741	179	659
Upstream Blk Time (%)							0	
Queuing Penalty (veh)							0	
Storage Bay Dist (ft)	100			50				
Storage Blk Time (%)		19		4	28			
Queuing Penalty (veh)		4		21	6			

Network Summary

Network wide Queuing Penalty: 31

Intersection: 2: Ridge Road & Train at-grade crossing

Movement	EB	EB	WB	WB
Directions Served	T	T	T	T
Maximum Queue (ft)	395	423	352	376
Average Queue (ft)	25	24	23	24
95th Queue (ft)	179	176	163	172
Link Distance (ft)	1600	1600	1592	1592
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Network Summary

Network wide Queuing Penalty: 0

Intersection: 13: Hohman Ave & Sibley St

Movement	EB	EB	EB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	R	L	TR	L	T	TR	L	T	TR
Maximum Queue (ft)	200	366	60	104	136	125	241	204	24	235	251
Average Queue (ft)	158	101	23	38	48	58	150	85	4	122	123
95th Queue (ft)	219	269	41	79	102	120	237	166	18	207	226
Link Distance (ft)		708			725		189	189		668	668
Upstream Blk Time (%)							4	0			
Queuing Penalty (veh)							0	0			
Storage Bay Dist (ft)	100		100	50		100			100		
Storage Blk Time (%)	33			8	10	2	16			12	
Queuing Penalty (veh)	41			6	5	6	14			1	

Intersection: 13: Hohman Ave & Sibley St

Movement	EB	EB	EB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	R	L	TR	L	T	TR	L	T	TR
Maximum Queue (ft)	200	760	124	104	133	125	204	185	124	341	456
Average Queue (ft)	199	501	40	14	68	64	146	88	19	179	238
95th Queue (ft)	203	819	88	52	119	119	225	167	58	256	409
Link Distance (ft)		708			725		189	189		668	668
Upstream Blk Time (%)		10					4	0			
Queuing Penalty (veh)		0					0	0			
Storage Bay Dist (ft)	100		100	50		100			100		
Storage Blk Time (%)	72	5	0	1	22	1	19			24	
Queuing Penalty (veh)	204	30	0	1	5	2	18			5	

Network Summary

Network wide Queuing Penalty: 265

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	70	30	140	0	0	0	0	660	20	10	380	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1882	1900	1900	1882	0
Adj Flow Rate, veh/h	74	32	147				0	695	21	11	400	0
Adj No. of Lanes	0	2	0				0	2	0	0	2	0
Peak Hour Factor	0.95	0.95	0.95				0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0				0	1	1	1	1	0
Cap, veh/h	175	76	215				0	2468	75	80	2373	0
Arrive On Green	0.14	0.14	0.14				0.00	0.70	0.70	0.70	0.70	0.00
Sat Flow, veh/h	1282	554	1579				0	3637	107	40	3493	0
Grp Volume(v), veh/h	106	0	147				0	351	365	218	193	0
Grp Sat Flow(s),veh/h/ln	1836	0	1579				0	1788	1863	1820	1627	0
Q Serve(g_s), s	3.8	0.0	6.4				0.0	5.3	5.3	0.0	2.9	0.0
Cycle Q Clear(g_c), s	3.8	0.0	6.4				0.0	5.3	5.3	2.9	2.9	0.0
Prop In Lane	0.70		1.00				0.00		0.06	0.05		0.00
Lane Grp Cap(c), veh/h	250	0	215				0	1245	1297	1320	1133	0
V/C Ratio(X)	0.42	0.00	0.68				0.00	0.28	0.28	0.17	0.17	0.00
Avail Cap(c_a), veh/h	716	0	616				0	1245	1297	1320	1133	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	28.4	0.0	29.5				0.0	4.1	4.1	3.7	3.8	0.0
Incr Delay (d2), s/veh	1.1	0.0	3.8				0.0	0.6	0.5	0.3	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	0.0	3.0				0.0	2.7	2.8	1.6	1.4	0.0
LnGrp Delay(d),s/veh	29.5	0.0	33.3				0.0	4.7	4.7	4.0	4.1	0.0
LnGrp LOS	C		C					A	A	A	A	
Approach Vol, veh/h		253						716			411	
Approach Delay, s/veh		31.7						4.7			4.0	
Approach LOS		C						A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		56.0		15.8		56.0		
Change Period (Y+Rc), s		6.0		6.0		6.0		
Max Green Setting (Gmax), s		50.0		28.0		50.0		
Max Q Clear Time (g_c+I1), s		7.3		8.4		4.9		
Green Ext Time (p_c), s		8.7		1.3		8.8		

