Alton Clinic - Library

663 Alton Road
Miami Beach, Florida 33139

prepared for:
TERRA

traffic study

TRAFTECH ENGINEERING, INC.

December 2022

TRAFTECH
ENGINEERING, INC.

December 16, 2022

Michael Yanopoulos, Esq.
Senior Development Manager
TERRA
3310 Mary Street, Suite 302
Coconut Grove, Florida 33133

Re: Alton Clinic Library (663 Alton Road) - Traffic Study

Dear Michael:

Traf Tech Engineering, Inc. is pleased to provide you with the results of the traffic study associated with the proposed clinic-library development planned to be located on the east side of Alton Road, south of 7th Street in the City of Miami Beach in Miami-Dade County, Florida.

It has been a pleasure working with you on this project.

Sincerely,

TRAF TECH ENGINEERING, INC.

Joaquin E. Vargas, P.E.
Senior Transportation Engineer

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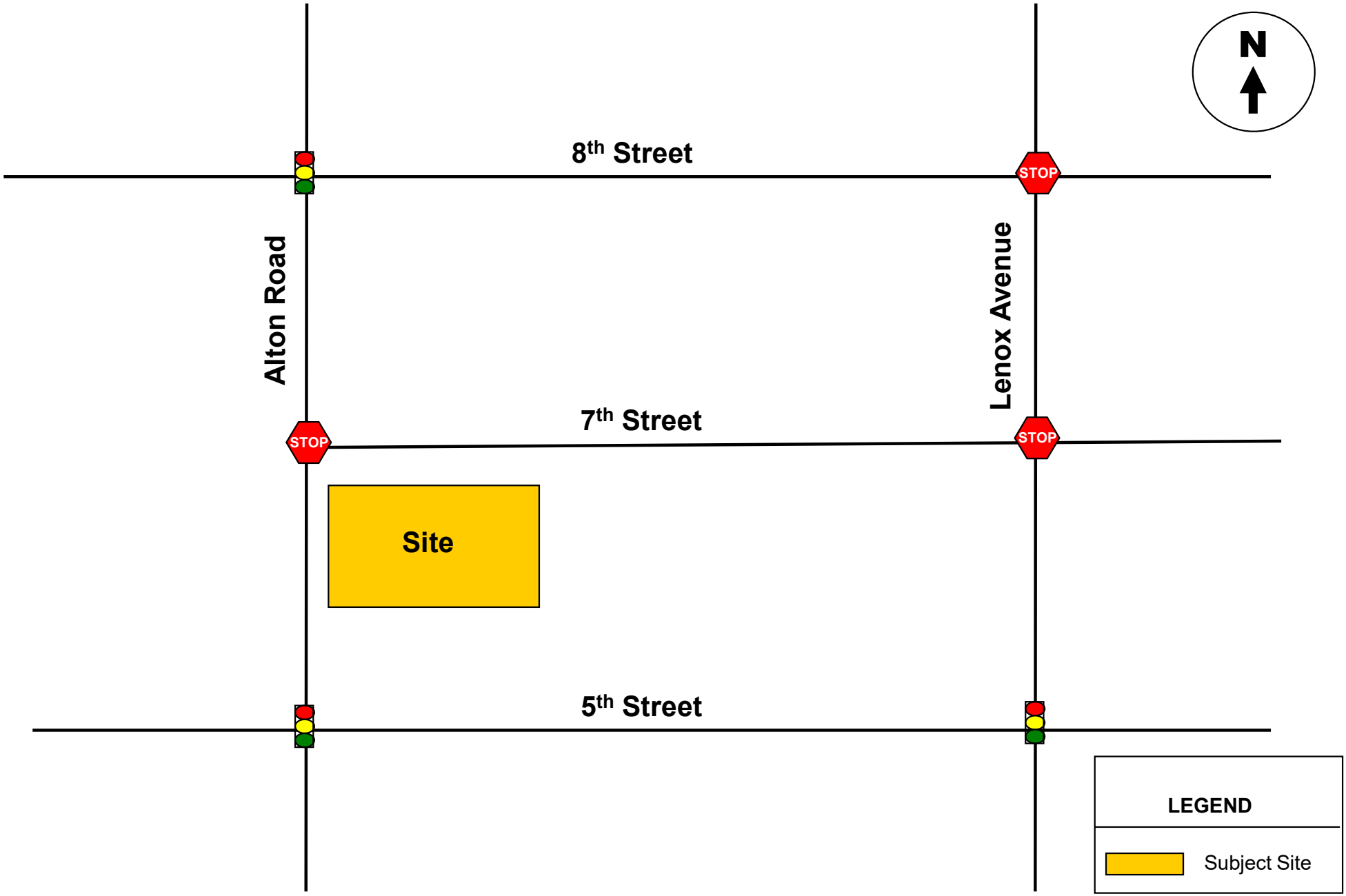
INTRODUCTION

A proposed clinic-library is planned to be located on the east side of Alton Road, south of 7th Street in the City of Miami Beach in Miami-Dade County, Florida. The location of the project site is illustrated in Figure 1 on the following page.

Traf Tech Engineering, Inc. was retained by Terra to conduct a traffic study in connection with the proposed development. The study addresses trip generation and the traffic impacts created by the proposed project on the nearby transportation network. This study is divided into seven (7) sections, as listed below:

1. Inventory
2. Existing Conditions
3. Traffic Counts
4. Trip Generation
5. Trip Distribution and Traffic Assignment
6. Traffic Impact Analysis
7. Conclusions and Recommendations



TRAFTECH ENGINEERING, INC.

PROJECT LOCATION MAP

FIGURE 1
Alton Clinic Library
Miami Beach, Florida

INVENTORY

Existing Land Use

The site for the proposed development is currently being used as a parking lot. Since the parking lot is not serving as parking requirements associated with a nearby development, the vehicles currently using this parking lot will have to find an alternative parking location.

Proposed Land Uses and Access

- 13,265 square feet of clinic
- 8,650 square feet of library

Access to the site is provided via a drop off on the south side of 7th Street. The proposed development is anticipated to be built and occupied in 2025. Appendix A contains a copy of the proposed site plan for the project site.

EXISTING CONDITIONS

This section addresses the existing roadway system located in the vicinity of the project site and nearby intersections.

Roadway System

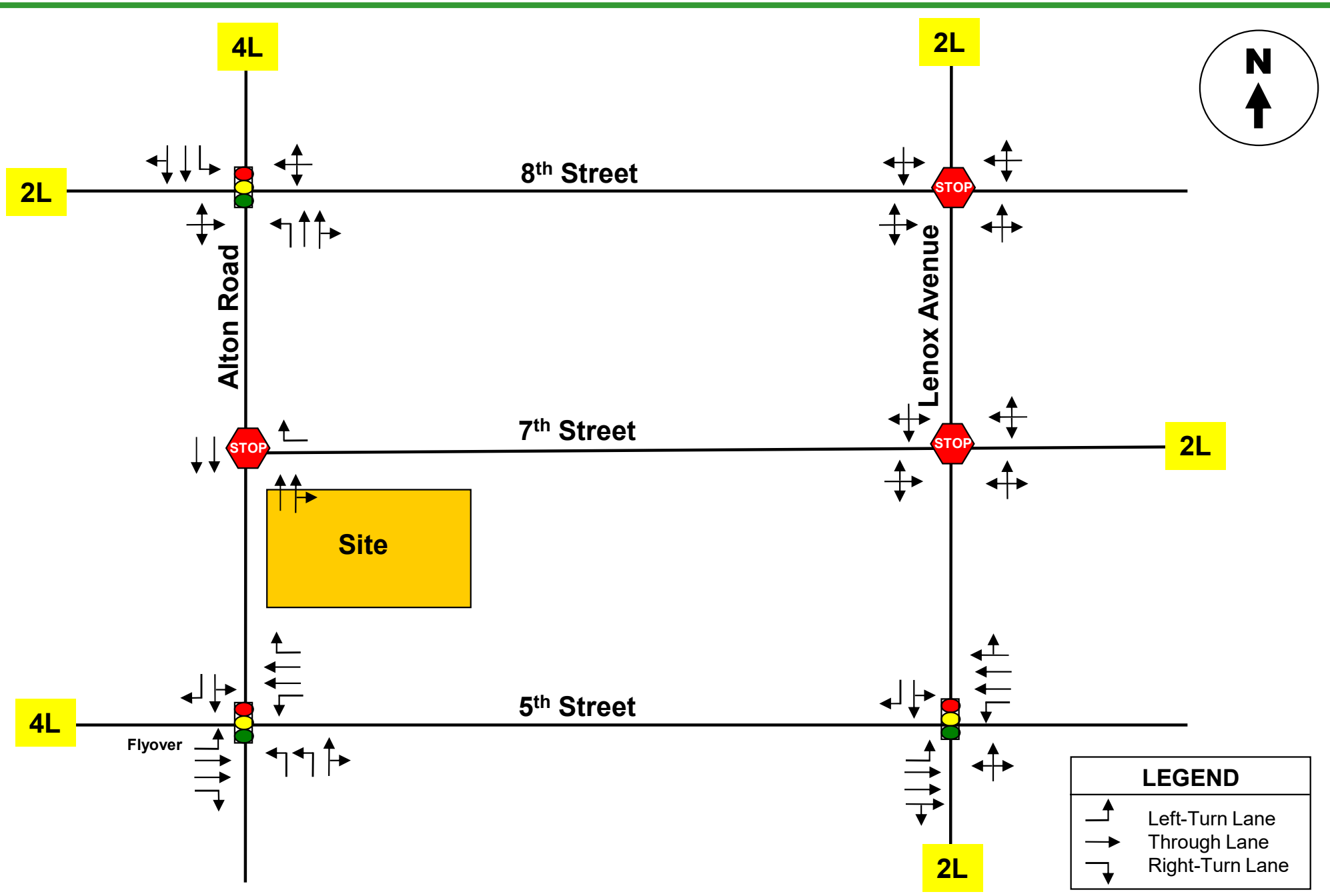
The roadway system located near the project site includes Alton Road, Lenox Avenue, 8th Street, 7th Street, and 5th Street.

Nearby Intersections

Six intersections were identified as the locations that will be impacted the most by the proposed project. These six intersections include:

1. Alton Road and 8th Street (signalized)
2. Alton Road and 7th Street (unsignalized)
3. Alton Road and 5th Street (signalized)
4. Lenox Avenue and 8th Street (unsignalized)
5. Lenox Avenue and 7th Street (unsignalized)
6. Lenox Avenue and 5th Street (signalized)

Figure 2 shows the existing lane geometry of the six intersections selected for analysis purposes. The number of lanes on the street system surrounding the project site is also depicted in the figures.



TRAFTECH ENGINEERING, INC.

EXISTING LANE GEOMETRY

FIGURE 2
Alton Clinic Library
Miami Beach, Florida

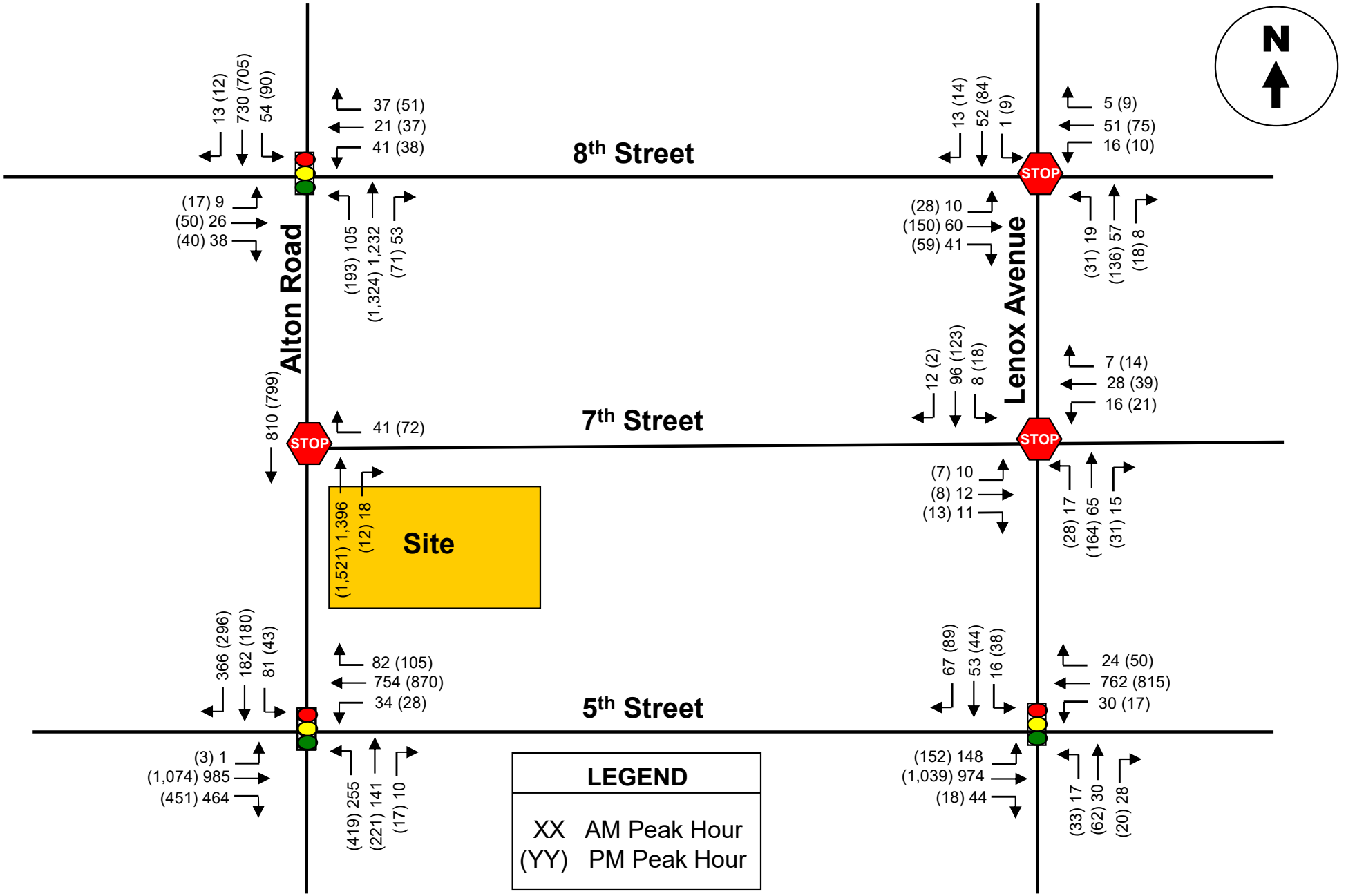
TRAFFIC COUNTS

Traf Tech Engineering, Inc., collected intersection turning movement counts at the six study intersections. The intersection turning movement counts were collected on Thursday, December 1, 2022 from 7:00 AM and 9:00 AM and from 4:00 PM and 6:00 PM at the following intersections located near the project site:

1. Alton Road and 8th Street
2. Alton Road and 7th Street
3. Alton Road and 5th Street
4. Lenox Avenue and 8th Street
5. Lenox Avenue and 7th Street
6. Lenox Avenue and 5th Street

Appendix B contains the intersection turning movement counts, as collected in the field. The latest signal timing plans for the signalized intersections were obtained from Miami-Dade County Traffic Engineering Division and are included in Appendix C. The traffic counts were adjusted to account for peak season conditions. An adjustment factor of 1.02 was applied to counts collected in the field. The State-published adjustment factors are also contained in Appendix C.

Figure 3 shows the 2022 peak season AM and PM peak hour traffic volumes.



TRAFTECH ENGINEERING, INC.

EXISTING TRAFFIC COUNTS – AM & (PM) Peak Hour

FIGURE 3
Alton Clinic Library
Miami Beach, Florida

TRIP GENERATION

The trip generation for the project was based on information contained in the Institute of Transportation Engineer's (ITE) *Trip Generation Manual* (11th Edition). According to the subject ITE manual, the most appropriate "land use" categories for the proposed land uses include ITE's Land Use 590 – Library and ITE's Land Use 630 – Clinic.

The trip generation analysis was undertaken for Daily, AM peak hour,and PM peak hour conditions. Using the trip generation equations from the ITE document, a trip generation analysis was undertaken for the proposed project. The results of this effort are documented in Table 1.

TABLE 1
Trip Generation Summary
Alton Road Clinic - Library

Land Use	Size	Daily Trips	AM Peak Hour			PM Peak Hour		
			Total Trips	Inbound	Outbound	Total Trips	Inbound	Outbound
Library (LUC 590)	8,650 sf	612	1	1	0	64	31	33
Clinic (LUC 630)	13,265 sf	511	38	31	7	50	15	35
External Trips		**1,123**	**39**	**32**	**7**	**114**	**46**	**68**

Source: ITE Trip Generation Manual (11th Edition)

ITE Land Use Code 590 - Library
Daily Trips: Ln (T) = 0.99 Ln (X) + 4.28. Where T = average daily vehicle trip ends and X = 1,000 square feet
AM Peak: T = 1.75 (X) -14.59 with 71% inbound and 29% outbound. Where T = AM peak hour trip ends and X = 1,000 square feet
PM Peak: T = 9.33 (X) - 17.13 with 48% inbound and 52% outbound. Where T = PM peak hour trip ends and X = 1,000 square feet

ITE Land Use Code 6302 - Clinic
Daily Trips: T = 35.86 (X) + 34.88. Where T = average daily vehicle trip ends and X = 1,000 square feet
AM Peak: T = 2.19 (X) +8.68 with 81% inbound and 19% outbound. Where T = AM peak hour trip ends and X = 1,000 square feet
PM Peak: T = 3.53 (X) + 2.98 with 30% inbound and 70% outbound. Where T = AM peak hour trip ends and X = 1,000 square feet

As indicated in Table 1, the proposed project is anticipated to generate approximately 1,123 new daily trips, approximately 39 AM peak hour trips (32 inbound and 7 outbound) and approximately 114 trips during the typical afternoon peak hour (46 inbound and 68 outbound).

TRIP DISTRUBUTION AND TRAFFIC ASSIGNMENT

The trip distribution and traffic assignment for the project were based on Miami-Dade County's Cardinal Distribution information for the study area. Table 2 summarizes the County's cardinal distribution data for Traffic Analysis Zone 653, which is applicable to the project site from the latest SERPM data published by Miami-Dade County.

TABLE 2
Project Trip Distribution
TAZ #653 for Alton Clinic - Library

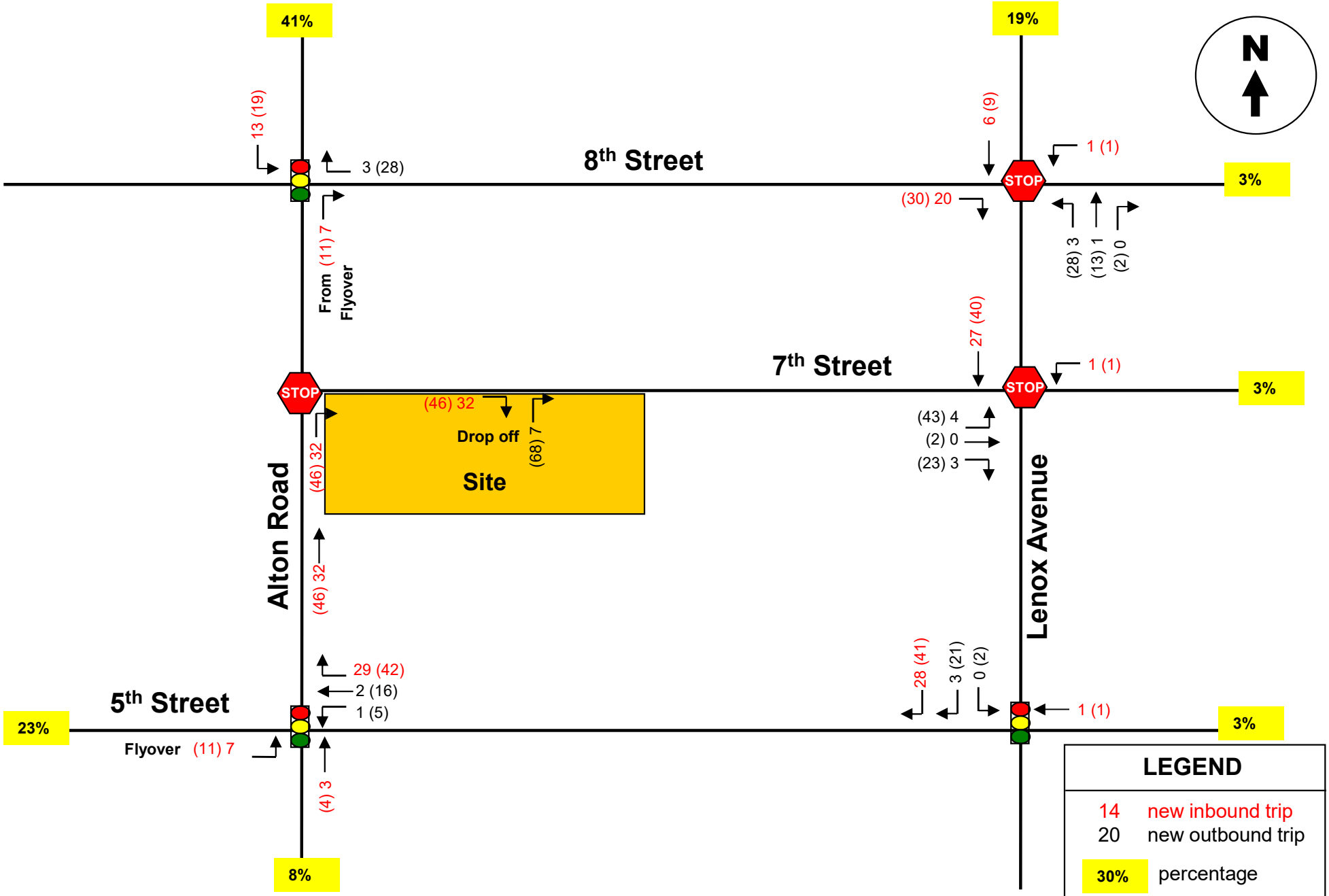
Year	Movement							
	NNE	ENE	ESE	SSE	SSW	WSW	WNW	NNW
2015	20.3%	4.1%	6.4%	8.1%	1.6%	20.5%	16.6%	22.5%
2045	15.8%	2.1%	5.1%	5.2%	1.1%	24.6%	31.4%	14.7%
2025*	18.8%	3.4%	6.0%	7.1%	1.4%	21.9%	21.5%	19.9%

*Note: * Interpolated Values*
Source: Miami-Dade County (2015 & 2045 SERPM)

Using the trip distribution documented in Table 2, the following traffic assignment was assumed for the proposed development:

- 41% to/from the north via Alton Road
- 8% to/from the south via Alton Road
- 19% to/from the north via Lenox Avenue
- 3% to/from the east via 8th Street
- 3% to/from the east via 7th Street
- 3% to/from the east via 5th Street
- 23% to/from the west via 5th Street

The new peak hour traffic generated by the project was assigned to the nearby transportation network using the traffic assignment documented above. The project traffic assignment is summarized in Figure 4.



TRAFTECH ENGINEERING, INC.

NEW PROJECT TRAFFIC ASSIGNMENT
Weekday New Peak Hour Trips AM & (PM)

FIGURE 4
Alton Clinic Library
Miami Beach, Florida

TRAFFIC ANALYSIS

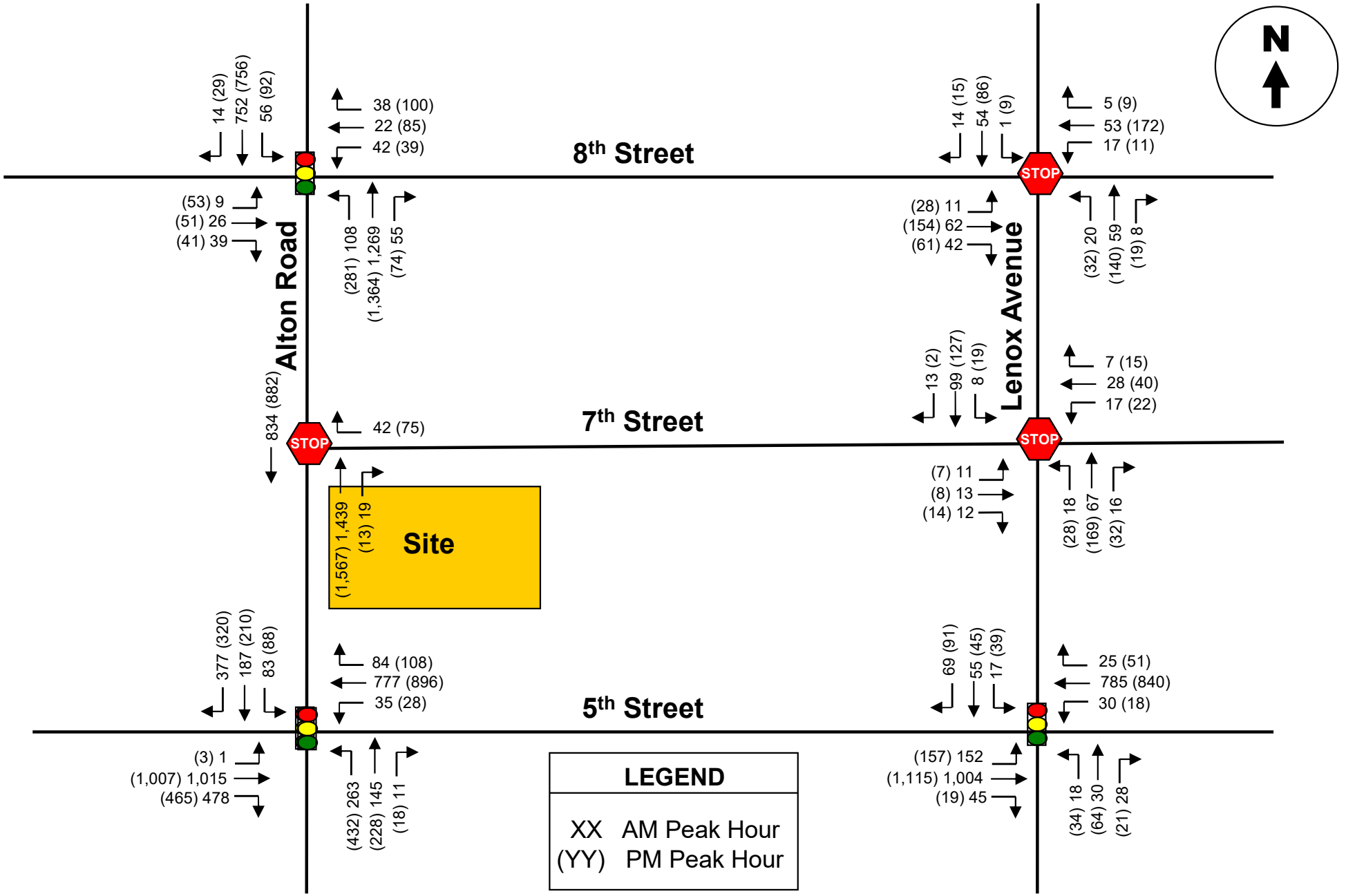
This section of the study is divided into two parts. The first part consists of developing the future conditions traffic volumes for the study area. The second part includes level-of-service analyses for existing and future conditions.

Future Conditions Traffic Volumes

Two sets of future traffic volumes were developed. The first set includes project buildout conditions without the proposed project and the second set adds the new trips anticipated to be generated by the project.

In order to develop year 2025 traffic volumes (project anticipated to be built and occupied by the year 2025), without the proposed project, two separate analyses were undertaken. The first analysis converts the existing peak hour traffic counts collected in the field to average peak season conditions. Based on FDOT's Peak Season Factor Category report, a factor of 1.02 is required to convert collected traffic counts to average peak season conditions (refer to Appendix C). The second analysis includes a growth factor to project 2022 peak season traffic volumes to the year 2025. Based on traffic growth data published by the FDOT for a nearby traffic count stations, traffic growth has not occurred in the area. As documented in the historical and future growth analysis contained in Appendix C, a growth rate of 1.0%, compounded annually was used. Traffic associated with the 600 Alton project was included as part of this traffic study.

The new trips generated by the proposed project (refer to Figure 4) were added to the 2025 background traffic in order to develop total traffic conditions. The future traffic projections for the study intersections are presented in tabular format in Appendix D. Figures 5 and 6 present the year 2025 future traffic volumes for the study area. Figure 5 includes background traffic only (without the proposed project) and Figure 6 includes the additional traffic anticipated to be generated by the project.



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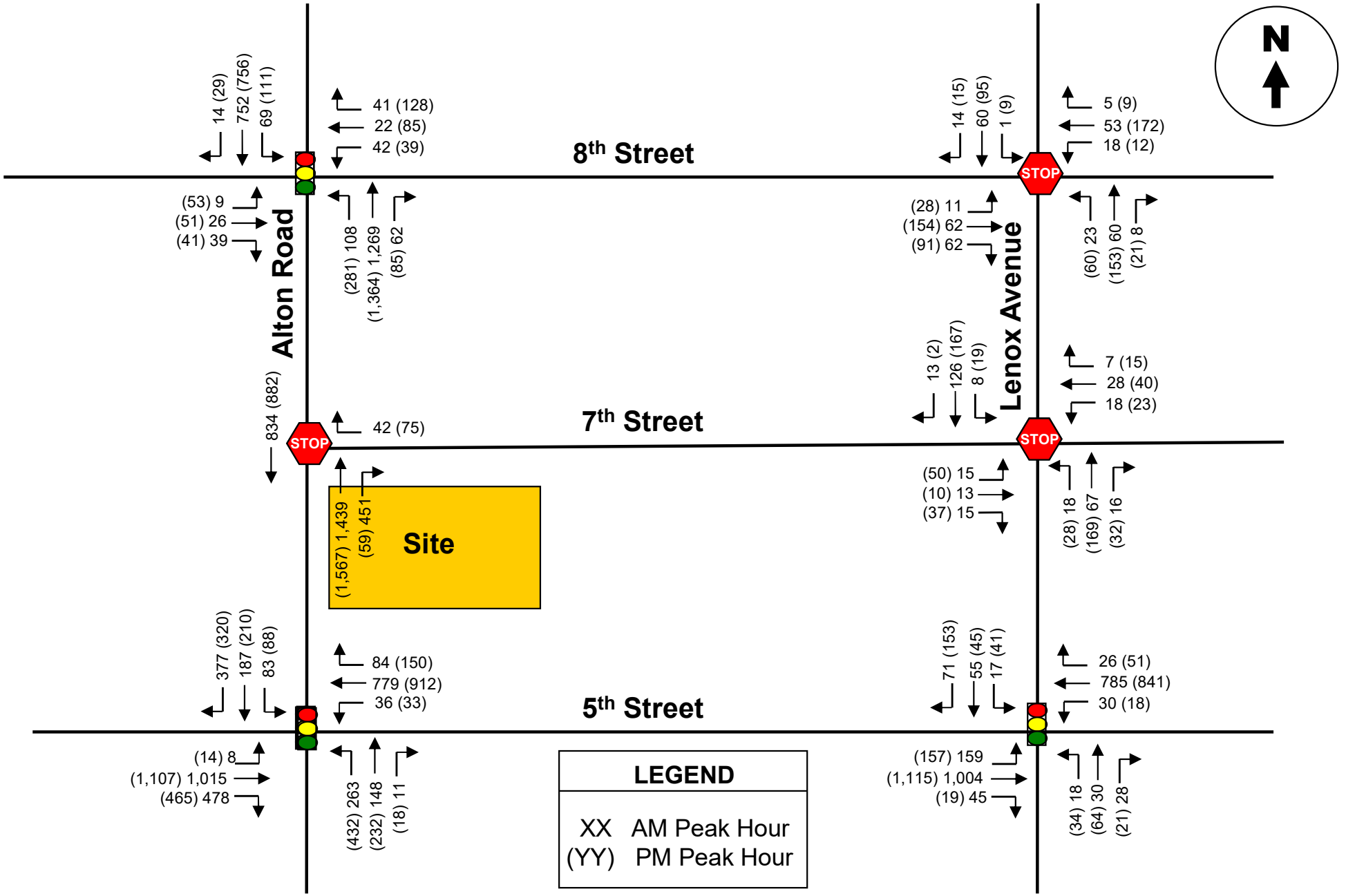
BACKGROUND TRAFFIC – Year 2025
AM & (PM) Peak Hour

FIGURE 5
Alton Clinic Library
Miami Beach, Florida



TRAFTECH ENGINEERING, INC.

TOTAL TRAFFIC VOLUMES
(Year 2025 Peak Season)

FIGURE 6
Alton Clinic Library
Miami Beach, Florida

Level of Service Analyses

Intersection capacity/level of service analyses were conducted for the six study intersections including the project driveway. The analyses were undertaken following the capacity/level of service procedures outlined in the Highway Capacity Manual (HCM) 6th Edition using the SYNCHRO software. The results of the capacity analyses are summarized in Tables 3A and 3B.

TABLE 3A
AM Peak Hour Intersection Capacity Analysis
Alton Clinic - Library

Intersection	Scenario	Overall LOS/ Delay (sec)	Approach Delay			
			EB	WB	NB	SB
101: Alton Road & 8th Street	Existing	B/18.3	D/52.4	D/53.8	B/17.1	B/13.0
	Background	B/18.7	D/52.4	D/53.9	B/17.7	B/13.2
	Future	B/18.9	D/52.4	D/54.0	B/17.9	B/13.3
102: 7th Street & Alton Road	Existing			C/17.7		
	Background			C/18.2		
	Future			C/18.7		
103: Alton Road & 5th Street*	Existing	D/48.8	D/37.5	C/25.6	F/84.2	F/84.2
	Background	D/50.8	D/38.3	C/25.9	F/84.8	F/92.3
	Future	D/50.8	D/38.3	C/25.7	F/84.6	F/93.7
104: Lenox Avenue & 8th Street	Existing	A/7.9	A/7.8	A/7.9	A/8.0	A/7.8
	Background	A/7.9	A/7.9	A/7.9	A/8.0	A/7.8
	Future	A/8.0	A/8.0	A/8.0	A/8.2	A/7.9
105: 7th Street & Lenox Avenue	Existing	A/7.9	A/7.6	A/7.8	A/7.9	A/8.0
	Background	A/7.9	A/7.7	A/7.9	A/7.9	A/8.0
	Future	A/8.1	A/7.8	A/8.0	A/8.0	A/8.3
106: Lenox Avenue & 5th Street	Existing	B/14.5	A/7.4	B/11.5	E/65.6	E/65.1
	Background	B/14.6	A/7.5	B/11.7	E/65.9	E/65.2
	Future	B/15.5	A/7.5	B/11.7	E/65.9	E/67.7

Source: Highway Capacity Manual 6th Edition.
**HCM 2000*

TABLE 3B PM Peak Hour Intersection Capacity Analysis Alton Clinic - Library						
Intersection	Scenario	Overall LOS/ Delay (sec)	Approach Delay			
			EB	WB	NB	SB
101: Alton Road & 8th Street	Existing	C/20.6	D/54.5	E/56.0	B/18.6	B/14.5
	Background	C/24.6	E/76.5	E/76.5	B/18.4	B/15.8
	Future	C/27.0	F/81.6	F/95.2	B/18.5	B/15.5
	Future + Opt	C/29.9	E/63.5	E/72.9	C/25.2	C/21.2
102: 7th Street & Alton Road	Existing			C/19.2		
	Background			C/20.0		
	Future			C/20.8		
103: Alton Road & 5th Street*	Existing	D/44.7	C/34.9	C/23.2	E/73.3	E/78.9
	Background	E/55.3	D/39.0	C/25.4	E/75.4	F/124.1
	Future	E/55.1	D/39.0	C/25.4	E/76.1	F/125.3
104: Lenox Avenue & 8th Street	Existing	A/9.6	B/10.1	A/8.9	A/9.8	A/9.0
	Background	B/10.5	B/10.9	B/10.4	B/10.7	A/9.6
	Future	B/11.5	B/12.0	B/11.0	B/12.0	A/10.2
105: 7th Street & Lenox Avenue	Existing	A/8.7	A/7.9	A/8.4	A/9.1	A/8.5
	Background	A/8.8	A/7.9	A/8.5	A/9.2	A/8.6
	Future	A/9.4	A/8.9	A/8.8	A/9.7	A/9.4
106: Lenox Avenue & 5th Street	Existing	B/15.7	A/8.9	B/14.3	D/50.6	D/47.5
	Background	B/15.9	A/9.1	B/14.7	D/51.1	D/47.5
	Future	B/17.0	A/9.2	B/14.8	D/51.5	D/50.4

Source: Highway Capacity Manual 6th Edition.

**HCM 2000*

As indicated in Tables 3A and 3B, all study intersections are currently operating adequately and will continue to operate at a good level of service in the year 2025 with the proposed project in place, except for one intersection.

The exception is the intersection of Alton Road and 5th Avenue. This intersection is projected to fail under future conditions with and without the proposed project in place during the PM Peak Hour.

At the intersection of Alton Road and 8th Street, the eastbound and westbound approaches are expected to fail during the PM Peak hour. The proposed development does not impact the eastbound approach. However, with the implementation of minor signal timing improvements, the delay and LOS are expected to improve. The computer printouts of the intersection capacity analyses are contained in Appendix E.

Parking

Parking is not required for the Alton Clinic - Library project. Patrons are expected to use public parking available in the vicinity of the project and employees will use the eight parking spaces provided on the east side of the property.

Sidewalks are provided on both sides of Alton Road, Lenox Avenue, 8th Street, 7th Street, and 5th Street. Safe pedestrian features (ramps, pedestrian signals with push buttons) are provided at the signalized intersections of Alton Road and 5th Street, Lenox Avenue and Alton Road and 8th Street. Miami Dade Transit routes M, S, and South beach Loop travel north and south along Alton Road. Bus stops are located on both sides of Alton Road at 6th Street and at 8th Street. These bus stops are located within walking distance (less than 1,000 feet) from future Alton Clinic - Library development.

CONCLUSIONS AND RECOMMENDATIONS

A proposed clinic-library is planned to be located on the east side of Alton Road, south of 7th Street in the City of Miami Beach in Miami-Dade County, Florida. The site will be developed with the following land use and intensity:

- 13,265 square feet of clinic
- 8,650 square feet of library

Access to the site is provided via a drop off on the south side of 7th Street. The conclusions and recommendations of the traffic study are presented below:

- The proposed project is anticipated to generate approximately 1,123 new daily trips, approximately 39 AM peak hour trips (32 inbound and 7 outbound) and approximately 114 trips during the typical afternoon peak hour (46 inbound and 68 outbound).

- All study intersections are currently operating adequately and will continue to operate at a good level of service in the year 2025 with the proposed project in place, except for one intersection. The exception is the intersection of Alton Road and 5th Avenue. This intersection is projected to fail under future conditions with and without the proposed project in place during the PM Peak Hour.

- At the intersection of Alton Road and 8th Street, the eastbound and westbound approaches are expected to fail during the PM Peak hour. The proposed development does not impact the eastbound approach. However, with the implementation of minor signal timing improvements, the delay and LOS are expected to improve.

- Parking is not required for the Alton Clinic - Library project. Patrons are expected to use public parking available in the vicinity of the project and employees will use the eight parking spaces provided on the east side of the property.

APPENDIX A

Site Plan – Alton Clinic - Library & Methodology

Alton Clinic - Library

663 Alton Road
Miami Beach, Florida 33139

prepared for:
TERRA

traffic statement and methodology

TRAFTECH ENGINEERING, INC.

November 2022

TRAFTECH
ENGINEERING, INC.

November 8, 2022

Mr. Dani Fawaz, P.E.
Senior Transportation Engineer
Transportation & Mobility Department
1700 Convention Center Drive, 3rd Floor
Miami Beach, Florida 33139

Re: Alton Clinic Library (663 Alton Road) – Traffic Statement

Dear Mr. Fawaz:

Traf Tech Engineering, Inc. has prepared this traffic memorandum and proposed traffic methodology in connection with a proposed clinic-library planned to be located on the east side of Alton Road, south of 7th Street in the City of Miami Beach in Miami-Dade County, Florida. The project will consist of a 13,265 square-foot clinic of and 8,650 square feet of library use. The proposed site plan for the project is contained in Attachment A. This traffic memorandum addresses the following topics:

- Trip Generation
- Proposed Traffic Methodology

Trip Generation

A trip generation analysis was performed for the site using the trip generation equations published in the Institute of Transportation Engineer's (ITE) *Trip Generation Manual (11th Edition)*. The trip generation analyses were undertaken for daily, AM peak hour, and PM peak hour conditions.

According to ITE's *Trip Generation Manual (11th Edition)*, the trip generation equations used for the analyses are presented below:

Library (ITE Land Use 590)
Daily Trips

Ln (T) = 0.99 Ln (X) + 4.28
Where T = average daily vehicle trip ends and X = 1,000 square feet

AM Peak Hour

T = 1.75 (X) -14.59 with 71% inbound and 29% outbound
Where T = AM peak hour trip ends and X = 1,000 square feet

PM Peak Hour

T = 9.33 (X) - 17.13 with 48% inbound and 52% outbound
Where T = PM peak hour trip ends and X = 1,000 square feet

Clinic (ITE Land Use 630)

Daily Trips

T = 35.86 (X) + 34.88
Where T = average daily vehicle trip ends and X = 1,000 square feet

AM Peak Hour

T = 2.19 (X) +8.68 with 81% inbound and 19% outbound
Where T = AM peak hour trip ends and X = 1,000 square feet

PM Peak Hour

T = 3.53 (X) + 2.98 with 30% inbound and 70% outbound
Where T = AM peak hour trip ends and X = 1,000 square feet

Using the above-listed trip generation equations from the ITE document, a trip generation analysis was undertaken for The Rider project. The results of this effort are documented in Table 1. As shown in the table, the Clinic-Library development is projected to generate approximately 1,123 new daily trips, approximately 39 AM peak hour trips (32 inbound and 7 outbound) and approximately 114 trips during the typical afternoon peak hour (46 inbound and 68 outbound).

TABLE 1
Trip Generation Summary
663 Alton Road

			Daily	AM Peak Hour			PM Peak Hour		
Land Use	**Size**		**Trips**	**Total Trips**	**Inbound**	**Outbound**	**Total Trips**	**Inbound**	**Outbound**
Library (LUC 590)	8,650	sf	612	1	1	0	64	31	33
Clinic (LUC 630)	13,265	sf	511	38	31	7	50	15	35
External Trips			**1,123**	**39**	**32**	**7**	**114**	**46**	**68**
Source: ITE Trip Generation Manual (11th Edition)									

Please give me a call if you have any questions.

Sincerely,

TRAF TECH ENGINEERING, INC.

Joaquin E. Vargas, P.E.
Senior Transportation Engineer

PROPOSED TRAFFIC METHODOLOGY

- The trip generation analysis will be based upon the Institute of Transportation Engineers (ITE) *Trip Generation Manual (11th Edition)*. Table 1 documents the trip generation associated with the proposed clinic-library development.

- The trip distribution and assignment of project traffic will be based upon the applicable TAZ data contained within the Long-Range Transportation Plan (LRTP) published by the Miami-Dade MPO. The distribution will be interpolated between the 2015 and 2045 model years for the appropriate buildout year (tentatively estimated to be 2025).

- The subject traffic study will evaluate the following intersections during the typical AM and PM peak periods:

    - Alton Road and 8th Street (signalized)
    - Alton Road and 7th Street (stop control)
    - Alton Road and 5th Street (signalized)
    - Lenox Avenue and 8th Street (stop control)
    - Lenox Avenue and 7th Street (stop control)
    - Lenox Avenue and 5th Street (signalized)

- Traffic counts will be performed at the study intersections on a typical weekday during the AM peak period (7:00 AM – 9:00 AM) and the PM peak period (4:00 PM – 6:00 PM). These counts will include bicyclists and pedestrians.

- Traffic counts will be adjusted to reflect average peak season conditions based upon the most recent available FDOT adjustment factors.

- No adjustment to account for Covid will be applied (it is believed that traffic conditions are similar to pre-covid conditions).

- A growth factor will be applied to the traffic counts to reflect future traffic conditions at project build-out. The growth factor will be based upon historical traffic data available for the area near the project site.

- Traffic associated with the committed developments will be provided by the City of Miami Beach:

- Existing traffic signal timing data for the study intersections will be obtained from Miami-Dade County DTPW and will be included in the Appendix of the traffic study.

- Traffic analysis will be prepared for each of the study intersections and project driveways for the following scenarios:

    - Existing (2022) traffic conditions
    - Background traffic conditions for buildout year (2025)
    - Future conditions with growth rate, committed development and project traffic for the buildout year (2025)

- The level of service and delay for the study intersections and project driveways will be summarized by movement and approach as well as for the overall intersection. If necessary, mitigation of impacts will be recommended. A turn lane analysis will also be performed.

- Intersection and driveway analyses will be conducted using the Synchro software for existing conditions, future conditions without the project, and future conditions with the proposed project in place. The Highway Capacity Manual (HCM) 6th or 2000 Edition will be used, as applicable. Synchro files will be provided as part of the traffic study.

- A parking description (required vs provided) will be documented in the traffic study.

- Queuing at entry gates, if applicable, will be addressed in the traffic study.

- The traffic study will address loading areas (description, locations and maneuverability analysis using the AutoTURN software).

- The traffic study will include a multimodal section addressing non-automobile modes of transportation.

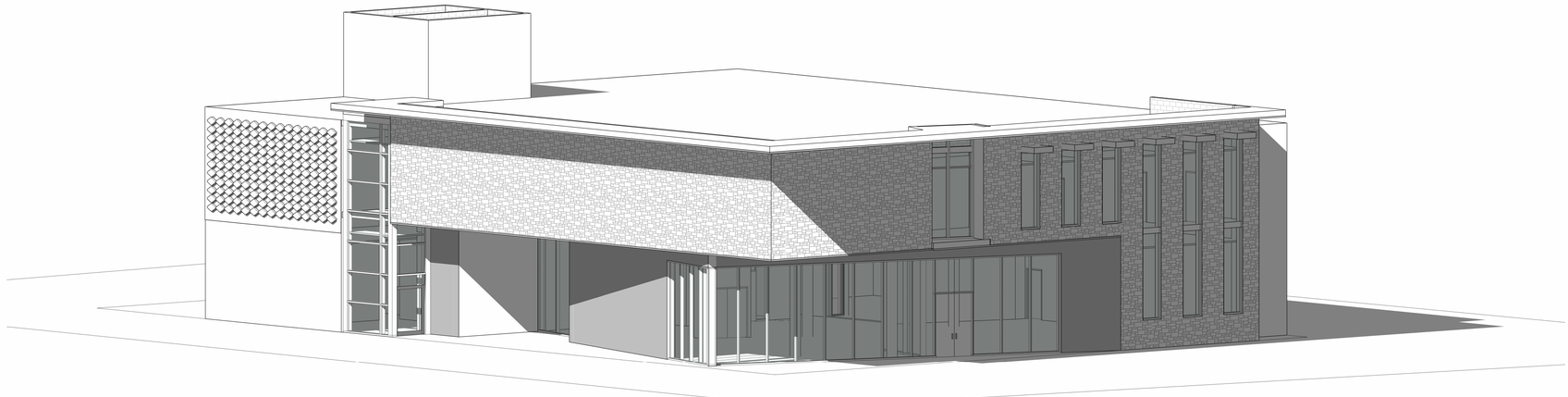
- A Traffic Control Plan (TCP) depicting proposed signing and markings within the parking areas and access driveways will be included in the traffic study.

- If valet service is proposed for the project, a valet operations plan will be prepared addressing valet station(s), parking and retrieval routes, valet parking and number of valet attendants required to prevent traffic queues from interfering with on-site circulation or from spilling onto public streets. Ridesharing will be documented.

- The results of the traffic impact analysis will be documented in a technical report with an executive summary. All traffic data obtained for this project will be included in the Appendix of the traffic study.

ATTACHMENT A

Site Plan for 663 Alton



ALTON CLINIC - LIBRARY

663 ALTON ROAD
MIAMI BEACH 33139

SCHEMATIC DESIGN
11/04/22

PROJECT TEAM

OWNER

ARCHITECT

BUILT FORM, LLC
935 W. Chestnut Street, Suite 520
Chicago, IL 60642

CIVIL ENGINEER

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3240 CORPORATE WAY, MIRAMAR FL 33025
(954)435-7010

STRUCTURAL ENGINEER

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99 NW 2 AVENUE, MIAMI, FL 33125
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FIRE PROTECTIONENGINEER

LUSEO ENGINEERING
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305.351.2960

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BOCA RATON, FL 33487

LEED CONSULTANT

ECSG
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305.787.4133

MEDICAL SPACE PLANNER

CHAVES RIVERO DESIGN
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786.468.3063

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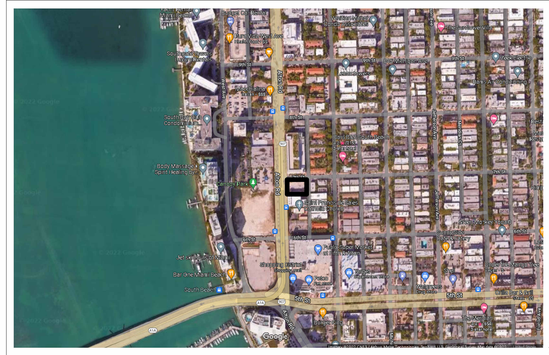
260 PALERMO AVE, MIAMI FL 33134

VECINITY MAP



PROJECT SUMMARY

THE SCOPE OF WORK CONSISTS OF TTHE DESIGN AND SCONTRUYCTION OF A 2 STORY BUIDLING.
WITH A PUBLIC LIBRARY ON THE GROUND FLOOR AND A COMMUNITY CLINIC ON THE SECOND FLOOR

ARCHITECTS' STATEMENT

I CERTIFY THAT THESE DRAWINGS WERE PREPARED UNDER MY DIRECT SUPERVISION AND TO THE BEST OF MY PROFESSIONAL KNOWLEDGE CONFORM TO THE NORTH CAROLINA BUILDING CODE, LOCAL ZONING ORDINANCES AND NORTH CAROLINA ACCESSIBILITY DESIGN REQUIREMENTS.

ROBERT R. BISTRY
ARCHITECT

02/28/23
DATE

0 1/2" 1" 2"

GENERAL SITE PLAN NOTES

1. DO NOT SCALE DRAWINGS.
2. SHOULD ANY CONFLICT ARISE IN THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL NOTIFY THE ARCHITECTURE FOR INTERPRETATION.
3. ALL DRAWINGS SHALL BE RE[illegible]N CONJUNCTION WITH ALL OTHER DRAWINGS (INCLUDING OT[illegible]LINES), PROJECT MANUAL/SPECIFICATIO[illegible]ES, SHEET SPECIFICATION NOTES, SYMBOL LE[illegible]IONS.
4. EXTERIOR FINISH [illegible]E STRICT MINIMUM CLEARANCE REQUIREMENTS [illegible]TERIOR FINISH TO EXTERIOR PAVINGS AN[illegible]S AND THOSE MINIMUM CLEARANCES MUST BE M[illegible](O MEET MANUFACTURER'S WARRAN[illegible]SHALL COORDINATE BASE OF WALL DETA[illegible] AND GRADING ELEVATIONS AS INDICATED IN CIV[illegible]
5. F[illegible] DRAWINGS FOR PLANTING, HARDSCAPING, [illegible]CLOSURES AND SIGNAGE, BIKE RACKS AND [illegible]S INFORMATION.
6. [illegible] DRAWINGS FOR SITE UTILITIES, PAVING, DRAINAGE AND [illegible]

G-SERIES FOR CODE INFORMATION AND DETAILS.

IN PROGRESS

20.0'

7TH STREET

DROP OFF

book drop

ROADWAY UNDER CONSTRUCTION

ALTON ROAD

20' ALLEY

CHILDREN AREA

ADULT- TEEN AREA

CENTRAL CHECK

LIBRARY A-100

CLINIC LOBBY B-100

PHARMACY B-101

IT B-104

WC B-103

ELEVATOR LOBBY B-102

ELECTRICAL ROOM B-105

EV1

EV2

STAIR ST2-01

OFFICES A-101

WC A-111

IT A-110

BREAK A-109

CORRIDOR A-102

JAN. A-106

STORAGE A-108

WOMENS WC. A-104

MENS WC. A-105

MULTI-PURPOSE ROOM A-103

STORAGE A-112

STAIR ST1-01

ELECTRICAL A-107

15' - 0"

3' - 8"

26' 4 5/8"

A201 1 · A201 2 · A201 3 · A201 4 · A201 5 · A202 1 · A202 2

1 ARCHITECTURAL SITE PLAN
1/8" = 1'-0"

SCHEMATIC DESIGN - 11/04/22

PLAN NORTH · TRUE NORTH

9 8 7 6 5 4 3 2 1

A B C D E F G H J

NOT FOR CONSTRUCTION

SCOPE OF DOCUMENT

1. THIS DOCUMENT WITH ACCOMPANYING DRAWINGS AND SPECIFICATIONS, DESCRIBES THE GENERAL SCOPE OF THE PROJECT AND DESIGN CONCEPT IN TERMS OF THE ARCHITECTURAL, STRUCTURAL, MECHANICAL, AND ELECTRICAL SYSTEMS. THESE DOCUMENTS DO NOT NECESSARILY INDICATE OR DESCRIBE ALL OF THE WORK REQUIRED FOR THE FULL PERFORMANCE AND COMPLETION OF THE REQUIREMENTS OF THE CONTRACT.
2. ON THE BASIS OF THE SCOPE INDICATED OR DESCRIBED, THE CONTRACTOR SHALL DETERMINE AND INCLUDE IN HIS PROPOSALS ALL ITEMS NECESSARY TO PROVIDE THE PROPER EXECUTION AND COMPLETION OF THE WORK.

STAMP

NUMBER	ISSUED FOR	DATE
1	SCHEMATIC DESIGN	11/04/22

BUILT FORM
935 WEST CHESTNUT STREET, SUITE 520
CHICAGO, IL 60642

PROJECT TEAM

OWNER:
NAME
ADDRESS

ARCHITECT:
BUILT FORM ARCHITECTURE
935 WEST CHESTNUT STREET, SUITE 520
CHICAGO, IL 60642

CIVIL/ LANDSCAPE:
NAME
ADDRESS

STRUCTURAL DESIGN:
YH CONSULTING ENGINEERING
99 NW 2 AVENUE, MIAMI, FL 33125
305.969.9423

M.E.P. FP.:
LUSSO ENGINEERING
7875 SW 104 ST, SUITE 203, MIAMI FL 33156
305.351.2960

LANDSCAPE ARCHITEC:
NAME
ADDRESS

MEDICAL SPACE PLANNER:
CHAVES RIVERO DESIGN
237 SW 107TH PLACE, HOMESTEAD, FL 33032
786.468.3063

LIFE SAFETY / CODE CONSULTANT:
SLS
260 PALERMO AVE, MIAMI FL 33134

PROJECT
MIAMI BEACH COMMNUNITY HEALTH CENTER
MIAMI-DADE SOUTH SHORE BRANCH LIBRARY
ADDRESS: PROJECT ADDRESS HERE

SHEET TITLE
ARCHITECTURAL SITE PLAN

PROJECT NUMBER 22-406
DATE 04/16/22

A010

1 LEVEL 01
1/8" = 1'-0"

9 8 7 6 5 4 3 2 1

GENERAL NOTES

1. DO NOT SCALE DRAWINGS.
2. REFER TO G-SERIES FOR GENERAL INFORMATION INCLUDING ABBREVIATIONS LIST, SHEET INDEX AND CODE INFORMATION.
3. REFER TO A200 SERIES FOR EXTERIOR ELEVATIONS.
4. REFER TO A300 SERIES FOR BUILDING SECTIONS.
5. REFER TO A400 SERIES FOR WALL SECTIONS.
6. REFER TO A500 SERIES FOR VERTICAL CIRCULATION INFORMATION.
7. REFER TO A600 SERIES FOR ENLARGED PLANS.
8. REFER TO A700 SERIES FOR REFLECTIVE CEILING PLANS.
9. REFER TO A800 SERIES FOR WALL TYPES, WINDOW AND DOOR TYPES, AND DETAILS.
10. REFER TO THE STRUCTURAL DRAWINGS FOR , COLUMNS, BEARING AND SHEAR WALL LOCATIONS.
11. ALIGN PARTITIONS WITH COLUMN OR MULLION CENTERLINE, U.N.O.
12. ALL MASONRY DIMENSIONS, INDICATED "M.O.", ARE NOMINAL DIMENSIONS, U.N.O. ACTUAL MASONRY OPENING DIMENSION = NOMINAL MASONRY OPENING DIMENSION + ONE MORTAR JOINT (I.E., 4'-0" M.O. = 4'-0" + 7" ACTUAL OPENING DIMENSION).
13. REFER TO ENLARGED PLANS FOR ADDITIONAL INFORMATION AND DIMENSIONS.
14. REFER TO G020-SERIES FOR TYPICAL MOUNTING LOCATIONS AND HEIGHTS FOR TOILET ACCESSORIES, EQUIPMENT, WALL SPECIALTY DESIGNATIONS, VISUAL DISPLAY BOARDS, ETC., TYPICAL TOILET ROOM ELEVATIONS AND TOILET ACCESSORY SCHEDULE.
15. PROVIDE FIRE-TREATED WOOD BLOCKING OR MINIMUM 0.0312-INCH THICK STEEL FLAT STRAP AND BACKING PLATE AT, BUT NOT LIMITED TO, THE FOLLOWING LOCATIONS: TOILET ACCESSORIES, CASEWORK, MILLWORK, DOOR WALL BUMPERS, AND ALL OTHER WALL MOUNTED EQUIPMENT AND DEVICES.
16. REFER TO ENLARGED FINISH PLANS OR INTERIOR DESIGN FOR FLOOR FINISHES INFORMATION.

FLORIDA SPECIFIC GENERAL NOTES:

1. ALL FLOOR ELEVATION ON EACH SIDE OF A DOOR SHALL COMPLY WITH 2020 FBC SECTION 1010.1.5.
2. ALL INTERIOR STAIRWAYS TO COMPLY WITH 2020 FBCB SECTION 1023 .
3. ALL LOUVERS PROTECTING INTAKE AND EXHAUST VENTILATION DUCTS TO COMPLY WITH 2020 FBCB SECTION 1609.1.2.1 .
4. ALL EXTERIOR WALL CLADDING, SURFACING, GARAGE DOORS, SKYLIGHTS, OPERATIVE AND INOPERATIVE WINDOWS SHALL HAVE PRODUCT APPROVAL COMPLYING PER 2020 FBCB SECTION 2410.4 .
5. PROTRUDING OBJECTS ON CIRCULATION PATHS SHALL COMPLY WITH THE REQUIREMENTS OF 2020 FBCB SECTION 1003.3.1 THROUGH 1003.3.4 .
6. POSTING OF OCCUPANT LOAD TO COMPLY WITH THE REQUIREMENTS OF 2020 FBCB SECTION 1004.3 .

DIMENSIONING

DIMENSIONING IN PLANS ARE TAKEN TO (UNLESS NOTED OTHERWISE) AS FOLLOWS:
OVERALL PLANS:
- DEMISING WALLS: CENTERLINE-OF-STUD TO CENTERLINE-OF-STUD.
- FACE-OF-SHEATHING (OR EXTERIOR FACE OF CMU/CONCRETE) OF EXTERIOR WALL TO CENTERLINE-OF-CORRIDOR WALL ASSEMBLY.

ENLARGED PLANS, UNIT PLANS AND OTHER CRITICAL DIMENSIONS ARE TAKEN FROM:
- FACE OF GYPSUM BOARD TO FACE OF GYPSUM BOARD.

SCOPE OF DOCUMENT

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NOT FOR CONSTRUCTION

STAMP

SCHEMATIC DESIGN - 11/04/22

PLAN NORTH TRUE NORTH

NUMBER	ISSUED FOR	DATE
1	SCHEMATIC DESIGN	11/04/22

BUILT FORM
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OWNER:
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M.E.P. FP.:
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7875 SW 104 ST, SUITE 203, MIAMI FL 33156
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ADDRESS

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786.468.3063

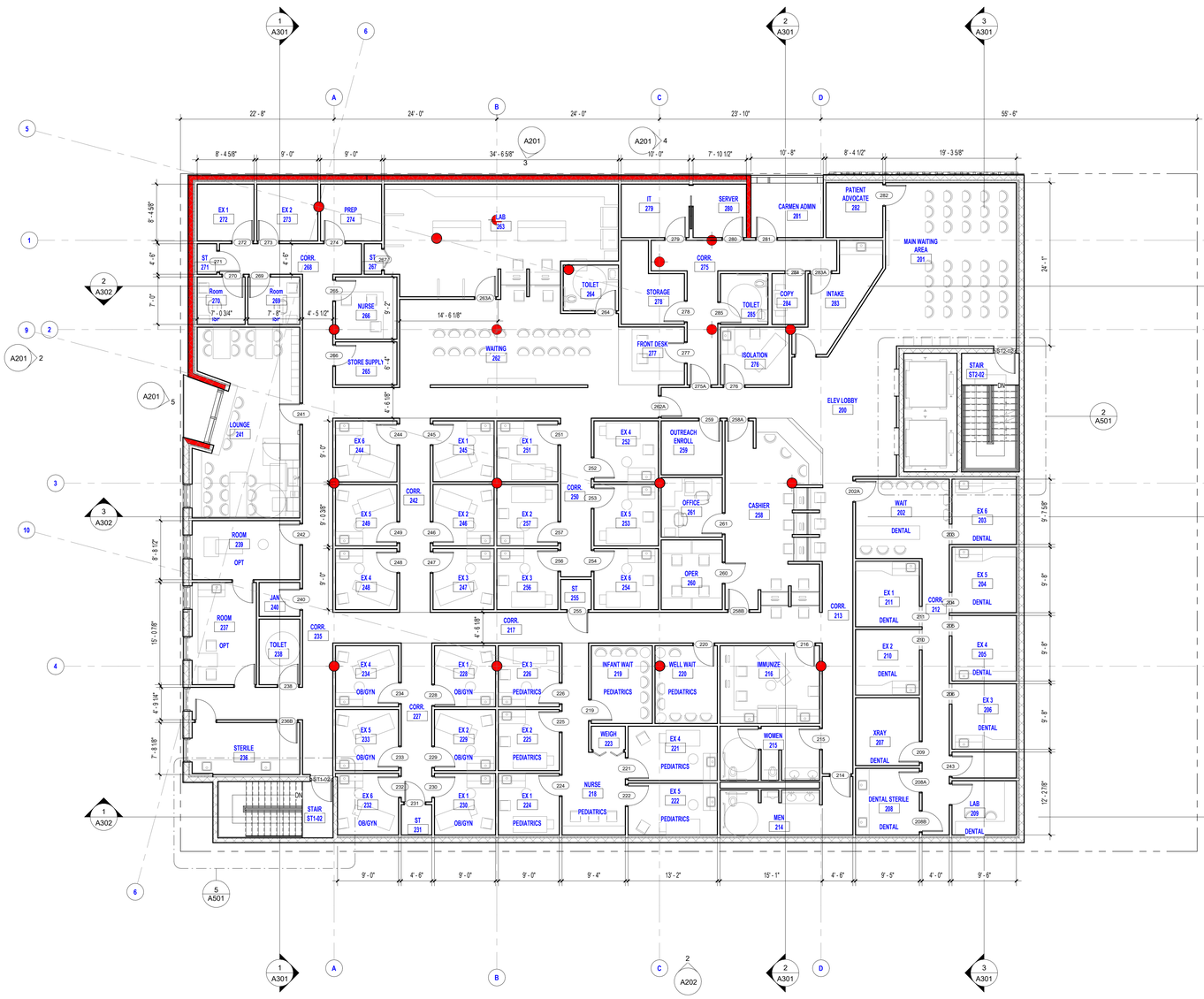
LIFE SAFETY / CODE CONSULTANT:
SLS
280 PALERMO AVE, MIAMI FL 33134

PROJECT
MIAMI BEACH COMMNUNITY HEALTH CENTER
MIAMI-DADE SOUTH SHORE BRANCH LIBRARY
ADDRESS: PROJECT ADDRESS HERE

SHEET TITLE
OVERALL FLOOR PLAN - LEVEL 01

PROJECT NUMBER 22-406
DATE 04/16/22

A101



1 LEVEL 02
1/8" = 1'-0"

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NOT FOR CONSTRUCTION

STAMP

SCHEMATIC DESIGN - 11/04/22

PLAN NORTH TRUE NORTH

NUMBER	ISSUED FOR	DATE
1	SCHEMATIC DESIGN	11/04/22

BUILT FORM
935 WEST CHESTNUT STREET, SUITE 520
CHICAGO, IL 60642

PROJECT TEAM

OWNER:
NAME
ADDRESS

ARCHITECT:
BUILT FORM ARCHITECTURE
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CIVIL/ LANDSCAPE:
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MEDICAL SPACE PLANNER:
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237 SW 107TH PLACE, HOMESTEAD, FL 33032
786.468.3063

LIFE SAFETY / CODE CONSULTANT:
SLS
260 PALERMO AVE, MIAMI FL 33134

PROJECT
MIAMI BEACH COMMUNITY HEALTH CENTER
MIAMI-DADE SOUTH SHORE BRANCH LIBRARY
ADDRESS: PROJECT ADDRESS HERE

SHEET TITLE
OVERALL FLOOR PLAN - LEVEL 02

PROJECT NUMBER 22-406
DATE 04/16/22

A102

APPENDIX B

Traffic Counts

Traf Tech Engineering Inc.

File Name : 1-Alton Rd & 8 St
Site Code : 00000000
Start Date : 12/1/2022
Page No : 1

Groups Printed- Peds & Bikes

	Alton Rd From North				8th Street From East				Alton Rd From South				8th Street From West				
Start Time	Bikes			Peds	Bikes			Peds	Bikes			Peds	Bikes			Peds	Int. Total
07:00	1	0	0	2	4	0	0	3	0	0	0	0	0	0	0	0	10
07:15	2	0	0	3	2	0	0	11	2	0	0	1	1	0	0	0	22
07:30	0	0	0	4	4	0	0	3	1	0	0	3	2	0	0	3	20
07:45	3	0	0	13	4	0	0	10	3	0	0	8	2	0	0	10	53
Total	6	0	0	22	14	0	0	27	6	0	0	12	5	0	0	13	105
08:00	0	0	0	5	1	0	0	8	3	0	0	9	1	0	0	7	34
08:15	1	0	0	13	3	0	0	7	1	0	0	13	0	0	0	5	43
08:30	2	0	0	6	2	0	0	6	0	1	0	16	1	0	0	8	42
08:45	3	0	0	3	3	0	0	14	2	0	0	11	3	0	0	7	46
Total	6	0	0	27	9	0	0	35	6	1	0	49	5	0	0	27	165
*** BREAK ***																	
16:00	3	0	0	14	0	0	0	4	2	0	0	1	2	0	0	6	32
16:15	0	0	0	4	1	0	0	4	7	0	0	7	3	0	0	14	40
16:30	1	0	0	11	0	0	0	4	5	0	0	11	0	0	0	13	45
16:45	2	0	0	10	3	0	0	9	1	0	0	13	0	0	0	20	58
Total	6	0	0	39	4	0	0	21	15	0	0	32	5	0	0	53	175
17:00	2	0	0	16	0	0	0	16	4	1	0	13	3	0	0	10	65
17:15	0	0	0	7	1	0	0	4	0	0	0	9	0	0	0	12	33
17:30	1	0	0	11	1	0	0	3	0	0	0	8	6	0	0	17	47
17:45	0	0	0	15	4	0	0	8	0	0	0	21	0	0	0	10	58
Total	3	0	0	49	6	0	0	31	4	1	0	51	9	0	0	49	203
Grand Total	21	0	0	137	33	0	0	114	31	2	0	144	24	0	0	142	648
Apprch %	13.3	0	0	86.7	22.4	0	0	77.6	17.5	1.1	0	81.4	14.5	0	0	85.5	
Total %	3.2	0	0	21.1	5.1	0	0	17.6	4.8	0.3	0	22.2	3.7	0	0	21.9	

Traf Tech Engineering Inc.

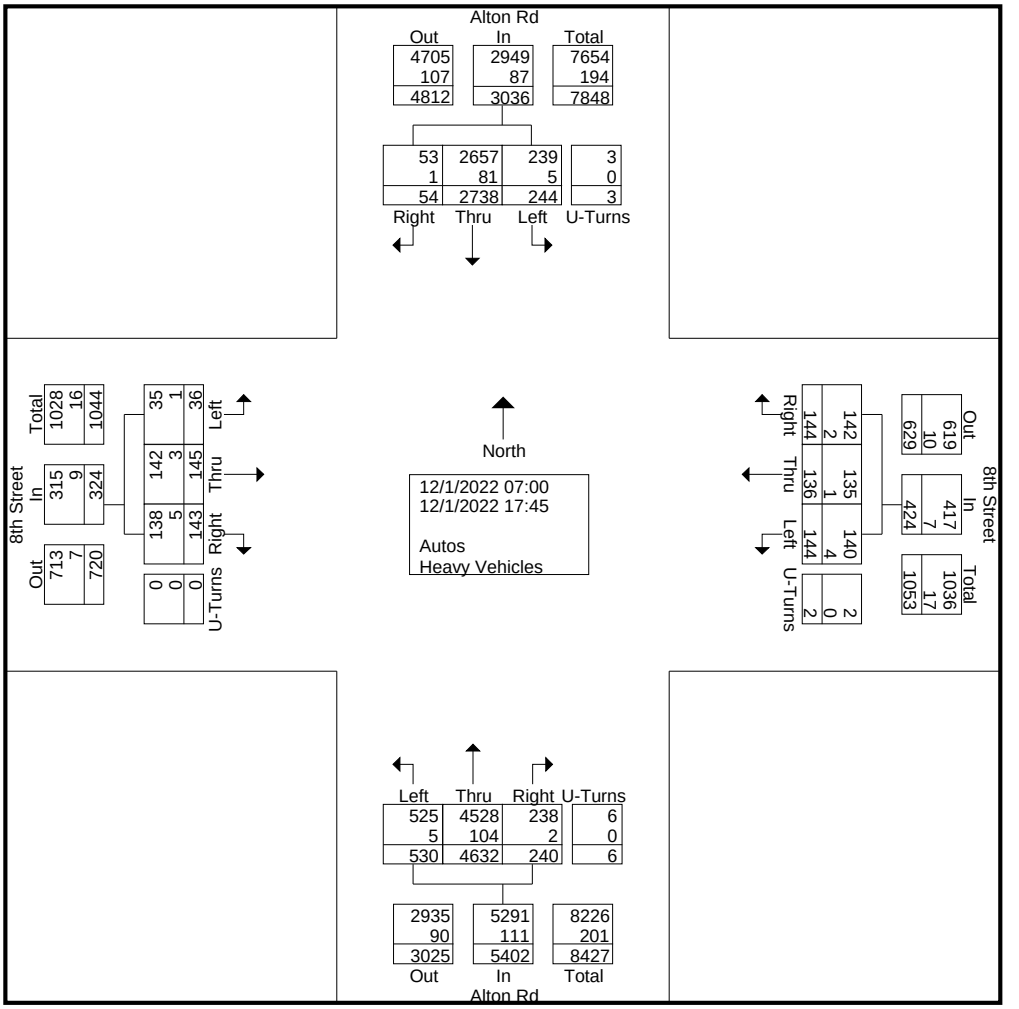
File Name : 1-Alton Rd & 8 St
Site Code : 00000000
Start Date : 12/1/2022
Page No : 1

Groups Printed- Autos - Heavy Vehicles

	Alton Rd From North					8th Street From East					Alton Rd From South					8th Street From West					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
07:00	2	130	7	0	139	3	0	3	0	6	5	188	15	0	208	4	5	2	0	11	364
07:15	1	167	7	0	175	4	4	10	0	18	6	218	15	0	239	4	1	1	0	6	438
07:30	2	183	5	0	190	2	3	7	0	12	9	253	7	1	270	7	9	0	0	16	488
07:45	0	162	9	0	171	6	2	13	0	21	12	287	18	0	317	8	1	0	0	9	518
Total	5	642	28	0	675	15	9	33	0	57	32	946	55	1	1034	23	16	3	0	42	1808
08:00	2	197	18	0	217	7	6	7	0	20	18	285	18	1	322	18	10	2	0	30	589
08:15	6	166	5	0	177	12	4	7	0	23	12	316	30	1	359	7	6	4	0	17	576
08:30	2	198	15	1	216	12	6	14	0	32	14	299	29	0	342	6	2	1	0	9	599
08:45	3	155	14	0	172	5	5	12	1	23	8	308	24	0	340	6	7	2	0	15	550
Total	13	716	52	1	782	36	21	40	1	98	52	1208	101	2	1363	37	25	9	0	71	2314
*** BREAK ***																					
16:00	4	195	19	0	218	16	11	8	0	35	22	342	33	0	397	6	11	4	0	21	671
16:15	2	173	29	0	204	14	7	10	1	32	11	331	53	0	395	8	10	4	0	22	653
16:30	4	169	20	0	193	14	12	10	0	36	15	315	45	2	377	11	17	2	0	30	636
16:45	2	154	20	0	176	6	6	8	0	20	22	310	56	0	388	14	11	7	0	32	616
Total	12	691	88	0	791	50	36	36	1	123	70	1298	187	2	1557	39	49	17	0	105	2576
17:00	8	196	25	0	229	16	17	8	0	41	27	283	36	0	346	16	16	3	0	35	651
17:15	7	140	18	0	165	8	17	5	0	30	20	301	58	1	380	13	19	2	0	34	609
17:30	3	165	14	2	184	7	18	9	0	34	21	306	49	0	376	11	13	2	0	26	620
17:45	6	188	19	0	213	12	18	13	0	43	18	290	44	0	352	4	7	0	0	11	619
Total	24	689	76	2	791	43	70	35	0	148	86	1180	187	1	1454	44	55	7	0	106	2499
Grand Total	54	2738	244	3	3039	144	136	144	2	426	240	4632	530	6	5408	143	145	36	0	324	9197
Apprch %	1.8	90.1	8	0.1		33.8	31.9	33.8	0.5		4.4	85.7	9.8	0.1		44.1	44.8	11.1	0		
Total %	0.6	29.8	2.7	0	33	1.6	1.5	1.6	0	4.6	2.6	50.4	5.8	0.1	58.8	1.6	1.6	0.4	0	3.5	
Autos	53	2657										4528									
% Autos	98.1	97	98	100	97.1	98.6	99.3	97.2	100	98.4	99.2	97.8	99.1	100	97.9	96.5	97.9	97.2	0	97.2	97.7
Heavy Vehicles																					
% Heavy Vehicles	1.9	3	2	0	2.9	1.4	0.7	2.8	0	1.6	0.8	2.2	0.9	0	2.1	3.5	2.1	2.8	0	2.8	2.3

Traf Tech Engineering Inc.

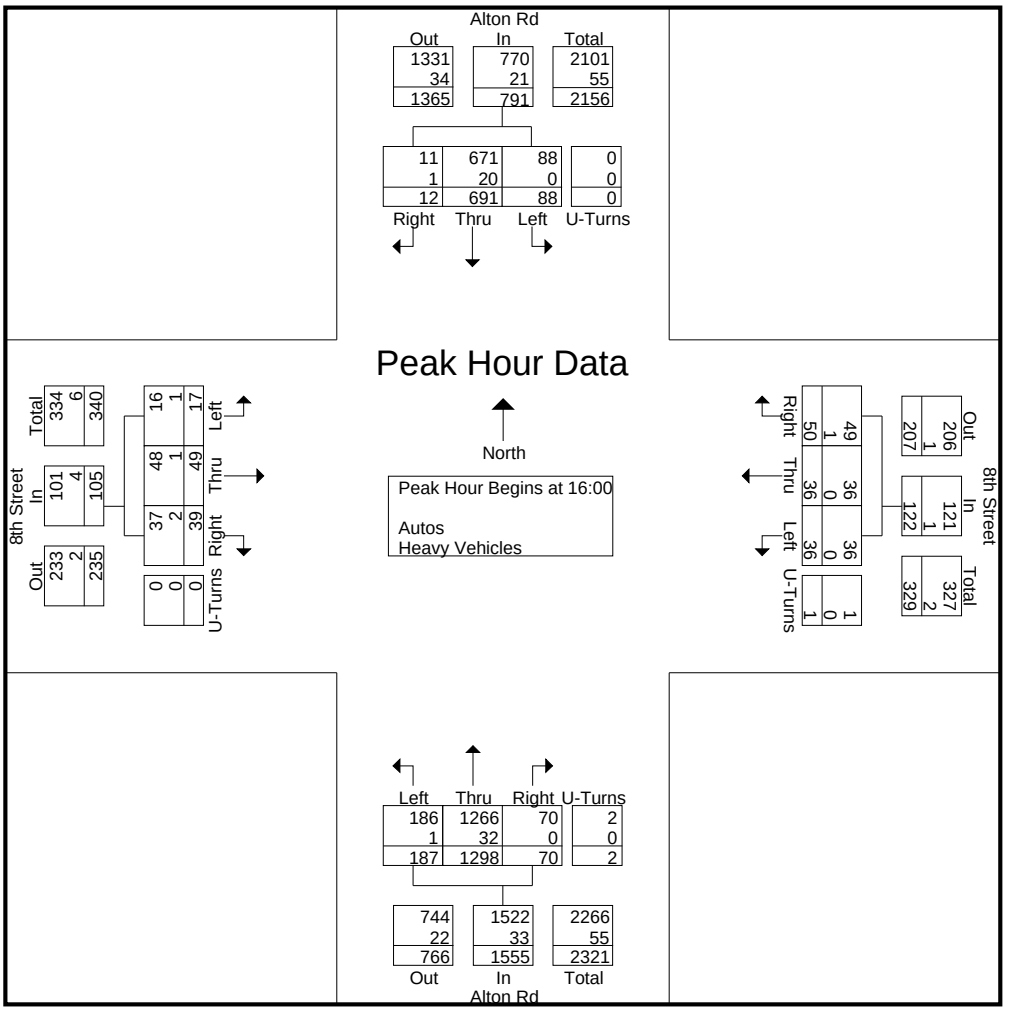
File Name : 1-Alton Rd & 8 St
Site Code : 00000000
Start Date : 12/1/2022
Page No : 2



Traf Tech Engineering Inc.

File Name : 1-Alton Rd & 8 St
Site Code : 00000000
Start Date : 12/1/2022
Page No : 3

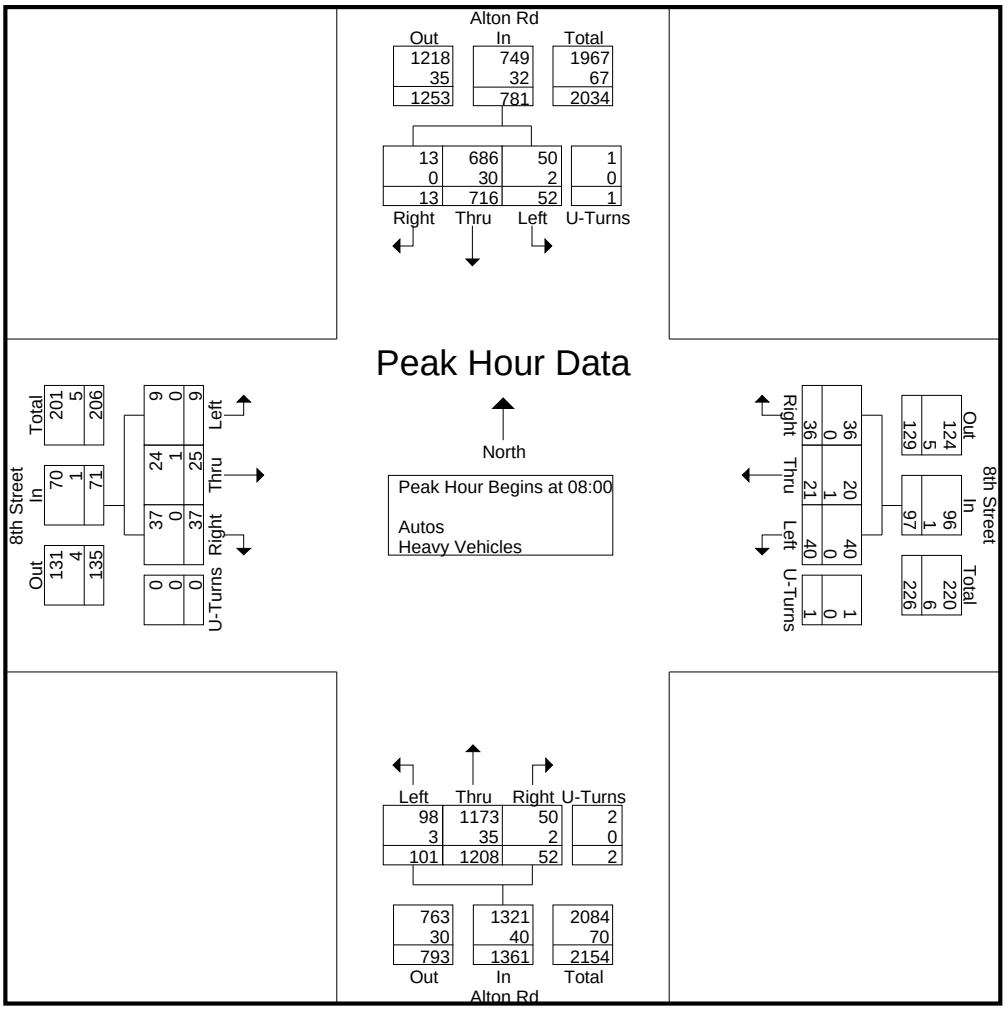
	Alton Rd From North					8th Street From East					Alton Rd From South					8th Street From West					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 16:00																					
16:00	4	195	19	0	218	16	11	8	0	35	22	342	33	0	397	6	11	4	0	21	671
16:15	2	173	29	0	204	14	7	10	1	32	11	331	53	0	395	8	10	4	0	22	653
16:30	4	169	20	0	193	14	12	10	0	36	15	315	45	2	377	11	17	2	0	30	636
16:45	2	154	20	0	176	6	6	8	0	20	22	310	56	0	388	14	11	7	0	32	616
Total Volume	12	691	88	0	791	50	36	36	1	123	70	1298	187	2	1557	39	49	17	0	105	2576
% App. Total	1.5	87.4	11.1	0		40.7	29.3	29.3	0.8		4.5	83.4	12	0.1		37.1	46.7	16.2	0		
PHF	.750	.886	.759	.000	.907	.781	.750	.900	.250	.854	.795	.949	.835	.250	.980	.696	.721	.607	.000	.820	.960
Autos	11	671	88	0	770	49	36	36	1	122	70	1266									
% Autos	91.7	97.1	100	0	97.3	98.0	100	100	100	99.2	100	97.5	99.5	100	97.9	94.9	98.0	94.1	0	96.2	97.7
Heavy Vehicles																					
% Heavy Vehicles	8.3	2.9	0	0	2.7	2.0	0	0	0	0.8	0	2.5	0.5	0	2.1	5.1	2.0	5.9	0	3.8	2.3



Traf Tech Engineering Inc.

File Name : 1-Alton Rd & 8 St
Site Code : 00000000
Start Date : 12/1/2022
Page No : 4

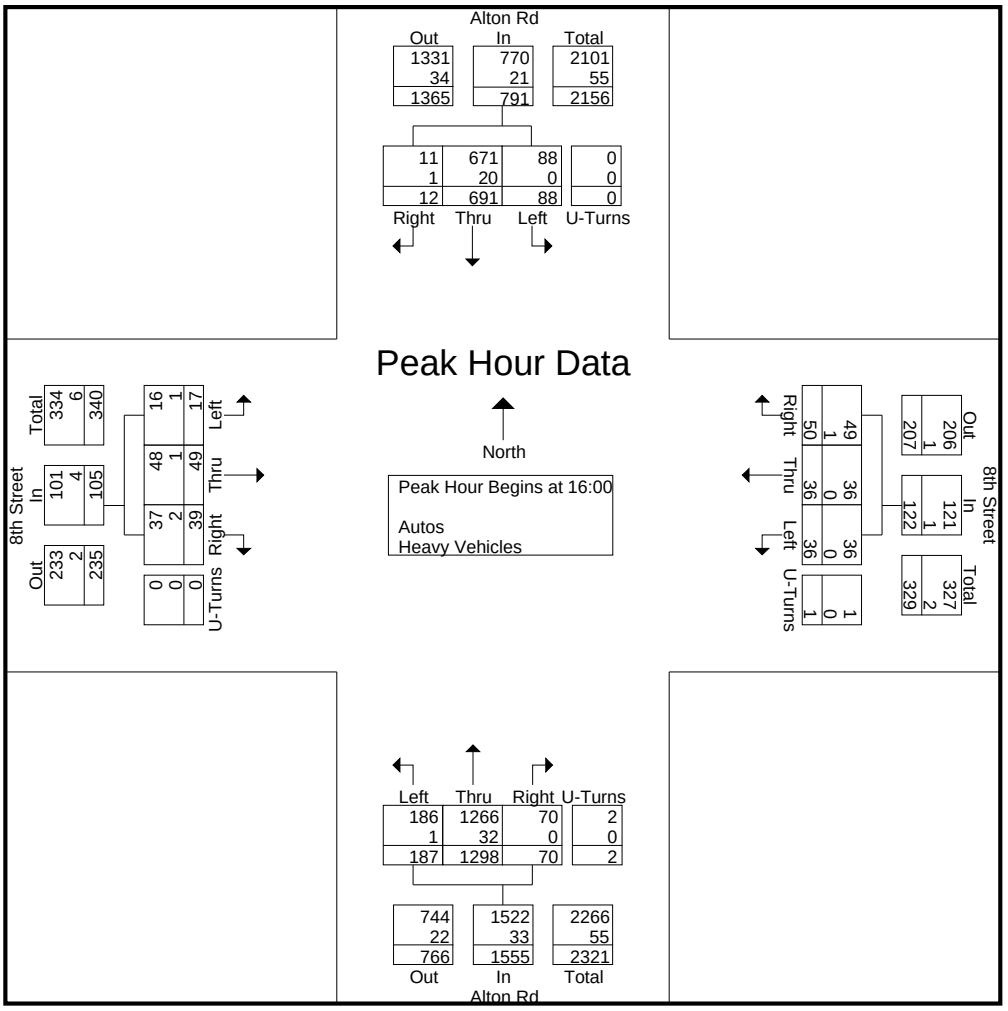
	Alton Rd From North					8th Street From East					Alton Rd From South					8th Street From West					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00																					
08:00	2	197	18	0	217	7	6	7	0	20	18	285	18	1	322	18	10	2	0	30	589
08:15	6	166	5	0	177	12	4	7	0	23	12	316	30	1	359	7	6	4	0	17	576
08:30	2	198	15	1	216	12	6	14	0	32	14	299	29	0	342	6	2	1	0	9	599
08:45	3	155	14	0	172	5	5	12	1	23	8	308	24	0	340	6	7	2	0	15	550
Total Volume	13	716	52	1	782	36	21	40	1	98	52	1208	101	2	1363	37	25	9	0	71	2314
% App. Total	1.7	91.6	6.6	0.1		36.7	21.4	40.8	1		3.8	88.6	7.4	0.1		52.1	35.2	12.7	0		
PHF	.542	.904	.722	.250	.901	.750	.875	.714	.250	.766	.722	.956	.842	.500	.949	.514	.625	.563	.000	.592	.966
Autos	13	686	50	1	750	36	20	40	1	97	50	1173									
% Autos	100	95.8	96.2	100	95.9	100	95.2	100	100	99.0	96.2	97.1	97.0	100	97.1	100	96.0	100	0	98.6	96.8
Heavy Vehicles																					
% Heavy Vehicles	0	4.2	3.8	0	4.1	0	4.8	0	0	1.0	3.8	2.9	3.0	0	2.9	0	4.0	0	0	1.4	3.2



Traf Tech Engineering Inc.

File Name : 1-Alton Rd & 8 St
Site Code : 00000000
Start Date : 12/1/2022
Page No : 5

	Alton Rd From North					8th Street From East					Alton Rd From South					8th Street From West					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 16:00																					
16:00	4	195	19	0	218	16	11	8	0	35	22	342	33	0	397	6	11	4	0	21	671
16:15	2	173	29	0	204	14	7	10	1	32	11	331	53	0	395	8	10	4	0	22	653
16:30	4	169	20	0	193	14	12	10	0	36	15	315	45	2	377	11	17	2	0	30	636
16:45	2	154	20	0	176	6	6	8	0	20	22	310	56	0	388	14	11	7	0	32	616
Total Volume	12	691	88	0	791	50	36	36	1	123	70	1298	187	2	1557	39	49	17	0	105	2576
% App. Total	1.5	87.4	11.1	0		40.7	29.3	29.3	0.8		4.5	83.4	12	0.1		37.1	46.7	16.2	0		
PHF	.750	.886	.759	.000	.907	.781	.750	.900	.250	.854	.795	.949	.835	.250	.980	.696	.721	.607	.000	.820	.960
Autos	11	671	88	0	770	49	36	36	1	122	70	1266									
% Autos	91.7	97.1	100	0	97.3	98.0	100	100	100	99.2	100	97.5	99.5	100	97.9	94.9	98.0	94.1	0	96.2	97.7
Heavy Vehicles																					
% Heavy Vehicles	8.3	2.9	0	0	2.7	2.0	0	0	0	0.8	0	2.5	0.5	0	2.1	5.1	2.0	5.9	0	3.8	2.3



Traf Tech Engineering Inc.

File Name : 2-Lenox Ave & 8th St
Site Code : 00000000
Start Date : 12/1/2022
Page No : 1

Groups Printed- Peds & Bikes

	Lenox Ave From North				8th Street From East				Lenox Ave From South				8th Street From West				
Start Time	Bikes			Peds	Bikes			Peds	Bikes			Peds	Bikes			Peds	Int. Total
07:00	3	0	0	1	3	0	0	6	1	0	0	0	0	0	0	3	17
07:15	4	0	0	5	2	0	0	3	1	0	0	3	2	0	0	2	22
07:30	1	0	0	4	1	0	0	5	0	0	0	0	1	0	0	1	13
07:45	4	0	0	8	1	0	0	9	1	0	0	6	2	0	0	7	38
Total	12	0	0	18	7	0	0	23	3	0	0	9	5	0	0	13	90
08:00	0	0	0	6	4	0	0	1	1	0	0	6	3	0	0	1	22
08:15	2	0	0	12	3	0	0	9	1	0	0	4	1	0	0	2	34
08:30	2	0	0	12	3	0	0	4	1	0	0	4	3	0	0	7	36
08:45	2	0	0	3	4	0	0	6	1	0	0	8	2	0	0	1	27
Total	6	0	0	33	14	0	0	20	4	0	0	22	9	0	0	11	119
*** BREAK ***																	
16:00	4	0	0	2	7	0	0	8	2	0	0	4	3	0	0	3	33
16:15	1	0	0	3	3	0	0	6	1	0	0	11	4	0	0	20	49
16:30	2	0	0	10	7	1	0	5	4	0	0	4	4	0	0	10	47
16:45	2	0	0	11	9	0	0	5	2	0	0	4	9	0	0	10	52
Total	9	0	0	26	26	1	0	24	9	0	0	23	20	0	0	43	181
17:00	0	0	0	6	5	0	0	12	4	0	0	8	1	0	0	5	41
17:15	0	0	0	6	9	0	0	9	2	0	0	3	4	0	0	3	36
17:30	0	0	0	9	6	0	0	5	0	0	0	8	4	0	0	13	45
17:45	0	0	0	11	4	0	0	8	0	0	0	11	1	0	0	4	39
Total	0	0	0	32	24	0	0	34	6	0	0	30	10	0	0	25	161
Grand Total	27	0	0	109	71	1	0	101	22	0	0	84	44	0	0	92	551
Apprch %	19.9	0	0	80.1	41	0.6	0	58.4	20.8	0	0	79.2	32.4	0	0	67.6	
Total %	4.9	0	0	19.8	12.9	0.2	0	18.3	4	0	0	15.2	8	0	0	16.7	

Traf Tech Engineering Inc.

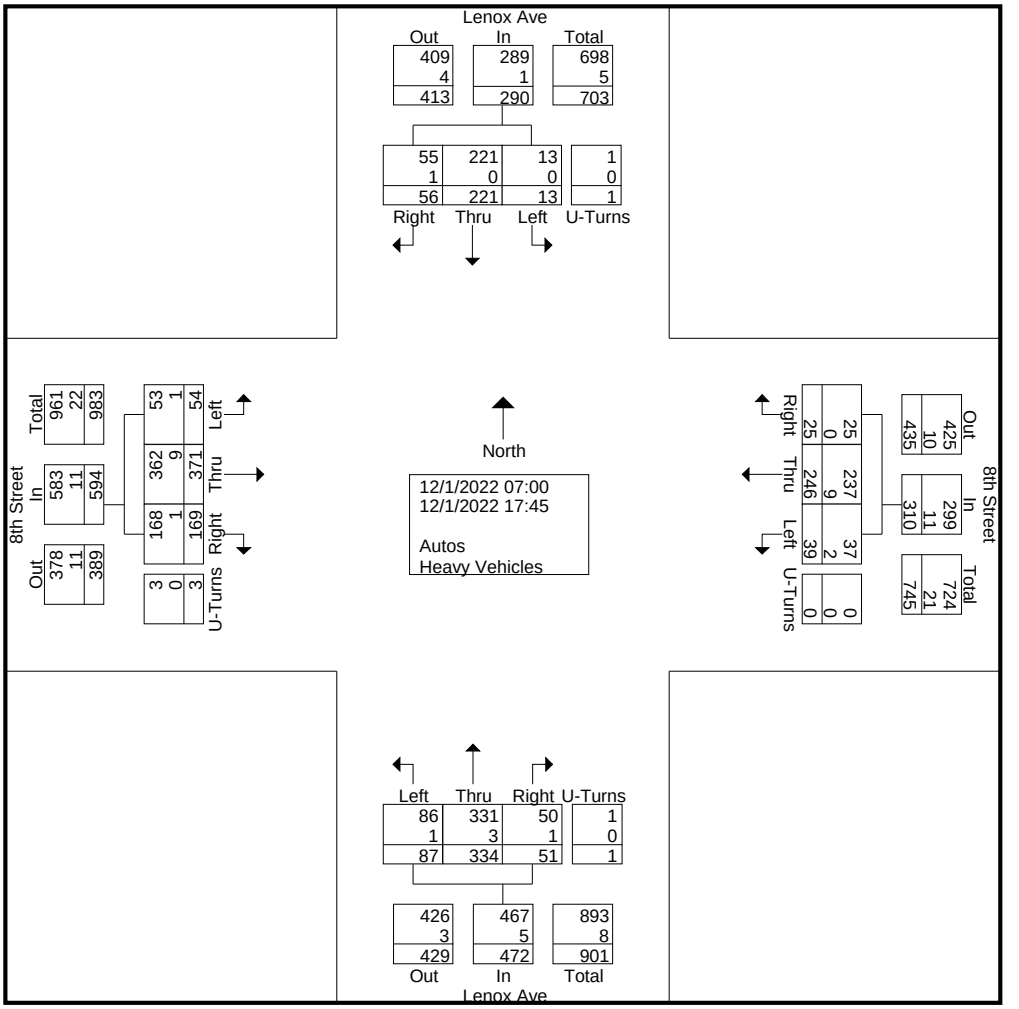
File Name : 2-Lenox Ave & 8th St
Site Code : 00000000
Start Date : 12/1/2022
Page No : 1

Groups Printed- Autos - Heavy Vehicles

	Lenox Ave From North					8th Street From East					Lenox Ave From South					8th Street From West					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
07:00	2	7	0	0	9	0	6	3	0	9	1	7	0	0	8	8	8	1	0	17	43
07:15	6	3	1	0	10	2	6	0	0	8	0	4	3	0	7	9	6	0	0	15	40
07:30	1	12	0	0	13	2	8	1	0	11	3	6	3	0	12	6	14	0	0	20	56
07:45	5	6	0	0	11	2	13	3	0	18	3	6	1	0	10	8	10	4	0	22	61
Total	14	28	1	0	43	6	33	7	0	46	7	23	7	0	37	31	38	5	0	74	200
08:00	3	10	0	0	13	1	10	3	0	14	2	11	3	0	16	16	20	3	0	39	82
08:15	2	18	0	1	21	1	11	5	0	17	3	10	5	0	18	6	11	1	1	19	75
08:30	2	11	0	0	13	0	17	2	0	19	2	19	5	0	26	8	16	3	1	28	86
08:45	6	12	0	0	18	3	12	6	0	21	1	16	6	0	23	10	12	0	1	23	85
Total	13	51	0	1	65	5	50	16	0	71	8	56	19	0	83	40	59	7	3	109	328
*** BREAK ***																					
16:00	4	11	1	0	16	1	18	1	0	20	4	22	10	0	36	11	35	7	0	53	125
16:15	3	19	0	0	22	0	17	0	0	17	5	44	7	0	56	11	31	2	0	44	139
16:30	3	10	1	0	14	2	20	2	0	24	2	32	9	0	43	16	32	3	0	51	132
16:45	5	26	3	0	34	2	10	4	0	16	6	37	5	0	48	10	46	10	0	66	164
Total	15	66	5	0	86	5	65	7	0	77	17	135	31	0	183	48	144	22	0	214	560
17:00	3	16	1	0	20	3	27	1	0	31	7	31	8	1	47	17	27	6	0	50	148
17:15	2	15	2	0	19	1	14	0	0	15	3	37	10	0	50	15	38	7	0	60	144
17:30	4	25	3	0	32	3	23	5	0	31	2	28	6	0	36	16	36	4	0	56	155
17:45	5	20	1	0	26	2	34	3	0	39	7	24	6	0	37	2	29	3	0	34	136
Total	14	76	7	0	97	9	98	9	0	116	19	120	30	1	170	50	130	20	0	200	583
Grand Total	56	221	13	1	291	25	246	39	0	310	51	334	87	1	473	169	371	54	3	597	1671
Apprch %	19.2	75.9	4.5	0.3		8.1	79.4	12.6	0		10.8	70.6	18.4	0.2		28.3	62.1	9	0.5		
Total %	3.4	13.2	0.8	0.1	17.4	1.5	14.7	2.3	0	18.6	3.1	20	5.2	0.1	28.3	10.1	22.2	3.2	0.2	35.7	
Autos	55	221	13	1	290	25	237	37	0	299	50	331	86	1	468	168	362	53	3	586	1643
% Autos	98.2	100	100	100	99.7	100	96.3	94.9	0	96.5	98	99.1	98.9	100	98.9	99.4	97.6	98.1	100	98.2	98.3
Heavy Vehicles																					
% Heavy Vehicles	1.8	0	0	0	0.3	0	3.7	5.1	0	3.5	2	0.9	1.1	0	1.1	0.6	2.4	1.9	0	1.8	1.7

Traf Tech Engineering Inc.