Intersection Summary	
HCM 2010 Ctrl Delay	9.4
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	20	20	50	0	0	0	0	500	10	10	610	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1882	0
Adj Flow Rate, veh/h	21	21	53				0	526	11	11	642	0
Adj No. of Lanes	0	2	0				0	2	0	0	2	0
Peak Hour Factor	0.95	0.95	0.95				0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0				0	0	0	1	1	0
Cap, veh/h	90	90	157				0	2632	55	68	2524	0
Arrive On Green	0.10	0.10	0.10				0.00	0.73	0.73	0.73	0.73	0.00
Sat Flow, veh/h	927	927	1615				0	3711	76	18	3554	0
Grp Volume(v), veh/h	42	0	53				0	262	275	349	304	0
Grp Sat Flow(s),veh/h/ln	1854	0	1615				0	1805	1887	1860	1627	0
Q Serve(g_s), s	1.4	0.0	2.1				0.0	3.2	3.2	0.0	4.3	0.0
Cycle Q Clear(g_c), s	1.4	0.0	2.1				0.0	3.2	3.2	4.3	4.3	0.0
Prop In Lane	0.50		1.00				0.00		0.04	0.03		0.00
Lane Grp Cap(c), veh/h	181	0	157				0	1314	1373	1408	1184	0
V/C Ratio(X)	0.23	0.00	0.34				0.00	0.20	0.20	0.25	0.26	0.00
Avail Cap(c_a), veh/h	756	0	658				0	1314	1373	1408	1184	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	28.6	0.0	28.9				0.0	3.0	3.0	3.1	3.1	0.0
Incr Delay (d2), s/veh	0.7	0.0	1.2				0.0	0.3	0.3	0.4	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	1.0				0.0	1.7	1.7	2.3	2.0	0.0
LnGrp Delay(d),s/veh	29.3	0.0	30.2				0.0	3.3	3.3	3.5	3.7	0.0
LnGrp LOS	C		C					A	A	A	A	
Approach Vol, veh/h		95						537			653	
Approach Delay, s/veh		29.8						3.3			3.6	
Approach LOS		C						A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		56.0		12.7		56.0		
Change Period (Y+Rc), s		6.0		6.0		6.0		
Max Green Setting (Gmax), s		50.0		28.0		50.0		
Max Q Clear Time (g_c+I1), s		5.2		4.1		6.3		
Green Ext Time (p_c), s		9.4		0.4		9.3		

Intersection Summary	
HCM 2010 Ctrl Delay	5.4
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	80	30	160	0	0	0	0	760	20	20	440	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1882	1900	1900	1882	0
Adj Flow Rate, veh/h	84	32	168				0	800	21	21	463	0
Adj No. of Lanes	0	2	0				0	2	0	0	2	0
Peak Hour Factor	0.95	0.95	0.95				0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0				0	1	1	1	1	0
Cap, veh/h	199	76	237				0	2440	64	110	2246	0
Arrive On Green	0.15	0.15	0.15				0.00	0.69	0.69	0.69	0.69	0.00
Sat Flow, veh/h	1328	506	1581				0	3653	93	83	3362	0
Grp Volume(v), veh/h	116	0	168				0	402	419	252	232	0
Grp Sat Flow(s),veh/h/ln	1834	0	1581				0	1788	1865	1732	1627	0
Q Serve(g_s), s	4.2	0.0	7.4				0.0	6.7	6.7	0.0	3.8	0.0
Cycle Q Clear(g_c), s	4.2	0.0	7.4				0.0	6.7	6.7	3.6	3.8	0.0
Prop In Lane	0.72		1.00				0.00		0.05	0.08		0.00
Lane Grp Cap(c), veh/h	275	0	237				0	1225	1278	1241	1115	0
V/C Ratio(X)	0.42	0.00	0.71				0.00	0.33	0.33	0.20	0.21	0.00
Avail Cap(c_a), veh/h	704	0	607				0	1225	1278	1241	1115	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	28.1	0.0	29.5				0.0	4.7	4.7	4.2	4.2	0.0
Incr Delay (d2), s/veh	1.0	0.0	3.9				0.0	0.7	0.7	0.4	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	0.0	3.5				0.0	3.5	3.6	2.0	1.8	0.0
LnGrp Delay(d),s/veh	29.2	0.0	33.4				0.0	5.4	5.3	4.5	4.6	0.0
LnGrp LOS	C		C					A	A	A	A	
Approach Vol, veh/h		284						821			484	
Approach Delay, s/veh		31.6						5.4			4.6	
Approach LOS		C						A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		56.0		16.9		56.0		
Change Period (Y+Rc), s		6.0		6.0		6.0		
Max Green Setting (Gmax), s		50.0		28.0		50.0		
Max Q Clear Time (g_c+I1), s		8.7		9.4		5.8		
Green Ext Time (p_c), s		10.8		1.5		11.0		