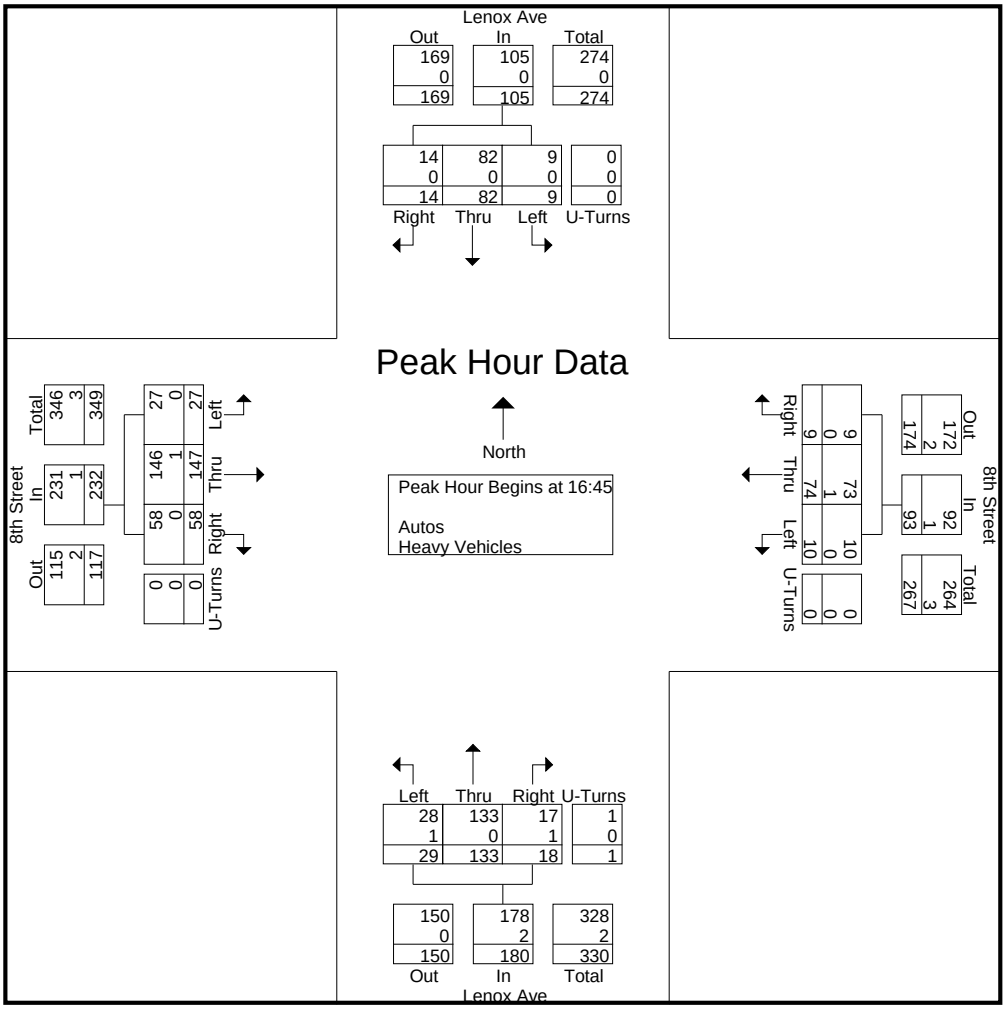
File Name : 2-Lenox Ave & 8th St
Site Code : 00000000
Start Date : 12/1/2022
Page No : 2



Traf Tech Engineering Inc.

File Name : 2-Lenox Ave & 8th St
Site Code : 00000000
Start Date : 12/1/2022
Page No : 3

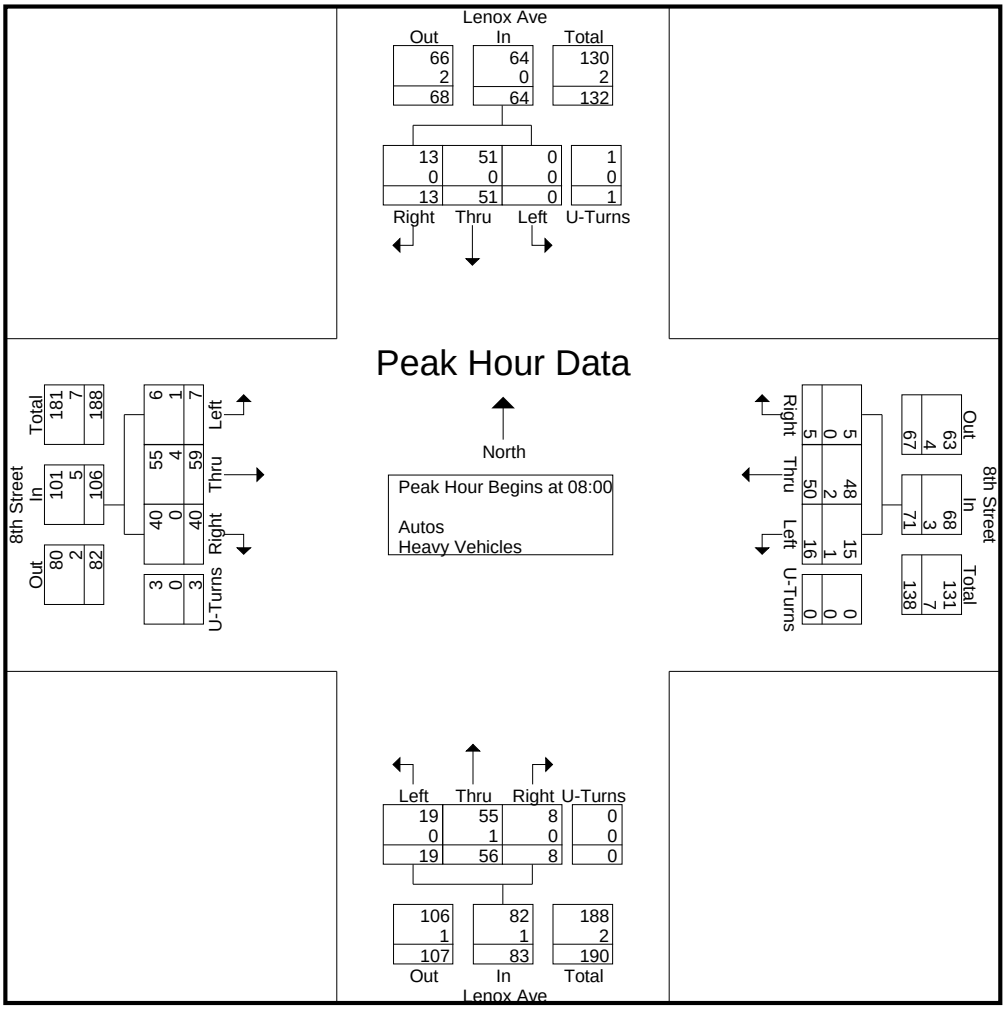
	Lenox Ave From North					8th Street From East					Lenox Ave From South					8th Street From West					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 16:45																					
16:45	5	26	3	0	34	2	10	4	0	16	6	37	5	0	48	10	46	10	0	66	164
17:00	3	16	1	0	20	3	27	1	0	31	7	31	8	1	47	17	27	6	0	50	148
17:15	2	15	2	0	19	1	14	0	0	15	3	37	10	0	50	15	38	7	0	60	144
17:30	4	25	3	0	32	3	23	5	0	31	2	28	6	0	36	16	36	4	0	56	155
Total Volume	14	82	9	0	105	9	74	10	0	93	18	133	29	1	181	58	147	27	0	232	611
% App. Total	13.3	78.1	8.6	0		9.7	79.6	10.8	0		9.9	73.5	16	0.6		25	63.4	11.6	0		
PHF	.700	.788	.750	.000	.772	.750	.685	.500	.000	.750	.643	.899	.725	.250	.905	.853	.799	.675	.000	.879	.931
Autos	14	82	9	0	105	9	73	10	0	92	17	133	28	1	179	58	146	27	0	231	607
% Autos	100	100	100	0	100	100	98.6	100	0	98.9	94.4	100	96.6	100	98.9	100	99.3	100	0	99.6	99.3
Heavy Vehicles																					
% Heavy Vehicles	0	0	0	0	0	0	1.4	0	0	1.1	5.6	0	3.4	0	1.1	0	0.7	0	0	0.4	0.7



Traf Tech Engineering Inc.

File Name : 2-Lenox Ave & 8th St
Site Code : 00000000
Start Date : 12/1/2022
Page No : 4

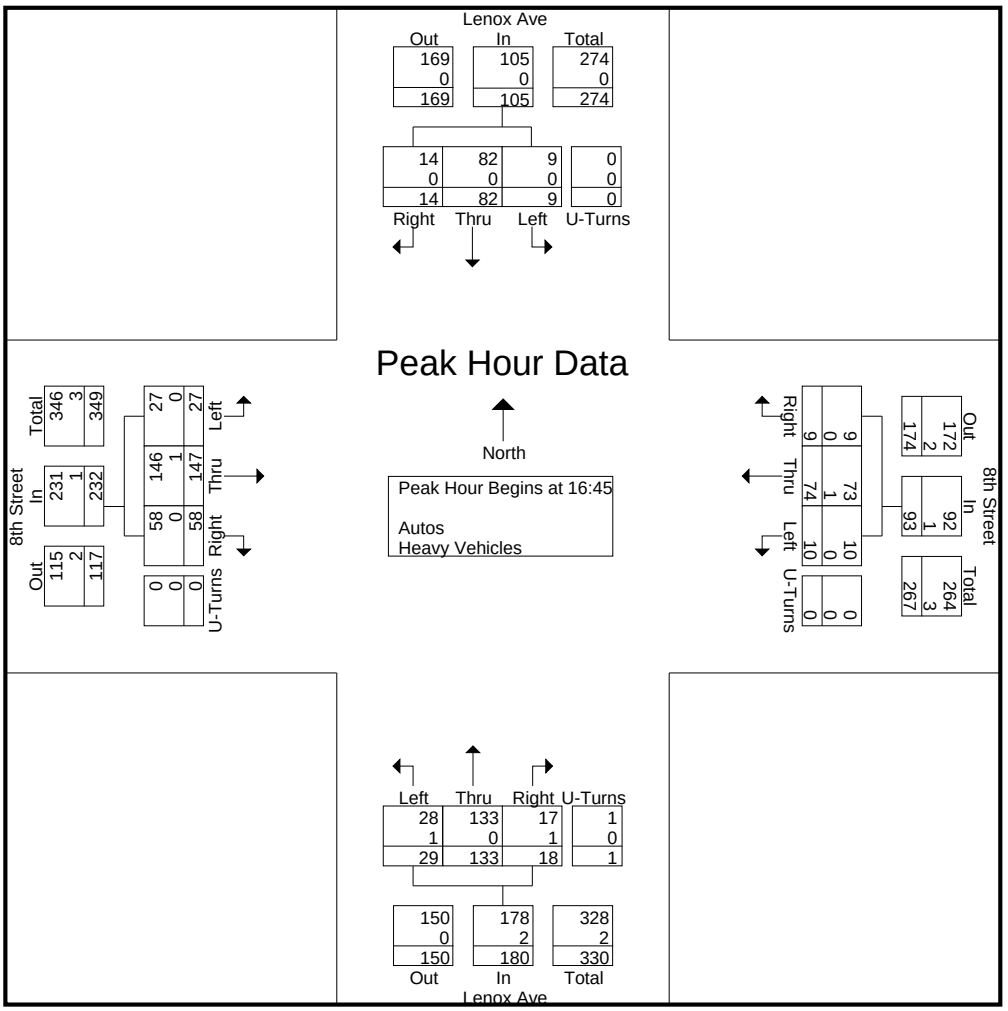
	Lenox Ave From North					8th Street From East					Lenox Ave From South					8th Street From West					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00																					
08:00	3	10	0	0	13	1	10	3	0	14	2	11	3	0	16	16	20	3	0	39	82
08:15	2	18	0	1	21	1	11	5	0	17	3	10	5	0	18	6	11	1	1	19	75
08:30	2	11	0	0	13	0	17	2	0	19	2	19	5	0	26	8	16	3	1	28	86
08:45	6	12	0	0	18	3	12	6	0	21	1	16	6	0	23	10	12	0	1	23	85
Total Volume	13	51	0	1	65	5	50	16	0	71	8	56	19	0	83	40	59	7	3	109	328
% App. Total	20	78.5	0	1.5		7	70.4	22.5	0		9.6	67.5	22.9	0		36.7	54.1	6.4	2.8		
PHF	.542	.708	.000	.250	.774	.417	.735	.667	.000	.845	.667	.737	.792	.000	.798	.625	.738	.583	.750	.699	.953
Autos	13	51	0	1	65	5	48	15	0	68	8	55	19	0	82	40	55	6	3	104	319
% Autos	100	100	0	100	100	100	96.0	93.8	0	95.8	100	98.2	100	0	98.8	100	93.2	85.7	100	95.4	97.3
Heavy Vehicles																					
% Heavy Vehicles	0	0	0	0	0	0	4.0	6.3	0	4.2	0	1.8	0	0	1.2	0	6.8	14.3	0	4.6	2.7



Traf Tech Engineering Inc.

File Name : 2-Lenox Ave & 8th St
Site Code : 00000000
Start Date : 12/1/2022
Page No : 5

Start Time	Lenox Ave From North					8th Street From East					Lenox Ave From South					8th Street From West					Int. Total
	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 16:45																					
16:45	5	26	3	0	34	2	10	4	0	16	6	37	5	0	48	10	46	10	0	66	164
17:00	3	16	1	0	20	3	27	1	0	31	7	31	8	1	47	17	27	6	0	50	148
17:15	2	15	2	0	19	1	14	0	0	15	3	37	10	0	50	15	38	7	0	60	144
17:30	4	25	3	0	32	3	23	5	0	31	2	28	6	0	36	16	36	4	0	56	155
Total Volume	14	82	9	0	105	9	74	10	0	93	18	133	29	1	181	58	147	27	0	232	611
% App. Total	13.3	78.1	8.6	0		9.7	79.6	10.8	0		9.9	73.5	16	0.6		25	63.4	11.6	0		
PHF	.700	.788	.750	.000	.772	.750	.685	.500	.000	.750	.643	.899	.725	.250	.905	.853	.799	.675	.000	.879	.931
Autos	14	82	9	0	105	9	73	10	0	92	17	133	28	1	179	58	146	27	0	231	607
% Autos	100	100	100	0	100	100	98.6	100	0	98.9	94.4	100	96.6	100	98.9	100	99.3	100	0	99.6	99.3
Heavy Vehicles																					
% Heavy Vehicles	0	0	0	0	0	0	1.4	0	0	1.1	5.6	0	3.4	0	1.1	0	0.7	0	0	0.4	0.7



Traf Tech Engineering Inc.

File Name : 3-Alton Rd & 7th Street
Site Code : 00000000
Start Date : 12/1/2022
Page No : 1

Groups Printed- Peds & Bikes

	Alton Rd From North				7th Street From East				Alton Rd From South				7th Street From West				
Start Time	Bikes			Peds	Bikes			Peds	Bikes			Peds	Bikes			Peds	Int. Total
*** BREAK ***																	
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total %																	

Traf Tech Engineering Inc.

File Name : 3-Alton Rd & 7th Street
Site Code : 00000000
Start Date : 12/1/2022
Page No : 1

Groups Printed- Autos - Heavy Vehicles

	Alton Rd From North					7th Street From East					Alton Rd From South					7th Street From West					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
07:00	0	144	0	0	144	5	0	0	0	5	0	227	0	0	227	0	0	0	0	0	376
07:15	0	166	0	0	166	6	0	0	0	6	0	243	0	0	243	0	0	0	0	0	415
07:30	0	188	0	0	188	11	0	0	0	11	0	275	0	0	275	0	0	0	0	0	474
07:45	0	173	0	0	173	8	0	0	0	8	3	323	0	0	326	0	0	0	0	0	507
Total	0	671	0	0	671	30	0	0	0	30	3	1068	0	0	1071	0	0	0	0	0	1772
08:00	0	217	0	0	217	14	0	0	0	14	5	308	0	0	313	0	0	0	0	0	544
08:15	0	182	0	0	182	7	0	0	0	7	5	354	0	0	359	0	0	0	0	0	548
08:30	0	222	0	0	222	11	0	0	0	11	5	384	0	0	389	0	0	0	0	0	622
08:45	0	175	0	0	175	16	0	0	0	16	2	266	0	0	268	0	0	0	0	0	459
Total	0	796	0	0	796	48	0	0	0	48	17	1312	0	0	1329	0	0	0	0	0	2173
*** BREAK ***																					
16:00	0	203	0	0	203	15	0	0	0	15	1	390	0	0	391	0	0	0	0	0	609
16:15	0	196	0	0	196	25	0	0	0	25	3	388	0	0	391	0	0	0	0	0	612
16:30	0	187	0	0	187	20	0	0	0	20	3	351	0	0	354	0	0	0	0	0	561
16:45	0	197	0	0	197	11	0	0	0	11	5	362	0	0	367	0	0	0	0	0	575
Total	0	783	0	0	783	71	0	0	0	71	12	1491	0	0	1503	0	0	0	0	0	2357
17:00	0	163	0	0	163	19	0	0	0	19	1	332	0	0	333	0	0	0	0	0	515
17:15	0	185	0	0	185	28	0	0	0	28	1	344	0	0	345	0	0	0	0	0	558
17:30	0	198	0	0	198	21	1	0	0	22	2	364	0	0	366	0	0	0	0	0	586
17:45	0	209	0	0	209	18	0	0	0	18	6	314	0	0	320	0	0	0	0	0	547
Total	0	755	0	0	755	86	1	0	0	87	10	1354	0	0	1364	0	0	0	0	0	2206
Grand Total	0	3005	0	0	3005	235	1	0	0	236	42	5225	0	0	5267	0	0	0	0	0	8508
Apprch %	0	100	0	0		99.6	0.4	0	0		0.8	99.2	0	0		0	0	0	0		
Total %	0	35.3	0	0	35.3	2.8	0	0	0	2.8	0.5	61.4	0	0	61.9	0	0	0	0	0	
Autos	0	2918										5126									
% Autos	0	97.1	0	0	97.1	96.6	100	0	0	96.6	100	98.1	0	0	98.1	0	0	0	0	0	97.7
Heavy Vehicles																					
% Heavy Vehicles	0	2.9	0	0	2.9	3.4	0	0	0	3.4	0	1.9	0	0	1.9	0	0	0	0	0	2.3

Traf Tech Engineering Inc.

File Name : 3-Alton Rd & 7th Street
Site Code : 00000000
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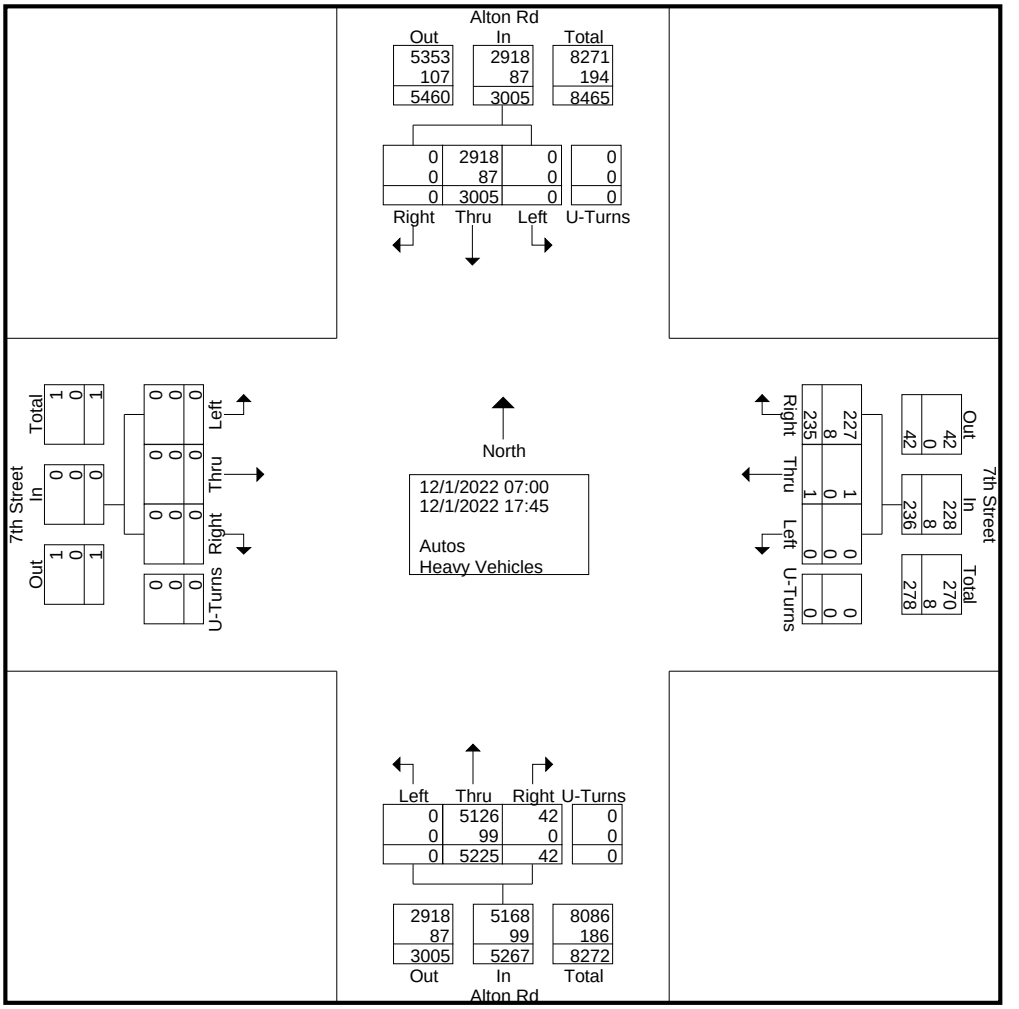
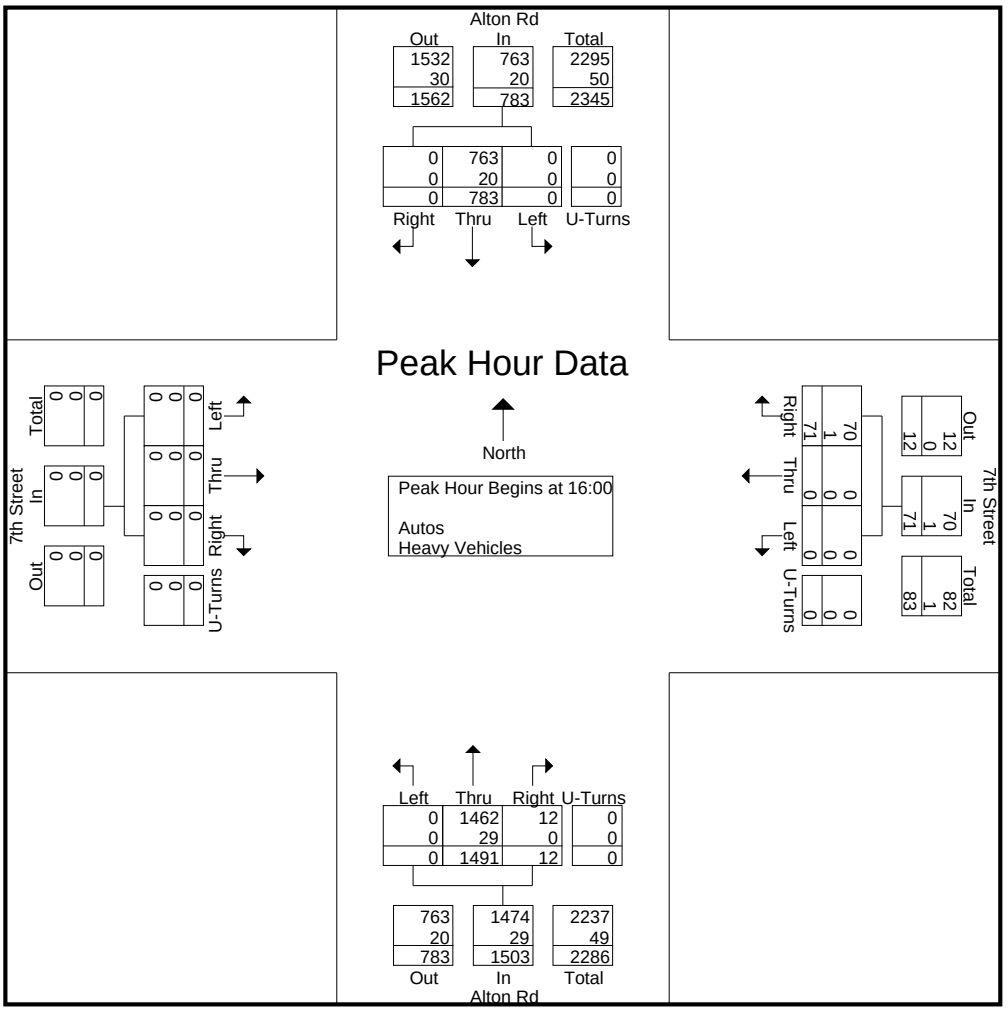


Traf Tech Engineering Inc.

File Name : 3-Alton Rd & 7th Street
Site Code : 00000000
Start Date : 12/1/2022
Page No : 3

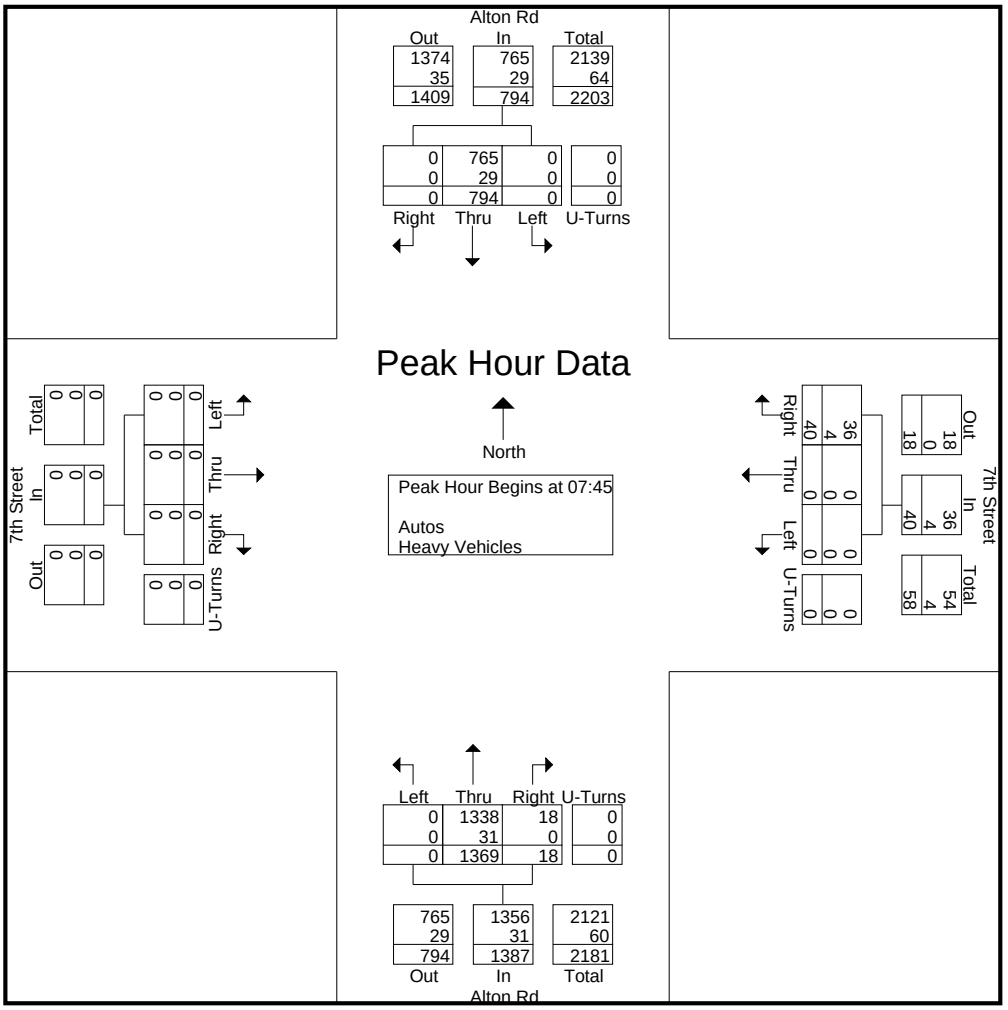
	Alton Rd From North					7th Street From East					Alton Rd From South					7th Street From West					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 16:00																					
16:00	0	203	0	0	203	15	0	0	0	15	1	390	0	0	391	0	0	0	0	0	609
16:15	0	196	0	0	196	25	0	0	0	25	3	388	0	0	391	0	0	0	0	0	612
16:30	0	187	0	0	187	20	0	0	0	20	3	351	0	0	354	0	0	0	0	0	561
16:45	0	197	0	0	197	11	0	0	0	11	5	362	0	0	367	0	0	0	0	0	575
Total Volume	0	783	0	0	783	71	0	0	0	71	12	1491	0	0	1503	0	0	0	0	0	2357
% App. Total	0	100	0	0		100	0	0	0		0.8	99.2	0	0		0	0	0	0		
PHF	.000	.964	.000	.000	.964	.710	.000	.000	.000	.710	.600	.956	.000	.000	.961	.000	.000	.000	.000	.000	.963
Autos	0	763	0	0	763	70	0	0	0	70	12	1462									
% Autos	0	97.4	0	0	97.4	98.6	0	0	0	98.6	100	98.1	0	0	98.1	0	0	0	0	0	97.9
Heavy Vehicles																					
% Heavy Vehicles	0	2.6	0	0	2.6	1.4	0	0	0	1.4	0	1.9	0	0	1.9	0	0	0	0	0	2.1



Traf Tech Engineering Inc.

File Name : 3-Alton Rd & 7th Street
Site Code : 00000000
Start Date : 12/1/2022
Page No : 4

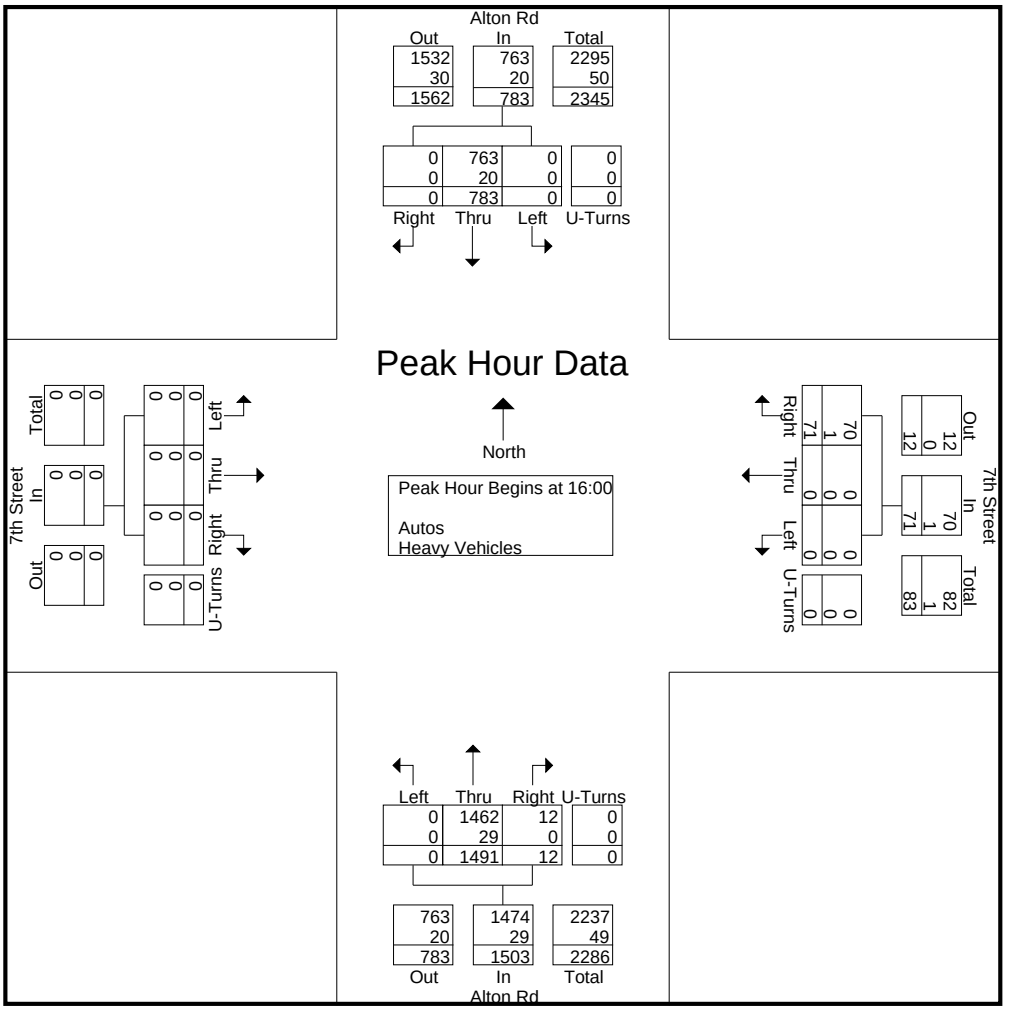
	Alton Rd From North					7th Street From East					Alton Rd From South					7th Street From West					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:45																					
07:45	0	173	0	0	173	8	0	0	0	8	3	323	0	0	326	0	0	0	0	0	507
08:00	0	217	0	0	217	14	0	0	0	14	5	308	0	0	313	0	0	0	0	0	544
08:15	0	182	0	0	182	7	0	0	0	7	5	354	0	0	359	0	0	0	0	0	548
08:30	0	222	0	0	222	11	0	0	0	11	5	384	0	0	389	0	0	0	0	0	622
Total Volume	0	794	0	0	794	40	0	0	0	40	18	1369	0	0	1387	0	0	0	0	0	2221
% App. Total	0	100	0	0		100	0	0	0		1.3	98.7	0	0		0	0	0	0		
PHF	.000	.894	.000	.000	.894	.714	.000	.000	.000	.714	.900	.891	.000	.000	.891	.000	.000	.000	.000	.000	.893
Autos	0	765	0	0	765	36	0	0	0	36	18	1338									
% Autos	0	96.3	0	0	96.3	90.0	0	0	0	90.0	100	97.7	0	0	97.8	0	0	0	0	0	97.1
Heavy Vehicles																					
% Heavy Vehicles	0	3.7	0	0	3.7	10.0	0	0	0	10.0	0	2.3	0	0	2.2	0	0	0	0	0	2.9



Traf Tech Engineering Inc.

File Name : 3-Alton Rd & 7th Street
Site Code : 00000000
Start Date : 12/1/2022
Page No : 5

	Alton Rd From North					7th Street From East					Alton Rd From South					7th Street From West					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 16:00																					
16:00	0	203	0	0	203	15	0	0	0	15	1	390	0	0	391	0	0	0	0	0	609
16:15	0	196	0	0	196	25	0	0	0	25	3	388	0	0	391	0	0	0	0	0	612
16:30	0	187	0	0	187	20	0	0	0	20	3	351	0	0	354	0	0	0	0	0	561
16:45	0	197	0	0	197	11	0	0	0	11	5	362	0	0	367	0	0	0	0	0	575
Total Volume	0	783	0	0	783	71	0	0	0	71	12	1491	0	0	1503	0	0	0	0	0	2357
% App. Total	0	100	0	0		100	0	0	0		0.8	99.2	0	0		0	0	0	0		
PHF	.000	.964	.000	.000	.964	.710	.000	.000	.000	.710	.600	.956	.000	.000	.961	.000	.000	.000	.000	.000	.963
Autos	0	763	0	0	763	70	0	0	0	70	12	1462									
% Autos	0	97.4	0	0	97.4	98.6	0	0	0	98.6	100	98.1	0	0	98.1	0	0	0	0	0	97.9
Heavy Vehicles																					
% Heavy Vehicles	0	2.6	0	0	2.6	1.4	0	0	0	1.4	0	1.9	0	0	1.9	0	0	0	0	0	2.1



Traf Tech Engineering Inc.

File Name : 4-Lenox Ave & 7th St
Site Code : 00000000
Start Date : 12/1/2022
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Groups Printed- Peds & Bikes

	Lenox Ave From North				7th Street From East				Lenox Ave From South				7th Street From West				
Start Time	Bikes			Peds	Bikes			Peds	Bikes			Peds	Bikes			Peds	Int. Total
07:00	0	0	0	0	3	0	0	3	0	0	0	4	1	0	0	3	14
07:15	0	0	0	3	1	0	0	5	0	0	0	6	1	0	0	8	24
07:30	0	0	0	5	1	0	0	9	0	0	0	2	0	0	0	3	20
07:45	0	0	0	2	2	0	0	6	0	0	0	3	3	0	0	10	26
Total	0	0	0	10	7	0	0	23	0	0	0	15	5	0	0	24	84
08:00	0	0	0	1	2	0	0	12	1	0	0	2	6	0	0	7	31
08:15	1	0	0	5	8	0	0	11	0	0	0	2	2	0	0	9	38
08:30	0	0	0	7	2	0	0	6	2	0	0	3	3	0	0	9	32
08:45	2	0	0	1	2	0	0	6	0	0	0	0	3	0	0	8	22
Total	3	0	0	14	14	0	0	35	3	0	0	7	14	0	0	33	123
*** BREAK ***																	
16:00	2	0	0	9	2	0	0	9	1	0	0	2	4	0	0	9	38
16:15	3	0	0	3	0	0	0	9	0	0	0	8	10	0	0	20	53
16:30	1	0	0	3	7	0	0	6	0	0	0	5	10	0	0	15	47
16:45	0	0	0	4	1	0	0	8	1	0	0	3	12	0	0	15	44
Total	6	0	0	19	10	0	0	32	2	0	0	18	36	0	0	59	182
17:00	0	0	0	9	7	0	0	10	0	0	0	10	3	0	0	21	60
17:15	2	0	0	2	6	0	0	10	1	0	0	0	2	0	0	8	31
17:30	2	0	0	8	8	0	0	4	2	0	0	4	5	0	0	12	45
17:45	1	0	0	4	5	0	0	7	1	0	0	7	4	0	0	8	37
Total	5	0	0	23	26	0	0	31	4	0	0	21	14	0	0	49	173
Grand Total	14	0	0	66	57	0	0	121	9	0	0	61	69	0	0	165	562
Apprch %	17.5	0	0	82.5	32	0	0	68	12.9	0	0	87.1	29.5	0	0	70.5	
Total %	2.5	0	0	11.7	10.1	0	0	21.5	1.6	0	0	10.9	12.3	0	0	29.4	

Traf Tech Engineering Inc.

File Name : 4-Lenox Ave & 7th St
Site Code : 00000000
Start Date : 12/1/2022
Page No : 1

Groups Printed- Autos - Heavy Vehicles

	Lenox Ave From North					7th Street From East					Lenox Ave From South					7th Street From West					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
07:00	1	14	1	0	16	2	5	6	0	13	2	4	1	0	7	1	0	0	0	1	37
07:15	4	6	1	0	11	0	4	5	0	9	0	6	1	0	7	0	1	0	0	1	28
07:30	2	18	0	0	20	1	10	5	0	16	2	9	2	0	13	0	3	0	0	3	52
07:45	3	16	3	0	22	0	4	1	0	5	2	9	4	0	15	1	0	3	0	4	46
Total	10	54	5	0	69	3	23	17	0	43	6	28	8	0	42	2	4	3	0	9	163
08:00	3	25	3	0	31	4	10	3	0	17	4	13	2	0	19	6	2	2	0	10	77
08:15	3	27	1	0	31	1	5	5	0	11	3	12	3	0	18	1	4	2	0	7	67
08:30	1	20	2	1	24	1	5	2	0	8	3	19	4	0	26	2	2	4	0	8	66
08:45	5	22	1	0	28	1	7	6	0	14	5	20	8	0	33	2	4	2	0	8	83
Total	12	94	7	1	114	7	27	16	0	50	15	64	17	0	96	11	12	10	0	33	293
*** BREAK ***																					
16:00	2	19	2	0	23	2	10	10	0	22	5	35	6	0	46	4	1	0	0	5	96
16:15	1	25	4	0	30	3	15	4	0	22	7	49	10	0	66	4	6	1	0	11	129
16:30	1	19	2	0	22	2	12	1	0	15	6	40	6	1	53	5	2	1	0	8	98
16:45	1	29	3	0	33	3	5	5	0	13	5	45	4	0	54	5	4	1	0	10	110
Total	5	92	11	0	108	10	42	20	0	72	23	169	26	1	219	18	13	3	0	34	433
17:00	1	31	4	0	36	2	7	6	0	15	7	39	7	1	54	3	0	4	0	7	112
17:15	0	28	3	0	31	6	15	4	0	25	14	42	7	0	63	3	1	1	0	5	124
17:30	0	33	8	0	41	3	11	6	0	20	4	35	8	0	47	2	3	1	0	6	114
17:45	1	28	3	0	32	3	17	4	0	24	6	32	6	0	44	2	5	2	1	10	110
Total	2	120	18	0	140	14	50	20	0	84	31	148	28	1	208	10	9	8	1	28	460
Grand Total	29	360	41	1	431	34	142	73	0	249	75	409	79	2	565	41	38	24	1	104	1349
Apprch %	6.7	83.5	9.5	0.2		13.7	57	29.3	0		13.3	72.4	14	0.4		39.4	36.5	23.1	1		
Total %	2.1	26.7	3	0.1	31.9	2.5	10.5	5.4	0	18.5	5.6	30.3	5.9	0.1	41.9	3	2.8	1.8	0.1	7.7	
Autos	29	358	40	1	428	31	135	70	0	236	75	406	77	2	560	40	36	24	1	101	1325
% Autos	100	99.4	97.6	100	99.3	91.2	95.1	95.9	0	94.8	100	99.3	97.5	100	99.1	97.6	94.7	100	100	97.1	98.2
Heavy Vehicles																					
% Heavy Vehicles	0	0.6	2.4	0	0.7	8.8	4.9	4.1	0	5.2	0	0.7	2.5	0	0.9	2.4	5.3	0	0	2.9	1.8

Traf Tech Engineering Inc.

File Name : 4-Lenox Ave & 7th St
Site Code : 00000000
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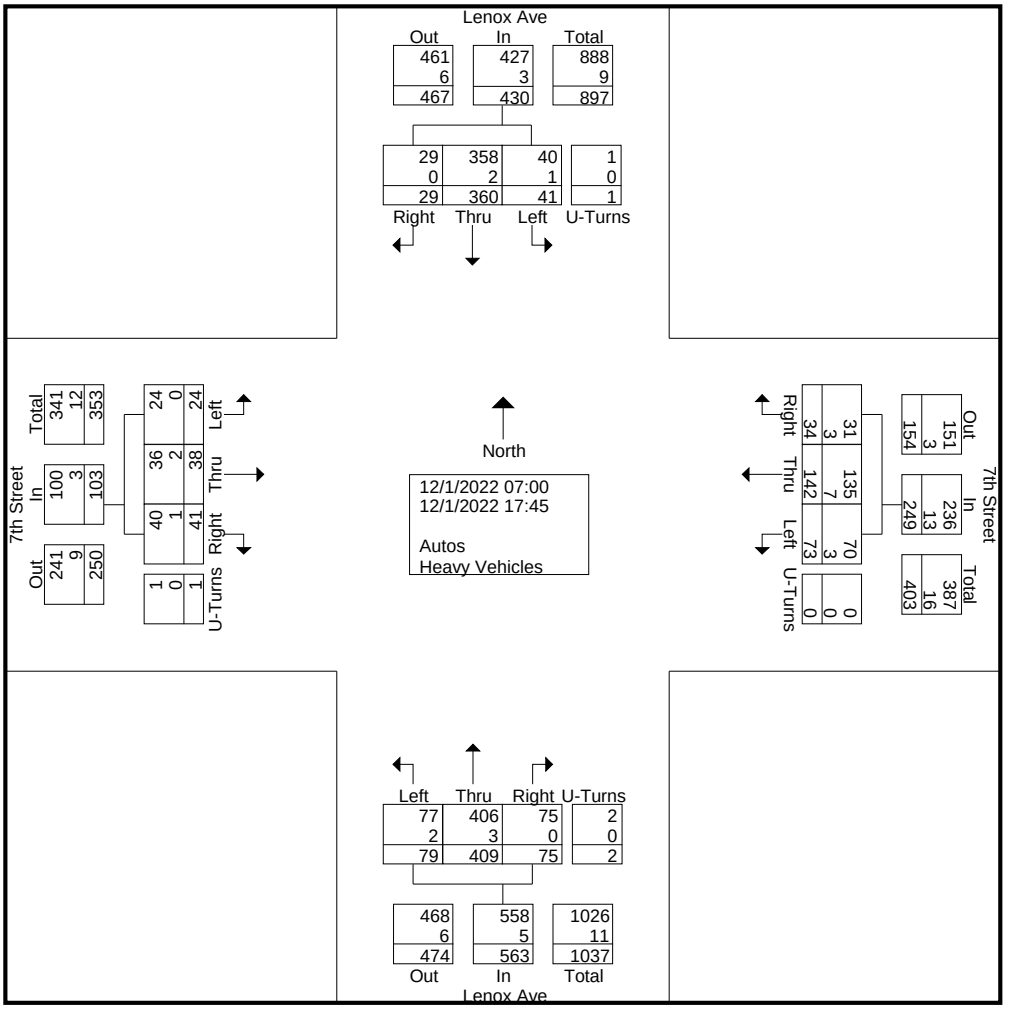
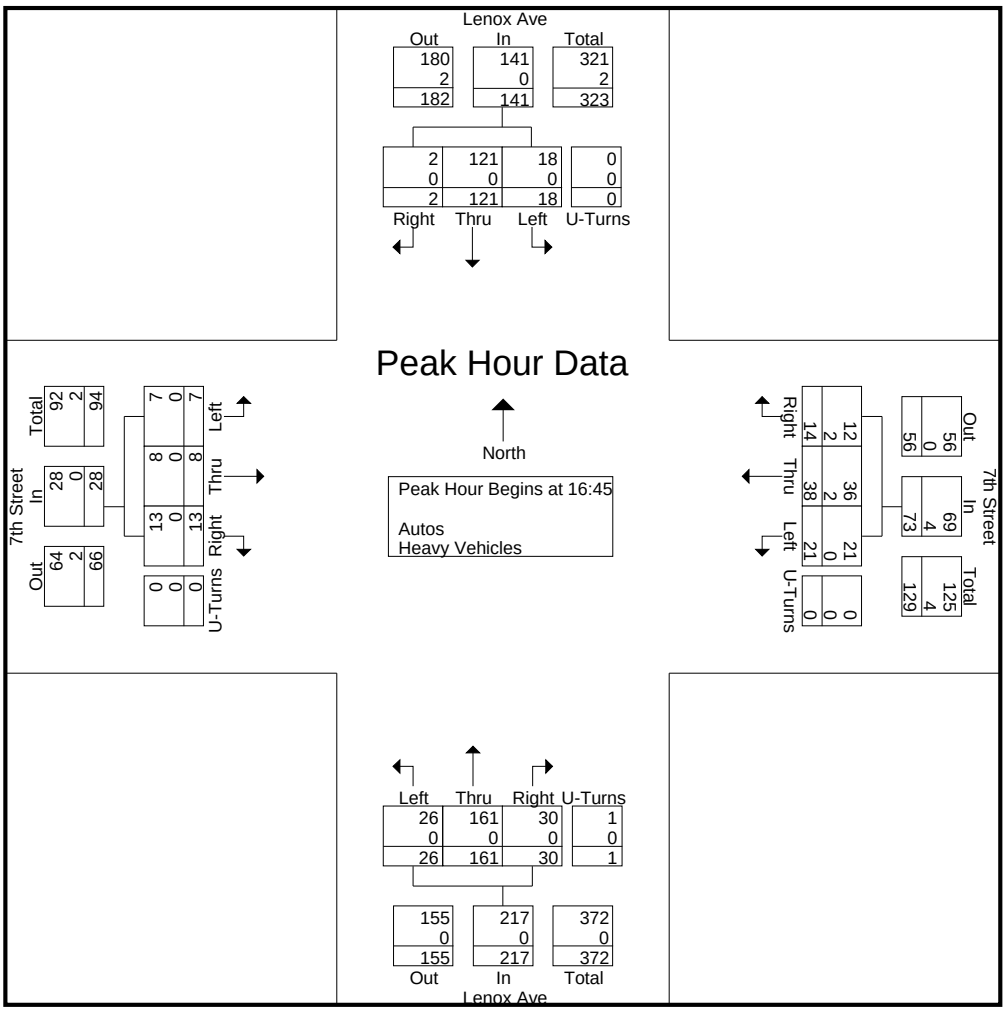


Traf Tech Engineering Inc.

File Name : 4-Lenox Ave & 7th St
Site Code : 00000000
Start Date : 12/1/2022
Page No : 3

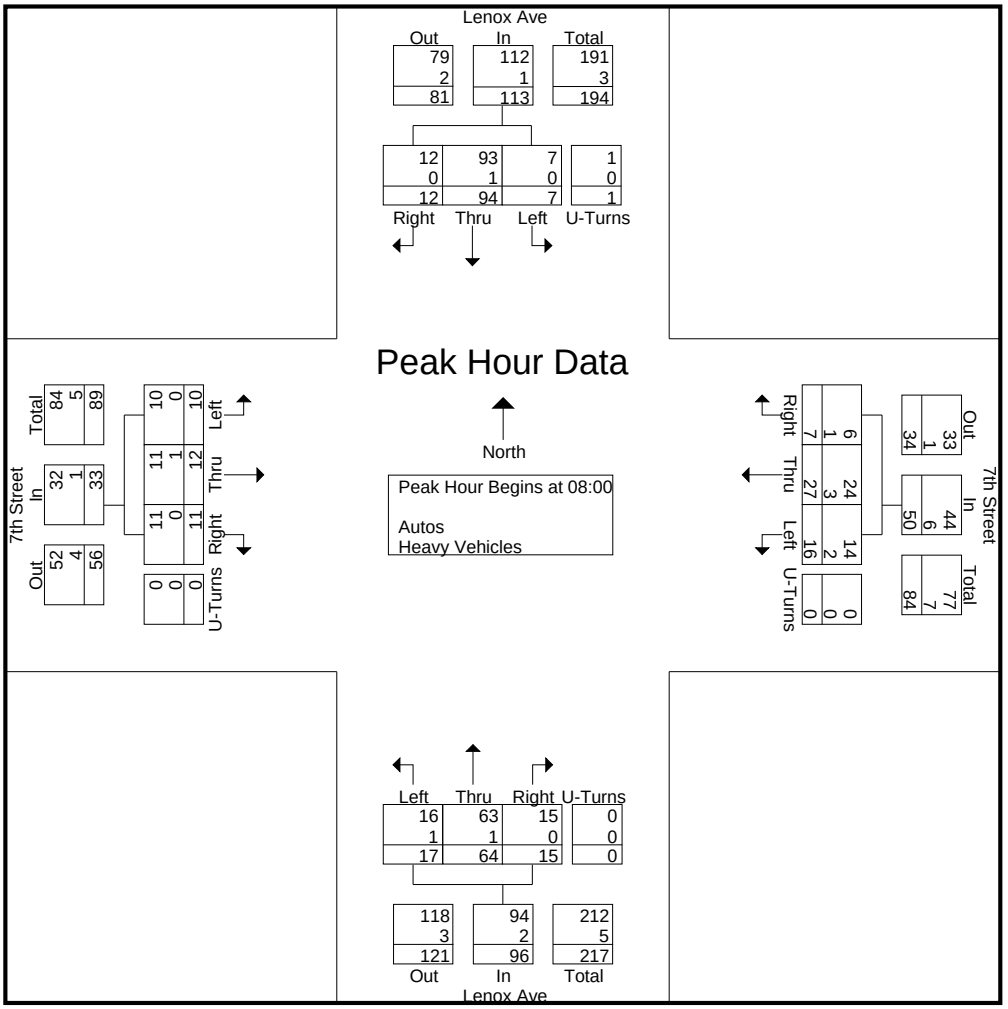
	Lenox Ave From North					7th Street From East					Lenox Ave From South					7th Street From West					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 16:45																					
16:45	1	29	3	0	33	3	5	5	0	13	5	45	4	0	54	5	4	1	0	10	110
17:00	1	31	4	0	36	2	7	6	0	15	7	39	7	1	54	3	0	4	0	7	112
17:15	0	28	3	0	31	6	15	4	0	25	14	42	7	0	63	3	1	1	0	5	124
17:30	0	33	8	0	41	3	11	6	0	20	4	35	8	0	47	2	3	1	0	6	114
Total Volume	2	121	18	0	141	14	38	21	0	73	30	161	26	1	218	13	8	7	0	28	460
% App. Total	1.4	85.8	12.8	0		19.2	52.1	28.8	0		13.8	73.9	11.9	0.5		46.4	28.6	25	0		
PHF	.500	.917	.563	.000	.860	.583	.633	.875	.000	.730	.536	.894	.813	.250	.865	.650	.500	.438	.000	.700	.927
Autos	2	121	18	0	141	12	36	21	0	69	30	161	26	1	218	13	8	7	0	28	456
% Autos	100	100	100	0	100	85.7	94.7	100	0	94.5	100	100	100	100	100	100	100	100	0	100	99.1
Heavy Vehicles																					
% Heavy Vehicles	0	0	0	0	0	14.3	5.3	0	0	5.5	0	0	0	0	0	0	0	0	0	0	0.9



Traf Tech Engineering Inc.

File Name : 4-Lenox Ave & 7th St
Site Code : 00000000
Start Date : 12/1/2022
Page No : 4

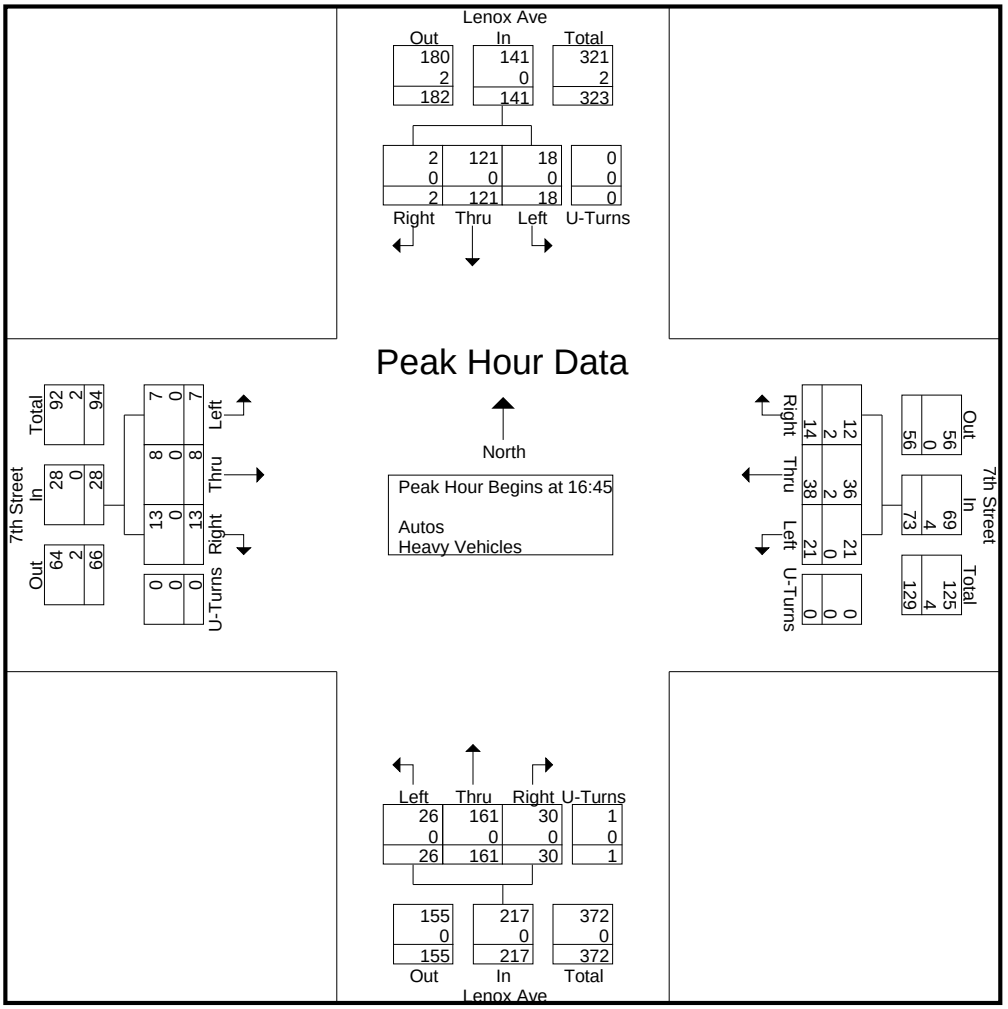
	Lenox Ave From North					7th Street From East					Lenox Ave From South					7th Street From West					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00																					
08:00	3	25	3	0	31	4	10	3	0	17	4	13	2	0	19	6	2	2	0	10	77
08:15	3	27	1	0	31	1	5	5	0	11	3	12	3	0	18	1	4	2	0	7	67
08:30	1	20	2	1	24	1	5	2	0	8	3	19	4	0	26	2	2	4	0	8	66
08:45	5	22	1	0	28	1	7	6	0	14	5	20	8	0	33	2	4	2	0	8	83
Total Volume	12	94	7	1	114	7	27	16	0	50	15	64	17	0	96	11	12	10	0	33	293
% App. Total	10.5	82.5	6.1	0.9		14	54	32	0		15.6	66.7	17.7	0		33.3	36.4	30.3	0		
PHF	.600	.870	.583	.250	.919	.438	.675	.667	.000	.735	.750	.800	.531	.000	.727	.458	.750	.625	.000	.825	.883
Autos	12	93	7	1	113	6	24	14	0	44	15	63	16	0	94	11	11	10	0	32	283
% Autos	100	98.9	100	100	99.1	85.7	88.9	87.5	0	88.0	100	98.4	94.1	0	97.9	100	91.7	100	0	97.0	96.6
Heavy Vehicles																					
% Heavy Vehicles	0	1.1	0	0	0.9	14.3	11.1	12.5	0	12.0	0	1.6	5.9	0	2.1	0	8.3	0	0	3.0	3.4



Traf Tech Engineering Inc.

File Name : 4-Lenox Ave & 7th St
Site Code : 00000000
Start Date : 12/1/2022
Page No : 5

	Lenox Ave From North					7th Street From East					Lenox Ave From South					7th Street From West					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 16:45																					
16:45	1	29	3	0	33	3	5	5	0	13	5	45	4	0	54	5	4	1	0	10	110
17:00	1	31	4	0	36	2	7	6	0	15	7	39	7	1	54	3	0	4	0	7	112
17:15	0	28	3	0	31	6	15	4	0	25	14	42	7	0	63	3	1	1	0	5	124
17:30	0	33	8	0	41	3	11	6	0	20	4	35	8	0	47	2	3	1	0	6	114
Total Volume	2	121	18	0	141	14	38	21	0	73	30	161	26	1	218	13	8	7	0	28	460
% App. Total	1.4	85.8	12.8	0		19.2	52.1	28.8	0		13.8	73.9	11.9	0.5		46.4	28.6	25	0		
PHF	.500	.917	.563	.000	.860	.583	.633	.875	.000	.730	.536	.894	.813	.250	.865	.650	.500	.438	.000	.700	.927
Autos	2	121	18	0	141	12	36	21	0	69	30	161	26	1	218	13	8	7	0	28	456
% Autos	100	100	100	0	100	85.7	94.7	100	0	94.5	100	100	100	100	100	100	100	100	0	100	99.1
Heavy Vehicles																					
% Heavy Vehicles	0	0	0	0	0	14.3	5.3	0	0	5.5	0	0	0	0	0	0	0	0	0	0	0.9



Traf Tech Engineering Inc.

File Name : 5-Alton Rd & 5th Street
Site Code : 00000000
Start Date : 12/1/2022
Page No : 1

Groups Printed- Peds & Bikes

	Alton Rd From North				5th Street From East				Alton Rd From South				5th Street From West				
Start Time	Bikes			Peds	Bikes			Peds	Bikes			Peds	Bikes			Peds	Int. Total
07:00	0	0	0	0	1	0	0	13	1	0	0	16	0	0	0	0	31
07:15	0	0	0	0	3	0	0	7	2	0	0	6	0	0	0	0	18
07:30	0	0	0	0	3	0	0	11	3	0	0	9	1	0	0	0	27
07:45	0	0	0	0	2	0	0	20	0	0	0	8	1	0	0	0	31
Total	0	0	0	0	9	0	0	51	6	0	0	39	2	0	0	0	107
08:00	0	0	0	0	2	0	0	26	6	0	0	15	0	0	0	0	49
08:15	0	0	0	0	2	0	0	24	2	0	0	8	0	0	0	0	36
08:30	0	0	0	0	1	0	0	17	2	0	0	18	0	0	0	2	40
08:45	0	0	0	0	4	0	0	13	4	0	0	8	0	0	0	0	29
Total	0	0	0	0	9	0	0	80	14	0	0	49	0	0	0	2	154
*** BREAK ***																	
16:00	0	0	0	0	3	0	0	23	5	0	0	11	0	0	0	0	42
16:15	0	0	0	0	1	0	0	16	2	0	0	15	0	0	0	0	34
16:30	0	0	0	0	0	0	0	10	10	0	0	8	0	0	0	0	28
16:45	0	0	0	0	2	0	0	14	6	0	0	18	3	0	0	0	43
Total	0	0	0	0	6	0	0	63	23	0	0	52	3	0	0	0	147
17:00	0	0	0	0	2	0	0	12	4	0	0	12	0	0	0	0	30
17:15	0	0	0	0	3	0	0	21	6	0	0	17	0	0	0	0	47
17:30	0	0	0	0	2	0	0	15	5	0	0	10	0	0	0	0	32
17:45	0	0	0	0	4	0	0	12	9	0	0	16	0	0	0	0	41
Total	0	0	0	0	11	0	0	60	24	0	0	55	0	0	0	0	150
Grand Total	0	0	0	0	35	0	0	254	67	0	0	195	5	0	0	2	558
Apprch %	0	0	0	0	12.1	0	0	87.9	25.6	0	0	74.4	71.4	0	0	28.6	
Total %	0	0	0	0	6.3	0	0	45.5	12	0	0	34.9	0.9	0	0	0.4	

Traf Tech Engineering Inc.

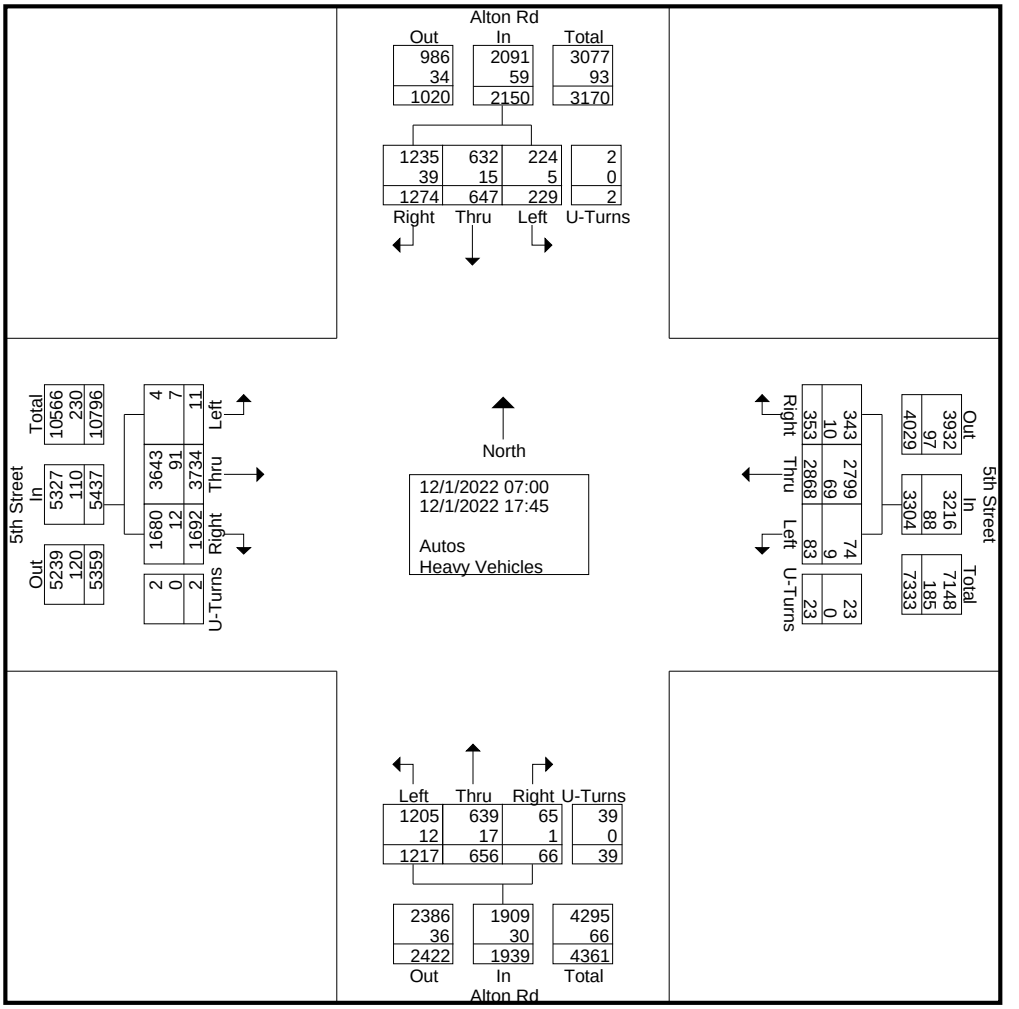
File Name : 5-Alton Rd & 5th Street
Site Code : 00000000
Start Date : 12/1/2022
Page No : 1

Groups Printed- Autos - Heavy Vehicles

	Alton Rd From North					5th Street From East					Alton Rd From South					5th Street From West					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
07:00	88	19	9	1	117	8	125	1	1	135	1	29	65	1	96	80	160	1	1	242	590
07:15	94	24	17	0	135	10	131	1	0	142	6	14	58	1	79	83	141	2	0	226	582
07:30	67	26	13	0	106	18	151	4	3	176	3	18	44	3	68	71	186	1	0	258	608
07:45	74	40	19	0	133	16	144	3	1	164	2	32	55	4	93	87	212	0	0	299	689
Total	323	109	58	1	491	52	551	9	5	617	12	93	222	9	336	321	699	4	1	1025	2469
08:00	71	45	25	0	141	26	172	9	3	210	4	24	55	2	85	97	200	1	0	298	734
08:15	92	45	17	0	154	23	176	2	4	205	5	49	72	1	127	114	252	0	0	366	852
08:30	114	44	21	0	179	12	213	10	0	235	2	36	59	2	99	112	235	0	0	347	860
08:45	82	44	16	0	142	19	178	4	1	202	3	29	59	0	91	132	279	0	0	411	846
Total	359	178	79	0	616	80	739	25	8	852	14	138	245	5	402	455	966	1	0	1422	3292
*** BREAK ***																					
16:00	71	46	16	0	133	19	240	6	2	267	2	45	108	1	156	107	283	1	0	391	947
16:15	78	51	10	0	139	30	216	6	0	252	8	61	115	1	185	102	260	0	0	362	938
16:30	105	35	10	0	150	23	174	3	1	201	2	61	81	0	144	121	256	2	0	379	874
16:45	36	44	6	0	86	31	223	9	0	263	5	50	101	4	160	112	254	0	0	366	875
Total	290	176	42	0	508	103	853	24	3	983	17	217	405	6	645	442	1053	3	0	1498	3634
17:00	91	48	17	0	156	25	163	9	0	197	4	52	105	5	166	111	254	0	1	366	885
17:15	65	47	7	0	119	43	166	8	4	221	2	54	84	5	145	117	242	1	0	360	845
17:30	63	41	13	0	117	24	200	5	1	230	6	67	93	3	169	128	277	1	0	406	922
17:45	83	48	13	1	145	26	196	3	2	227	11	35	63	6	115	118	243	1	0	362	849
Total	302	184	50	1	537	118	725	25	7	875	23	208	345	19	595	474	1016	3	1	1494	3501
Grand Total	1274	647	229	2	2152	353	2868	83	23	3327	66	656	1217	39	1978	1692	3734	11	2	5439	12896
Apprch %	59.2	30.1	10.6	0.1		10.6	86.2	2.5	0.7		3.3	33.2	61.5	2		31.1	68.7	0.2	0		
Total %	9.9	5	1.8	0	16.7	2.7	22.2	0.6	0.2	25.8	0.5	5.1	9.4	0.3	15.3	13.1	29	0.1	0	42.2	
Autos	1235						2799						1205			1680	3643				12609
% Autos	96.9	97.7	97.8	100	97.3	97.2	97.6	89.2	100	97.4	98.5	97.4	99	100	98.5	99.3	97.6	36.4	100	98	97.8
Heavy Vehicles																					
% Heavy Vehicles	3.1	2.3	2.2	0	2.7	2.8	2.4	10.8	0	2.6	1.5	2.6	1	0	1.5	0.7	2.4	63.6	0	2	2.2

Traf Tech Engineering Inc.

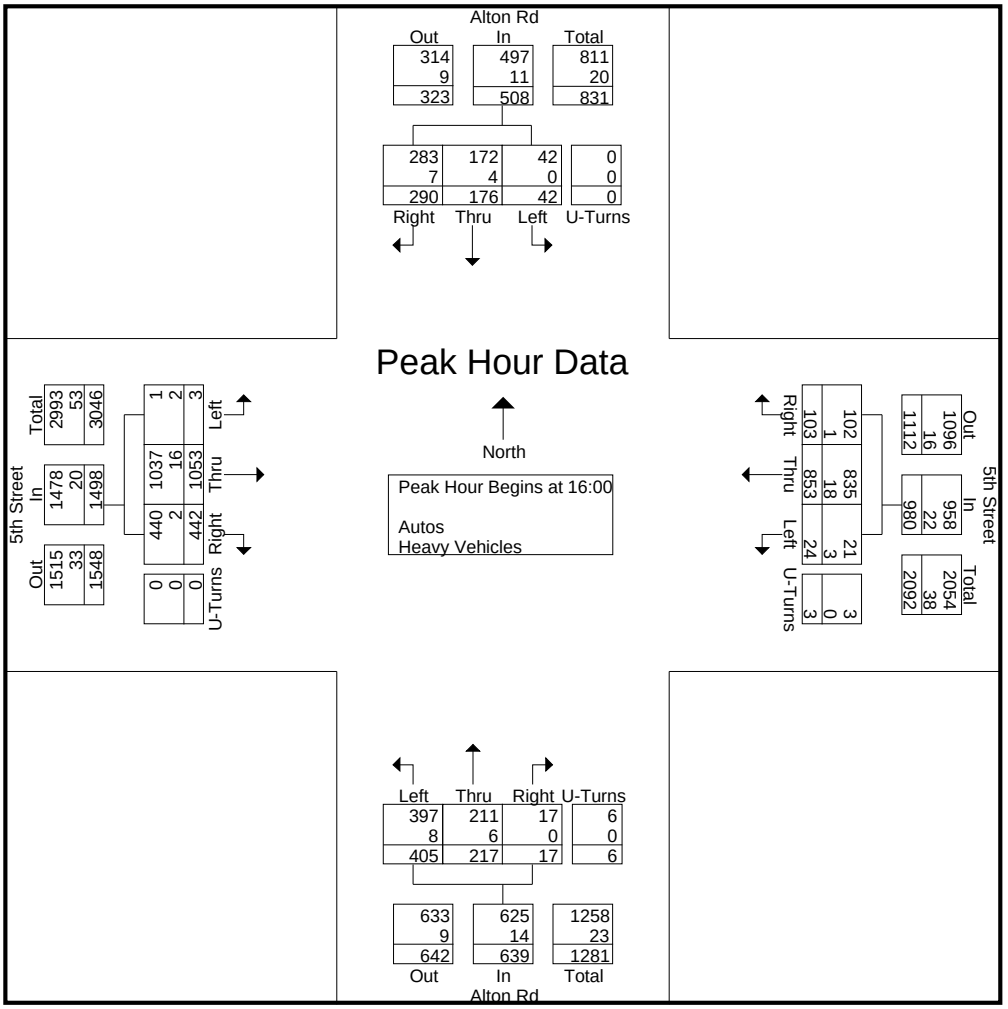
File Name : 5-Alton Rd & 5th Street
Site Code : 00000000
Start Date : 12/1/2022
Page No : 2



Traf Tech Engineering Inc.

File Name : 5-Alton Rd & 5th Street
Site Code : 00000000
Start Date : 12/1/2022
Page No : 3

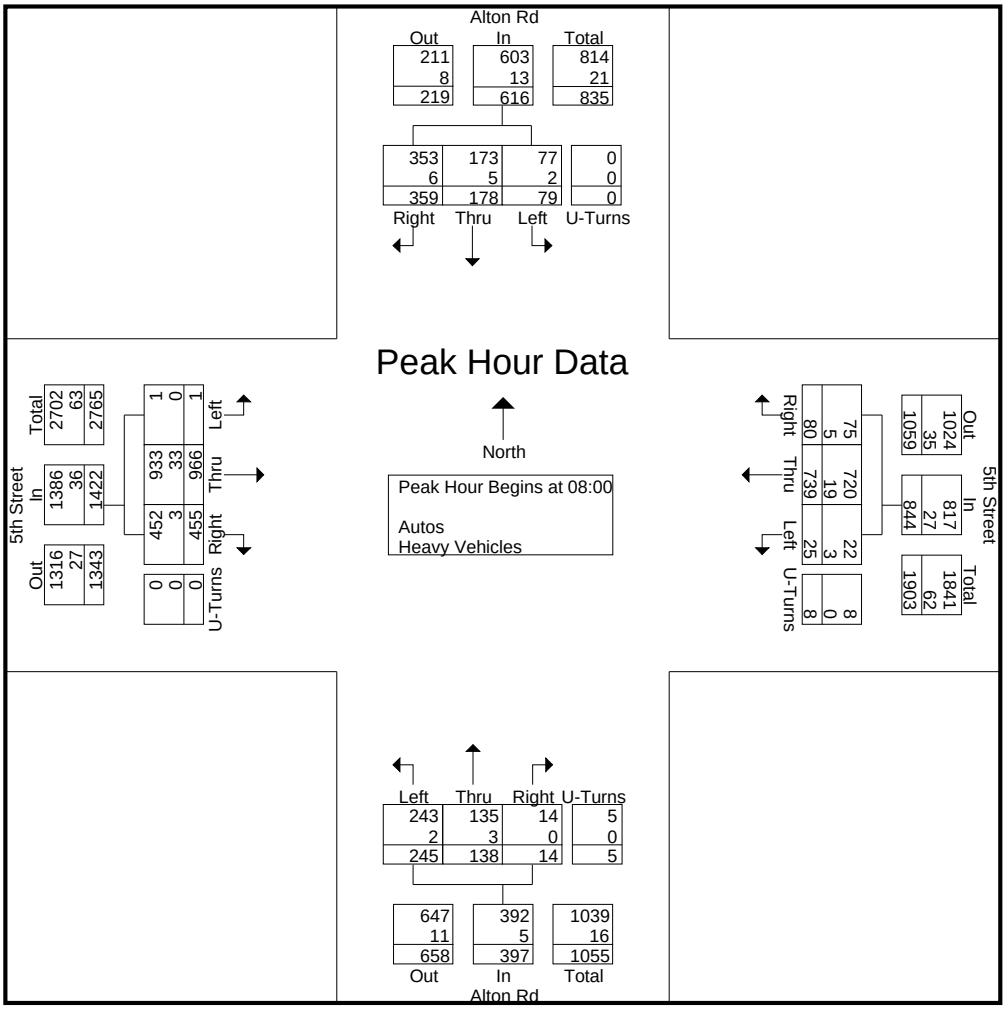
	Alton Rd From North					5th Street From East					Alton Rd From South					5th Street From West					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 16:00																					
16:00	71	46	16	0	133	19	240	6	2	267	2	45	108	1	156	107	283	1	0	391	947
16:15	78	51	10	0	139	30	216	6	0	252	8	61	115	1	185	102	260	0	0	362	938
16:30	105	35	10	0	150	23	174	3	1	201	2	61	81	0	144	121	256	2	0	379	874
16:45	36	44	6	0	86	31	223	9	0	263	5	50	101	4	160	112	254	0	0	366	875
Total Volume	290	176	42	0	508	103	853	24	3	983	17	217	405	6	645	442	1053	3	0	1498	3634
% App. Total	57.1	34.6	8.3	0		10.5	86.8	2.4	0.3		2.6	33.6	62.8	0.9		29.5	70.3	0.2	0		
PHF	.690	.863	.656	.000	.847	.831	.889	.667	.375	.920	.531	.889	.880	.375	.872	.913	.930	.375	.000	.958	.959
Autos	283	172	42	0	497	102	835	21	3	961	17	211	397	6	631	440	1037				
% Autos	97.6	97.7	100	0	97.8	99.0	97.9	87.5	100	97.8	100	97.2	98.0	100	97.8	99.5	98.5	33.3	0	98.7	98.2
Heavy Vehicles																					
% Heavy Vehicles	2.4	2.3	0	0	2.2	1.0	2.1	12.5	0	2.2	0	2.8	2.0	0	2.2	0.5	1.5	66.7	0	1.3	1.8



Traf Tech Engineering Inc.

File Name : 5-Alton Rd & 5th Street
Site Code : 00000000
Start Date : 12/1/2022
Page No : 4

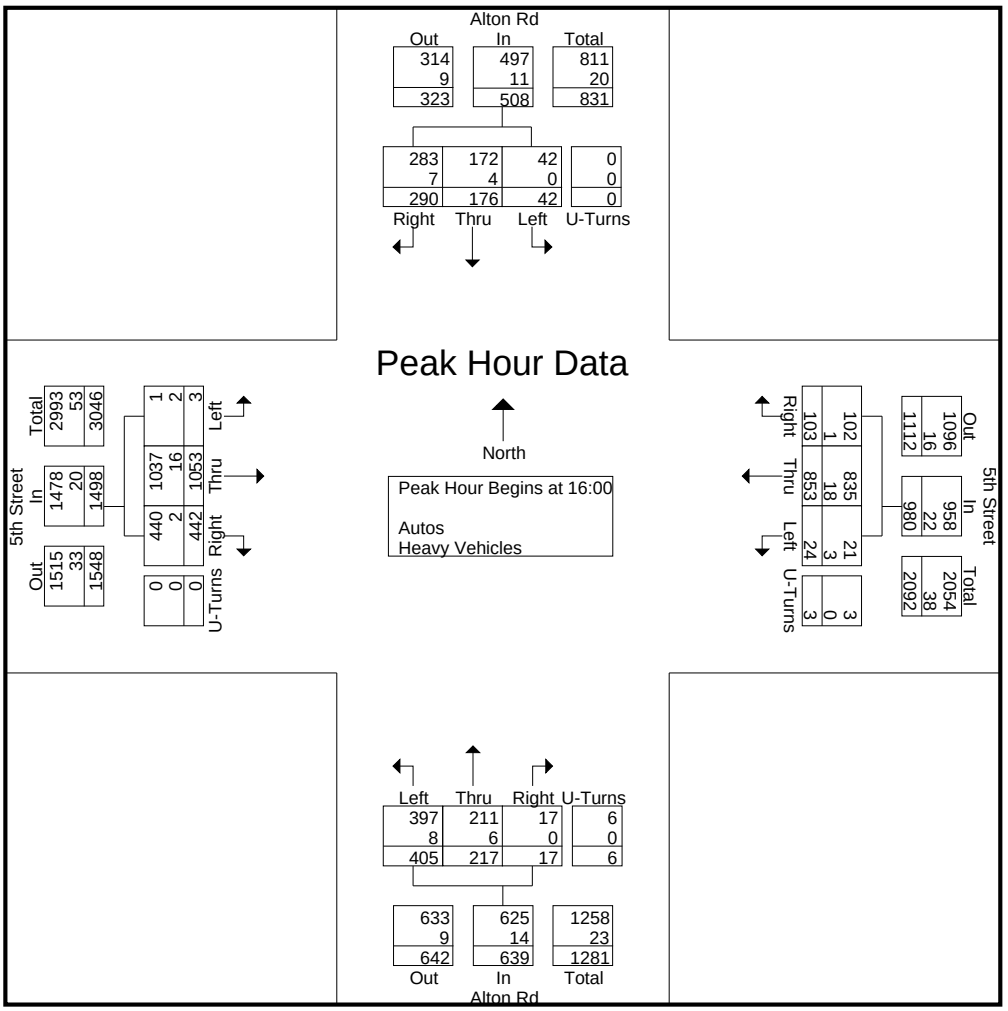
Start Time	Alton Rd From North					5th Street From East					Alton Rd From South					5th Street From West					
	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00																					
08:00	71	45	25	0	141	26	172	9	3	210	4	24	55	2	85	97	200	1	0	298	734
08:15	92	45	17	0	154	23	176	2	4	205	5	49	72	1	127	114	252	0	0	366	852
08:30	114	44	21	0	179	12	213	10	0	235	2	36	59	2	99	112	235	0	0	347	860
08:45	82	44	16	0	142	19	178	4	1	202	3	29	59	0	91	132	279	0	0	411	846
Total Volume	359	178	79	0	616	80	739	25	8	852	14	138	245	5	402	455	966	1	0	1422	3292
% App. Total	58.3	28.9	12.8	0		9.4	86.7	2.9	0.9		3.5	34.3	60.9	1.2		32	67.9	0.1	0		
PHF	.787	.989	.790	.000	.860	.769	.867	.625	.500	.906	.700	.704	.851	.625	.791	.862	.866	.250	.000	.865	.957
Autos	353	173	77	0	603	75	720	22	8	825	14	135	243	5	397	452	933	1	0	1386	3211
% Autos	98.3	97.2	97.5	0	97.9	93.8	97.4	88.0	100	96.8	100	97.8	99.2	100	98.8	99.3	96.6	100	0	97.5	97.5
Heavy Vehicles																					
% Heavy Vehicles	1.7	2.8	2.5	0	2.1	6.3	2.6	12.0	0	3.2	0	2.2	0.8	0	1.2	0.7	3.4	0	0	2.5	2.5



Traf Tech Engineering Inc.

File Name : 5-Alton Rd & 5th Street
Site Code : 00000000
Start Date : 12/1/2022
Page No : 5

Start Time	Alton Rd From North					5th Street From East					Alton Rd From South					5th Street From West					
	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 16:00																					
16:00	71	46	16	0	133	19	240	6	2	267	2	45	108	1	156	107	283	1	0	391	947
16:15	78	51	10	0	139	30	216	6	0	252	8	61	115	1	185	102	260	0	0	362	938
16:30	105	35	10	0	150	23	174	3	1	201	2	61	81	0	144	121	256	2	0	379	874
16:45	36	44	6	0	86	31	223	9	0	263	5	50	101	4	160	112	254	0	0	366	875
Total Volume	290	176	42	0	508	103	853	24	3	983	17	217	405	6	645	442	1053	3	0	1498	3634
% App. Total	57.1	34.6	8.3	0		10.5	86.8	2.4	0.3		2.6	33.6	62.8	0.9		29.5	70.3	0.2	0		
PHF	.690	.863	.656	.000	.847	.831	.889	.667	.375	.920	.531	.889	.880	.375	.872	.913	.930	.375	.000	.958	.959
Autos	283	172	42	0	497	102	835	21	3	961	17	211	397	6	631	440	1037				
% Autos	97.6	97.7	100	0	97.8	99.0	97.9	87.5	100	97.8	100	97.2	98.0	100	97.8	99.5	98.5	33.3	0	98.7	98.2
Heavy Vehicles																					
% Heavy Vehicles	2.4	2.3	0	0	2.2	1.0	2.1	12.5	0	2.2	0	2.8	2.0	0	2.2	0.5	1.5	66.7	0	1.3	1.8



Traf Tech Engineering Inc.

File Name : 6-Lenox Ave & 5th St
Site Code : 00000000
Start Date : 12/1/2022
Page No : 1

Groups Printed- Peds & Bikes

	Lenox Ave From North				5th Street From East				Lenox Ave From South				5th Street From West				
Start Time	Bikes			Peds	Bikes			Peds	Bikes			Peds	Bikes			Peds	Int. Total
07:00	0	0	0	6	1	0	0	4	0	0	0	0	0	0	0	7	18
07:15	0	0	0	0	1	0	0	3	0	0	0	0	0	0	0	8	12
07:30	2	0	0	6	1	0	0	9	0	0	0	0	0	0	0	4	22
07:45	3	0	0	14	2	0	0	24	0	0	0	0	0	0	0	8	51
Total	5	0	0	26	5	0	0	40	0	0	0	0	0	0	0	27	103
08:00	2	0	0	13	6	0	0	38	0	0	0	0	5	0	0	15	79
08:15	0	0	0	5	12	0	0	35	0	0	0	0	1	0	0	18	71
08:30	0	0	0	0	3	0	0	13	0	0	0	0	2	0	0	12	30
08:45	3	0	0	6	3	0	0	9	0	0	0	0	1	0	0	8	30
Total	5	0	0	24	24	0	0	95	0	0	0	0	9	0	0	53	210
*** BREAK ***																	
16:00	0	0	0	3	2	0	0	11	0	0	0	0	1	0	0	14	31
16:15	1	0	0	0	0	0	0	3	0	0	0	0	2	0	0	5	11
16:30	0	0	0	14	2	0	0	15	0	0	0	0	0	0	0	8	39
16:45	0	0	0	20	0	0	0	16	0	0	0	2	1	0	0	9	48
Total	1	0	0	37	4	0	0	45	0	0	0	2	4	0	0	36	129
17:00	0	0	0	17	9	0	0	21	0	0	0	0	0	0	0	9	56
17:15	0	0	0	31	10	0	0	20	0	0	0	0	0	0	0	9	70
17:30	0	0	0	23	5	0	0	19	0	0	0	1	0	0	0	9	57
17:45	0	0	0	8	1	0	0	23	0	0	0	0	2	0	0	20	54
Total	0	0	0	79	25	0	0	83	0	0	0	1	2	0	0	47	237
Grand Total	11	0	0	166	58	0	0	263	0	0	0	3	15	0	0	163	679
Apprch %	6.2	0	0	93.8	18.1	0	0	81.9	0	0	0	100	8.4	0	0	91.6	
Total %	1.6	0	0	24.4	8.5	0	0	38.7	0	0	0	0.4	2.2	0	0	24	

Traf Tech Engineering Inc.

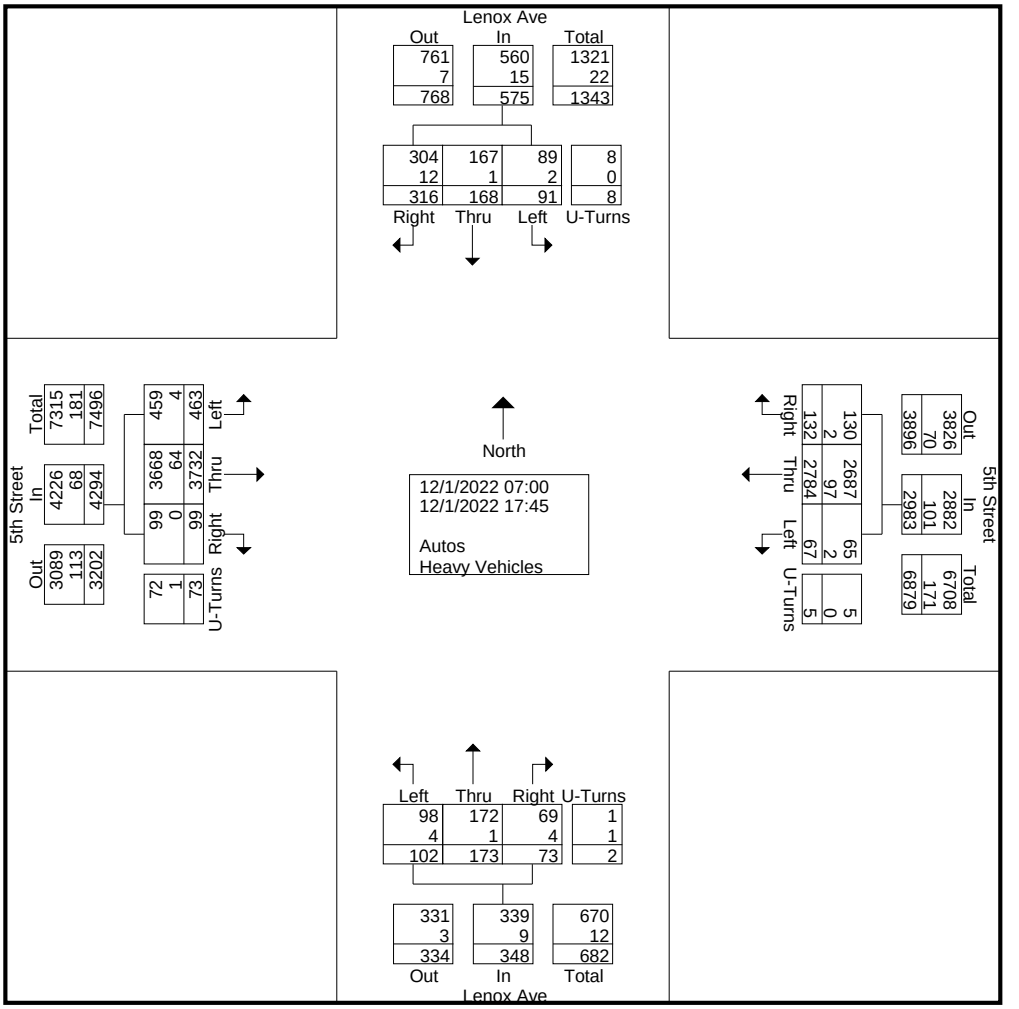
File Name : 6-Lenox Ave & 5th St
Site Code : 00000000
Start Date : 12/1/2022
Page No : 1

Groups Printed- Autos - Heavy Vehicles

	Lenox Ave From North					5th Street From East					Lenox Ave From South					5th Street From West					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
07:00	12	2	2	0	16	5	126	2	0	133	2	4	1	0	7	6	138	21	10	175	331
07:15	10	2	1	0	13	6	143	4	0	153	1	3	1	0	5	3	182	14	9	208	379
07:30	15	5	2	0	22	5	181	4	0	190	7	6	4	0	17	8	154	17	0	179	408
07:45	10	12	1	0	23	5	158	5	1	169	6	6	6	0	18	9	244	20	6	279	489
Total	47	21	6	0	74	21	608	15	1	645	16	19	12	0	47	26	718	72	25	841	1607
08:00	8	24	6	0	38	5	178	6	1	190	6	6	6	0	18	15	194	23	4	236	482
08:15	20	10	3	0	33	8	188	12	0	208	10	12	6	0	28	9	237	29	11	286	555
08:30	16	11	4	0	31	3	183	7	0	193	4	8	2	1	15	12	270	25	6	313	552
08:45	22	7	3	0	32	8	198	3	0	209	7	3	2	0	12	7	254	42	5	308	561
Total	66	52	16	0	134	24	747	28	1	800	27	29	16	1	73	43	955	119	26	1143	2150
*** BREAK ***																					
16:00	25	12	9	0	46	13	213	4	0	230	7	10	11	0	28	9	265	45	2	321	625
16:15	16	8	8	0	32	17	230	4	1	252	4	16	5	0	25	3	259	32	0	294	603
16:30	27	12	9	2	50	9	146	3	0	158	3	24	10	0	37	5	233	38	1	277	522
16:45	19	11	9	0	39	10	210	4	1	225	6	11	5	1	23	1	262	27	4	294	581
Total	87	43	35	2	167	49	799	15	2	865	20	61	31	1	113	18	1019	142	7	1186	2331
17:00	26	13	7	1	47	8	137	0	0	145	2	22	14	0	38	8	257	28	1	294	524
17:15	21	16	10	4	51	3	143	2	1	149	4	19	7	0	30	0	249	32	2	283	513
17:30	32	6	11	1	50	15	184	4	0	203	1	11	15	0	27	1	289	38	8	336	616
17:45	37	17	6	0	60	12	166	3	0	181	3	12	7	0	22	3	245	32	4	284	547
Total	116	52	34	6	208	38	630	9	1	678	10	64	43	0	117	12	1040	130	15	1197	2200
Grand Total	316	168	91	8	583	132	2784	67	5	2988	73	173	102	2	350	99	3732	463	73	4367	8288
Apprch %	54.2	28.8	15.6	1.4		4.4	93.2	2.2	0.2		20.9	49.4	29.1	0.6		2.3	85.5	10.6	1.7		
Total %	3.8	2	1.1	0.1	7	1.6	33.6	0.8	0.1	36.1	0.9	2.1	1.2	0	4.2	1.2	45	5.6	0.9	52.7	
Autos	304	167	89	8	568	130	2687										3668				
% Autos	96.2	99.4	97.8	100	97.4	98.5	96.5	97	100	96.6	94.5	99.4	96.1	50	97.1	100	98.3	99.1	98.6	98.4	97.6
Heavy Vehicles																					
% Heavy Vehicles	3.8	0.6	2.2	0	2.6	1.5	3.5	3	0	3.4	5.5	0.6	3.9	50	2.9	0	1.7	0.9	1.4	1.6	2.4

Traf Tech Engineering Inc.

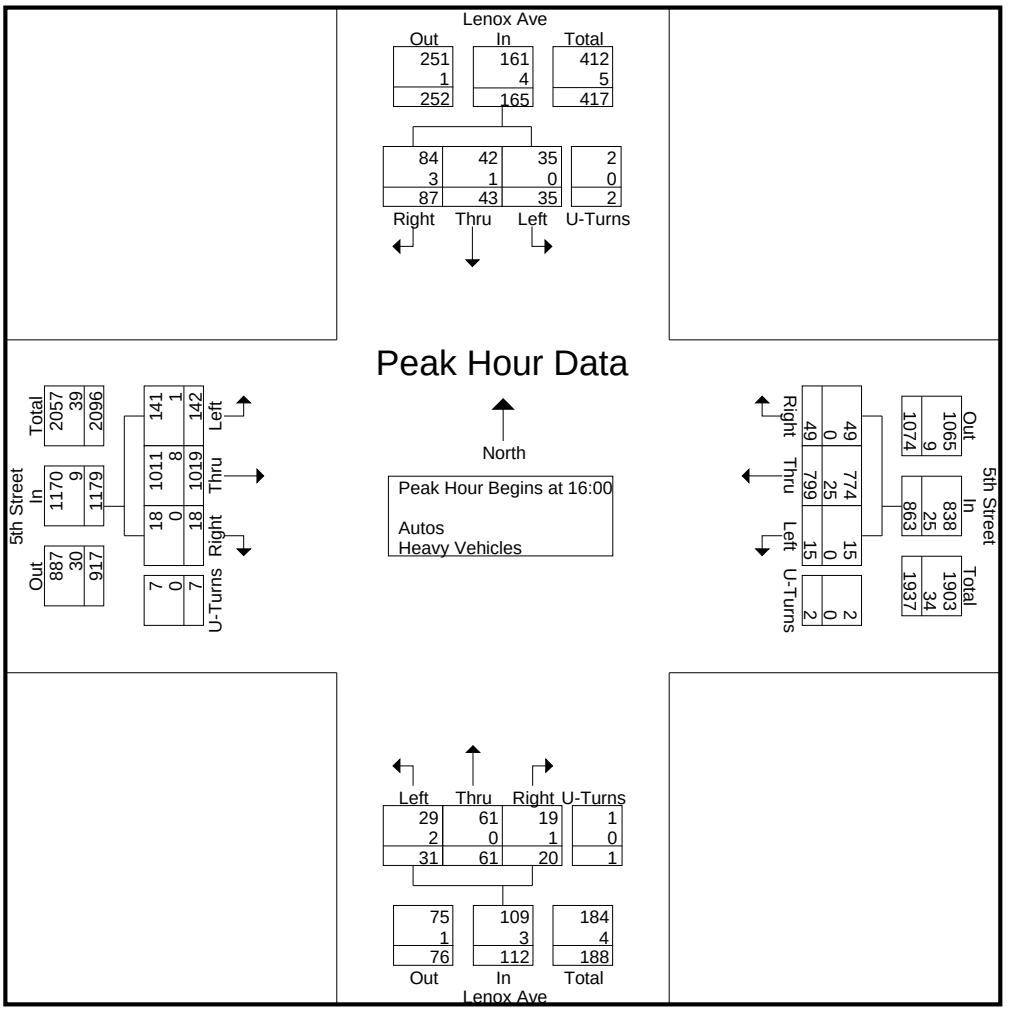
File Name : 6-Lenox Ave & 5th St
Site Code : 00000000
Start Date : 12/1/2022
Page No : 2



Traf Tech Engineering Inc.