Intersection Summary	
HCM 2010 Ctrl Delay	9.8
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	30	20	50	0	0	0	0	580	10	10	710	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1881	0
Adj Flow Rate, veh/h	32	21	53				0	611	11	11	747	0
Adj No. of Lanes	0	2	0				0	2	0	0	2	0
Peak Hour Factor	0.95	0.95	0.95				0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0				0	0	0	1	1	0
Cap, veh/h	112	74	163				0	2631	47	64	2520	0
Arrive On Green	0.10	0.10	0.10				0.00	0.73	0.73	0.73	0.73	0.00
Sat Flow, veh/h	1114	731	1615				0	3723	65	14	3560	0
Grp Volume(v), veh/h	53	0	53				0	304	318	405	353	0
Grp Sat Flow(s),veh/h/ln	1844	0	1615				0	1805	1888	1862	1627	0
Q Serve(g_s), s	1.8	0.0	2.1				0.0	3.8	3.8	0.0	5.3	0.0
Cycle Q Clear(g_c), s	1.8	0.0	2.1				0.0	3.8	3.8	5.2	5.3	0.0
Prop In Lane	0.60		1.00				0.00		0.03	0.03		0.00
Lane Grp Cap(c), veh/h	186	0	163				0	1309	1369	1404	1180	0
V/C Ratio(X)	0.29	0.00	0.33				0.00	0.23	0.23	0.29	0.30	0.00
Avail Cap(c_a), veh/h	749	0	656				0	1309	1369	1404	1180	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	28.7	0.0	28.8				0.0	3.1	3.1	3.3	3.3	0.0
Incr Delay (d2), s/veh	0.8	0.0	1.1				0.0	0.4	0.4	0.5	0.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.0	1.0				0.0	2.0	2.1	2.8	2.5	0.0
LnGrp Delay(d),s/veh	29.5	0.0	30.0				0.0	3.5	3.5	3.8	4.0	0.0
LnGrp LOS	C		C					A	A	A	A	
Approach Vol, veh/h		106						622			758	
Approach Delay, s/veh		29.8						3.5			3.9	
Approach LOS		C						A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		56.0		12.9		56.0		
Change Period (Y+Rc), s		6.0		6.0		6.0		
Max Green Setting (Gmax), s		50.0		28.0		50.0		
Max Q Clear Time (g_c+I1), s		5.8		4.1		7.3		
Green Ext Time (p_c), s		11.6		0.5		11.6		