File Name : 6-Lenox Ave & 5th St
Site Code : 00000000
Start Date : 12/1/2022
Page No : 3

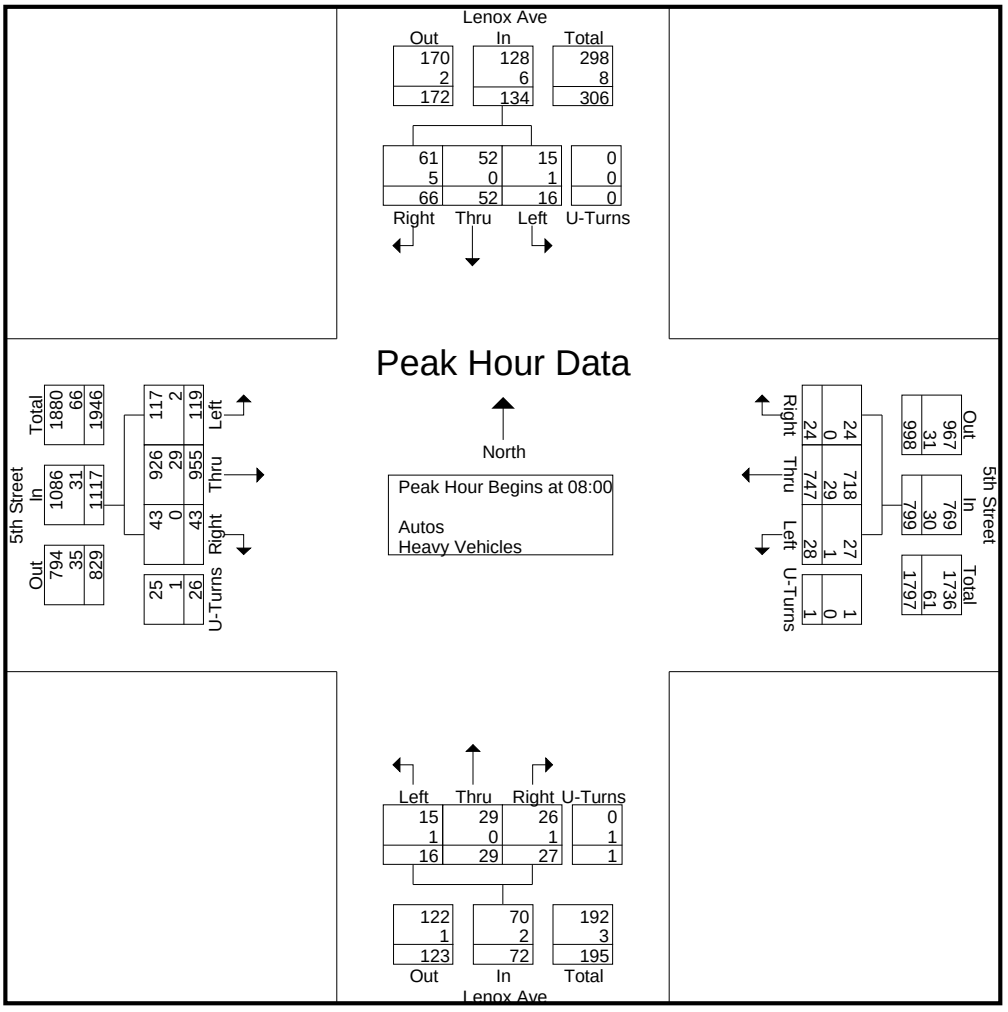
	Lenox Ave From North					5th Street From East					Lenox Ave From South					5th Street From West					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 16:00																					
16:00	25	12	9	0	46	13	213	4	0	230	7	10	11	0	28	9	265	45	2	321	625
16:15	16	8	8	0	32	17	230	4	1	252	4	16	5	0	25	3	259	32	0	294	603
16:30	27	12	9	2	50	9	146	3	0	158	3	24	10	0	37	5	233	38	1	277	522
16:45	19	11	9	0	39	10	210	4	1	225	6	11	5	1	23	1	262	27	4	294	581
Total Volume	87	43	35	2	167	49	799	15	2	865	20	61	31	1	113	18	1019	142	7	1186	2331
% App. Total	52.1	25.7	21	1.2		5.7	92.4	1.7	0.2		17.7	54	27.4	0.9		1.5	85.9	12	0.6		
PHF	.806	.896	.972	.250	.835	.721	.868	.938	.500	.858	.714	.635	.705	.250	.764	.500	.961	.789	.438	.924	.932
Autos	84	42	35	2	163	49	774	15	2	840	19	61	29	1	110	18	1011				
% Autos	96.6	97.7	100	100	97.6	100	96.9	100	100	97.1	95.0	100	93.5	100	97.3	100	99.2	99.3	100	99.2	98.2
Heavy Vehicles																					
% Heavy Vehicles	3.4	2.3	0	0	2.4	0	3.1	0	0	2.9	5.0	0	6.5	0	2.7	0	0.8	0.7	0	0.8	1.8



Traf Tech Engineering Inc.

File Name : 6-Lenox Ave & 5th St
Site Code : 00000000
Start Date : 12/1/2022
Page No : 4

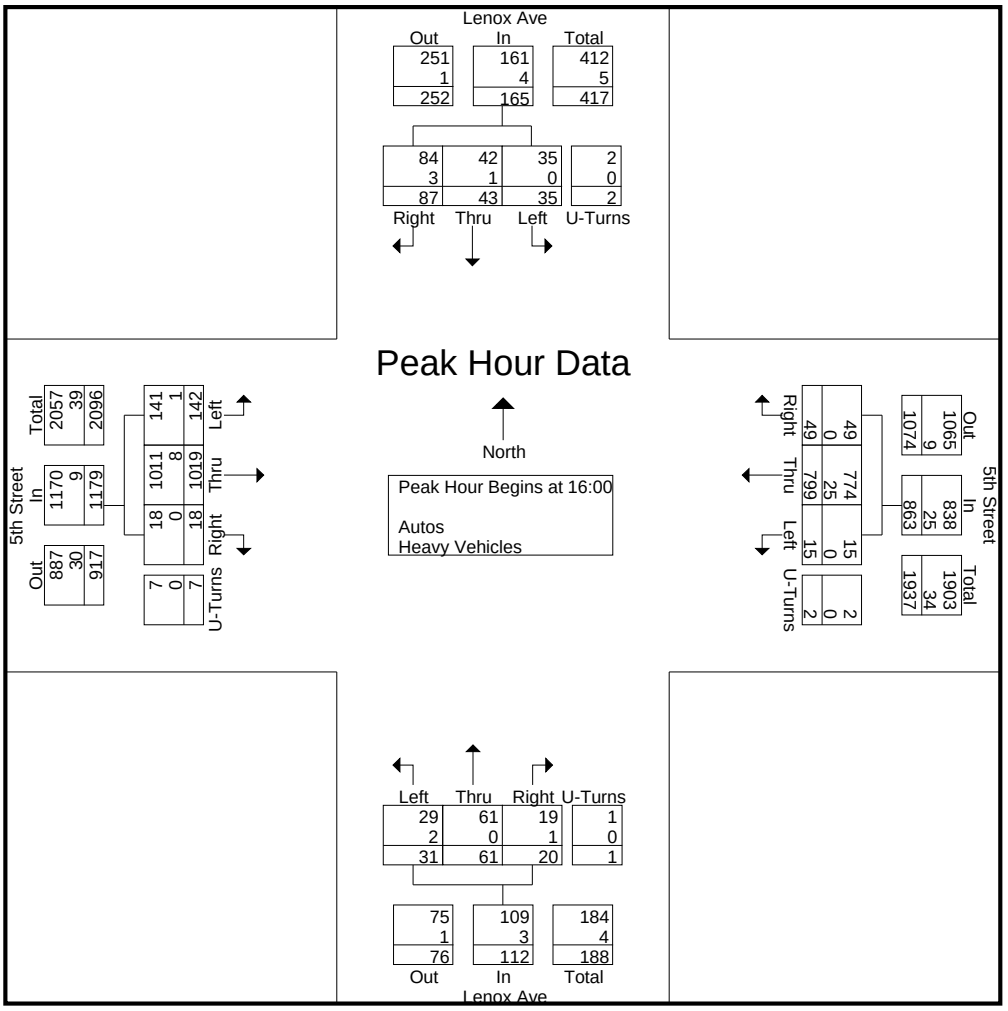
	Lenox Ave From North					5th Street From East					Lenox Ave From South					5th Street From West					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00																					
08:00	8	24	6	0	38	5	178	6	1	190	6	6	6	0	18	15	194	23	4	236	482
08:15	20	10	3	0	33	8	188	12	0	208	10	12	6	0	28	9	237	29	11	286	555
08:30	16	11	4	0	31	3	183	7	0	193	4	8	2	1	15	12	270	25	6	313	552
08:45	22	7	3	0	32	8	198	3	0	209	7	3	2	0	12	7	254	42	5	308	561
Total Volume	66	52	16	0	134	24	747	28	1	800	27	29	16	1	73	43	955	119	26	1143	2150
% App. Total	49.3	38.8	11.9	0		3	93.4	3.5	0.1		37	39.7	21.9	1.4		3.8	83.6	10.4	2.3		
PHF	.750	.542	.667	.000	.882	.750	.943	.583	.250	.957	.675	.604	.667	.250	.652	.717	.884	.708	.591	.913	.958
Autos	61	52	15	0	128	24	718	27	1	770	26	29	15	0	70	43	926	117	25	1111	2079
% Autos	92.4	100	93.8	0	95.5	100	96.1	96.4	100	96.3	96.3	100	93.8	0	95.9	100	97.0	98.3	96.2	97.2	96.7
Heavy Vehicles																					
% Heavy Vehicles	7.6	0	6.3	0	4.5	0	3.9	3.6	0	3.8	3.7	0	6.3	100	4.1	0	3.0	1.7	3.8	2.8	3.3



Traf Tech Engineering Inc.

File Name : 6-Lenox Ave & 5th St
Site Code : 00000000
Start Date : 12/1/2022
Page No : 5

	Lenox Ave From North					5th Street From East					Lenox Ave From South					5th Street From West					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 16:00																					
16:00	25	12	9	0	46	13	213	4	0	230	7	10	11	0	28	9	265	45	2	321	625
16:15	16	8	8	0	32	17	230	4	1	252	4	16	5	0	25	3	259	32	0	294	603
16:30	27	12	9	2	50	9	146	3	0	158	3	24	10	0	37	5	233	38	1	277	522
16:45	19	11	9	0	39	10	210	4	1	225	6	11	5	1	23	1	262	27	4	294	581
Total Volume	87	43	35	2	167	49	799	15	2	865	20	61	31	1	113	18	1019	142	7	1186	2331
% App. Total	52.1	25.7	21	1.2		5.7	92.4	1.7	0.2		17.7	54	27.4	0.9		1.5	85.9	12	0.6		
PHF	.806	.896	.972	.250	.835	.721	.868	.938	.500	.858	.714	.635	.705	.250	.764	.500	.961	.789	.438	.924	.932
Autos	84	42	35	2	163	49	774	15	2	840	19	61	29	1	110	18	1011				
% Autos	96.6	97.7	100	100	97.6	100	96.9	100	100	97.1	95.0	100	93.5	100	97.3	100	99.2	99.3	100	99.2	98.2
Heavy Vehicles																					
% Heavy Vehicles	3.4	2.3	0	0	2.4	0	3.1	0	0	2.9	5.0	0	6.5	0	2.7	0	0.8	0.7	0	0.8	1.8



APPENDIX C

Signal Timing, PSCF, Historical Data, and Growth Rate

TOD Schedule Report
for 2640: Alton Rd&5 St

Print Date: 10/4/2021

Print Time: 3:10 PM

Asset	Intersection	TOD Schedule	Op Mode	Plan #	Cycle	Offset	TOD Setting	Active PhaseBank	Active Maximum
2640	Alton Rd&5 St	DOW-2	TOD	N/A	0	0	N/A	0	Max 0

Splits

PH 1	PH 2	PH 3	PH 4	PH 5	PH 6	PH 7	PH 8
WBL	EBT	NBT	SBT	-	WBT	-	-
0	0	0	0	0	0	0	0

Active Phase Bank: Phase Bank 1

Phase	Walk (Phase Bank 1 2 3)	Don't Walk (1 2 3)	Min Initial (1 2 3)	Veh Ext (1 2 3)	Max Limit (1 2 3)	Max 2 (1 2 3)	Yellow	Red
1 WBL	0 - 0 - 0	0 - 0 - 0	5 - 5 - 5	2 - 2 - 2	5 - 5 - 5	25 - 20 - 7	4	2.3
2 EBT	7 - 7 - 7	22 - 22 - 22	5 - 5 - 5	1 - 1 - 1	30 - 30 - 30	0 - 30 - 30	4	2
3 NBT	7 - 7 - 7	10 - 10 - 10	7 - 7 - 7	3 - 3 - 3	18 - 18 - 16	33 - 30 - 30	4	2
4 SBT	7 - 7 - 7	18 - 18 - 18	7 - 7 - 7	3.5 - 3.5 - 3.5	15 - 17 - 8	38 - 38 - 28	4	2
5 -	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0	0
6 WBT	7 - 7 - 7	22 - 22 - 22	5 - 5 - 5	1 - 1 - 1	30 - 30 - 30	0 - 30 - 30	4	2
7 -	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0	0
8 -	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0	0

Last In Service Date: unknown

Permitted Phases

	12345678
Default	1234-6--
External Permit 0	1234-6--
External Permit 1	1234-6--
External Permit 2	1234-6--

TOD Schedule Report

for 2640: Alton Rd&5 St

Print Date: 10/4/2021

Print Time: 3:10 PM

Current TOD Schedule	Plan	Cycle	Green Time 1 WB	2 EBT	3 NBT	4 SBT	5 -	6 WBT	7 -	8 -	Ring Offset	Offset
	1	170	5	78	30	33	0	89	0	0	0	61
	2	150	5	64	30	27	0	75	0	0	0	27
	3	120	5	45	18	28	0	56	0	0	0	96
	4	150	5	70	26	25	0	81	0	0	0	109
	5	150	5	67	20	34	0	78	0	0	0	31
	6	180	5	86	30	35	0	97	0	0	0	114
	7	140	5	53	33	25	0	64	0	0	0	43
	8	160	5	68	30	33	0	79	0	0	0	55
	10	160	10	80	20	26	0	96	0	0	0	55
	14	120	5	45	20	26	0	56	0	0	0	118
	15	130	5	51	25	25	0	62	0	0	0	127
	16	120	5	45	20	26	0	56	0	0	0	23
	20	200	5	113	30	28	0	124	0	0	0	0
	21	220	10	138	20	28	0	154	0	0	0	44
	22	110	5	35	18	28	0	46	0	0	0	42
	23	110	5	35	18	28	0	46	0	0	0	20
	24	160	5	73	30	28	0	84	0	0	0	44
	25	140	5	59	25	27	0	70	0	0	0	57
	26	200	5	113	30	28	0	124	0	0	0	44
	27	140	5	65	18	28	0	76	0	0	0	0
	28	220	10	138	20	28	0	154	0	0	0	44

Local TOD Schedule

Time	Plan	DOW
0000	3	Su M T W Th F S
0500	2	M T W Th F
0500	3	Su S
0700	7	Su S
0800	6	M T W Th F
1000	5	M T W Th F
1100	10	Su S
1300	6	M T W Th F
1615	25	M T W Th F
1800	1	M T W Th
1800	7	Su F S
2200	8	M T W Th

Current Time of Day Function

Time	Function	Settings *	Day of Week
0000	TOD OUTPUTS	--------	SuM T W ThF S

Local Time of Day Function

Time	Function	Settings *	Day of Week
0000	TOD OUTPUTS	--------	SuM T W ThF S

*** Settings**

Blank - FREE - Phase Bank 1, Max 1
Blank - Plan - Phase Bank 1, Max 2
1 - Phase Bank 2, Max 1
2 - Phase Bank 2, Max 2
3 - Phase Bank 3, Max 1
4 - Phase Bank 3, Max 2
5 - EXTERNAL PERMIT 1
6 - EXTERNAL PERMIT 2
7 - X-PED OMIT
8 - TBA

No Calendar Defined/Enabled

TOD Schedule Report
for 2642: Alton Rd&8 St

Print Date: 10/4/2021

Print Time: 3:10 PM

Asset	Intersection	TOD Schedule	Op Mode	Plan #	Cycle	Offset	TOD Setting	Active PhaseBank	Active Maximum
2642	Alton Rd&8 St	DOW-2	TOD	[10] PRE-PM PEAK	150	25	N/A	1	Max 2

Splits

PH 1	PH 2	PH 3	PH 4	PH 5	PH 6	PH 7	PH 8
NBL	SBT	-	WBT	SBL	NBT	-	EBT
12	89	0	31	12	89	0	31

Active Phase Bank: Phase Bank 1

Phase	Walk			Don't Walk			Min Initial			Veh Ext			Max Limit			Max 2			Yellow	Red
Phase Bank	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3		
1 NBL	0	0	0	0	0	0	5	5	5	2	2	2	5	5	5	15	15	15	4	2
2 SBT	7	7	7	10	10	10	7	7	7	1	1	1	40	40	40	0	0	0	4	2
3 -	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 WBT	7	7	7	24	24	24	7	7	7	2.5	2.5	2.5	12	7	15	12	28	40	4	2.4
5 SBL	0	0	0	0	0	0	5	5	5	2	2	2	5	5	5	15	15	15	4	2
6 NBT	7	7	7	10	10	10	16	16	16	1	1	1	40	40	40	0	0	0	4	2
7 -	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8 EBT	7	7	7	24	24	24	7	7	7	2.5	2.5	2.5	25	7	15	45	28	40	4	2.4

Last In Service Date: unknown

Permitted Phases

	12345678
Default	12-456-8
External Permit 0	-2-4-6-8
External Permit 1	-2-4-6-8
External Permit 2	-2-4-6-8

TOD Schedule Report

for 2642: Alton Rd&8 St

Print Date: 10/4/2021

Print Time: 3:10 PM

Current TOD Schedule	Plan	Cycle	Green Time 1 NBL	2 SBT	3 -	4 WBT	5 SBL	6 NBT	7 -	8 EBT	Ring Offset	Offset
	1	100	7	44	0	31	7	44	0	31	0	5
	3	120	10	61	0	31	10	61	0	31	0	11
	5	150	13	88	0	31	13	88	0	31	0	25
	10	150	12	89	0	31	12	89	0	31	0	25
	13	130	12	69	0	31	12	69	0	31	0	93
	19	120	12	59	0	31	12	59	0	31	0	109
	20	140	12	79	0	31	12	79	0	31	0	90
	21	140	8	84	0	30	8	84	0	30	0	110
	22	120	12	59	0	31	12	59	0	31	0	110
	25	140	8	84	0	30	8	84	0	30	0	0
	26	200	16	126	0	40	16	126	0	40	0	78
	27	180	8	124	0	30	8	124	0	30	0	14

Local TOD Schedule

Time	Plan	DOW
0000	1	Su M T W Th F S
0600	3	Su M T W Th F S
0800	5	M T W Th F
0800	19	Su S
1000	20	Su S
1300	10	M T W Th F
1900	13	Su M T W Th F S
2000	22	Su S

Current Time of Day Function

Time	Function	Settings *	Day of Week
0000	TOD OUTPUTS	8-------	SuM T W ThF S
0000	TOD LOCAL MULTIFU	----4---	SuM T W ThF S
0500	TOD LOCAL MULTIFU	--------	SuM T W ThF S
0500	PED RECALL	8---4---	SuM T W ThF S
0600	TOD OUTPUTS	--------	M T W ThF
2000	TOD OUTPUTS	8-------	M T W ThF
2200	PED RECALL	--------	SuM T W ThF S

Local Time of Day Function

Time	Function	Settings *	Day of Week
0000	TOD OUTPUTS	8-------	SuM T W ThF S
0000	TOD LOCAL MULTIFUNCT	----4---	SuM T W ThF S
0500	TOD LOCAL MULTIFUNCT	--------	SuM T W ThF S
0500	PED RECALL	8---4---	SuM T W ThF S
0600	TOD OUTPUTS	--------	M T W ThF
0700	TOD OUTPUTS	--------	Su S
2000	TOD OUTPUTS	8-------	M T W ThF
2200	TOD OUTPUTS	8-------	Su S
2200	PED RECALL	--------	SuM T W ThF S

* Settings

Blank - FREE - Phase Bank 1, Max 1
Blank - Plan - Phase Bank 1, Max 2
1 - Phase Bank 2, Max 1
2 - Phase Bank 2, Max 2
3 - Phase Bank 3, Max 1
4 - Phase Bank 3, Max 2
5 - EXTERNAL PERMIT 1
6 - EXTERNAL PERMIT 2
7 - X-PED OMIT
8 - TBA

No Calendar Defined/Enabled

TOD Schedule Report

for 2734: Lenox Av&5 St

Print Date: 10/4/2021

Print Time: 3:22 PM

Asset	Intersection	TOD Schedule	Op Mode	Plan #	Cycle	Offset	TOD Setting	Active PhaseBank	Active Maximum
2734	Lenox Av&5 St	DOW-2	TOD	N/A	0	0	N/A	0	Max 0

Splits

PH 1	PH 2	PH 3	PH 4	PH 5	PH 6	PH 7	PH 8
EBL	WBT	-	NBT	-	EBT	-	SBT
0	0	0	0	0	0	0	0

Active Phase Bank: Phase Bank 1

Phase	Walk Phase Bank 1 2 3	Don't Walk 1 2 3	Min Initial 1 2 3	Veh Ext 1 2 3	Max Limit 1 2 3	Max 2 1 2 3	Yellow	Red
1 EBL	0 - 0 - 0	0 - 0 - 0	5 - 5 - 5	2 - 2 - 2	5 - 5 - 5	30 - 30 - 20	4	2
2 WBT	5 - 5 - 5	12 - 12 - 12	7 - 7 - 7	1 - 1 - 1	55 - 55 - 55	0 - 0 - 0	4	2
3 -	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0	0
4 NBT	4 - 4 - 4	28 - 28 - 28	7 - 7 - 7	2.5 - 2.5 - 2.5	25 - 12 - 12	65 - 50 - 22	4	2.5
5 -	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0	0
6 EBT	5 - 5 - 5	12 - 12 - 12	7 - 7 - 7	1 - 1 - 1	55 - 55 - 55	0 - 0 - 0	4	2
7 -	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0	0
8 SBT	4 - 4 - 4	28 - 28 - 28	7 - 7 - 7	2.5 - 2.5 - 2.5	25 - 12 - 12	65 - 50 - 22	4	2.5

Last In Service Date: unknown

Permitted Phases

	12345678
Default	12-4-6-8
External Permit 0	-2-4-6-8
External Permit 1	-2-4-6-8
External Permit 2	-2-4-6-8

TOD Schedule Report

for 2734: Lenox Av&5 St

Print Date: 10/4/2021

Print Time: 3:22 PM

Current TOD Schedule	Plan	Cycle	Green Time 1 EBL	2 WBT	3 -	4 NBT	5 -	6 EBT	7 -	8 SBT	Ring Offset	Offset
	1	170	20	99	0	33	0	125	0	33	0	75
	2	150	20	79	0	33	0	105	0	33	0	49
	3	120	20	49	0	33	0	75	0	33	0	108
	4	150	20	79	0	33	0	105	0	33	0	85
	5	150	12	88	0	32	0	106	0	32	0	59
	6	180	20	109	0	33	0	135	0	33	0	137
	7	140	20	69	0	33	0	95	0	33	0	58
	8	160	20	89	0	33	0	115	0	33	0	72
	10	160	15	94	0	33	0	115	0	33	0	71
	14	120	20	49	0	33	0	75	0	33	0	14
	15	130	20	59	0	33	0	85	0	33	0	15
	16	120	20	49	0	33	0	75	0	33	0	12
	17	130	20	59	0	33	0	85	0	33	0	106
	20	200	25	108	0	49	0	139	0	49	0	0
	21	200	25	108	0	49	0	139	0	49	0	57
	22	110	9	51	0	32	0	66	0	32	0	33
	23	110	9	34	0	49	0	49	0	49	0	5
	24	180	9	104	0	49	0	119	0	49	0	56
	25	140	9	64	0	49	0	79	0	49	0	56
	26	200	9	124	0	49	0	139	0	49	0	41
	27	140	9	64	0	49	0	79	0	49	0	12
	28	220	25	128	0	49	0	159	0	49	0	57

Local TOD Schedule

Time	Plan	DOW
0000	3	Su M T W Th F S
0500	2	M T W Th F
0500	3	Su S
0700	7	Su S
0800	6	M T W Th F
1000	5	M T W Th F
1100	10	Su S
1300	6	M T W Th F
1615	25	M T W Th F
1800	1	M T W Th
1800	7	Su F S
2200	8	M T W Th

TOD Schedule Report

for 2734: Lenox Av&5 St

Print Date: 10/4/2021

Print Time: 3:22 PM

Current Time of Day Function

Time	Function	Settings *	Day of Week
0000	TOD OUTPUTS	--------	SuM T W ThF S
0000	TOD LOCAL MULTIFU	----4---	SuM T W ThF S
0500	TOD LOCAL MULTIFU	--------	SuM T W ThF S
0500	TOD OUTPUTS	------2-	M T W ThF
1500	TOD OUTPUTS	--------	M T W ThF
1500	TOD OUTPUTS	----4---	M T W ThF
1800	PED RECALL	8---4---	M T W ThF
1800	TOD OUTPUTS	--------	M T W ThF
2200	PED RECALL	--------	M T W ThF
2200	TOD OUTPUTS	--------	M T W ThF

Local Time of Day Function

Time	Function	Settings *	Day of Week
0000	TOD OUTPUTS	--------	SuM T W ThF S
0000	TOD LOCAL MULTIFUNCT	----4---	SuM T W ThF S
0500	TOD LOCAL MULTIFUNCT	--------	SuM T W ThF S
0500	TOD OUTPUTS	------2-	M T W ThF
0700	TOD OUTPUTS	-------1	Su S
0800	TOD OUTPUTS	--------	S
1000	TOD OUTPUTS	--------	Su
1000	PED RECALL	8---4---	Su S
1500	TOD OUTPUTS	--------	M T W ThF
1500	TOD OUTPUTS	----4---	M T W ThF
1800	PED RECALL	8---4---	M T W ThF
1800	PED RECALL	--------	Su S
1800	TOD OUTPUTS	--------	M T W ThF
1900	TOD OUTPUTS	--------	Su S
2200	PED RECALL	--------	M T W ThF
2200	TOD OUTPUTS	--------	M T W ThF

* Settings

Blank - FREE - Phase Bank 1, Max 1
Blank - Plan - Phase Bank 1, Max 2
1 - Phase Bank 2, Max 1
2 - Phase Bank 2, Max 2
3 - Phase Bank 3, Max 1
4 - Phase Bank 3, Max 2
5 - EXTERNAL PERMIT 1
6 - EXTERNAL PERMIT 2
7 - X-PED OMIT
8 - TBA

No Calendar Defined/Enabled

SIGNAL OPERATING PLAN

Timing Phases	Direction / Head No.	WB 1 LV	WB 6	EB 2	NB 3	NB 3/8	NB 8	SB 7/4	SB 4	Ped Heads P2		P8-2	P8-1	Movements/Display/Actuation
(1+6)	Dwell	<G	G	R	<R	R	R	R	R	DW		DW	DW	
WB	Clear to 2+6	<Y	G	R	<R	R	R	R	R	DW		DW	DW	
	Clear to 3	<Y	Y	R	<R	R	R	R	R	DW		DW	DW	
5 STREET	Clear to 4	<Y	Y	R	<R	R	R	R	R	DW		DW	DW	
(ACTUATED)														
(2+6)	Dwell	<R	G	G	<R	R	R	R	R	W/F		DW	DW	
	Clear to 3	<R	Y	Y	<R	R	R	R	R	DW		DW	DW	
E/WB	Clear to 4	<R	Y	Y	<R	R	R	R	R	DW		DW	DW	
5 STREET														
(RECALL)														
(3)	Dwell	<R	R	R	<G	<G/G	G	R	R	DW		DW	W/F	
NB	Clear to 3	<R	R	R	<Y	Y	Y	R	R	DW		DW	DW	
	Clear to 4	<R	R	R	<Y	Y	Y	R	R	DW		DW	DW	
ALTON RD	Clear to 1+6	<R	R	R	<Y	Y	Y	R	R	DW		DW	DW	
	Clear to 2+6	<R	R	R	<Y	Y	Y	R	R	DW		DW	DW	
(ACTUATED)														
(4)	Dwell	<R	R	R	<R	R	R	<G/G	G	DW		W/F	DW	
	Clear to 1+6	<R	R	R	<R	R	R	Y	Y	DW		DW	DW	
NB	Clear to 2+6	<R	R	R	<R	R	R	Y	Y	DW		DW	DW	
ALTON RD														
(ACTUATED)														
	Dwell													
	Clear to													
	Dwell													
	Clear to													
Flashing Operation		F<R	FY	FY	F<R	FR	FR	FR	FR					Page 1 of 1

N

6 → 1

6 → 2 P2

3 8 P8-2

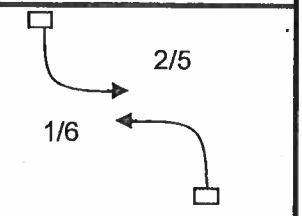
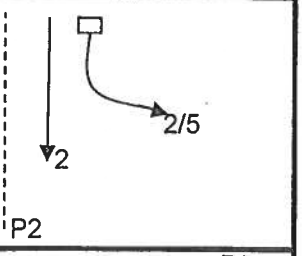
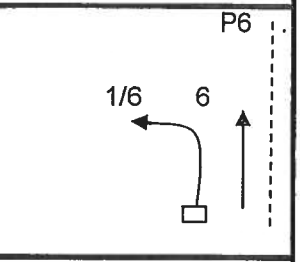
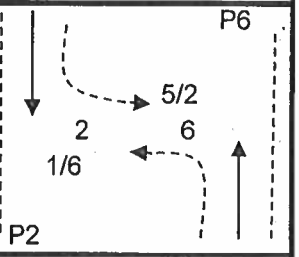
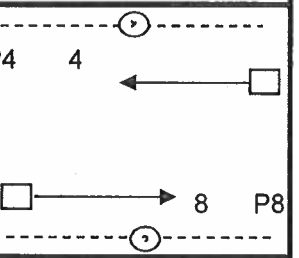
P8-1 4 7

Miami-Dade County Public Works Department

Drawn	Date	
William Rivera-Paz	2/3/2012	ALTON RD & 5 STREET

Checked	Date	Placed in Service		Phasing No.	Asset Number
H. HERNANDEZ	2/13/12	Date 3/29/12	By FSS	5	2640

SIGNAL OPERATING PLAN

	Direction	NB		SB		EB		WB		Ped Heads				N
Timing Phases	Head No.	1/6	6	5/2	2		8		4	P2	P6	P4	P8	Movements/Display/Actuation
(1+5)	Dwell	<G/R	R	<G/R	R		R		R	DW	DW	DW	DW	
	Clear to (1+6)	<G/R	R	<Y/R	R		R		R	DW	DW	DW	DW	
N/SBLT	(2+5)	<Y/R	R	<G/R	R		R		R	DW	DW	DW	DW	
ALTON RD	(2+6)	<Y/R	R	<Y/R	R		R		R	DW	DW	DW	DW	
(ACTUATE)														
(2+5)	Dwell	R	R	<G/G	G		R		R	W/F	DW	DW	DW	
~~NB~~ SB	Clear to (2+6)	R	R	<Y/G	G		R		R	DW	DW	DW	DW	
ALTON RD														
(ACTUATE)														
(1+6)	Dwell	<G/G	G	R	R		R		R	DW	W/F	DW	DW	
~~SB~~ NB	Clear to (2+6)	<Y/G	G	R	R		R		R	DW	DW	DW	DW	
ALTON RD														
ACTUATED (~~RECALL~~)														
(2+6)	Dwell	G	G	G	G		R		R	W/F	W/F	DW	DW	
N/SB	Clear to (4+8)	Y	Y	Y	Y		R		R	DW	DW	DW	DW	
ALTON RD														
(RECALL)														
	Dwell													
	Clear to													
(4+8)	Dwell	R	R	R	R		G		G	DW	DW	W/F	W/F	
	Clear to (1+5)	R	R	R	R		Y		Y	DW	DW	DW	DW	
E/WB	(1+6)	R	R	R	R		Y		Y	DW	DW	DW	DW	
	(2+6)	R	R	R	R		Y		Y	DW	DW	DW	DW	
8 ST	(2+6)	R	R	R	R		Y		Y	DW	DW	DW	DW	
(ACTUATED)														
Flashing Operation		FY	FY	FY	FY		FR		FR					Page 1 of 1

Miami-Dade County Public Works Department

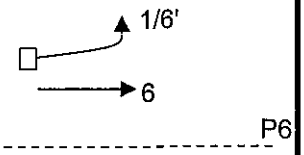
Drawn	Date	ALTON RD & 8 ST		
WILLIAM RIVERA PAZ	12/18/2014			
Checked	Date	Placed in Service	Phasing No.	Asset Number
H. HERNANDEZ	12/23/14	Date 1/21/15 By EEC	5	2642

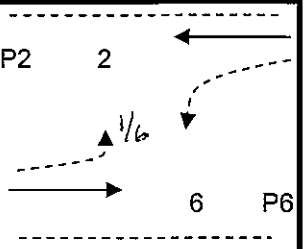
SECT 8

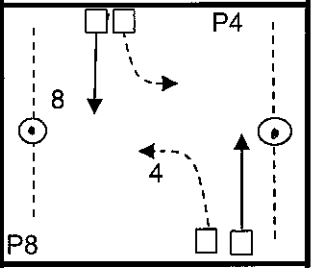
SIGNAL OPERATING PLAN

N

	Direction	EB		WB		SB		NB		Ped Heads				
Timing Phases	Head No.	1/6'	6		2		8		4	P2	P4	P6	P8	Movements/Display/Actuation
(1+6)	Dwell	<G/G	G		R		R		R	DW	DW	W/F	DW	
	2+6	<Y/G	G		R		R		R	DW	DW	DW	DW	
EB	Clear to													
5 STREET														
(ACTUATED)														
	Dwell													
	Clear to													
(2+6)	Dwell	G	G		G		R		R	W/F	DW	W/F	DW	
	4+8	Y	Y		Y		R		R	DW	DW	DW	DW	
E/WB	Clear to													
5 STREET														
(RECALL)														
	Dwell													
	Clear to													
(4+8)	Dwell	R	R		R		G		G	DW	W/F	DW	W/F	
	1+6	R	R		R		Y		Y	DW	DW	DW	DW	
N/SB	2+6	R	R		R		Y		Y	DW	DW	DW	DW	
	Clear to													
LENOX AV														
(ACTUATED)														
	Dwell													
	Clear to													
Flashing Operation		FY	FY		FY		FR		FR					Page 1 of 1







Miami-Dade County Public Works Department

Drawn	Date	LENOX AV & 5 STREET		
WILLIAM RIVERA-PAZ	6/22/2009			
Checked	Date	Placed in Service	Phasing No.	Asset Number
H. HERNANDEZ	6/24/09	Date 8/24/09 By SSI	5	2734

Blank12

2021 PEAK SEASON FACTOR CATEGORY REPORT - REPORT TYPE: ALL
CATEGORY: 8700 MIAMI-DADE NORTH

MOCF: 0.98

WEEK	DATES	SF	PSCF
1	01/01/2021 - 01/02/2021	1.01	1.03
2	01/03/2021 - 01/09/2021	1.05	1.07
3	01/10/2021 - 01/16/2021	1.08	1.10
4	01/17/2021 - 01/23/2021	1.07	1.09
5	01/24/2021 - 01/30/2021	1.07	1.09
6	01/31/2021 - 02/06/2021	1.06	1.08
7	02/07/2021 - 02/13/2021	1.05	1.07
8	02/14/2021 - 02/20/2021	1.05	1.07
9	02/21/2021 - 02/27/2021	1.04	1.06
10	02/28/2021 - 03/06/2021	1.03	1.05
11	03/07/2021 - 03/13/2021	1.02	1.04
12	03/14/2021 - 03/20/2021	1.02	1.04
13	03/21/2021 - 03/27/2021	1.01	1.03
14	03/28/2021 - 04/03/2021	0.99	1.01
15	04/04/2021 - 04/10/2021	0.98	1.00
16	04/11/2021 - 04/17/2021	0.97	0.99
17	04/18/2021 - 04/24/2021	0.97	0.99
18	04/25/2021 - 05/01/2021	0.97	0.99
19	05/02/2021 - 05/08/2021	0.98	1.00
20	05/09/2021 - 05/15/2021	0.98	1.00
21	05/16/2021 - 05/22/2021	0.98	1.00
22	05/23/2021 - 05/29/2021	0.99	1.01
23	05/30/2021 - 06/05/2021	1.00	1.02
24	06/06/2021 - 06/12/2021	1.01	1.03
25	06/13/2021 - 06/19/2021	1.02	1.04
26	06/20/2021 - 06/26/2021	1.01	1.03
27	06/27/2021 - 07/03/2021	1.01	1.03
28	07/04/2021 - 07/10/2021	1.00	1.02
29	07/11/2021 - 07/17/2021	0.99	1.01
30	07/18/2021 - 07/24/2021	0.99	1.01
31	07/25/2021 - 07/31/2021	0.99	1.01
32	08/01/2021 - 08/07/2021	0.99	1.01
33	08/08/2021 - 08/14/2021	0.99	1.01
34	08/15/2021 - 08/21/2021	0.99	1.01
35	08/22/2021 - 08/28/2021	0.99	1.01
*36	08/29/2021 - 09/04/2021	0.99	1.01
*37	09/05/2021 - 09/11/2021	0.99	1.01
*38	09/12/2021 - 09/18/2021	0.99	1.01
*39	09/19/2021 - 09/25/2021	0.98	1.00
*40	09/26/2021 - 10/02/2021	0.98	1.00
*41	10/03/2021 - 10/09/2021	0.97	0.99
*42	10/10/2021 - 10/16/2021	0.96	0.98
*43	10/17/2021 - 10/23/2021	0.96	0.98
*44	10/24/2021 - 10/30/2021	0.97	0.99
*45	10/31/2021 - 11/06/2021	0.97	0.99
*46	11/07/2021 - 11/13/2021	0.98	1.00
*47	11/14/2021 - 11/20/2021	0.99	1.01
*48	11/21/2021 - 11/27/2021	0.99	1.01
49	11/28/2021 - 12/04/2021	1.00	1.02
50	12/05/2021 - 12/11/2021	1.01	1.03
51	12/12/2021 - 12/18/2021	1.01	1.03
52	12/19/2021 - 12/25/2021	1.05	1.07
53	12/26/2021 - 12/31/2021	1.08	1.10

* PEAK SEASON

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2021 HISTORICAL AADT REPORT

COUNTY: 87 - MIAMI-DADE

SITE: 2527 - SR A1A/MACARTHUR CSWY, 200' W SR 907/ALTON RD

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2021	51000 C	E 20000	W 31000	9.00	54.70	5.40
2020	67000 C	E 25500	W 41500	9.00	54.30	9.20
2019	64500 F	E 29000	W 35500	9.00	54.00	5.00
2018	66000 C	E 29500	W 36500	9.00	55.20	5.60
2017	77000 C	E 37000	W 40000	9.00	54.00	5.30
2016	83000 C	E 41500	W 41500	9.00	55.50	7.80
2015	85000 C	E 41500	W 43500	9.00	55.10	4.60
2014	85000 C	E 42500	W 42500	9.00	54.30	5.10
2013	83000 C	E 42500	W 40500	9.00	54.10	6.10
2012	83500 C	E 41000	W 42500	9.00	53.40	8.40
2011	80000 C	E 39500	W 40500	9.00	51.90	7.50
2010	66000 C	E 36000	W 30000	7.16	52.27	8.80
2009	68500 C	E 36500	W 32000	9.21	57.60	8.40
2008	72500 C	E 36500	W 36000	7.42	52.15	5.30
2007	79500 C	E 40000	W 39500	7.11	53.51	4.90
2006	80500 C	E 39500	W 41000	7.18	52.50	2.20

AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE
S = SECOND YEAR ESTIMATE; T = THIRD YEAR ESTIMATE; R = FOURTH YEAR ESTIMATE
V = FIFTH YEAR ESTIMATE; 6 = SIXTH YEAR ESTIMATE; X = UNKNOWN
*K FACTOR: STARTING WITH YEAR 2011 IS STANDARDK, PRIOR YEARS ARE K30 VALUES

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2021 HISTORICAL AADT REPORT

COUNTY: 87 - MIAMI-DADE

SITE: 2528 - SR A1A/MACARTHUR CSWY, 150' N OF MERIDIAN AVE

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2021	33000 C	E 15000	W 18000	9.00	54.70	5.40
2020	41000 C	E 19000	W 22000	9.00	54.30	9.20
2019	31000 F	E 15500	W 15500	9.00	54.00	5.00
2018	32000 C	E 16000	W 16000	9.00	55.20	5.60
2017	44000 C	E 20000	W 24000	9.00	54.00	5.30
2016	35500 C	E 18500	W 17000	9.00	55.50	7.80
2015	39500 C	E 20000	W 19500	9.00	55.10	4.60
2014	33000 C	E 17000	W 16000	9.00	54.30	5.10
2013	34000 C	E 17500	W 16500	9.00	54.10	6.10
2012	32500 C	E 14500	W 18000	9.00	53.40	8.40
2011	35000 C	E 16500	W 18500	9.00	51.90	7.50
2010	35000 C	E 16500	W 18500	7.16	52.27	8.80
2009	35500 C	E 16500	W 19000	9.21	57.60	8.40
2008	34500 C	E 16000	W 18500	7.42	52.15	5.30
2007	34000 C	E 16500	W 17500	7.11	53.51	4.90
2006	40500 C	E 19500	W 21000	7.18	52.50	2.20

AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE
S = SECOND YEAR ESTIMATE; T = THIRD YEAR ESTIMATE; R = FOURTH YEAR ESTIMATE
V = FIFTH YEAR ESTIMATE; 6 = SIXTH YEAR ESTIMATE; X = UNKNOWN
*K FACTOR: STARTING WITH YEAR 2011 IS STANDARDK, PRIOR YEARS ARE K30 VALUES

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2021 HISTORICAL AADT REPORT

COUNTY: 87 - MIAMI-DADE

SITE: 2542 - SR 907/ALTON RD, 200' S OF VENETIAN CSWY

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2021	32500 C	N 13500	S 19000	9.00	54.30	2.90
2020	27500 C	N 14000	S 13500	9.00	54.20	5.60
2019	35000 F	N 17500	S 17500	9.00	54.60	3.50
2018	35000 C	N 17500	S 17500	9.00	54.30	3.50
2017	33000 C	N 16500	S 16500	9.00	55.00	2.80
2016	30000 C	N 15000	S 15000	9.00	54.50	5.90
2015	41000 C	N 21000	S 20000	9.00	54.70	1.60
2014	30500 F	N 14000	S 16500	9.00	54.50	7.60
2013	30500 C	N 14000	S 16500	9.00	52.40	7.60
2012	37000 C	N 19000	S 18000	9.00	55.70	7.50
2011	39500 C	N 19000	S 20500	9.00	55.10	1.50
2010	39000 C	N 20000	S 19000	8.98	54.08	1.50
2009	38500 C	N 19000	S 19500	8.99	53.24	6.20
2008	37500 C	N 17500	S 20000	9.09	55.75	4.80
2007	39500 C	N 18500	S 21000	8.01	54.34	5.20
2006	36500 C	N 17500	S 19000	7.97	54.22	1.60

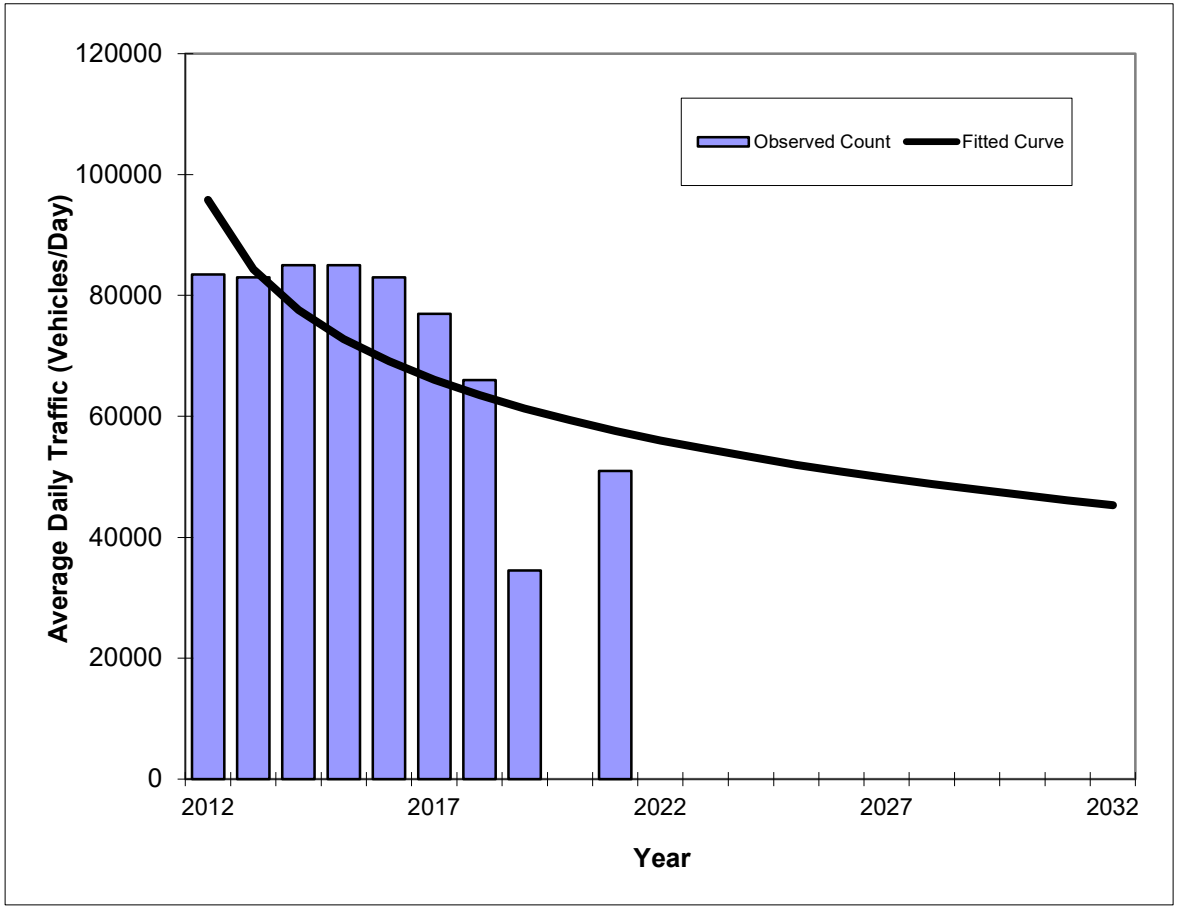
AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE
S = SECOND YEAR ESTIMATE; T = THIRD YEAR ESTIMATE; R = FOURTH YEAR ESTIMATE
V = FIFTH YEAR ESTIMATE; 6 = SIXTH YEAR ESTIMATE; X = UNKNOWN
*K FACTOR: STARTING WITH YEAR 2011 IS STANDARDK, PRIOR YEARS ARE K30 VALUES

Traffic Trends - V03.a

SR A1A/MACARTHUR CSWY -- 200' W SR 907/ALTON RD

FIN#	0
Location	1

County:	MIAMI-DADE
Station #:	2527
Highway:	SR A1A/MACARTHUR CSWY



Year	Traffic (ADT/AADT) Count*	Trend**
2012	83500	95800
2013	83000	84300
2014	85000	77600
2015	85000	72800
2016	83000	69100
2017	77000	66100
2018	66000	63500
2019	34500	61300
2020	n/a	n/a
2021	51000	57600
2022 Opening Year Trend		
2022	N/A	56000
2023 Mid-Year Trend		
2023	N/A	54600
2025 Design Year Trend		
2025	N/A	52000
TRANPLAN Forecasts/Trends		

Trend R-squared:	45.14%
Compounded Annual Historic Growth Rate:	-5.50%
Compounded Growth Rate (2021 to Design Year):	-2.52%
Printed:	5-Dec-22

Decaying Exponential Growth Option

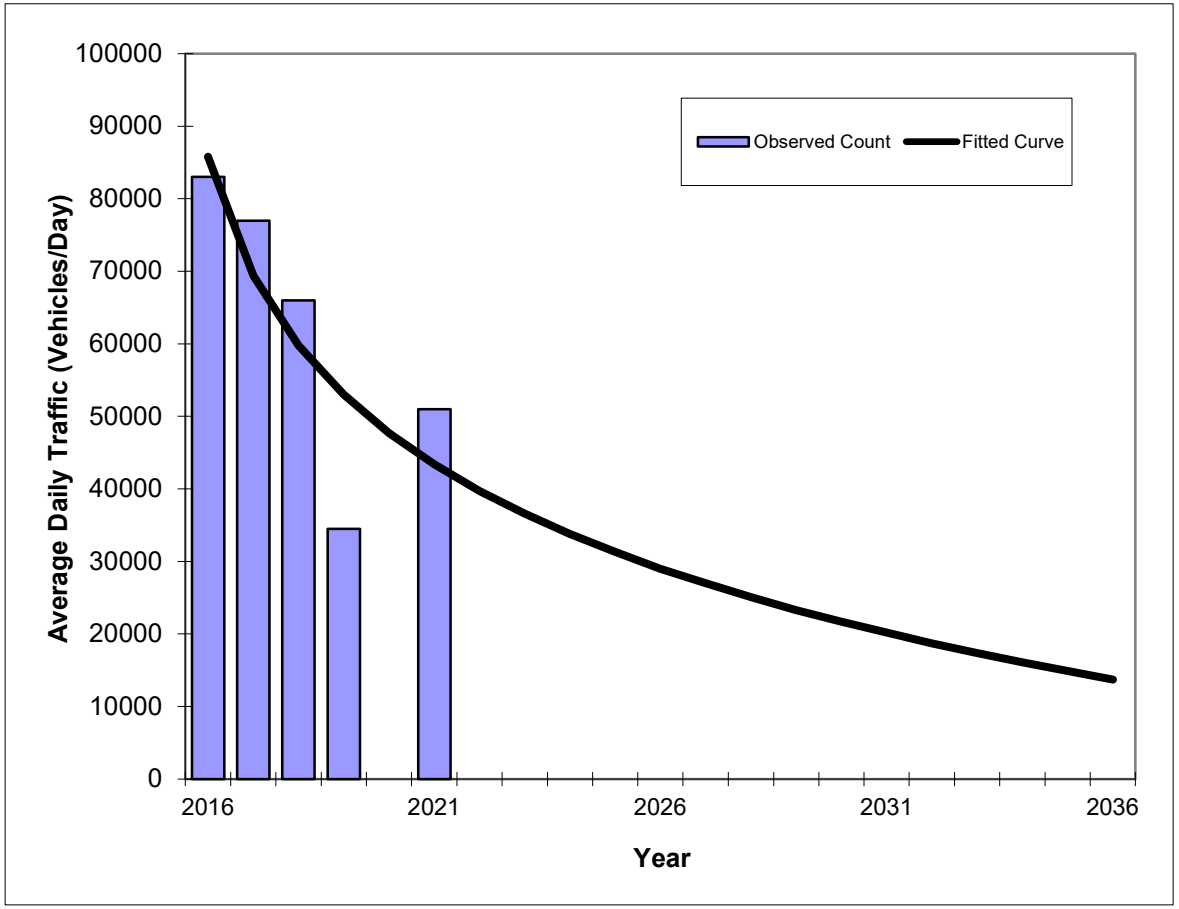
***Axle-Adjusted**

Traffic Trends - V03.a

SR A1A/MACARTHUR CSWY -- 200' W SR 907/ALTON RD

FIN#	0
Location	1

County:	MIAMI-DADE
Station #:	2527
Highway:	SR A1A/MACARTHUR CSWY



Year	Traffic (ADT/AADT) Count*	Trend**
2016	83000	85800
2017	77000	69400
2018	66000	59800
2019	34500	53000
2020	N/A	N/A
2021	51000	43400
2022 Opening Year Trend		
2022	N/A	39700
2023 Mid-Year Trend		
2023	N/A	36600
2025 Design Year Trend		
2025	N/A	31300
TRANPLAN Forecasts/Trends		

Trend R-squared:	67.68%
Compounded Annual Historic Growth Rate:	-12.74%
Compounded Growth Rate (2021 to Design Year):	-7.85%
Printed:	5-Dec-22

Decaying Exponential Growth Option

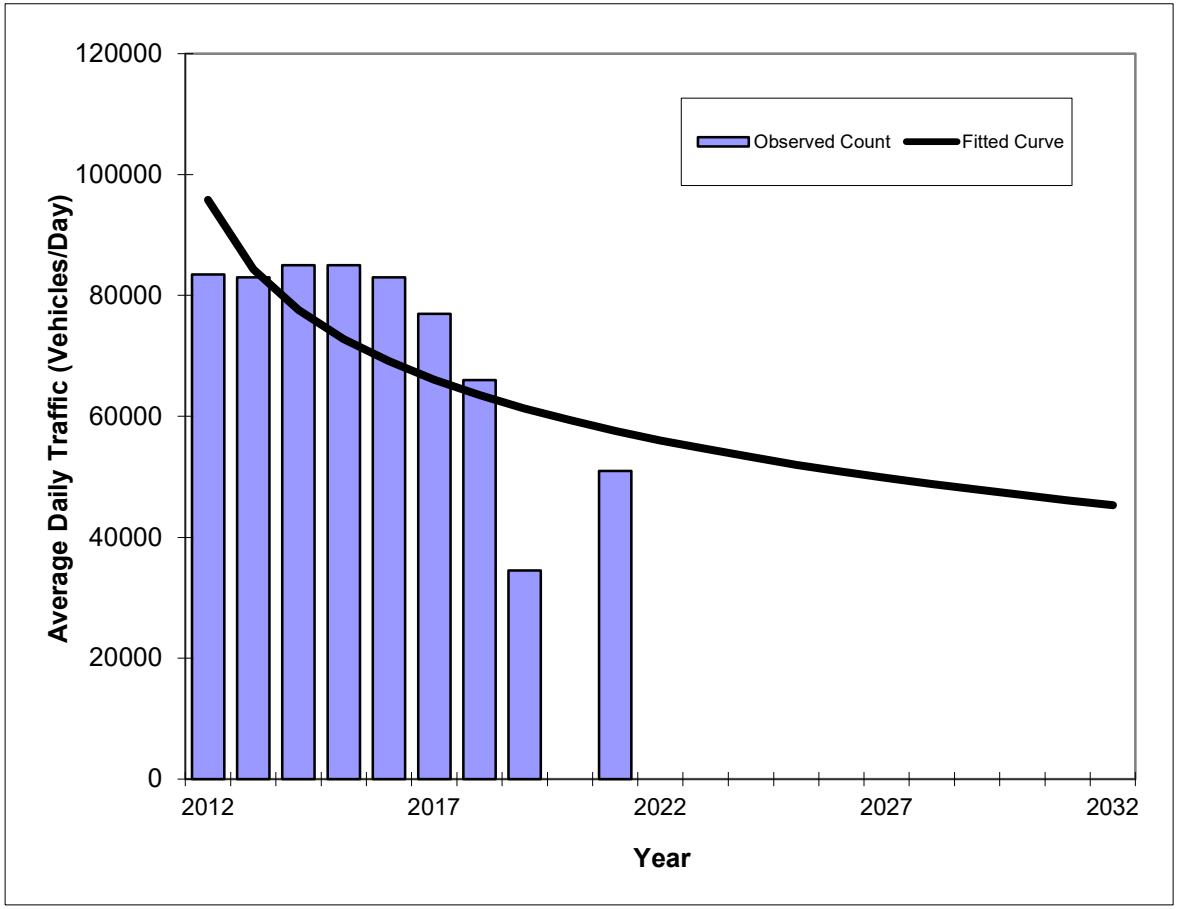
***Axle-Adjusted**

Traffic Trends - V03.a

SR A1A/MACARTHUR CSWY -- 200' W SR 907/ALTON RD

FIN#	0
Location	1

County:	MIAMI-DADE
Station #:	2527
Highway:	SR A1A/MACARTHUR CSWY



Year	Traffic (ADT/AADT) Count*	Trend**
2012	83500	95800
2013	83000	84300
2014	85000	77600
2015	85000	72800
2016	83000	69100
2017	77000	66100
2018	66000	63500
2019	34500	61300
2020	n/a	n/a
2021	51000	57600
2022 Opening Year Trend		
2022	N/A	56000
2023 Mid-Year Trend		
2023	N/A	54600
2025 Design Year Trend		
2025	N/A	52000
TRANPLAN Forecasts/Trends		

Trend R-squared:	56.87%
Compounded Annual Historic Growth Rate:	-5.50%
Compounded Growth Rate (2021 to Design Year):	-2.52%
Printed:	5-Dec-22

Exponential Growth Option

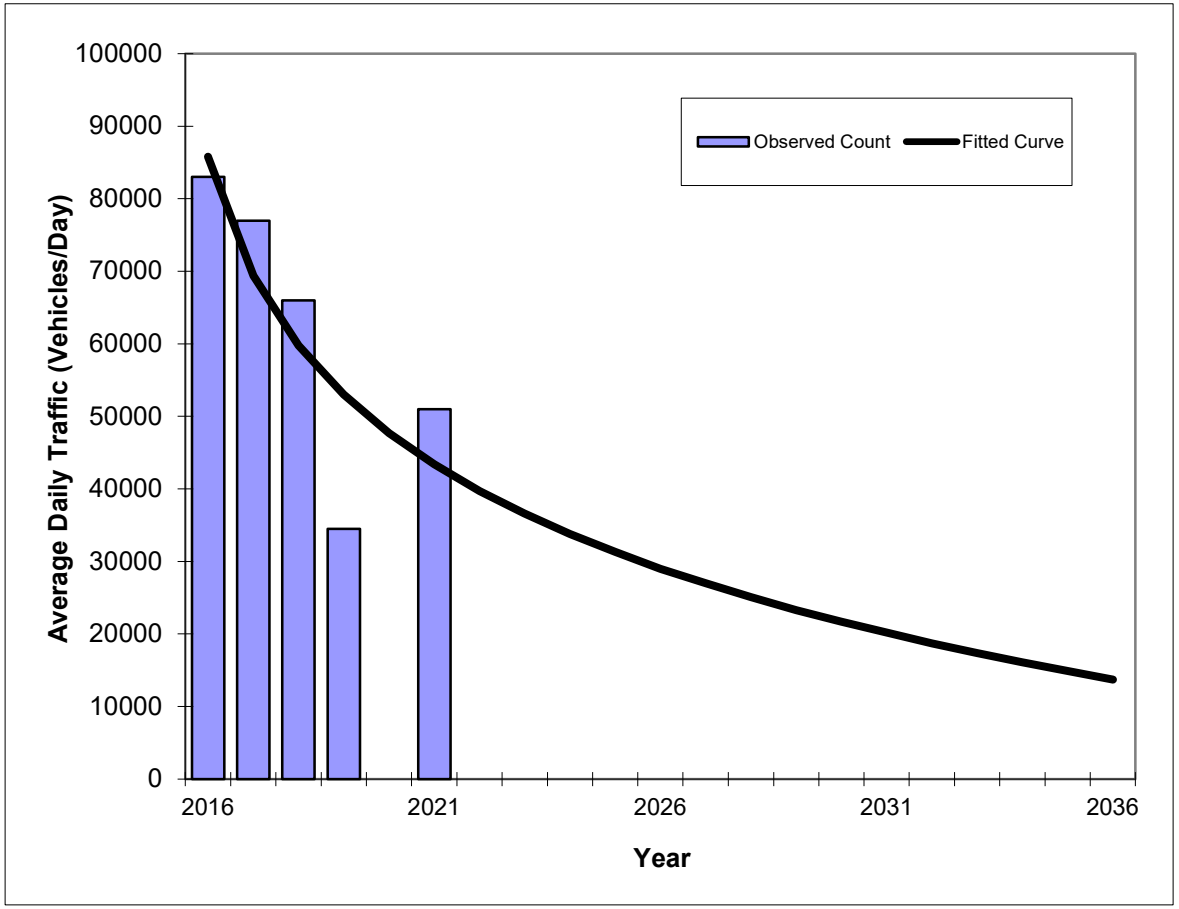
***Axle-Adjusted**

Traffic Trends - V03.a

SR A1A/MACARTHUR CSWY -- 200' W SR 907/ALTON RD

FIN#	0
Location	1

County:	MIAMI-DADE
Station #:	2527
Highway:	SR A1A/MACARTHUR CSWY



Year	Traffic (ADT/AADT) Count*	Trend**
2016	83000	85800
2017	77000	69400
2018	66000	59800
2019	34500	53000
2020	N/A	N/A
2021	51000	43400
2022 Opening Year Trend		
2022	N/A	39700
2023 Mid-Year Trend		
2023	N/A	36600
2025 Design Year Trend		
2025	N/A	31300
TRANPLAN Forecasts/Trends		

Trend R-squared:	49.47%
Compounded Annual Historic Growth Rate:	-12.74%
Compounded Growth Rate (2021 to Design Year):	-7.85%
Printed:	5-Dec-22

Exponential Growth Option

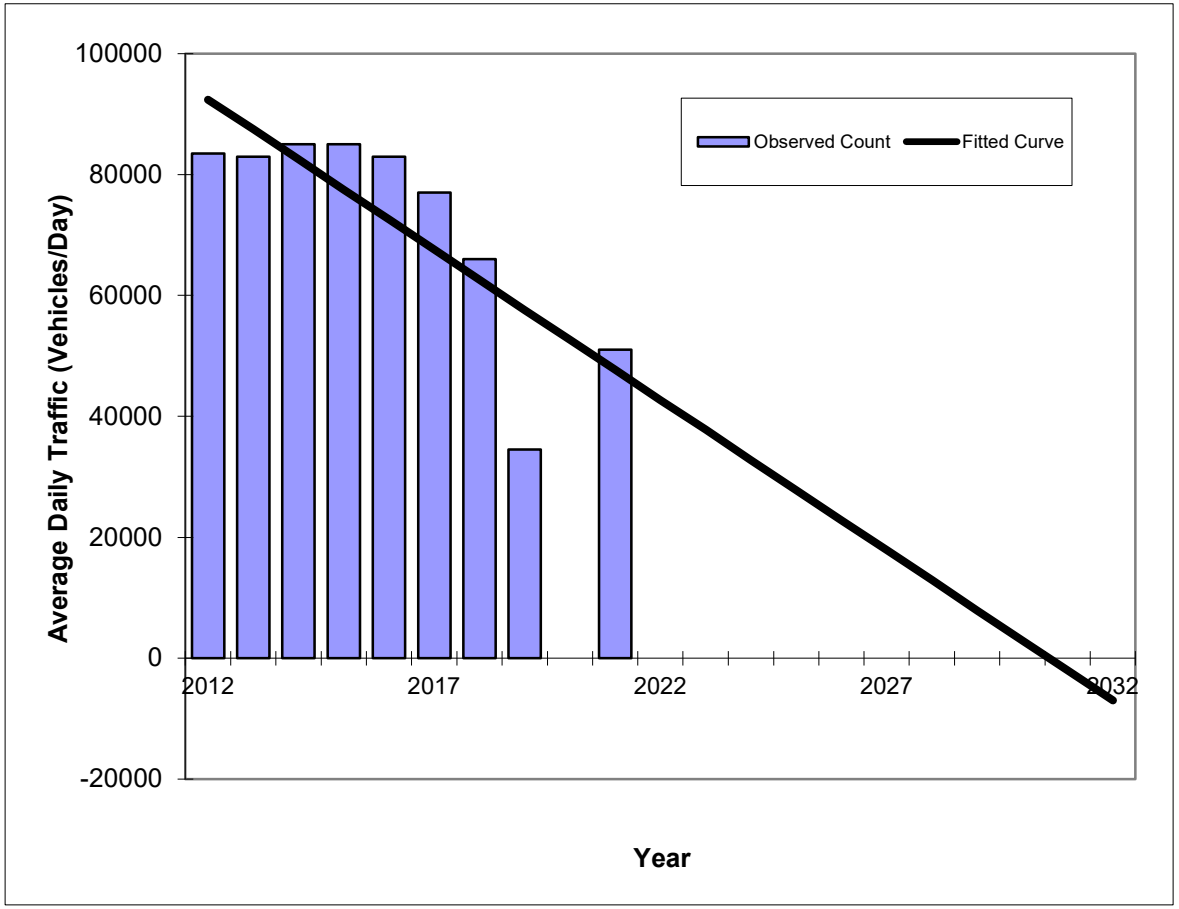
***Axle-Adjusted**

Traffic Trends - V03.a

SR A1A/MACARTHUR CSWY -- 200' W SR 907/ALTON RD

FIN#	0
Location	1

County:	MIAMI-DADE
Station #:	2527
Highway:	SR A1A/MACARTHUR CSWY



Year	Traffic (ADT/AADT) Count*	Trend**
2012	83500	92400
2013	83000	87500
2014	85000	82500
2015	85000	77500
2016	83000	72600
2017	77000	67600
2018	66000	62600
2019	34500	57600
2020	n/a	n/a
2021	51000	47700
2022 Opening Year Trend		
2022	N/A	42700
2023 Mid-Year Trend		
2023	N/A	37800
2025 Design Year Trend		
2025	N/A	27800
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	-4,972
Trend R-squared:	64.98%
Trend Annual Historic Growth Rate:	-5.38%
Trend Growth Rate (2021 to Design Year):	-10.43%
Printed:	5-Dec-22

Straight Line Growth Option

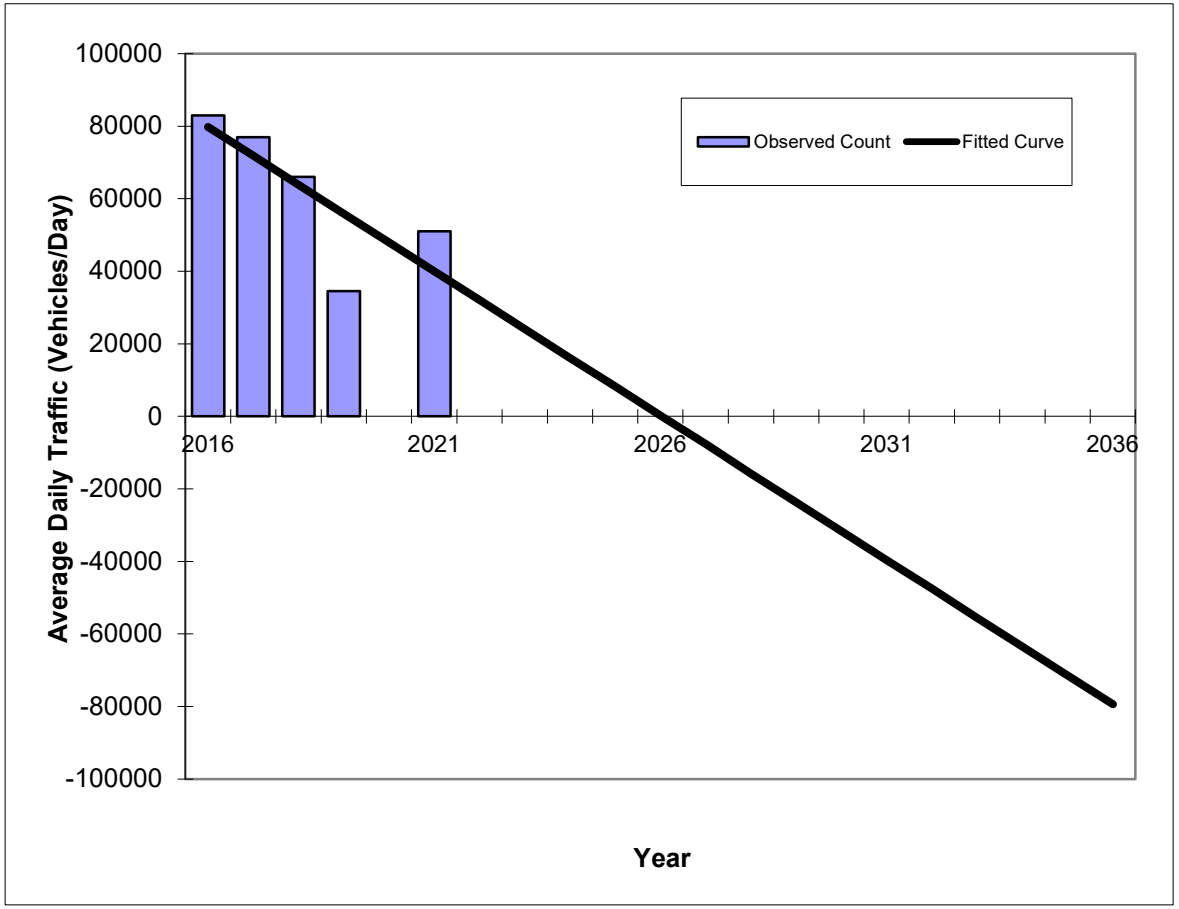
***Axle-Adjusted**

Traffic Trends - V03.a

SR A1A/MACARTHUR CSWY -- 200' W SR 907/ALTON RD

FIN#	0
Location	1

County:	MIAMI-DADE
Station #:	2527
Highway:	SR A1A/MACARTHUR CSWY



Year	Traffic (ADT/AADT) Count*	Trend**
2016	83000	79800
2017	77000	71900
2018	66000	63900
2019	34500	55900
2020	N/A	N/A
2021	51000	40000
2022 Opening Year Trend		
2022	N/A	32100
2023 Mid-Year Trend		
2023	N/A	24100
2025 Design Year Trend		
2025	N/A	8200
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	-7,959
Trend R-squared:	60.15%
Trend Annual Historic Growth Rate:	-9.97%
Trend Growth Rate (2021 to Design Year):	-19.88%
Printed:	5-Dec-22

Straight Line Growth Option

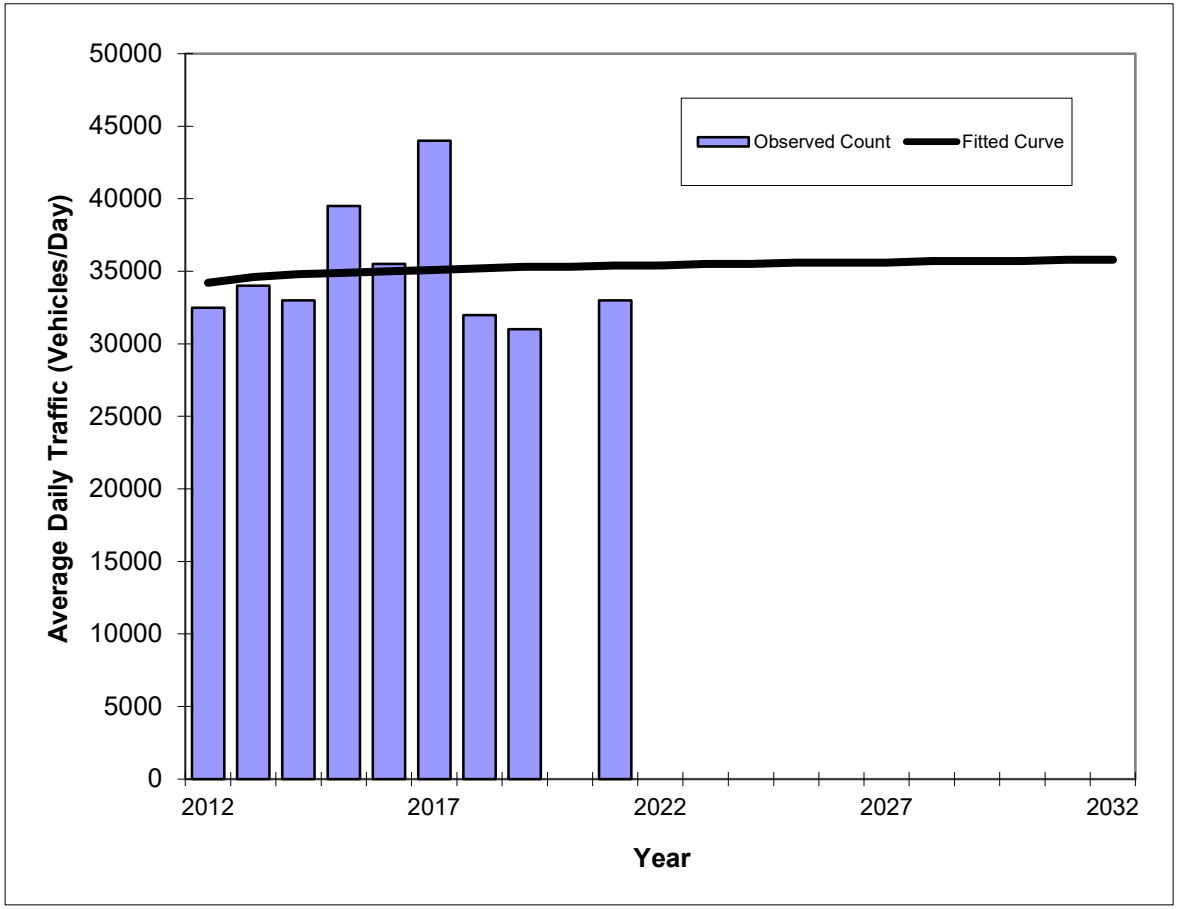
***Axle-Adjusted**

Traffic Trends - V03.a

SR A1A/MACARTHUR CSWY -- 150' N OF MERIDIAN AVE

FIN#	0
Location	2

County:	MIAMI-DADE
Station #:	2528
Highway:	SR A1A/MACARTHUR CSWY



Year	Traffic (ADT/AADT) Count*	Trend**
2012	32500	34200
2013	34000	34600
2014	33000	34800
2015	39500	34900
2016	35500	35000
2017	44000	35100
2018	32000	35200
2019	31000	35300
2020	n/a	n/a
2021	33000	35400
2022 Opening Year Trend		
2022	N/A	35400
2023 Mid-Year Trend		
2023	N/A	35500
2025 Design Year Trend		
2025	N/A	35600
TRANPLAN Forecasts/Trends		

Trend R-squared:	0.82%
Compounded Annual Historic Growth Rate:	0.38%
Compounded Growth Rate (2021 to Design Year):	0.14%
Printed:	5-Dec-22

Decaying Exponential Growth Option

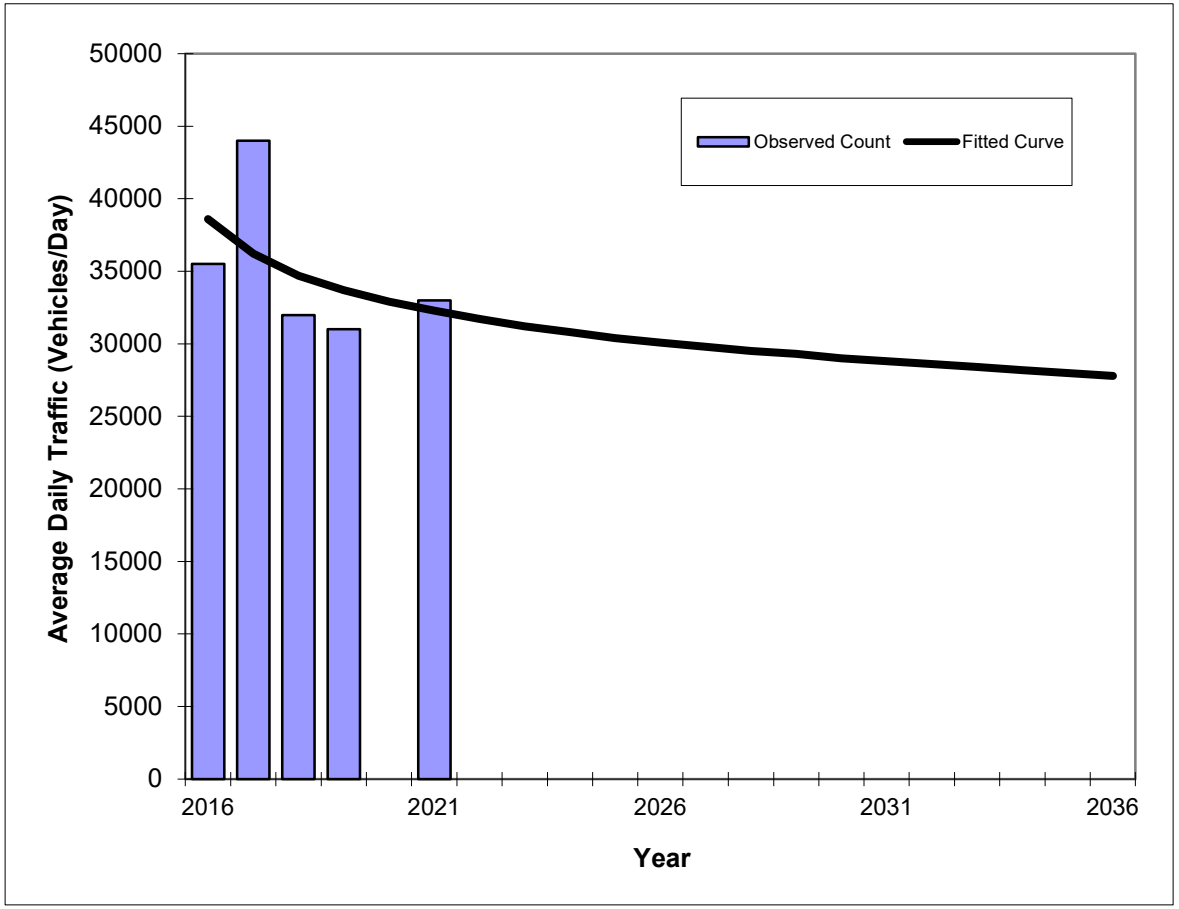
***Axle-Adjusted**

Traffic Trends - V03.a

SR A1A/MACARTHUR CSWY -- 150' N OF MERIDIAN AVE

FIN#	0
Location	2

County:	MIAMI-DADE
Station #:	2528
Highway:	SR A1A/MACARTHUR CSWY



Year	Traffic (ADT/AADT) Count*	Trend**
2016	35500	38600
2017	44000	36200
2018	32000	34700
2019	31000	33700
2020	n/a	n/a
2021	33000	32300
2022 Opening Year Trend		
2022	N/A	31700
2023 Mid-Year Trend		
2023	N/A	31200
2025 Design Year Trend		
2025	N/A	30400
TRANPLAN Forecasts/Trends		

Trend R-squared:	21.56%
Compounded Annual Historic Growth Rate:	-3.50%
Compounded Growth Rate (2021 to Design Year):	-1.50%
Printed:	5-Dec-22

Decaying Exponential Growth Option

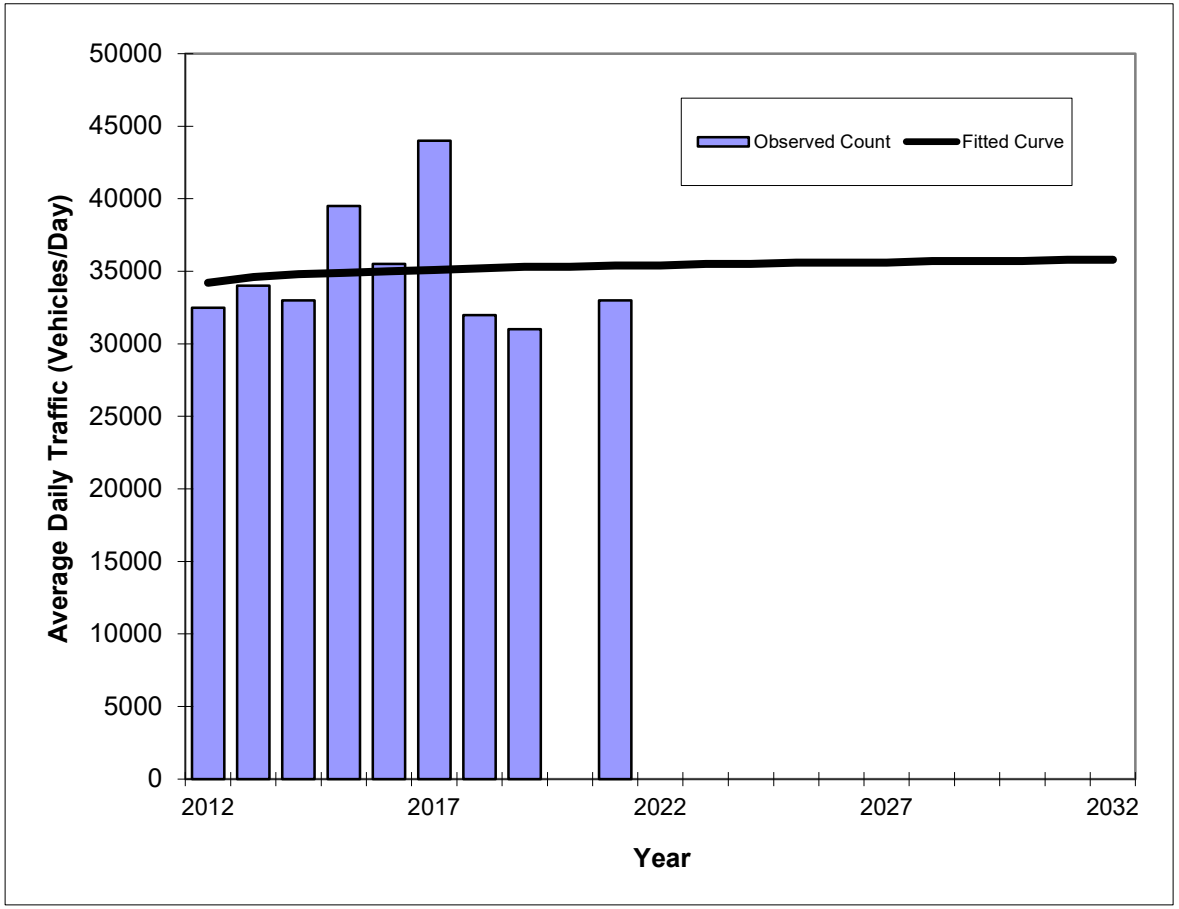
***Axle-Adjusted**

Traffic Trends - V03.a

SR A1A/MACARTHUR CSWY -- 150' N OF MERIDIAN AVE

FIN#	0
Location	2

County:	MIAMI-DADE
Station #:	2528
Highway:	SR A1A/MACARTHUR CSWY



Year	Traffic (ADT/AADT) Count*	Trend**
2012	32500	34200
2013	34000	34600
2014	33000	34800
2015	39500	34900
2016	35500	35000
2017	44000	35100
2018	32000	35200
2019	31000	35300
2020	n/a	n/a
2021	33000	35400
2022 Opening Year Trend		
2022	N/A	35400
2023 Mid-Year Trend		
2023	N/A	35500
2025 Design Year Trend		
2025	N/A	35600
TRANPLAN Forecasts/Trends		

Trend R-squared:	0.69%
Compounded Annual Historic Growth Rate:	0.38%
Compounded Growth Rate (2021 to Design Year):	0.14%
Printed:	5-Dec-22

Exponential Growth Option

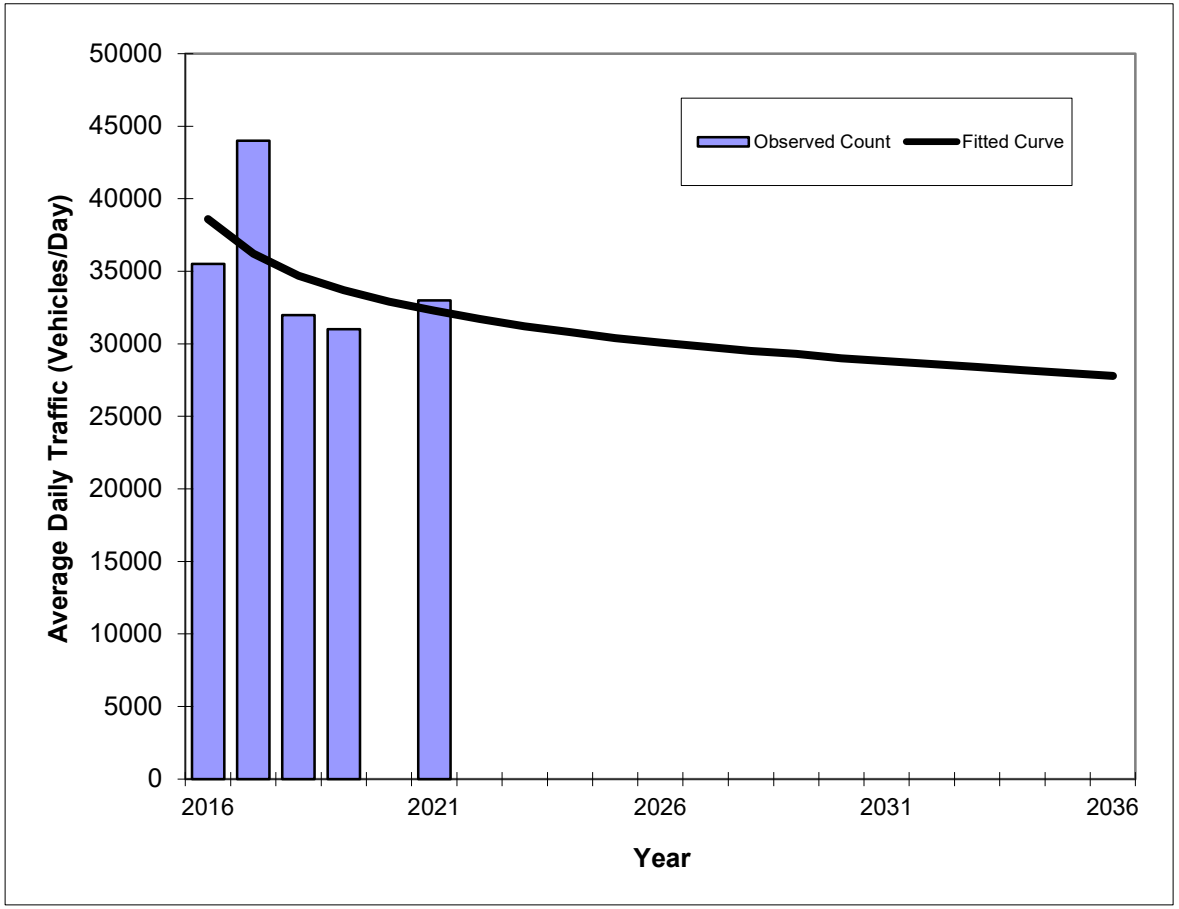
***Axle-Adjusted**

Traffic Trends - V03.a

SR A1A/MACARTHUR CSWY -- 150' N OF MERIDIAN AVE

FIN#	0
Location	2

County:	MIAMI-DADE
Station #:	2528
Highway:	SR A1A/MACARTHUR CSWY



Year	Traffic (ADT/AADT) Count*	Trend**
2016	35500	38600
2017	44000	36200
2018	32000	34700
2019	31000	33700
2020	n/a	n/a
2021	33000	32300
2022 Opening Year Trend		
2022	N/A	31700
2023 Mid-Year Trend		
2023	N/A	31200
2025 Design Year Trend		
2025	N/A	30400
TRANPLAN Forecasts/Trends		

Trend R-squared:	25.96%
Compounded Annual Historic Growth Rate:	-3.50%
Compounded Growth Rate (2021 to Design Year):	-1.50%
Printed:	5-Dec-22

Exponential Growth Option

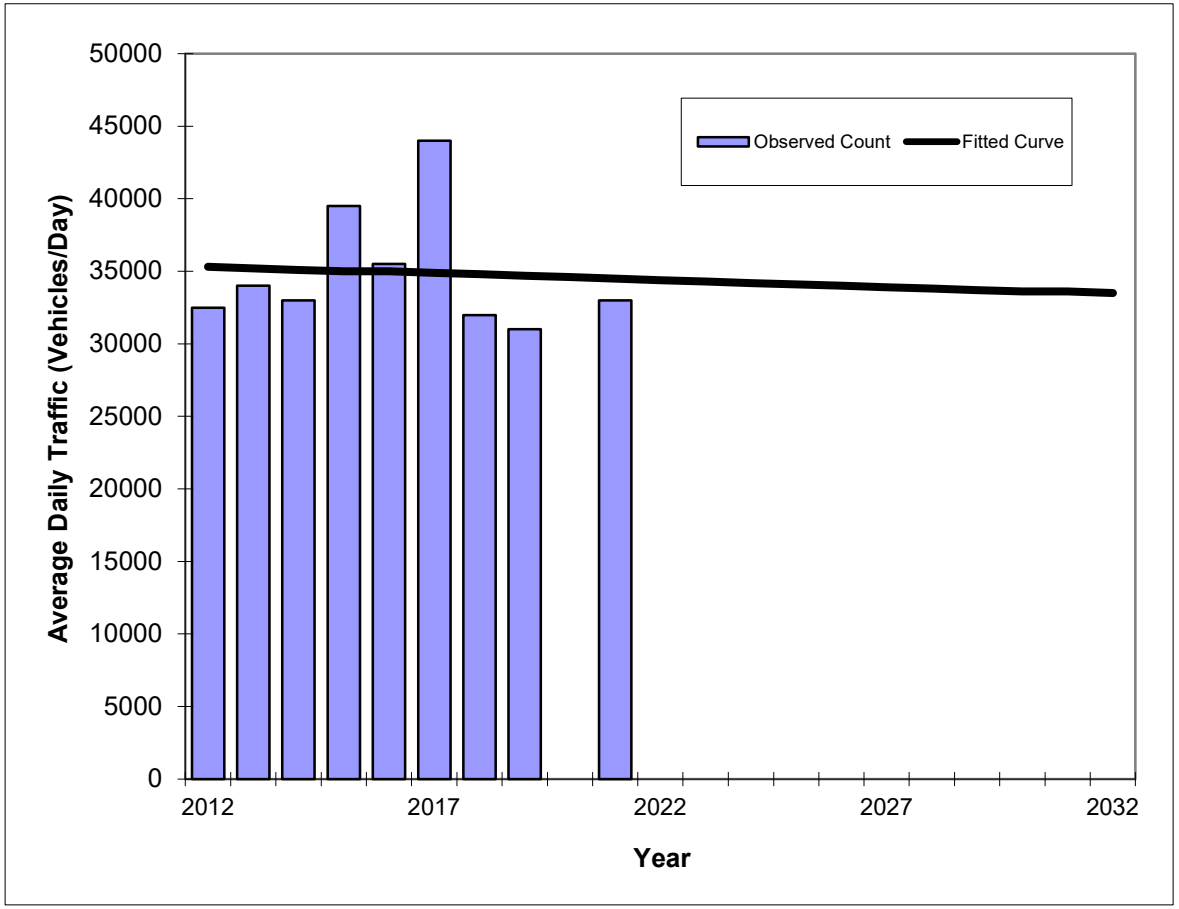
***Axle-Adjusted**

Traffic Trends - V03.a

SR A1A/MACARTHUR CSWY -- 150' N OF MERIDIAN AVE

FIN#	0
Location	2

County:	MIAMI-DADE
Station #:	2528
Highway:	SR A1A/MACARTHUR CSWY



Year	Traffic (ADT/AADT) Count*	Trend**
2012	32500	35300
2013	34000	35200
2014	33000	35100
2015	39500	35000
2016	35500	35000
2017	44000	34900
2018	32000	34800
2019	31000	34700
2020	n/a	n/a
2021	33000	34500
2022 Opening Year Trend		
2022	N/A	34400
2023 Mid-Year Trend		
2023	N/A	34300
2025 Design Year Trend		
2025	N/A	34100
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	-94
Trend R-squared:	0.43%
Trend Annual Historic Growth Rate:	-0.25%
Trend Growth Rate (2021 to Design Year):	-0.29%
Printed:	5-Dec-22

Straight Line Growth Option

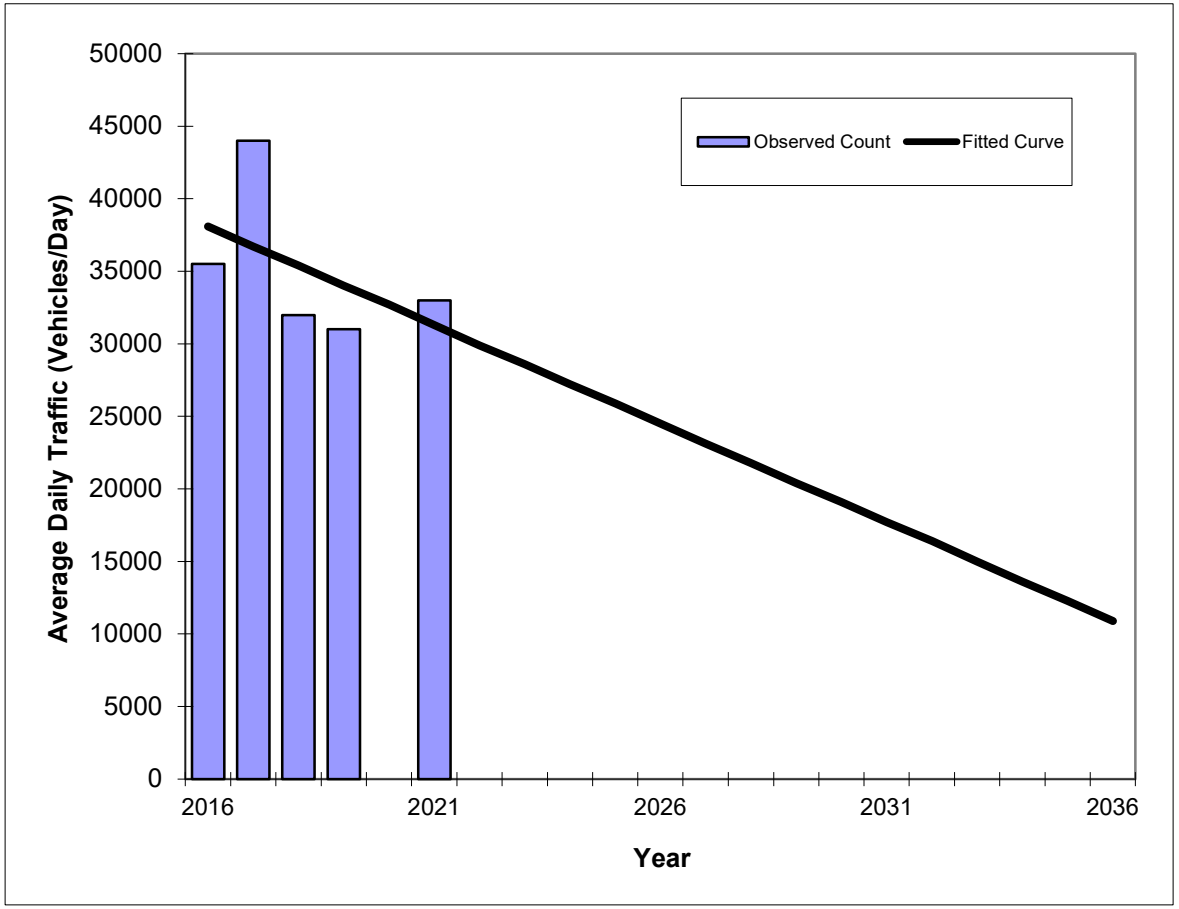
***Axle-Adjusted**

Traffic Trends - V03.a

SR A1A/MACARTHUR CSWY -- 150' N OF MERIDIAN AVE

FIN#	0
Location	2

County:	MIAMI-DADE
Station #:	2528
Highway:	SR A1A/MACARTHUR CSWY



Year	Traffic (ADT/AADT) Count*	Trend**
2016	35500	38100
2017	44000	36700
2018	32000	35400
2019	31000	34000
2020	n/a	n/a
2021	33000	31300
2022 Opening Year Trend		
2022	N/A	29900
2023 Mid-Year Trend		
2023	N/A	28600
2025 Design Year Trend		
2025	N/A	25900
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	-1,358
Trend R-squared:	24.77%
Trend Annual Historic Growth Rate:	-3.57%
Trend Growth Rate (2021 to Design Year):	-4.31%
Printed:	5-Dec-22