Intersection Summary	
HCM 2010 Ctrl Delay	5.6
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	70	30	140	40	0	30	0	660	20	10	380	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	0	1882	1900	1900	1882	0
Adj Flow Rate, veh/h	74	32	147	42	0	32	0	695	21	11	400	0
Adj No. of Lanes	1	1	0	0	1	0	0	2	0	0	2	0
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
Percent Heavy Veh, %	0	0	0	0	0	0	0	1	1	1	1	0
Cap, veh/h	316	51	234	132	20	59	0	2358	71	77	2267	0
Arrive On Green	0.17	0.17	0.17	0.17	0.00	0.17	0.00	0.67	0.67	0.67	0.67	0.00
Sat Flow, veh/h	1399	292	1340	324	116	335	0	3637	107	40	3493	0
Grp Volume(v), veh/h	74	0	179	74	0	0	0	351	365	218	193	0
Grp Sat Flow(s),veh/h/ln	1399	0	1631	775	0	0	0	1788	1862	1820	1627	0
Q Serve(g_s), s	0.0	0.0	7.6	1.9	0.0	0.0	0.0	6.1	6.1	0.0	3.4	0.0
Cycle Q Clear(g_c), s	4.0	0.0	7.6	9.6	0.0	0.0	0.0	6.1	6.1	3.3	3.4	0.0
Prop In Lane	1.00		0.82	0.57		0.43	0.00		0.06	0.05		0.00
Lane Grp Cap(c), veh/h	316	0	285	211	0	0	0	1190	1239	1261	1082	0
V/C Ratio(X)	0.23	0.00	0.63	0.35	0.00	0.00	0.00	0.29	0.29	0.17	0.18	0.00
Avail Cap(c_a), veh/h	593	0	608	480	0	0	0	1190	1239	1261	1082	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	27.2	0.0	28.7	29.4	0.0	0.0	0.0	5.2	5.2	4.8	4.8	0.0
Incr Delay (d2), s/veh	0.4	0.0	2.3	1.0	0.0	0.0	0.0	0.6	0.6	0.3	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	0.0	3.6	1.5	0.0	0.0	0.0	3.2	3.4	1.8	1.6	0.0
LnGrp Delay(d),s/veh	27.6	0.0	31.0	30.4	0.0	0.0	0.0	5.9	5.8	5.1	5.1	0.0
LnGrp LOS	C		C	C				A	A	A	A	
Approach Vol, veh/h		253			74			716			411	
Approach Delay, s/veh		30.0			30.4			5.9			5.1	
Approach LOS		C			C			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		56.0		19.1		56.0		19.1
Change Period (Y+Rc), s		6.0		6.0		6.0		6.0
Max Green Setting (Gmax), s		50.0		28.0		50.0		28.0
Max Q Clear Time (g_c+I1), s		8.1		9.6		5.4		11.6
Green Ext Time (p_c), s		8.7		1.5		8.8		1.5

Intersection Summary	
HCM 2010 Ctrl Delay	11.1
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	20	20	50	20	0	20	0	500	10	10	610	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	0	1900	1900	1900	1882	0
Adj Flow Rate, veh/h	21	21	53	21	0	21	0	526	11	11	642	0
Adj No. of Lanes	1	1	0	0	1	0	0	2	0	0	2	0
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
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	1	1	0
Cap, veh/h	271	51	129	126	23	72	0	2604	54	67	2498	0
Arrive On Green	0.11	0.11	0.11	0.11	0.00	0.11	0.00	0.72	0.72	0.72	0.72	0.00
Sat Flow, veh/h	1413	479	1208	453	217	670	0	3711	76	18	3554	0
Grp Volume(v), veh/h	21	0	74	42	0	0	0	262	275	349	304	0
Grp Sat Flow(s),veh/h/ln	1413	0	1687	1341	0	0	0	1805	1887	1860	1627	0
Q Serve(g_s), s	0.0	0.0	2.8	0.0	0.0	0.0	0.0	3.3	3.3	0.0	4.5	0.0
Cycle Q Clear(g_c), s	0.7	0.0	2.8	2.9	0.0	0.0	0.0	3.3	3.3	4.4	4.5	0.0
Prop In Lane	1.00		0.72	0.50		0.50	0.00		0.04	0.03		0.00
Lane Grp Cap(c), veh/h	271	0	181	221	0	0	0	1300	1359	1393	1171	0
V/C Ratio(X)	0.08	0.00	0.41	0.19	0.00	0.00	0.00	0.20	0.20	0.25	0.26	0.00
Avail Cap(c_a), veh/h	690	0	680	699	0	0	0	1300	1359	1393	1171	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	28.0	0.0	29.0	28.4	0.0	0.0	0.0	3.2	3.2	3.3	3.3	0.0
Incr Delay (d2), s/veh	0.1	0.0	1.5	0.4	0.0	0.0	0.0	0.3	0.3	0.4	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	1.4	0.8	0.0	0.0	0.0	1.7	1.8	2.4	2.1	0.0
LnGrp Delay(d),s/veh	28.1	0.0	30.4	28.8	0.0	0.0	0.0	3.5	3.5	3.8	3.9	0.0
LnGrp LOS	C		C	C				A	A	A	A	
Approach Vol, veh/h		95			42			537			653	
Approach Delay, s/veh		29.9			28.8			3.5			3.8	
Approach LOS		C			C			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		56.0		13.4		56.0		13.4
Change Period (Y+Rc), s		6.0		6.0		6.0		* 6
Max Green Setting (Gmax), s		50.0		28.0		50.0		* 30
Max Q Clear Time (g_c+I1), s		5.3		4.8		6.5		4.9
Green Ext Time (p_c), s		9.4		0.6		9.3		0.6