Straight Line Growth Option

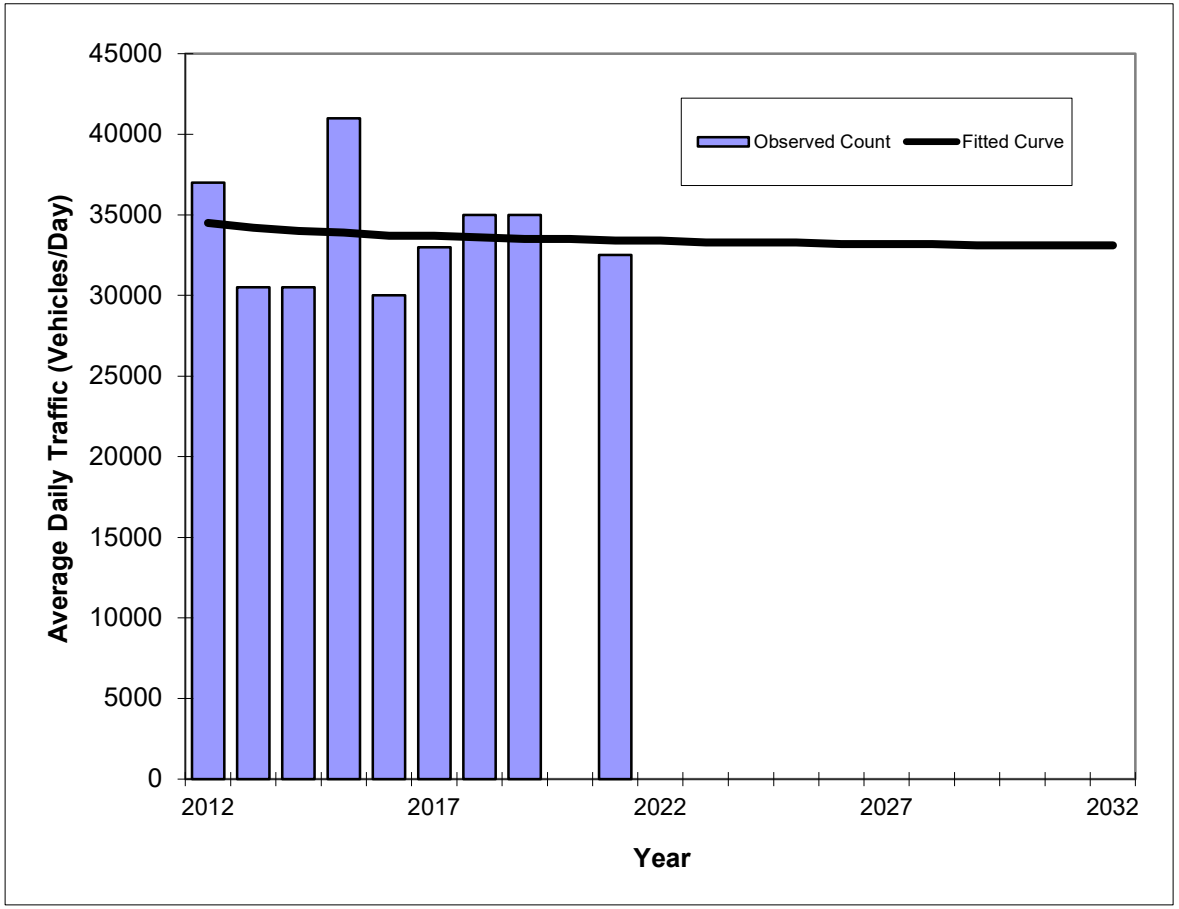
***Axle-Adjusted**

Traffic Trends - V03.a

SR 907/ALTON RD -- 200' S OF VENETIAN CSWY

FIN#	0
Location	3

County:	MIAMI-DADE
Station #:	2542
Highway:	SR 907/ALTON RD



Year	Traffic (ADT/AADT) Count*	Trend**
2012	37000	34500
2013	30500	34200
2014	30500	34000
2015	41000	33900
2016	30000	33700
2017	33000	33700
2018	35000	33600
2019	35000	33500
2020	n/a	n/a
2021	32500	33400
2022 Opening Year Trend		
2022	N/A	33400
2023 Mid-Year Trend		
2023	N/A	33300
2025 Design Year Trend		
2025	N/A	33300
TRANPLAN Forecasts/Trends		

Trend R-squared:	0.96%
Compounded Annual Historic Growth Rate:	-0.36%
Compounded Growth Rate (2021 to Design Year):	-0.07%
Printed:	5-Dec-22

Decaying Exponential Growth Option

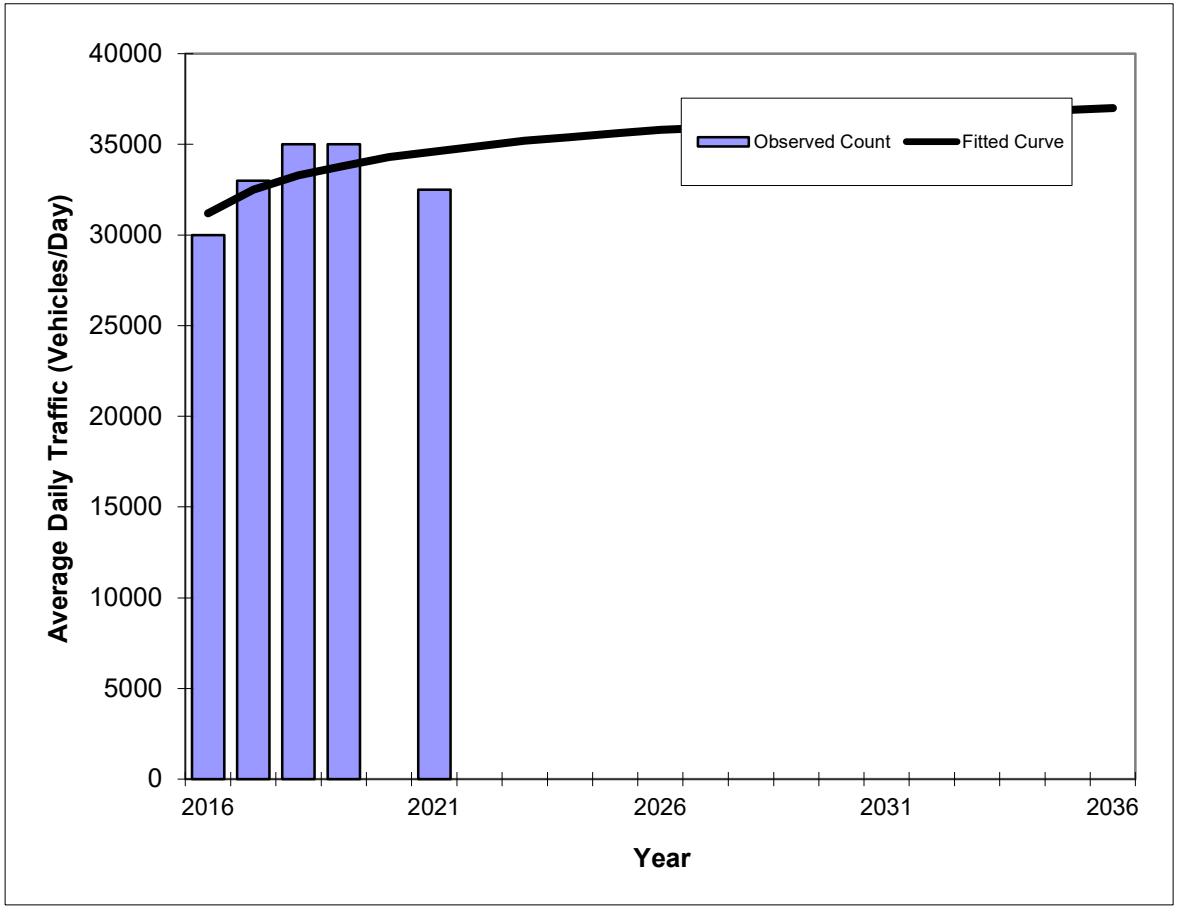
***Axle-Adjusted**

Traffic Trends - V03.a

SR 907/ALTON RD -- 200' S OF VENETIAN CSWY

FIN#	0
Location	3

County:	MIAMI-DADE
Station #:	2542
Highway:	SR 907/ALTON RD



Year	Traffic (ADT/AADT) Count*	Trend**
2016	30000	31200
2017	33000	32500
2018	35000	33300
2019	35000	33800
2020	N/A	n/a
2021	32500	34600
2022 Opening Year Trend		
2022	N/A	34900
2023 Mid-Year Trend		
2023	N/A	35200
2025 Design Year Trend		
2025	N/A	35600
TRANPLAN Forecasts/Trends		

Trend R-squared:	39.57%
Compounded Annual Historic Growth Rate:	2.09%
Compounded Growth Rate (2021 to Design Year):	0.71%
Printed:	5-Dec-22

Decaying Exponential Growth Option

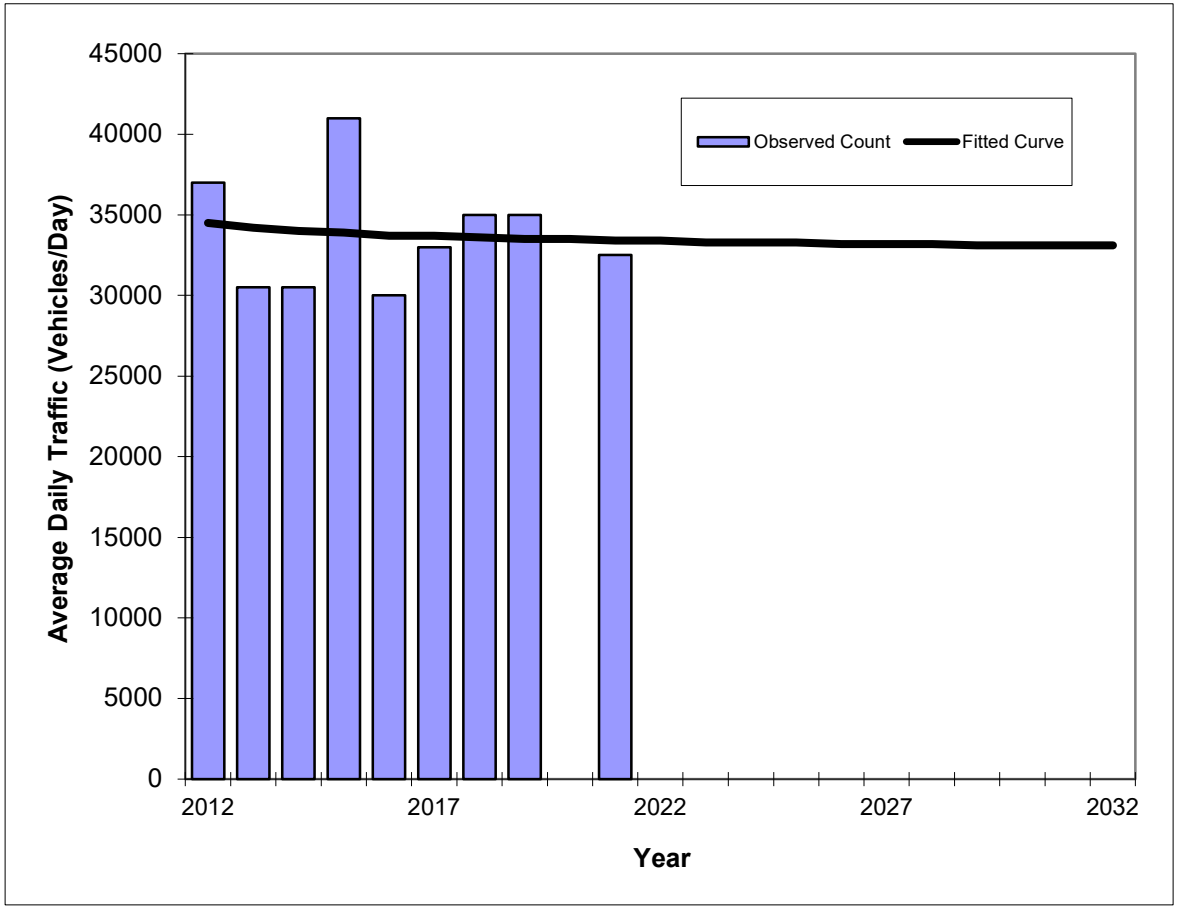
***Axle-Adjusted**

Traffic Trends - V03.a

SR 907/ALTON RD -- 200' S OF VENETIAN CSWY

FIN#	0
Location	3

County:	MIAMI-DADE
Station #:	2542
Highway:	SR 907/ALTON RD



Year	Traffic (ADT/AADT) Count*	Trend**
2012	37000	34500
2013	30500	34200
2014	30500	34000
2015	41000	33900
2016	30000	33700
2017	33000	33700
2018	35000	33600
2019	35000	33500
2020	n/a	n/a
2021	32500	33400
2022 Opening Year Trend		
2022	N/A	33400
2023 Mid-Year Trend		
2023	N/A	33300
2025 Design Year Trend		
2025	N/A	33300
TRANPLAN Forecasts/Trends		

Trend R-squared:	0.12%
Compounded Annual Historic Growth Rate:	-0.36%
Compounded Growth Rate (2021 to Design Year):	-0.07%
Printed:	5-Dec-22

Exponential Growth Option

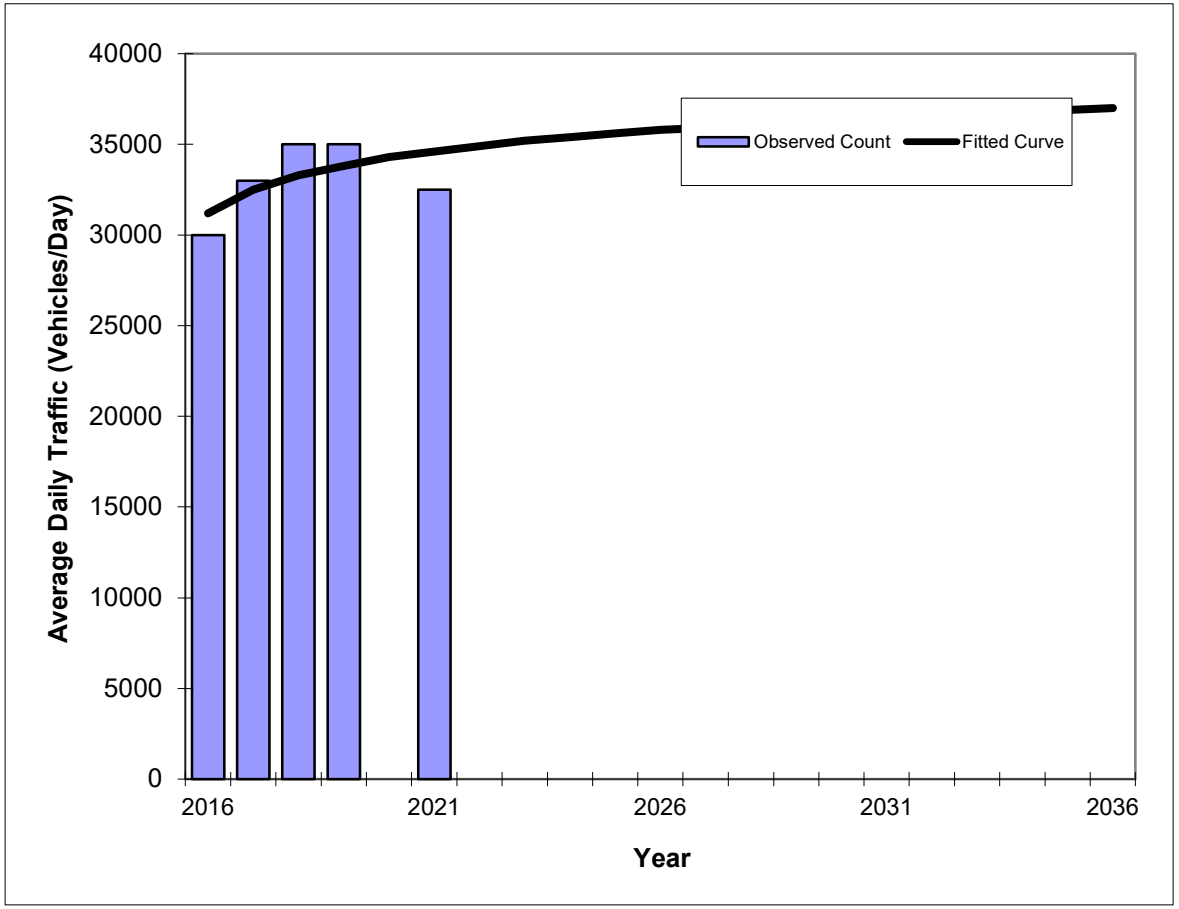
***Axle-Adjusted**

Traffic Trends - V03.a

SR 907/ALTON RD -- 200' S OF VENETIAN CSWY

FIN#	0
Location	3

County:	MIAMI-DADE
Station #:	2542
Highway:	SR 907/ALTON RD



Year	Traffic (ADT/AADT) Count*	Trend**
2016	30000	31200
2017	33000	32500
2018	35000	33300
2019	35000	33800
2020	N/A	n/a
2021	32500	34600
2022 Opening Year Trend		
2022	N/A	34900
2023 Mid-Year Trend		
2023	N/A	35200
2025 Design Year Trend		
2025	N/A	35600
TRANPLAN Forecasts/Trends		

Trend R-squared:	17.03%
Compounded Annual Historic Growth Rate:	2.09%
Compounded Growth Rate (2021 to Design Year):	0.71%
Printed:	5-Dec-22

Exponential Growth Option

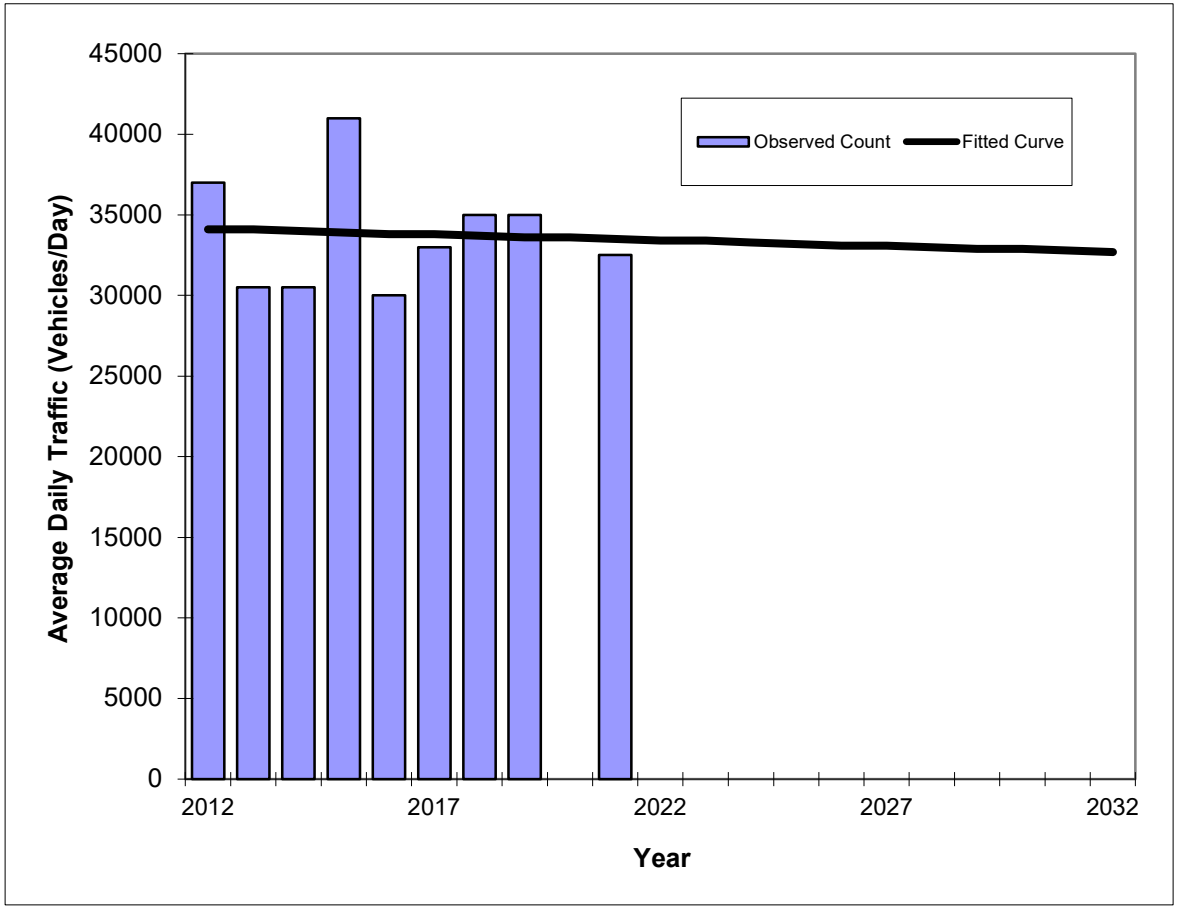
***Axle-Adjusted**

Traffic Trends - V03.a

SR 907/ALTON RD -- 200' S OF VENETIAN CSWY

FIN#	0
Location	3

County:	MIAMI-DADE
Station #:	2542
Highway:	SR 907/ALTON RD



Year	Traffic (ADT/AADT) Count*	Trend**
2012	37000	34100
2013	30500	34100
2014	30500	34000
2015	41000	33900
2016	30000	33800
2017	33000	33800
2018	35000	33700
2019	35000	33600
2020	n/a	n/a
2021	32500	33500
2022 Opening Year Trend		
2022	N/A	33400
2023 Mid-Year Trend		
2023	N/A	33400
2025 Design Year Trend		
2025	N/A	33200
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	-70
Trend R-squared:	0.33%
Trend Annual Historic Growth Rate:	-0.20%
Trend Growth Rate (2021 to Design Year):	-0.22%
Printed:	5-Dec-22

Straight Line Growth Option

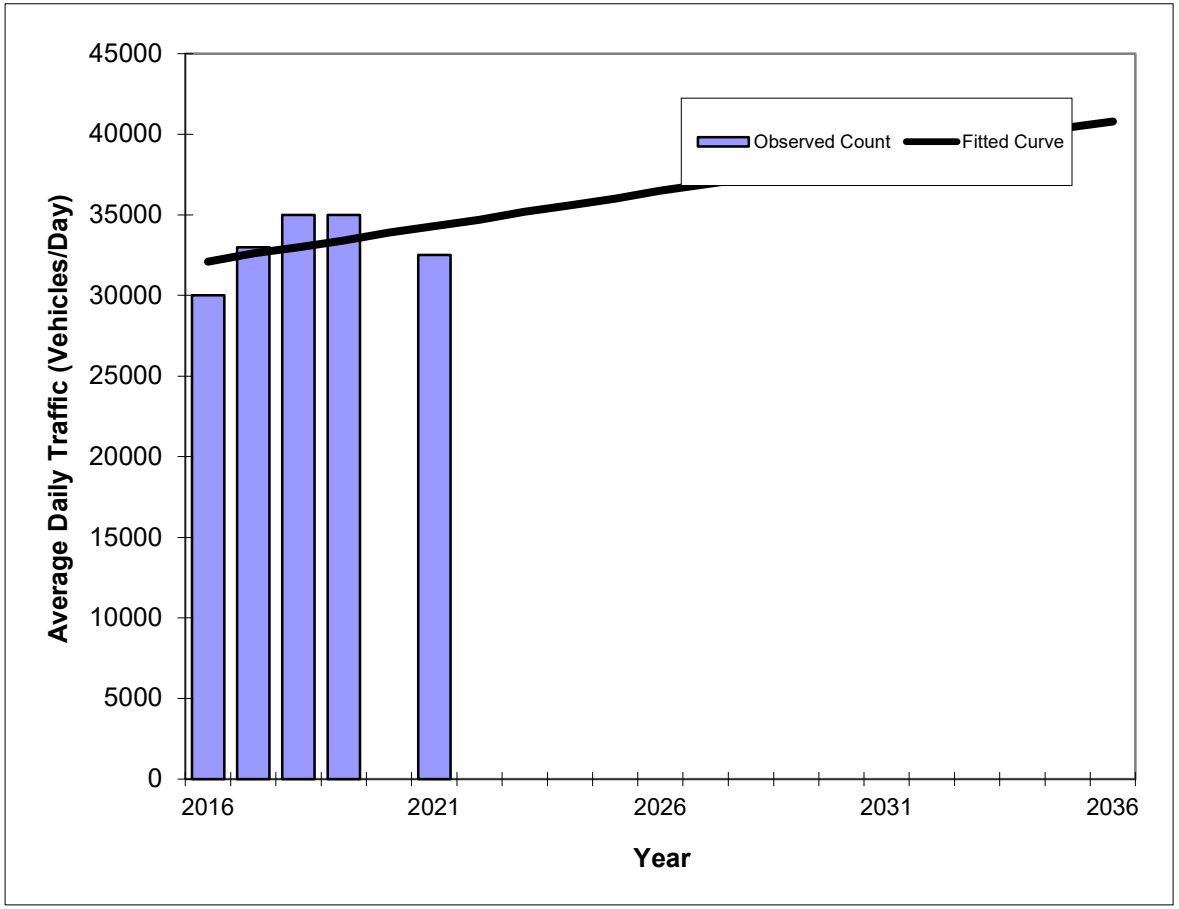
***Axle-Adjusted**

Traffic Trends - V03.a

SR 907/ALTON RD -- 200' S OF VENETIAN CSWY

FIN#	0
Location	3

County:	MIAMI-DADE
Station #:	2542
Highway:	SR 907/ALTON RD



Year	Traffic (ADT/AADT) Count*	Trend**
2016	30000	32100
2017	33000	32600
2018	35000	33000
2019	35000	33400
2020	N/A	n/a
2021	32500	34300
2022 Opening Year Trend		
2022	N/A	34700
2023 Mid-Year Trend		
2023	N/A	35200
2025 Design Year Trend		
2025	N/A	36000
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	432
Trend R-squared:	16.09%
Trend Annual Historic Growth Rate:	1.37%
Trend Growth Rate (2021 to Design Year):	1.24%
Printed:	5-Dec-22

Straight Line Growth Option

***Axle-Adjusted**

Growth Rate Trend Analysis Calcualtions - 5 Years									
Description	FDOT Historical AADT Data								
	2527			2528			2542		
Option	Linear	Exponential	Decaying Exponential	Linear	Exponential	Decaying Exponential	Linear	Exponential	Decaying Exponential
Trend Growth Rate 5 years	-9.97	-12.74	-12.74	-3.57	-3.50	-3.50	1.37	2.09	2.09
Trend R-squared 5 years	60.15	49.47	67.68	24.77	25.96	21.56	16.09	17.03	39.57
Average Growth Rate (5-year) Linear all stations	-4.06								
Average Growth Rate (5-year) Exponential all stations	-4.72								
Average Growth Rate (5-year) Decaying Exponential all stations	-4.72								
Highest R-Square	**67.68**								
Growth Rate (5-year) with the highest R- Square	**-4.72**								

Growth Rate Trend Analysis Calcualtions - 10 Years									
Description	FDOT Historical AADT Data								
	2527			2528			2542		
Option	Linear	Exponential	Decaying Exponential	Linear	Exponential	Decaying Exponential	Linear	Exponential	Decaying Exponential
Trend Growth Rate 10 years	-5.38	-5.50	-5.50	-0.25	0.38	0.38	-0.20	-0.36	-0.36
Trend R-squared 10 years	64.98	56.87	45.14	0.43	0.69	0.82	0.33	0.12	0.96
Average Growth Rate (10-year) Linear all stations	-1.94								
Average Growth Rate (10-year) Exponential all stations	-1.83								
Average Growth Rate (10-year) Decaying Exponential all stations	-1.83								
Highest R-Square	**64.98**								
Growth Rate (10-year) with highest R- Square	**-1.94**								

Notes:

What Is R-squared?

R-squared is a statistical measure of how close the data are to the fitted regression line. It is also known as the coefficient of determination, or the coefficient of multiple determination for multiple regression.

The definition of R-squared is fairly straight-forward; it is the percentage of the response variable variation that is explained by a linear model. Or:

R-squared = Explained variation / Total variation

R-squared is always between 0 and 100%:

0% indicates that the model explains none of the variability of the response data around its mean.

100% indicates that the model explains all the variability of the response data around its mean.

In general, the higher the R-squared, the better the model fits your data. However, there are important conditions for this guideline that I'll talk about both in this post and my next post.

APPENDIX D

Future Turning Movement Volumes and Committed Developments Information

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

Alton Road and 8th Street
AM Peak Hour

Description	Alton Road Northbound			Alton Road Southbound			8th Street Eastbound			8th Street Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (12/1/2022)	103	1,208	52	53	716	13	9	25	37	40	21	36
Season Adjustment Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
2022 Peak Season Traffic	105	1,232	53	54	730	13	9	26	38	41	21	37
Annual Growth Rate	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%
Committed Developments												
600 Alton												
2025 Background Traffic	108	1,269	55	56	752	14	9	26	39	42	22	38
Alton Clinic Library			7	13								3
2025 Total Traffic	**108**	**1,269**	**62**	**69**	**752**	**14**	**9**	**26**	**39**	**42**	**22**	**41**

Note: At Signalized intersectons, u-turns were added to left-turn volumes in order to provide Capacity Analysis usinf the HCM 6th Edition

TRAFTECH ENGINEERING, INC.

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

Alton Road and 8th Street
PM Peak Hour

Description	Alton Road Northbound			Alton Road Southbound			8th Street Eastbound			8th Street Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (12/1/2022)	189	1,298	70	88	691	12	17	49	39	37	36	50
Season Adjustment Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
2022 Peak Season Traffic	193	1,324	71	90	705	12	17	50	40	38	37	51
Annual Growth Rate	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%
Committed Developments												
600 Alton	82				30	16	35				47	47
2025 Background Traffic	281	1,364	74	92	756	29	53	51	41	39	85	100
Alton Clinic Library			11	19								28
2025 Total Traffic	**281**	**1,364**	**85**	**111**	**756**	**29**	**53**	**51**	**41**	**39**	**85**	**128**

Note: At Signalized intersectons, u-turns were added to left-turn volumes in order to provide Capacity Analysis usinf the HCM 6th Edition

TRAFTECH ENGINEERING, INC.

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

Alton Road and 7th Street
AM Peak Hour

Description	Alton Road Northbound			Alton Road Southbound			7th Street Eastbound			7th Street Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (12/1/2022)		1,369	18		794							40
Season Adjustment Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
2022 Peak Season Traffic	0	1,396	18	0	810	0	0	0	0	0	0	41
Annual Growth Rate	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%
Committed Developments												
600 Alton												
2025 Background Traffic	0	1,439	19	0	834	0	0	0	0	0	0	42
Alton Clinic Library			32									
2025 Total Traffic	**0**	**1,439**	**51**	**0**	**834**	**0**	**0**	**0**	**0**	**0**	**0**	**42**

Note: At Signalized intersectons, u-turns were added to left-turn volumes in order to provide Capacity Analysis usinf the HCM 6th Edition

TRAFTECH ENGINEERING, INC.

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

Alton Road and 7th Street
PM Peak Hour

Description	Alton Road Northbound			Alton Road Southbound			7th Street Eastbound			7th Street Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (12/1/2022)		1,491	12		783							71
Season Adjustment Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
2022 Peak Season Traffic	0	1,521	12	0	799	0	0	0	0	0	0	72
Annual Growth Rate	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%
Committed Developments												
600 Alton					59							
2025 Background Traffic	0	1,567	13	0	882	0	0	0	0	0	0	75
Alton Clinic Library			46									
2025 Total Traffic	**0**	**1,567**	**59**	**0**	**882**	**0**	**0**	**0**	**0**	**0**	**0**	**75**

Note: At Signalized intersectons, u-turns were added to left-turn volumes in order to provide Capacity Analysis usinf the HCM 6th Edition

TRAFTECH ENGINEERING, INC.

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

Alton Road and 5th Street
AM Peak Hour

Description	Alton Road Northbound			Alton Road Southbound			5th Street Eastbound			5th Street Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (12/1/2022)	250	138	10	79	178	359	1	966	455	33	739	80
Season Adjustment Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
2022 Peak Season Traffic	255	141	10	81	182	366	1	985	464	34	754	82
Annual Growth Rate	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%
Committed Developments												
600 Alton												
2025 Background Traffic	263	145	11	83	187	377	1	1,015	478	35	777	84
Alton Clinic Library		3					7			1	2	29
2025 Total Traffic	**263**	**148**	**11**	**83**	**187**	**377**	**8**	**1,015**	**478**	**36**	**779**	**113**

Note: At Signalized intersectons, u-turns were added to left-turn volumes in order to provide Capacity Analysis usinf the HCM 6th Edition

TRAFTECH ENGINEERING, INC.

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

Alton Road and 5th Street
PM Peak Hour

Description	Alton Road Northbound			Alton Road Southbound			5th Street Eastbound			5th Street Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (12/1/2022)	411	217	17	42	176	290	3	1,053	442	27	853	103
Season Adjustment Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
2022 Peak Season Traffic	419	221	17	43	180	296	3	1,074	451	28	870	105
Annual Growth Rate	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%
Committed Developments												
600 Alton				44	25	15						
2025 Background Traffic	432	228	18	88	210	320	3	1,107	465	28	896	108
Alton Clinic Library		4					11			5	16	42
2025 Total Traffic	**432**	**232**	**18**	**88**	**210**	**320**	**14**	**1,107**	**465**	**33**	**912**	**150**

Note: At Signalized intersectons, u-turns were added to left-turn volumes in order to provide Capacity Analysis usinf the HCM 6th Edition

TRAFTECH ENGINEERING, INC.

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

Lenox Avenue and 8th Street
AM Peak Hour

Description	Lenox Avenue Northbound			Lenox Avenue Southbound			8th Street Eastbound			8th Street Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (12/1/2022)	19	56	8	1	51	13	10	59	40	16	50	5
Season Adjustment Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
2022 Peak Season Traffic	19	57	8	1	52	13	10	60	41	16	51	5
Annual Growth Rate	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%
Committed Developments												
600 Alton												
2025 Background Traffic	20	59	8	1	54	14	11	62	42	17	53	5
Alton Clinic Library	3	1	0		6				20	1		
2025 Total Traffic	**23**	**60**	**8**	**1**	**60**	**14**	**11**	**62**	**62**	**18**	**53**	**5**

Note: At Signalized intersectons, u-turns were added to left-turn volumes in order to provide Capacity Analysis usinf the HCM 6th Edition

TRAFTECH ENGINEERING, INC.

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

Lenox Avenue and 8th Street
PM Peak Hour

Description	Lenox Avenue Northbound			Lenox Avenue Southbound			8th Street Eastbound			8th Street Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (12/1/2022)	30	133	18	9	82	14	27	147	58	10	74	9
Season Adjustment Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
2022 Peak Season Traffic	31	136	18	9	84	14	28	150	59	10	75	9
Annual Growth Rate	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%
Committed Developments												
600 Alton											94	
2025 Background Traffic	32	140	19	9	86	15	28	154	61	11	172	9
Alton Clinic Library	28	13	2		9				30	1		
2025 Total Traffic	**60**	**153**	**21**	**9**	**95**	**15**	**28**	**154**	**91**	**12**	**172**	**9**

Note: At Signalized intersectons, u-turns were added to left-turn volumes in order to provide Capacity Analysis usinf the HCM 6th Edition

TRAFTECH ENGINEERING, INC.

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

Lenox Avenue and 7th Street
AM Peak Hour

Description	Lenox Avenue Northbound			Lenox Avenue Southbound			7th Street Eastbound			7th Street Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (12/1/2022)	17	64	15	8	94	12	10	12	11	16	27	7
Season Adjustment Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
2022 Peak Season Traffic	17	65	15	8	96	12	10	12	11	16	28	7
Annual Growth Rate	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%
Committed Developments												
600 Alton												
2025 Background Traffic	18	67	16	8	99	13	11	13	12	17	28	7
Alton Clinic Library					27		4	0	3	1		
2025 Total Traffic	**18**	**67**	**16**	**8**	**126**	**13**	**15**	**13**	**15**	**18**	**28**	**7**

Note: At Signalized intersectons, u-turns were added to left-turn volumes in order to provide Capacity Analysis usinf the HCM 6th Edition

TRAFTECH ENGINEERING, INC.

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

Lenox Avenue and 7th Street
AM Peak Hour

Description	Lenox Avenue Northbound			Lenox Avenue Southbound			7th Street Eastbound			7th Street Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (12/1/2022)	27	161	30	18	121	2	7	8	13	21	38	14
Season Adjustment Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
2022 Peak Season Traffic	28	164	31	18	123	2	7	8	13	21	39	14
Annual Growth Rate	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%
Committed Developments												
600 Alton												
2025 Background Traffic	28	169	32	19	127	2	7	8	14	22	40	15
Alton Clinic Library					40		43	2	23	1		
2025 Total Traffic	**28**	**169**	**32**	**19**	**167**	**2**	**50**	**10**	**37**	**23**	**40**	**15**

Note: At Signalized intersectons, u-turns were added to left-turn volumes in order to provide Capacity Analysis usinf the HCM 6th Edition

TRAFTECH ENGINEERING, INC.

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

Lenox Avenue and 5th Street
AM Peak Hour

Description	Lenox Avenue Northbound			Lenox Avenue Southbound			5th Street Eastbound			5th Street Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (12/1/2022)	17	29	27	16	52	66	145	955	43	29	747	24
Season Adjustment Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
2022 Peak Season Traffic	17	30	28	16	53	67	148	974	44	30	762	24
Annual Growth Rate	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%
Committed Developments												
600 Alton												
2025 Background Traffic	18	30	28	17	55	69	152	1,004	45	30	785	25
Alton Clinic Library				0		31					1	
2025 Total Traffic	**18**	**30**	**28**	**17**	**55**	**100**	**152**	**1,004**	**45**	**30**	**786**	**25**

Note: At Signalized intersectons, u-turns were added to left-turn volumes in order to provide Capacity Analysis usinf the HCM 6th Edition

TRAFTECH ENGINEERING, INC.

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

Lenox Avenue and 5th Street
PM Peak Hour

Description	Lenox Avenue Northbound			Lenox Avenue Southbound			5th Street Eastbound			5th Street Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (12/1/2022)	32	61	20	37	43	87	149	1,019	18	17	799	49
Season Adjustment Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
2022 Peak Season Traffic	33	62	20	38	44	89	152	1,039	18	17	815	50
Annual Growth Rate	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%
Committed Developments												
600 Alton								44				
2025 Background Traffic	34	64	21	39	45	91	157	1,115	19	18	840	51
Alton Clinic Library				2		62					1	
2025 Total Traffic	**34**	**64**	**21**	**41**	**45**	**153**	**157**	**1,115**	**19**	**18**	**841**	**51**

Note: At Signalized intersectons, u-turns were added to left-turn volumes in order to provide Capacity Analysis usinf the HCM 6th Edition

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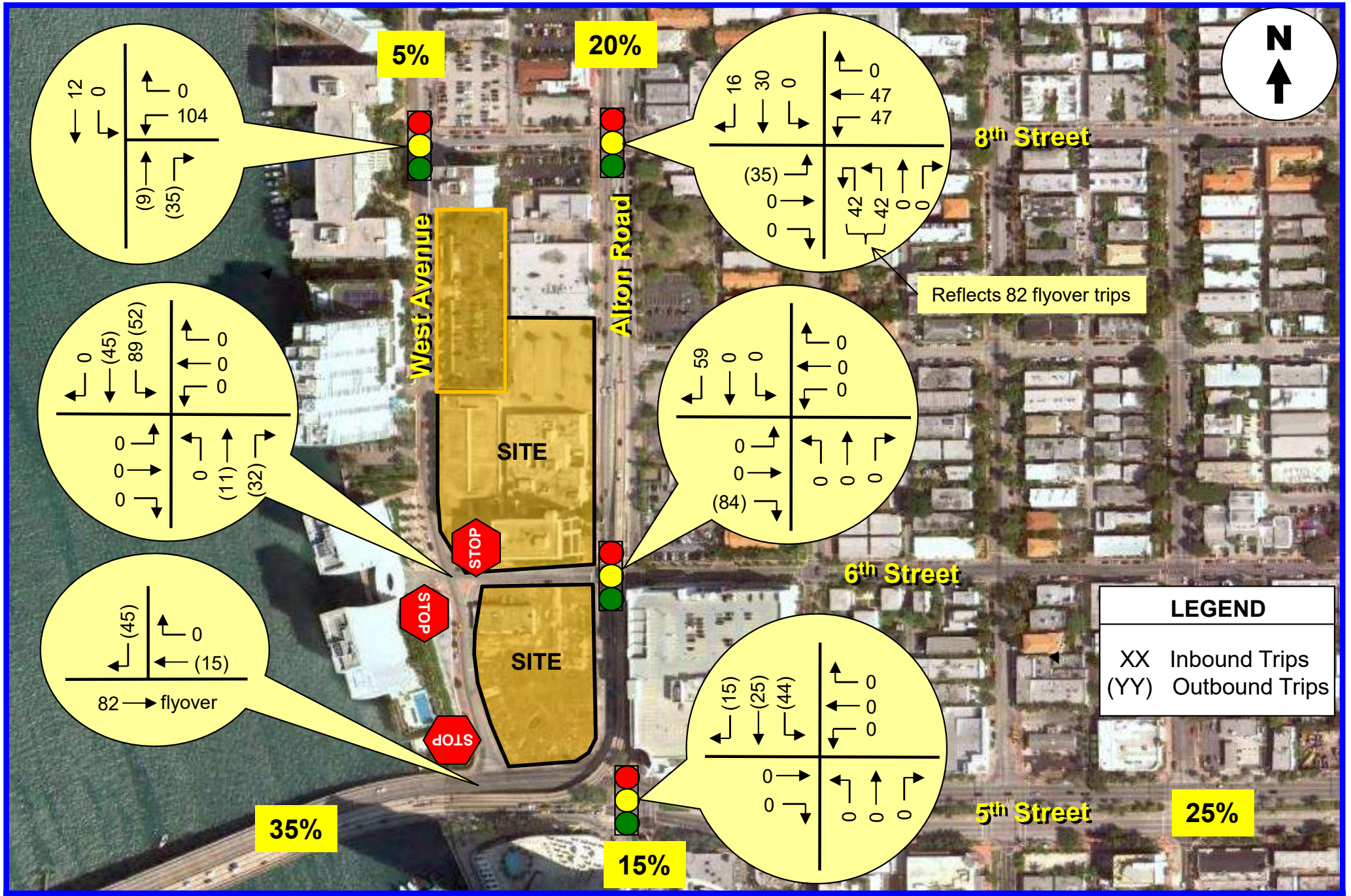


Traf Tech
ENGINEERING, INC.

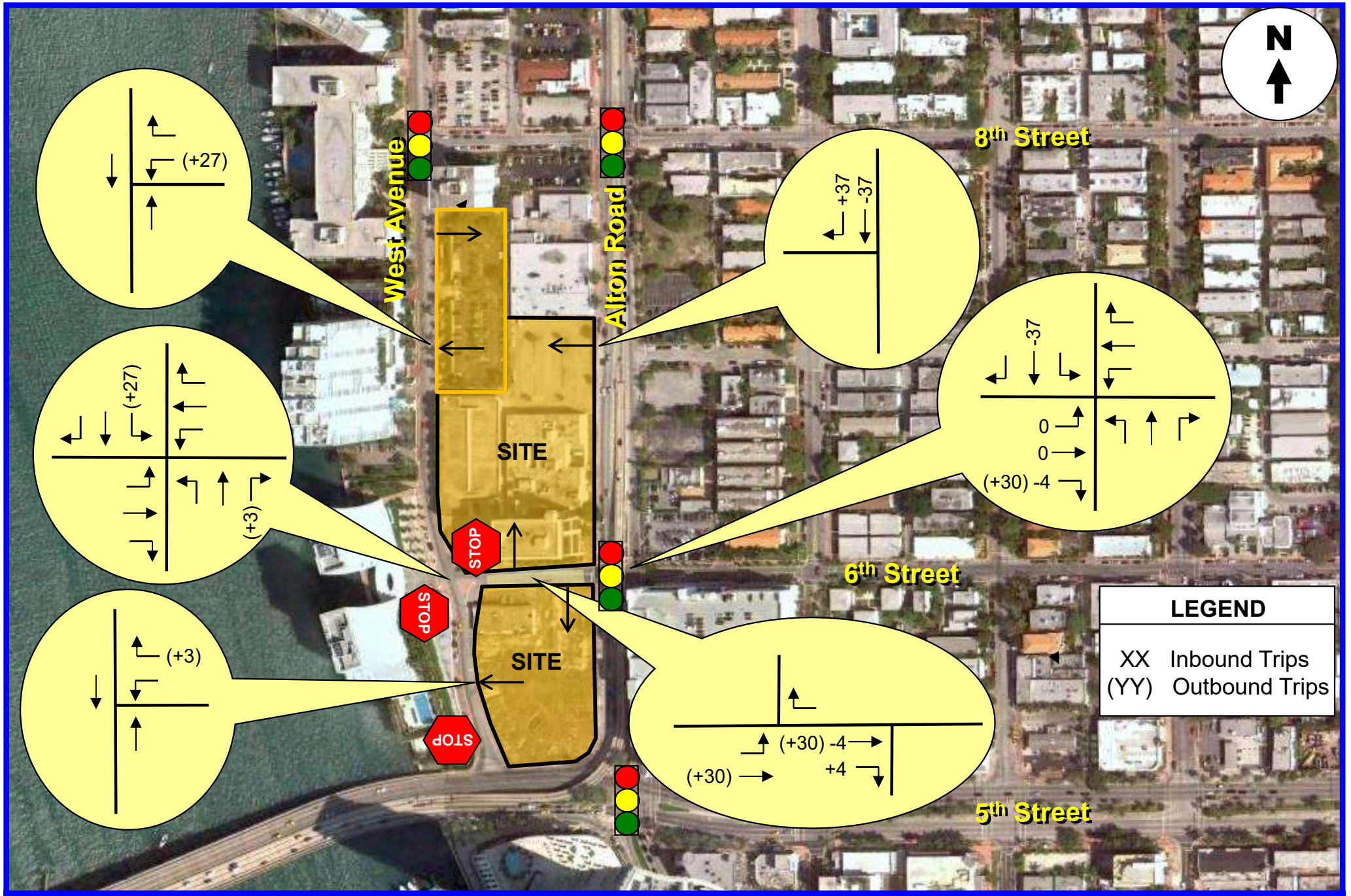
NEW PROJECT TRAFFIC ASSIGNMENT
(Weekday New Peak Hour Trips)

FIGURE 4a
600 Alton
Miami Beach, Florida

Traf Tech
ENGINEERING, INC.

NEW PROJECT TRAFFIC ASSIGNMENT
(Weekday Peak Hour Trips)

FIGURE 4b
600 Alton
Miami Beach, Florida



Traf Tech
ENGINEERING, INC.