Intersection Summary	
HCM 2010 Ctrl Delay	6.4
HCM 2010 LOS	A

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	80	30	160	40	0	40	0	760	20	20	440	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	0	1882	1900	1900	1882	0
Adj Flow Rate, veh/h	84	32	168	42	0	42	0	800	21	21	463	0
Adj No. of Lanes	1	1	0	0	1	0	0	2	0	0	2	0
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
Percent Heavy Veh, %	0	0	0	0	0	0	0	1	1	1	1	0
Cap, veh/h	314	49	256	122	23	73	0	2332	61	105	2146	0
Arrive On Green	0.19	0.19	0.19	0.19	0.00	0.19	0.00	0.66	0.66	0.66	0.66	0.00
Sat Flow, veh/h	1386	260	1367	270	121	391	0	3653	93	83	3362	0
Grp Volume(v), veh/h	84	0	200	84	0	0	0	402	419	252	232	0
Grp Sat Flow(s),veh/h/ln	1386	0	1627	783	0	0	0	1788	1865	1732	1627	0
Q Serve(g_s), s	0.0	0.0	8.7	1.9	0.0	0.0	0.0	7.6	7.6	0.0	4.4	0.0
Cycle Q Clear(g_c), s	5.2	0.0	8.7	10.6	0.0	0.0	0.0	7.6	7.6	4.1	4.4	0.0
Prop In Lane	1.00		0.84	0.50		0.50	0.00		0.05	0.08		0.00
Lane Grp Cap(c), veh/h	314	0	305	218	0	0	0	1171	1222	1186	1066	0
V/C Ratio(X)	0.27	0.00	0.66	0.39	0.00	0.00	0.00	0.34	0.34	0.21	0.22	0.00
Avail Cap(c_a), veh/h	562	0	597	464	0	0	0	1171	1222	1186	1066	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	27.3	0.0	28.7	28.9	0.0	0.0	0.0	5.9	5.9	5.2	5.3	0.0
Incr Delay (d2), s/veh	0.5	0.0	2.4	1.1	0.0	0.0	0.0	0.8	0.8	0.4	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	0.0	4.1	1.7	0.0	0.0	0.0	3.9	4.1	2.2	2.1	0.0
LnGrp Delay(d),s/veh	27.7	0.0	31.1	30.1	0.0	0.0	0.0	6.7	6.6	5.7	5.8	0.0
LnGrp LOS	C		C	C				A	A	A	A	
Approach Vol, veh/h		284			84			821			484	
Approach Delay, s/veh		30.1			30.1			6.6			5.7	
Approach LOS		C			C			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		56.0		20.3		56.0		20.3
Change Period (Y+Rc), s		6.0		6.0		6.0		6.0
Max Green Setting (Gmax), s		50.0		28.0		50.0		28.0
Max Q Clear Time (g_c+I1), s		9.6		10.7		6.4		12.6
Green Ext Time (p_c), s		10.8		1.7		11.0		1.7

Intersection Summary	
HCM 2010 Ctrl Delay	11.5
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	30	20	50	20	0	20	0	580	10	10	710	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	0	1900	1900	1900	1881	0
Adj Flow Rate, veh/h	32	21	53	21	0	21	0	611	11	11	747	0
Adj No. of Lanes	1	1	0	0	1	0	0	2	0	0	2	0
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
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	1	1	0
Cap, veh/h	273	52	131	127	23	73	0	2609	47	64	2498	0
Arrive On Green	0.11	0.11	0.11	0.11	0.00	0.11	0.00	0.72	0.72	0.72	0.72	0.00
Sat Flow, veh/h	1413	479	1208	457	215	672	0	3723	65	14	3560	0
Grp Volume(v), veh/h	32	0	74	42	0	0	0	304	318	405	353	0
Grp Sat Flow(s),veh/h/ln	1413	0	1687	1344	0	0	0	1805	1888	1862	1627	0
Q Serve(g_s), s	0.0	0.0	2.8	0.0	0.0	0.0	0.0	4.0	4.0	0.0	5.4	0.0
Cycle Q Clear(g_c), s	1.1	0.0	2.8	2.9	0.0	0.0	0.0	4.0	4.0	5.4	5.4	0.0
Prop In Lane	1.00		0.72	0.50		0.50	0.00		0.03	0.03		0.00
Lane Grp Cap(c), veh/h	273	0	183	223	0	0	0	1298	1358	1392	1169	0
V/C Ratio(X)	0.12	0.00	0.40	0.19	0.00	0.00	0.00	0.23	0.23	0.29	0.30	0.00
Avail Cap(c_a), veh/h	689	0	679	698	0	0	0	1298	1358	1392	1169	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	28.1	0.0	28.9	28.3	0.0	0.0	0.0	3.3	3.3	3.5	3.5	0.0
Incr Delay (d2), s/veh	0.2	0.0	1.4	0.4	0.0	0.0	0.0	0.4	0.4	0.5	0.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	1.4	0.8	0.0	0.0	0.0	2.1	2.2	2.9	2.6	0.0
LnGrp Delay(d),s/veh	28.3	0.0	30.3	28.7	0.0	0.0	0.0	3.7	3.7	4.0	4.2	0.0
LnGrp LOS	C		C	C				A	A	A	A	
Approach Vol, veh/h		106			42			622			758	
Approach Delay, s/veh		29.7			28.7			3.7			4.1	
Approach LOS		C			C			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		56.0		13.5		56.0		13.5
Change Period (Y+Rc), s		6.0		6.0		6.0		* 6
Max Green Setting (Gmax), s		50.0		28.0		50.0		* 30
Max Q Clear Time (g_c+I1), s		6.0		4.8		7.4		4.9
Green Ext Time (p_c), s		11.6		0.6		11.6		0.7

Intersection Summary	
HCM 2010 Ctrl Delay	6.4
HCM 2010 LOS	A

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Appendix C. Time Train is Blocking Crossing – Field Measurements and Calculations

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Time Train is Blocking Crossing - Field Measurements and Calculations

At Grade Train Crossing Locations	Speed	Train Length	Time Gate is Closed for Train	Time for Gate to Descend	Time for Gate to Ascend	Buffer Interval	Total (sec)	Growth Percentage
Burnham Ave & Brainard Ave								
Hegewisch								
Cottage Grove Rail Crossing	17	748	30	12	12	5	59	
Doty Ave	17	748	30	12	12	5	59	
132nd St	17	748	30	12	12	5	59	
Hammond Gateway								
Sibley St (North of Downtown Hammond Station)	14	748	36	12	12	5	65	4.22% (EB) 5.15% (WB)
Fayette St (North of Downtown Hammond Station)	14	748	36	12	12	5	65	0.81% (EB) 0.55% (WB)
Downtown Hammond Station								
Douglas St	23	748	22	12	12	5	51	2.55% (EB) 1.35% (WB)
Walthham St	23	748	22	12	12	5	51	None on Waltham
Highland St	23	748	22	12	12	5	51	0.29% (EB) 0.23% (WB)
Detroit St	23	748	22	12	12	5	51	None on Detroit
Conkey St (north of South Hammond Station)	23	748	22	12	12	5	51	072% (EB) 0.75% (WB)
Kenwood St (north of South Hammond Station)	23	748	22	12	12	5	51	None on Kenwood
South Hammond Station								
165th	26	748	20	12	12	5	49	0.8% (EB) 0.6% (WB)
173rd (South of South Hammond Station)		748	54	12	12	5	83	1.0% (EB) 1.0% (WB)
Munster Ridge Rd Station								
Ridge Rd (South of Munster Ridge Rd Station)	26	748	20	12	12	5	49	1.95% (EB) 1.52% (WB)
Fisher St	26	748	20	12	12	5	49	1.57% (EB) 1.61% (WB)
Dyer/Munster Main St. Station								
45th St	33	748	15	12	12	5	44	1.54% (NB) 1.6% (SB)