PASSER-BY TRAFFIC ASSIGNMENT
(Weekday Peak Hour Trips)

FIGURE 4c
600 Alton
Miami Beach, Florida

APPENDIX E

SYNCHRO Analyses

Timings
101: Alton Road & 8th Street

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	9	26	41	21	105	1232	54	730
Future Volume (vph)	9	26	41	21	105	1232	54	730
Turn Type	Perm	NA	Perm	NA	pm+pt	NA	pm+pt	NA
Protected Phases		8		4	1	6	5	2
Permitted Phases	8		4		6		2	
Detector Phase	8	8	4	4	1	6	5	2
Switch Phase								
Minimum Initial (s)	7.0	7.0	7.0	7.0	5.0	16.0	5.0	7.0
Minimum Split (s)	37.4	37.4	37.4	37.4	11.0	24.0	11.0	24.0
Total Split (s)	37.4	37.4	37.4	37.4	19.0	94.0	19.0	94.0
Total Split (%)	24.9%	24.9%	24.9%	24.9%	12.6%	62.5%	12.6%	62.5%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.4	2.4	2.4	2.4	2.0	2.0	2.0	2.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		6.4		6.4	6.0	6.0	6.0	6.0
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)		15.9		15.9	118.3	112.6	115.1	109.4
Actuated g/C Ratio		0.11		0.11	0.79	0.75	0.77	0.73
v/c Ratio		0.46		0.77	0.23	0.56	0.21	0.33
Control Delay		44.3		87.2	4.7	10.6	5.5	8.5
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0
Total Delay		44.3		87.2	4.7	10.6	5.5	8.5
LOS		D		F	A	B	A	A
Approach Delay		44.3		87.2		10.2		8.3
Approach LOS		D		F		B		A

Intersection Summary	
Cycle Length: 150.4	
Actuated Cycle Length: 150.4	
Offset: 25 (17%), Referenced to phase 2:SBTL and 6:NBTL, Start of Yellow	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.77	
Intersection Signal Delay: 13.8	Intersection LOS: B
Intersection Capacity Utilization 81.5%	ICU Level of Service D
Analysis Period (min) 15	

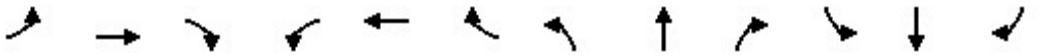
Splits and Phases: 101: Alton Road & 8th Street

Queues
101: Alton Road & 8th Street

Lane Group	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	75	102	108	1325	56	766
v/c Ratio	0.46	0.77	0.23	0.56	0.21	0.33
Control Delay	44.3	87.2	4.7	10.6	5.5	8.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.3	87.2	4.7	10.6	5.5	8.5
Queue Length 50th (ft)	39	82	18	282	9	127
Queue Length 95th (ft)	90	144	41	430	24	205
Internal Link Dist (ft)	1209	320		320		1725
Turn Bay Length (ft)			150		130	
Base Capacity (vph)	289	241	535	2354	349	2304
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.26	0.42	0.20	0.56	0.16	0.33

Intersection Summary

HCM 6th Signalized Intersection Summary
101: Alton Road & 8th Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	9	26	38	41	21	37	105	1232	53	54	730	13
Future Volume (veh/h)	9	26	38	41	21	37	105	1232	53	54	730	13
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.94		0.91	0.94		0.91	1.00		0.95	1.00		0.95
Parking Bus, Adj	1.00	1.00	0.90	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683
Adj Flow Rate, veh/h	9	27	39	42	22	38	108	1270	55	56	753	13
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	43	101	127	118	60	86	448	2042	88	252	2088	36
Arrive On Green	0.19	0.19	0.19	0.19	0.19	0.19	0.04	0.66	0.66	0.03	0.65	0.65
Sat Flow, veh/h	85	526	663	440	315	448	1603	3115	135	1603	3214	55
Grp Volume(v), veh/h	75	0	0	102	0	0	108	651	674	56	375	391
Grp Sat Flow(s),veh/h/ln	1274	0	0	1203	0	0	1603	1599	1651	1603	1599	1670
Q Serve(g_s), s	0.0	0.0	0.0	3.0	0.0	0.0	3.4	35.5	35.6	1.7	16.1	16.1
Cycle Q Clear(g_c), s	7.4	0.0	0.0	10.4	0.0	0.0	3.4	35.5	35.6	1.7	16.1	16.1
Prop In Lane	0.12		0.52	0.41		0.37	1.00		0.08	1.00		0.03
Lane Grp Cap(c), veh/h	271	0	0	264	0	0	448	1049	1082	252	1039	1085
V/C Ratio(X)	0.28	0.00	0.00	0.39	0.00	0.00	0.24	0.62	0.62	0.22	0.36	0.36
Avail Cap(c_a), veh/h	290	0	0	282	0	0	529	1049	1082	343	1039	1085
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	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.0	0.0	0.0	53.1	0.0	0.0	9.0	15.0	15.0	12.7	12.0	12.0
Incr Delay (d2), s/veh	0.4	0.0	0.0	0.7	0.0	0.0	0.1	2.8	2.7	0.2	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	2.5	0.0	0.0	3.5	0.0	0.0	1.2	13.4	13.9	0.6	6.0	6.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.4	0.0	0.0	53.8	0.0	0.0	9.1	17.8	17.7	12.9	13.0	13.0
LnGrp LOS	D	A	A	D	A	A	A	B	B	B	B	B
Approach Vol, veh/h		75			102			1433			822	
Approach Delay, s/veh		52.4			53.8			17.1			13.0	
Approach LOS		D			D			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.4	103.5		35.1	10.5	104.4		35.1				
Change Period (Y+Rc), s	6.0	6.0		6.4	6.0	6.0		6.4				
Max Green Setting (Gmax), s	13.0	88.0		31.0	13.0	88.0		31.0				
Max Q Clear Time (g_c+I1), s	5.4	18.1		12.4	3.7	37.6		9.4				
Green Ext Time (p_c), s	0.1	1.7		0.4	0.0	3.6		0.3				

Intersection Summary												
HCM 6th Ctrl Delay			18.3									
HCM 6th LOS			B									

Intersection	
Int Delay, s/veh	0.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	41	1396	18	0	810
Future Vol, veh/h	0	41	1396	18	0	810
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	89	89	89	89	89	89
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	46	1569	20	0	910

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	795	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	330	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	330	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

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

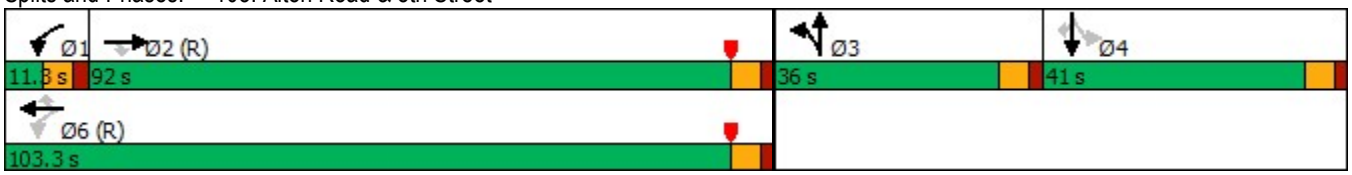
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	330	-
HCM Lane V/C Ratio	-	-	0.14	-
HCM Control Delay (s)	-	-	17.7	-
HCM Lane LOS	-	-	C	-
HCM 95th %tile Q(veh)	-	-	0.5	-

Timings
103: Alton Road & 5th Street

Lane Group	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	985	464	34	754	82	255	141	81	182	366
Future Volume (vph)	985	464	34	754	82	255	141	81	182	366
Turn Type	NA	Perm	pm+pt	NA	Perm	Split	NA	Perm	NA	Perm
Protected Phases	2		1	6		3	3		4	
Permitted Phases		2	6		6			4		4
Detector Phase	2	2	1	6	6	3	3	4	4	4
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	35.0	35.0	11.3	35.0	35.0	24.0	24.0	31.0	31.0	31.0
Total Split (s)	92.0	92.0	11.3	103.3	103.3	36.0	36.0	41.0	41.0	41.0
Total Split (%)	51.0%	51.0%	6.3%	57.3%	57.3%	20.0%	20.0%	22.7%	22.7%	22.7%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.3	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	6.0	6.0	6.3	6.0	6.0	6.0	6.0		6.0	6.0
Lead/Lag	Lag	Lag	Lead			Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes			Yes	Yes	Yes	Yes	Yes
Recall Mode	C-Max	C-Max	None	C-Max	C-Max	None	None	None	None	None
Act Effct Green (s)	88.3	88.3	97.0	97.3	97.3	22.7	22.7		42.3	42.3
Actuated g/C Ratio	0.49	0.49	0.54	0.54	0.54	0.13	0.13		0.23	0.23
v/c Ratio	0.66	0.63	0.19	0.46	0.11	0.69	0.76		0.89	0.85
Control Delay	37.7	17.5	22.3	26.4	3.7	84.1	97.2		94.5	57.1
Queue Delay	0.0	0.0	0.0	7.6	0.0	0.0	0.0		0.0	0.0
Total Delay	37.7	17.5	22.3	34.0	3.7	84.1	97.2		94.5	57.1
LOS	D	B	C	C	A	F	F		F	E
Approach Delay	31.2			30.7			88.9		72.7	
Approach LOS	C			C			F		E	

Intersection Summary	
Cycle Length: 180.3	
Actuated Cycle Length: 180.3	
Offset: 114 (63%), Referenced to phase 2:EBT and 6:WBTL, Start of Yellow	
Natural Cycle: 105	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.89	
Intersection Signal Delay: 45.9	Intersection LOS: D
Intersection Capacity Utilization 77.4%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 103: Alton Road & 5th Street



Lane Group	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	1026	483	35	785	85	266	157	274	381
v/c Ratio	0.66	0.63	0.19	0.46	0.11	0.69	0.76	0.89	0.85
Control Delay	37.7	17.5	22.3	26.4	3.7	84.1	97.2	94.5	57.1
Queue Delay	0.0	0.0	0.0	7.6	0.0	0.0	0.0	0.0	0.0
Total Delay	37.7	17.5	22.3	34.0	3.7	84.1	97.2	94.5	57.1
Queue Length 50th (ft)	488	182	19	293	0	158	181	316	276
Queue Length 95th (ft)	569	318	39	348	29	202	258	#559	#518
Internal Link Dist (ft)	283			332			941	820	
Turn Bay Length (ft)		180	125		225	450			
Base Capacity (vph)	1559	765	180	1718	808	514	273	309	447
Starvation Cap Reductn	0	0	0	883	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.66	0.63	0.19	0.94	0.11	0.52	0.58	0.89	0.85

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM Signalized Intersection Capacity Analysis
103: Alton Road & 5th Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	985	464	34	754	82	255	141	10	81	182	366
Future Volume (vph)	0	985	464	34	754	82	255	141	10	81	182	366
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.0	6.0	6.3	6.0	6.0	6.0	6.0			6.0	6.0
Lane Util. Factor		0.95	1.00	1.00	0.95	1.00	0.97	1.00			1.00	1.00
Frpb, ped/bikes		1.00	0.89	1.00	1.00	1.00	1.00	0.98			1.00	0.98
Flpb, ped/bikes		1.00	1.00	1.00	1.00	1.00	1.00	1.00			0.94	1.00
Frt		1.00	0.85	1.00	1.00	0.85	1.00	0.99			1.00	0.85
Flt Protected		1.00	1.00	0.95	1.00	1.00	0.95	1.00			0.98	1.00
Satd. Flow (prot)		3185	1272	1593	3185	1425	3090	1632			1548	1402
Flt Permitted		1.00	1.00	0.16	1.00	1.00	0.95	1.00			0.84	1.00
Satd. Flow (perm)		3185	1272	266	3185	1425	3090	1632			1319	1402
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	0	1026	483	35	785	85	266	147	10	84	190	381
RTOR Reduction (vph)	0	0	145	0	0	39	0	2	0	0	0	118
Lane Group Flow (vph)	0	1026	338	35	785	46	266	155	0	0	274	263
Confl. Peds. (#/hr)			49	49			2		80	80		2
Confl. Bikes (#/hr)			14						9			
Turn Type		NA	Perm	pm+pt	NA	Perm	Split	NA		Perm	NA	Perm
Protected Phases		2		1	6		3	3			4	
Permitted Phases			2	6		6				4		4
Actuated Green, G (s)		87.0	87.0	97.3	97.3	97.3	22.7	22.7			42.3	42.3
Effective Green, g (s)		87.0	87.0	97.3	97.3	97.3	22.7	22.7			42.3	42.3
Actuated g/C Ratio		0.48	0.48	0.54	0.54	0.54	0.13	0.13			0.23	0.23
Clearance Time (s)		6.0	6.0	6.3	6.0	6.0	6.0	6.0			6.0	6.0
Vehicle Extension (s)		1.0	1.0	2.0	1.0	1.0	3.0	3.0			3.5	3.5
Lane Grp Cap (vph)		1536	613	172	1718	769	389	205			309	328
v/s Ratio Prot		c0.32		0.00	c0.25		0.09	c0.10				
v/s Ratio Perm			0.27	0.10		0.03					c0.21	0.19
v/c Ratio		0.67	0.55	0.20	0.46	0.06	0.68	0.76			0.89	0.80
Uniform Delay, d1		35.6	32.9	24.4	25.4	19.7	75.4	76.1			66.7	65.1
Progression Factor		1.00	1.00	1.00	1.00	1.00	1.00	1.00			1.00	1.00
Incremental Delay, d2		2.3	3.5	0.2	0.9	0.1	4.9	14.7			25.3	13.5
Delay (s)		37.9	36.4	24.6	26.2	19.9	80.3	90.9			91.9	78.6
Level of Service		D	D	C	C	B	F	F			F	E
Approach Delay (s)		37.5			25.6			84.2			84.2	
Approach LOS		D			C			F			F	

Intersection Summary			
HCM 2000 Control Delay	48.8	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	180.3	Sum of lost time (s)	24.3
Intersection Capacity Utilization	77.4%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

HCM 6th Edition methodology expects strict NEMA phasing.

Intersection	
Intersection Delay, s/veh	7.9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	10	60	41	16	51	5	19	57	8	1	52	13
Future Vol, veh/h	10	60	41	16	51	5	19	57	8	1	52	13
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	63	43	17	54	5	20	60	8	1	55	14
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.8	7.9	8	7.8
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	23%	9%	22%	2%
Vol Thru, %	68%	54%	71%	79%
Vol Right, %	10%	37%	7%	20%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	84	111	72	66
LT Vol	19	10	16	1
Through Vol	57	60	51	52
RT Vol	8	41	5	13
Lane Flow Rate	88	117	76	69
Geometry Grp	1	1	1	1
Degree of Util (X)	0.109	0.135	0.093	0.084
Departure Headway (Hd)	4.427	4.174	4.419	4.347
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	812	861	813	827
Service Time	2.44	2.188	2.434	2.36
HCM Lane V/C Ratio	0.108	0.136	0.093	0.083
HCM Control Delay	8	7.8	7.9	7.8
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.4	0.5	0.3	0.3

Intersection	
Intersection Delay, s/veh	7.9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	10	12	11	16	28	7	17	65	15	8	96	12
Future Vol, veh/h	10	12	11	16	28	7	17	65	15	8	96	12
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	14	13	18	32	8	19	74	17	9	109	14
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.6	7.8	7.9	8
HCM LOS	A	A	A	A

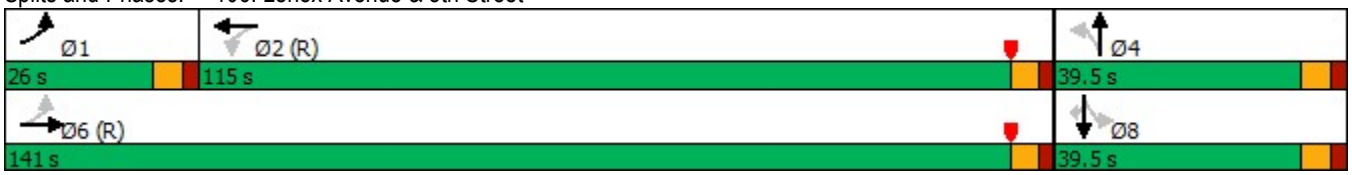
Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	18%	30%	31%	7%
Vol Thru, %	67%	36%	55%	83%
Vol Right, %	15%	33%	14%	10%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	97	33	51	116
LT Vol	17	10	16	8
Through Vol	65	12	28	96
RT Vol	15	11	7	12
Lane Flow Rate	110	38	58	132
Geometry Grp	1	1	1	1
Degree of Util (X)	0.127	0.046	0.072	0.151
Departure Headway (Hd)	4.144	4.394	4.489	4.136
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	851	819	803	854
Service Time	2.239	2.396	2.491	2.227
HCM Lane V/C Ratio	0.129	0.046	0.072	0.155
HCM Control Delay	7.9	7.6	7.8	8
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.4	0.1	0.2	0.5

Timings
106: Lenox Avenue & 5th Street

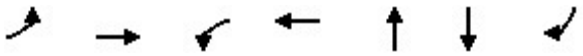
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	148	974	30	762	17	30	16	53	67
Future Volume (vph)	148	974	30	762	17	30	16	53	67
Turn Type	pm+pt	NA	Perm	NA	Perm	NA	Perm	NA	Perm
Protected Phases	1	6		2		4		8	
Permitted Phases	6		2		4		8		8
Detector Phase	1	6	2	2	4	4	8	8	8
Switch Phase									
Minimum Initial (s)	5.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	11.0	24.0	24.0	24.0	38.5	38.5	38.5	38.5	38.5
Total Split (s)	26.0	141.0	115.0	115.0	39.5	39.5	39.5	39.5	39.5
Total Split (%)	14.4%	78.1%	63.7%	63.7%	21.9%	21.9%	21.9%	21.9%	21.9%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.5	2.5	2.5	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0		6.5		6.5	6.5
Lead/Lag	Lead		Lag	Lag					
Lead-Lag Optimize?	Yes		Yes	Yes					
Recall Mode	None	C-Max	C-Max	C-Max	None	None	None	None	None
Act Effct Green (s)	153.1	153.1	139.5	139.5		14.9		14.9	14.9
Actuated g/C Ratio	0.85	0.85	0.77	0.77		0.08		0.08	0.08
v/c Ratio	0.32	0.28	0.09	0.23		0.73		0.71	0.44
Control Delay	4.5	3.1	7.1	6.3		99.8		114.7	23.0
Queue Delay	0.0	0.6	0.0	0.0		0.0		0.0	0.0
Total Delay	4.5	3.7	7.1	6.3		99.8		114.7	23.0
LOS	A	A	A	A		F		F	C
Approach Delay		3.8		6.3		99.8		69.5	
Approach LOS		A		A		F		E	

Intersection Summary	
Cycle Length: 180.5	
Actuated Cycle Length: 180.5	
Offset: 137 (76%), Referenced to phase 2:WBTL and 6:EBTL, Start of Yellow	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.73	
Intersection Signal Delay: 12.1	Intersection LOS: B
Intersection Capacity Utilization 82.3%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 106: Lenox Avenue & 5th Street



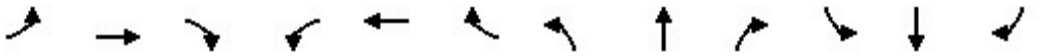
Queues
106: Lenox Avenue & 5th Street



Lane Group	EBL	EBT	WBL	WBT	NBT	SBT	SBR
Lane Group Flow (vph)	154	1061	31	819	78	72	70
v/c Ratio	0.32	0.28	0.09	0.23	0.73	0.71	0.44
Control Delay	4.5	3.1	7.1	6.3	99.8	114.7	23.0
Queue Delay	0.0	0.6	0.0	0.0	0.0	0.0	0.0
Total Delay	4.5	3.7	7.1	6.3	99.8	114.7	23.0
Queue Length 50th (ft)	25	73	8	87	76	85	0
Queue Length 95th (ft)	51	113	24	132	136	142	53
Internal Link Dist (ft)		332		316	454	815	
Turn Bay Length (ft)	225		150				90
Base Capacity (vph)	553	3857	333	3505	222	225	265
Starvation Cap Reductn	0	2276	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.28	0.67	0.09	0.23	0.35	0.32	0.26

Intersection Summary

HCM 6th Signalized Intersection Summary
106: Lenox Avenue & 5th Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	148	974	44	30	762	24	17	30	28	16	53	67
Future Volume (veh/h)	148	974	44	30	762	24	17	30	28	16	53	67
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		0.96	0.88		0.81	0.88		0.82
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00	0.90
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683
Adj Flow Rate, veh/h	154	1015	46	31	794	25	18	31	29	17	55	70
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	473	3393	154	364	3107	98	61	93	77	75	221	187
Arrive On Green	0.04	0.75	0.75	0.68	0.68	0.68	0.18	0.18	0.18	0.18	0.18	0.18
Sat Flow, veh/h	1603	4503	204	477	4571	144	208	526	435	282	1251	1055
Grp Volume(v), veh/h	154	690	371	31	532	287	78	0	0	72	0	70
Grp Sat Flow(s),veh/h/ln	1603	1532	1643	477	1532	1650	1170	0	0	1533	0	1055
Q Serve(g_s), s	5.1	12.9	12.9	4.0	12.1	12.2	3.4	0.0	0.0	0.0	0.0	10.5
Cycle Q Clear(g_c), s	5.1	12.9	12.9	4.0	12.1	12.2	10.0	0.0	0.0	6.6	0.0	10.5
Prop In Lane	1.00		0.12	1.00		0.09	0.23		0.37	0.24		1.00
Lane Grp Cap(c), veh/h	473	2309	1238	364	2083	1122	232	0	0	296	0	187
V/C Ratio(X)	0.33	0.30	0.30	0.09	0.26	0.26	0.34	0.00	0.00	0.24	0.00	0.37
Avail Cap(c_a), veh/h	586	2309	1238	364	2083	1122	239	0	0	305	0	193
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)	0.70	0.70	0.70	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	7.9	7.1	7.1	9.9	11.2	11.2	65.0	0.0	0.0	63.7	0.0	65.3
Incr Delay (d2), s/veh	0.1	0.2	0.4	0.5	0.3	0.6	0.6	0.0	0.0	0.3	0.0	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	1.8	4.3	4.7	0.5	4.3	4.7	3.2	0.0	0.0	2.9	0.0	2.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	8.0	7.3	7.5	10.3	11.5	11.7	65.6	0.0	0.0	64.0	0.0	66.2
LnGrp LOS	A	A	A	B	B	B	E	A	A	E	A	E
Approach Vol, veh/h		1215			850			78			142	
Approach Delay, s/veh		7.4			11.5			65.6			65.1	
Approach LOS		A			B			E			E	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	13.3	128.4		38.4		141.6		38.4				
Change Period (Y+Rc), s	6.0	6.0		6.5		6.0		6.5				
Max Green Setting (Gmax), s	20.0	109.0		33.0		135.0		33.0				
Max Q Clear Time (g_c+I1), s	7.1	14.2		12.0		14.9		12.5				
Green Ext Time (p_c), s	0.2	2.4		0.3		2.9		0.5				

Intersection Summary												
HCM 6th Ctrl Delay			14.5									
HCM 6th LOS			B									

Timings
101: Alton Road & 8th Street

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	9	26	42	22	108	1269	56	752
Future Volume (vph)	9	26	42	22	108	1269	56	752
Turn Type	Perm	NA	Perm	NA	pm+pt	NA	pm+pt	NA
Protected Phases		8		4	1	6	5	2
Permitted Phases	8		4		6		2	
Detector Phase	8	8	4	4	1	6	5	2
Switch Phase								
Minimum Initial (s)	7.0	7.0	7.0	7.0	5.0	16.0	5.0	7.0
Minimum Split (s)	37.4	37.4	37.4	37.4	11.0	24.0	11.0	24.0
Total Split (s)	37.4	37.4	37.4	37.4	19.0	94.0	19.0	94.0
Total Split (%)	24.9%	24.9%	24.9%	24.9%	12.6%	62.5%	12.6%	62.5%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.4	2.4	2.4	2.4	2.0	2.0	2.0	2.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		6.4		6.4	6.0	6.0	6.0	6.0
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)		16.2		16.2	118.0	112.2	114.7	109.0
Actuated g/C Ratio		0.11		0.11	0.78	0.75	0.76	0.72
v/c Ratio		0.46		0.78	0.24	0.58	0.22	0.34
Control Delay		43.6		88.2	4.9	11.2	5.8	8.8
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0
Total Delay		43.6		88.2	4.9	11.2	5.8	8.8
LOS		D		F	A	B	A	A
Approach Delay		43.6		88.2		10.7		8.6
Approach LOS		D		F		B		A

Intersection Summary	
Cycle Length: 150.4	
Actuated Cycle Length: 150.4	
Offset: 25 (17%), Referenced to phase 2:SBTL and 6:NBTL, Start of Yellow	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.78	
Intersection Signal Delay: 14.2	Intersection LOS: B
Intersection Capacity Utilization 82.7%	ICU Level of Service E
Analysis Period (min) 15	

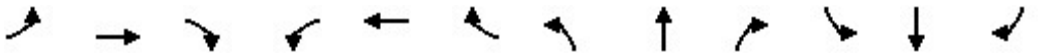
Splits and Phases: 101: Alton Road & 8th Street

Queues
101: Alton Road & 8th Street

Lane Group	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	76	105	111	1365	58	789
v/c Ratio	0.46	0.78	0.24	0.58	0.22	0.34
Control Delay	43.6	88.2	4.9	11.2	5.8	8.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.6	88.2	4.9	11.2	5.8	8.8
Queue Length 50th (ft)	39	85	19	299	9	134
Queue Length 95th (ft)	88	147	42	457	25	215
Internal Link Dist (ft)	1209	320		320		1725
Turn Bay Length (ft)			150		130	
Base Capacity (vph)	289	241	522	2346	337	2295
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.26	0.44	0.21	0.58	0.17	0.34

Intersection Summary

HCM 6th Signalized Intersection Summary
101: Alton Road & 8th Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	9	26	39	42	22	38	108	1269	55	56	752	14
Future Volume (veh/h)	9	26	39	42	22	38	108	1269	55	56	752	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.94		0.91	0.94		0.91	1.00		0.95	1.00		0.95
Parking Bus, Adj	1.00	1.00	0.90	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683
Adj Flow Rate, veh/h	9	27	40	43	23	39	111	1308	57	58	775	14
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	43	100	129	118	61	86	439	2040	89	242	2082	38
Arrive On Green	0.19	0.19	0.19	0.19	0.19	0.19	0.04	0.66	0.66	0.03	0.65	0.65
Sat Flow, veh/h	84	519	670	437	319	447	1603	3114	135	1603	3211	58
Grp Volume(v), veh/h	76	0	0	105	0	0	111	671	694	58	386	403
Grp Sat Flow(s),veh/h/ln	1273	0	0	1203	0	0	1603	1599	1650	1603	1599	1669
Q Serve(g_s), s	0.0	0.0	0.0	3.3	0.0	0.0	3.5	37.4	37.6	1.8	16.8	16.8
Cycle Q Clear(g_c), s	7.5	0.0	0.0	10.8	0.0	0.0	3.5	37.4	37.6	1.8	16.8	16.8
Prop In Lane	0.12		0.53	0.41		0.37	1.00		0.08	1.00		0.03
Lane Grp Cap(c), veh/h	271	0	0	265	0	0	439	1048	1081	242	1037	1083
V/C Ratio(X)	0.28	0.00	0.00	0.40	0.00	0.00	0.25	0.64	0.64	0.24	0.37	0.37
Avail Cap(c_a), veh/h	290	0	0	282	0	0	519	1048	1081	332	1037	1083
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	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.0	0.0	0.0	53.2	0.0	0.0	9.1	15.4	15.4	13.3	12.2	12.2
Incr Delay (d2), s/veh	0.4	0.0	0.0	0.7	0.0	0.0	0.1	3.0	2.9	0.2	1.0	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(50%),veh/ln	2.5	0.0	0.0	3.6	0.0	0.0	1.2	14.2	14.7	0.6	6.3	6.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.4	0.0	0.0	53.9	0.0	0.0	9.2	18.4	18.3	13.5	13.2	13.2
LnGrp LOS	D	A	A	D	A	A	A	B	B	B	B	B
Approach Vol, veh/h		76			105			1476			847	
Approach Delay, s/veh		52.4			53.9			17.7			13.2	
Approach LOS		D			D			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.5	103.3		35.2	10.6	104.3		35.2				
Change Period (Y+Rc), s	6.0	6.0		6.4	6.0	6.0		6.4				
Max Green Setting (Gmax), s	13.0	88.0		31.0	13.0	88.0		31.0				
Max Q Clear Time (g_c+I1), s	5.5	18.8		12.8	3.8	39.6		9.5				
Green Ext Time (p_c), s	0.1	1.8		0.4	0.0	3.7		0.3				

Intersection Summary			
HCM 6th Ctrl Delay		18.7	
HCM 6th LOS		B	

Intersection	
Int Delay, s/veh	0.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	42	1439	19	0	834
Future Vol, veh/h	0	42	1439	19	0	834
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	89	89	89	89	89	89
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	47	1617	21	0	937

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	819	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	319	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	319	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

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

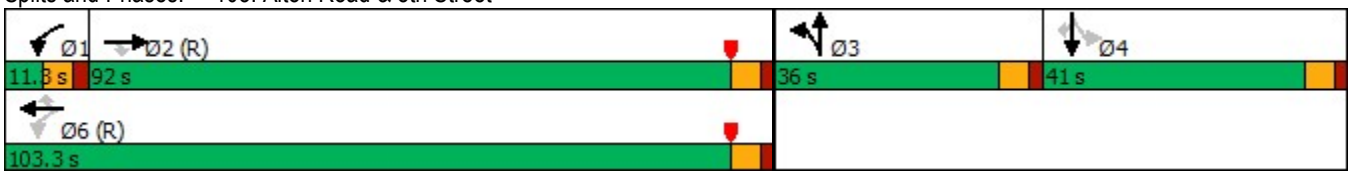
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	319	-
HCM Lane V/C Ratio	-	-	0.148	-
HCM Control Delay (s)	-	-	18.2	-
HCM Lane LOS	-	-	C	-
HCM 95th %tile Q(veh)	-	-	0.5	-

Timings
103: Alton Road & 5th Street

Lane Group	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	1015	478	35	777	84	263	145	83	187	377
Future Volume (vph)	1015	478	35	777	84	263	145	83	187	377
Turn Type	NA	Perm	pm+pt	NA	Perm	Split	NA	Perm	NA	Perm
Protected Phases	2		1	6		3	3		4	
Permitted Phases		2	6		6			4		4
Detector Phase	2	2	1	6	6	3	3	4	4	4
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	35.0	35.0	11.3	35.0	35.0	24.0	24.0	31.0	31.0	31.0
Total Split (s)	92.0	92.0	11.3	103.3	103.3	36.0	36.0	41.0	41.0	41.0
Total Split (%)	51.0%	51.0%	6.3%	57.3%	57.3%	20.0%	20.0%	22.7%	22.7%	22.7%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.3	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	6.0	6.0	6.3	6.0	6.0	6.0	6.0		6.0	6.0
Lead/Lag	Lag	Lag	Lead			Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes			Yes	Yes	Yes	Yes	Yes
Recall Mode	C-Max	C-Max	None	C-Max	C-Max	None	None	None	None	None
Act Effct Green (s)	88.3	88.3	97.0	97.3	97.3	23.1	23.1		41.9	41.9
Actuated g/C Ratio	0.49	0.49	0.54	0.54	0.54	0.13	0.13		0.23	0.23
v/c Ratio	0.68	0.65	0.21	0.47	0.11	0.69	0.77		0.92	0.90
Control Delay	38.4	18.7	22.7	26.7	3.7	84.0	97.9		100.4	65.4
Queue Delay	0.0	0.0	0.0	9.4	0.0	0.0	0.0		0.0	0.0
Total Delay	38.4	18.7	22.7	36.2	3.7	84.0	97.9		100.4	65.4
LOS	D	B	C	D	A	F	F		F	E
Approach Delay	32.1			32.6			89.2		80.0	
Approach LOS	C			C			F		E	

Intersection Summary	
Cycle Length: 180.3	
Actuated Cycle Length: 180.3	
Offset: 114 (63%), Referenced to phase 2:EBT and 6:WBTL, Start of Yellow	
Natural Cycle: 105	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.92	
Intersection Signal Delay: 48.1	Intersection LOS: D
Intersection Capacity Utilization 78.9%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 103: Alton Road & 5th Street



Lane Group	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	1057	498	36	809	88	274	162	281	393
v/c Ratio	0.68	0.65	0.21	0.47	0.11	0.69	0.77	0.92	0.90
Control Delay	38.4	18.7	22.7	26.7	3.7	84.0	97.9	100.4	65.4
Queue Delay	0.0	0.0	0.0	9.4	0.0	0.0	0.0	0.0	0.0
Total Delay	38.4	18.7	22.7	36.2	3.7	84.0	97.9	100.4	65.4
Queue Length 50th (ft)	511	201	20	305	0	162	187	328	308
Queue Length 95th (ft)	593	343	41	362	29	207	266	#578	#568
Internal Link Dist (ft)	283			332			941	820	
Turn Bay Length (ft)		180	125		225	450			
Base Capacity (vph)	1559	765	171	1718	809	514	272	305	437
Starvation Cap Reductn	0	0	0	874	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.68	0.65	0.21	0.96	0.11	0.53	0.60	0.92	0.90

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM Signalized Intersection Capacity Analysis
103: Alton Road & 5th Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1015	478	35	777	84	263	145	11	83	187	377
Future Volume (vph)	0	1015	478	35	777	84	263	145	11	83	187	377
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.0	6.0	6.3	6.0	6.0	6.0	6.0			6.0	6.0
Lane Util. Factor		0.95	1.00	1.00	0.95	1.00	0.97	1.00			1.00	1.00
Frpb, ped/bikes		1.00	0.89	1.00	1.00	1.00	1.00	0.98			1.00	0.98
Flpb, ped/bikes		1.00	1.00	1.00	1.00	1.00	1.00	1.00			0.94	1.00
Frt		1.00	0.85	1.00	1.00	0.85	1.00	0.99			1.00	0.85
Flt Protected		1.00	1.00	0.95	1.00	1.00	0.95	1.00			0.98	1.00
Satd. Flow (prot)		3185	1272	1593	3185	1425	3090	1629			1548	1402
Flt Permitted		1.00	1.00	0.15	1.00	1.00	0.95	1.00			0.84	1.00
Satd. Flow (perm)		3185	1272	249	3185	1425	3090	1629			1317	1402
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	0	1057	498	36	809	88	274	151	11	86	195	393
RTOR Reduction (vph)	0	0	145	0	0	41	0	2	0	0	0	111
Lane Group Flow (vph)	0	1057	353	36	809	47	274	160	0	0	281	282
Confl. Peds. (#/hr)			49	49			2		80	80		2
Confl. Bikes (#/hr)			14						9			
Turn Type		NA	Perm	pm+pt	NA	Perm	Split	NA		Perm	NA	Perm
Protected Phases		2		1	6		3	3			4	
Permitted Phases			2	6		6				4		4
Actuated Green, G (s)		87.0	87.0	97.3	97.3	97.3	23.1	23.1			41.9	41.9
Effective Green, g (s)		87.0	87.0	97.3	97.3	97.3	23.1	23.1			41.9	41.9
Actuated g/C Ratio		0.48	0.48	0.54	0.54	0.54	0.13	0.13			0.23	0.23
Clearance Time (s)		6.0	6.0	6.3	6.0	6.0	6.0	6.0			6.0	6.0
Vehicle Extension (s)		1.0	1.0	2.0	1.0	1.0	3.0	3.0			3.5	3.5
Lane Grp Cap (vph)		1536	613	164	1718	769	395	208			306	325
v/s Ratio Prot		c0.33		0.00	c0.25		0.09	c0.10				
v/s Ratio Perm			0.28	0.11		0.03					c0.21	0.20
v/c Ratio		0.69	0.58	0.22	0.47	0.06	0.69	0.77			0.92	0.87
Uniform Delay, d1		36.1	33.4	24.9	25.6	19.8	75.2	76.0			67.5	66.5
Progression Factor		1.00	1.00	1.00	1.00	1.00	1.00	1.00			1.00	1.00
Incremental Delay, d2		2.5	3.9	0.2	0.9	0.2	5.2	16.0			31.2	21.2
Delay (s)		38.7	37.3	25.1	26.5	19.9	80.4	92.1			98.8	87.7
Level of Service		D	D	C	C	B	F	F			F	F
Approach Delay (s)		38.3			25.9			84.8			92.3	
Approach LOS		D			C			F			F	

Intersection Summary			
HCM 2000 Control Delay	50.8	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	180.3	Sum of lost time (s)	24.3
Intersection Capacity Utilization	78.9%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

HCM 6th Edition methodology expects strict NEMA phasing.

Intersection	
Intersection Delay, s/veh	7.9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	11	62	42	17	53	5	20	59	8	1	54	14
Future Vol, veh/h	11	62	42	17	53	5	20	59	8	1	54	14
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	12	65	44	18	56	5	21	62	8	1	57	15
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.9	7.9	8	7.8
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	23%	10%	23%	1%
Vol Thru, %	68%	54%	71%	78%
Vol Right, %	9%	37%	7%	20%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	87	115	75	69
LT Vol	20	11	17	1
Through Vol	59	62	53	54
RT Vol	8	42	5	14
Lane Flow Rate	92	121	79	73
Geometry Grp	1	1	1	1
Degree of Util (X)	0.113	0.141	0.097	0.088
Departure Headway (Hd)	4.451	4.197	4.442	4.365
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	808	857	808	823
Service Time	2.466	2.211	2.458	2.379
HCM Lane V/C Ratio	0.114	0.141	0.098	0.089
HCM Control Delay	8	7.9	7.9	7.8
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.4	0.5	0.3	0.3

Intersection	
Intersection Delay, s/veh	7.9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	11	13	12	17	28	7	18	67	16	8	99	13
Future Vol, veh/h	11	13	12	17	28	7	18	67	16	8	99	13
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	13	15	14	19	32	8	20	76	18	9	113	15
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.7	7.9	7.9	8
HCM LOS	A	A	A	A

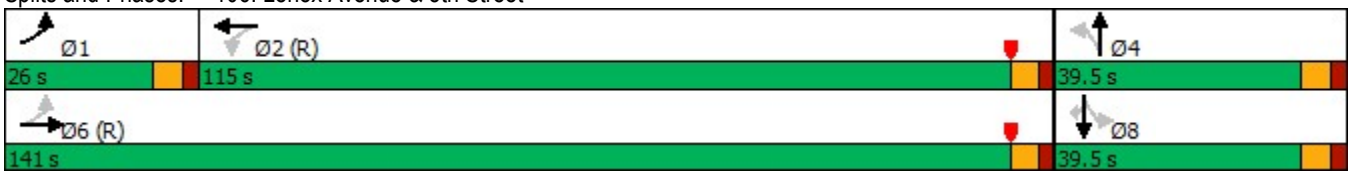
Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	18%	31%	33%	7%
Vol Thru, %	66%	36%	54%	82%
Vol Right, %	16%	33%	13%	11%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	101	36	52	120
LT Vol	18	11	17	8
Through Vol	67	13	28	99
RT Vol	16	12	7	13
Lane Flow Rate	115	41	59	136
Geometry Grp	1	1	1	1
Degree of Util (X)	0.136	0.05	0.074	0.157
Departure Headway (Hd)	4.255	4.417	4.519	4.144
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	848	814	796	851
Service Time	2.255	2.427	2.527	2.244
HCM Lane V/C Ratio	0.136	0.05	0.074	0.16
HCM Control Delay	7.9	7.7	7.9	8
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.5	0.2	0.2	0.6

Timings
106: Lenox Avenue & 5th Street

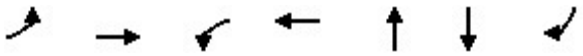
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	152	1004	30	785	18	30	17	55	69
Future Volume (vph)	152	1004	30	785	18	30	17	55	69
Turn Type	pm+pt	NA	Perm	NA	Perm	NA	Perm	NA	Perm
Protected Phases	1	6		2		4		8	
Permitted Phases	6		2		4		8		8
Detector Phase	1	6	2	2	4	4	8	8	8
Switch Phase									
Minimum Initial (s)	5.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	11.0	24.0	24.0	24.0	38.5	38.5	38.5	38.5	38.5
Total Split (s)	26.0	141.0	115.0	115.0	39.5	39.5	39.5	39.5	39.5
Total Split (%)	14.4%	78.1%	63.7%	63.7%	21.9%	21.9%	21.9%	21.9%	21.9%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.5	2.5	2.5	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0		6.5		6.5	6.5
Lead/Lag	Lead		Lag	Lag					
Lead-Lag Optimize?	Yes		Yes	Yes					
Recall Mode	None	C-Max	C-Max	C-Max	None	None	None	None	None
Act Effct Green (s)	152.8	152.8	139.1	139.1		15.2		15.2	15.2
Actuated g/C Ratio	0.85	0.85	0.77	0.77		0.08		0.08	0.08
v/c Ratio	0.34	0.28	0.10	0.24		0.74		0.73	0.44
Control Delay	4.7	3.2	7.3	6.4		101.3		116.1	22.7
Queue Delay	0.0	0.7	0.0	0.0		0.0		0.0	0.0
Total Delay	4.7	3.9	7.3	6.4		101.3		116.1	22.7
LOS	A	A	A	A		F		F	C
Approach Delay		4.0		6.5		101.3		70.3	
Approach LOS		A		A		F		E	

Intersection Summary	
Cycle Length: 180.5	
Actuated Cycle Length: 180.5	
Offset: 137 (76%), Referenced to phase 2:WBTL and 6:EBTL, Start of Yellow	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.74	
Intersection Signal Delay: 12.3	Intersection LOS: B
Intersection Capacity Utilization 82.8%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 106: Lenox Avenue & 5th Street



Queues
106: Lenox Avenue & 5th Street



Lane Group	EBL	EBT	WBL	WBT	NBT	SBT	SBR
Lane Group Flow (vph)	158	1093	31	844	79	75	72
v/c Ratio	0.34	0.28	0.10	0.24	0.74	0.73	0.44
Control Delay	4.7	3.2	7.3	6.4	101.3	116.1	22.7
Queue Delay	0.0	0.7	0.0	0.0	0.0	0.0	0.0
Total Delay	4.7	3.9	7.3	6.4	101.3	116.1	22.7
Queue Length 50th (ft)	26	77	8	91	77	88	0
Queue Length 95th (ft)	53	119	24	138	138	147	55
Internal Link Dist (ft)		332		316	454	815	
Turn Bay Length (ft)	225		150				90
Base Capacity (vph)	541	3852	321	3493	217	224	267
Starvation Cap Reductn	0	2249	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.29	0.68	0.10	0.24	0.36	0.33	0.27

Intersection Summary

HCM 6th Signalized Intersection Summary
106: Lenox Avenue & 5th Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	152	1004	45	30	785	25	18	30	28	17	55	69
Future Volume (veh/h)	152	1004	45	30	785	25	18	30	28	17	55	69
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		0.96	0.88		0.81	0.88		0.82
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00	0.90
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683
Adj Flow Rate, veh/h	158	1046	47	31	818	26	19	31	29	18	57	72
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	463	3395	152	354	3102	98	63	90	74	75	219	187
Arrive On Green	0.04	0.75	0.75	0.68	0.68	0.68	0.18	0.18	0.18	0.18	0.18	0.18
Sat Flow, veh/h	1603	4505	202	463	4569	145	213	509	419	286	1237	1055
Grp Volume(v), veh/h	158	711	382	31	548	296	79	0	0	75	0	72
Grp Sat Flow(s),veh/h/ln	1603	1532	1643	463	1532	1650	1141	0	0	1524	0	1055
Q Serve(g_s), s	5.3	13.4	13.4	4.2	12.6	12.6	3.9	0.0	0.0	0.0	0.0	10.8
Cycle Q Clear(g_c), s	5.3	13.4	13.4	4.2	12.6	12.6	10.9	0.0	0.0	7.0	0.0	10.8
Prop In Lane	1.00		0.12	1.00		0.09	0.24		0.37	0.24		1.00
Lane Grp Cap(c), veh/h	463	2309	1238	354	2080	1120	227	0	0	294	0	187
V/C Ratio(X)	0.34	0.31	0.31	0.09	0.26	0.26	0.35	0.00	0.00	0.25	0.00	0.39
Avail Cap(c_a), veh/h	575	2309	1238	354	2080	1120	234	0	0	304	0	193
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)	0.68	0.68	0.68	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	8.0	7.1	7.1	9.9	11.3	11.3	65.2	0.0	0.0	63.8	0.0	65.4
Incr Delay (d2), s/veh	0.1	0.2	0.4	0.5	0.3	0.6	0.7	0.0	0.0	0.3	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(50%),veh/ln	1.9	4.4	4.8	0.5	4.5	4.9	3.3	0.0	0.0	3.0	0.0	3.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	8.1	7.4	7.6	10.4	11.6	11.9	65.9	0.0	0.0	64.1	0.0	66.4
LnGrp LOS	A	A	A	B	B	B	E	A	A	E	A	E
Approach Vol, veh/h		1251			875			79			147	
Approach Delay, s/veh		7.5			11.7			65.9			65.2	
Approach LOS		A			B			E			E	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	13.4	128.2		38.4		141.6		38.4				
Change Period (Y+Rc), s	6.0	6.0		6.5		6.0		6.5				
Max Green Setting (Gmax), s	20.0	109.0		33.0		135.0		33.0				
Max Q Clear Time (g_c+I1), s	7.3	14.6		12.9		15.4		12.8				
Green Ext Time (p_c), s	0.2	2.5		0.3		3.0		0.5				

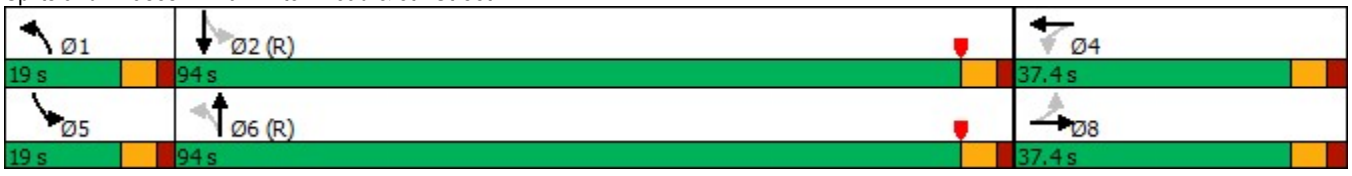
Intersection Summary												
HCM 6th Ctrl Delay			14.6									
HCM 6th LOS			B									

Timings
101: Alton Road & 8th Street

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	9	26	42	22	108	1269	69	752
Future Volume (vph)	9	26	42	22	108	1269	69	752
Turn Type	Perm	NA	Perm	NA	pm+pt	NA	pm+pt	NA
Protected Phases		8		4	1	6	5	2
Permitted Phases	8		4		6		2	
Detector Phase	8	8	4	4	1	6	5	2
Switch Phase								
Minimum Initial (s)	7.0	7.0	7.0	7.0	5.0	16.0	5.0	7.0
Minimum Split (s)	37.4	37.4	37.4	37.4	11.0	24.0	11.0	24.0
Total Split (s)	37.4	37.4	37.4	37.4	19.0	94.0	19.0	94.0
Total Split (%)	24.9%	24.9%	24.9%	24.9%	12.6%	62.5%	12.6%	62.5%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.4	2.4	2.4	2.4	2.0	2.0	2.0	2.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		6.4		6.4	6.0	6.0	6.0	6.0
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)		16.5		16.5	116.3	109.5	114.7	108.7
Actuated g/C Ratio		0.11		0.11	0.77	0.73	0.76	0.72
v/c Ratio		0.45		0.79	0.24	0.60	0.28	0.34
Control Delay		43.1		87.8	5.0	12.1	6.6	8.9
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0
Total Delay		43.1		87.8	5.0	12.1	6.6	8.9
LOS		D		F	A	B	A	A
Approach Delay		43.1		87.8		11.6		8.7
Approach LOS		D		F		B		A

Intersection Summary	
Cycle Length: 150.4	
Actuated Cycle Length: 150.4	
Offset: 25 (17%), Referenced to phase 2:SBTL and 6:NBTL, Start of Yellow	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.79	
Intersection Signal Delay: 14.8	Intersection LOS: B
Intersection Capacity Utilization 83.0%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 101: Alton Road & 8th Street

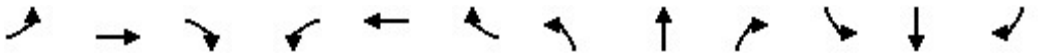


Queues
101: Alton Road & 8th Street

Lane Group	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	76	108	111	1372	71	789
v/c Ratio	0.45	0.79	0.24	0.60	0.28	0.34
Control Delay	43.1	87.8	5.0	12.1	6.6	8.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.1	87.8	5.0	12.1	6.6	8.9
Queue Length 50th (ft)	39	87	19	307	12	135
Queue Length 95th (ft)	88	151	43	471	30	217
Internal Link Dist (ft)	1209	320		320		1725
Turn Bay Length (ft)			150		130	
Base Capacity (vph)	289	242	526	2285	330	2290
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.26	0.45	0.21	0.60	0.22	0.34

Intersection Summary

HCM 6th Signalized Intersection Summary
101: Alton Road & 8th Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	9	26	39	42	22	41	108	1269	62	69	752	14
Future Volume (veh/h)	9	26	39	42	22	41	108	1269	62	69	752	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.94		0.91	0.94		0.91	1.00		0.95	1.00		0.95
Parking Bus, Adj	1.00	1.00	0.90	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683
Adj Flow Rate, veh/h	9	27	40	43	23	42	111	1308	64	71	775	14
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	43	100	129	115	60	90	439	2023	99	241	2082	38
Arrive On Green	0.19	0.19	0.19	0.19	0.19	0.19	0.04	0.65	0.65	0.03	0.65	0.65
Sat Flow, veh/h	84	519	670	424	313	469	1603	3095	151	1603	3211	58
Grp Volume(v), veh/h	76	0	0	108	0	0	111	675	697	71	386	403
Grp Sat Flow(s),veh/h/ln	1273	0	0	1206	0	0	1603	1599	1646	1603	1599	1669
Q Serve(g_s), s	0.0	0.0	0.0	3.6	0.0	0.0	3.5	37.9	38.2	2.2	16.8	16.8
Cycle Q Clear(g_c), s	7.5	0.0	0.0	11.1	0.0	0.0	3.5	37.9	38.2	2.2	16.8	16.8
Prop In Lane	0.12		0.53	0.40		0.39	1.00		0.09	1.00		0.03
Lane Grp Cap(c), veh/h	271	0	0	265	0	0	439	1045	1076	241	1037	1082
V/C Ratio(X)	0.28	0.00	0.00	0.41	0.00	0.00	0.25	0.65	0.65	0.29	0.37	0.37
Avail Cap(c_a), veh/h	290	0	0	282	0	0	518	1045	1076	329	1037	1082
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	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.0	0.0	0.0	53.3	0.0	0.0	9.1	15.6	15.6	13.9	12.2	12.2
Incr Delay (d2), s/veh	0.4	0.0	0.0	0.7	0.0	0.0	0.1	3.1	3.0	0.3	1.0	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(50%),veh/ln	2.5	0.0	0.0	3.7	0.0	0.0	1.2	14.4	14.9	0.8	6.3	6.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.4	0.0	0.0	54.0	0.0	0.0	9.2	18.6	18.6	14.1	13.3	13.2
LnGrp LOS	D	A	A	D	A	A	A	B	B	B	B	B
Approach Vol, veh/h		76			108			1483			860	
Approach Delay, s/veh		52.4			54.0			17.9			13.3	
Approach LOS		D			D			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.5	103.3		35.2	10.7	104.0		35.2				
Change Period (Y+Rc), s	6.0	6.0		6.4	6.0	6.0		6.4				
Max Green Setting (Gmax), s	13.0	88.0		31.0	13.0	88.0		31.0				
Max Q Clear Time (g_c+I1), s	5.5	18.8		13.1	4.2	40.2		9.5				
Green Ext Time (p_c), s	0.1	1.8		0.4	0.0	3.8		0.3				

Intersection Summary												
HCM 6th Ctrl Delay			18.9									
HCM 6th LOS			B									

Intersection	
Int Delay, s/veh	0.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	42	1439	51	0	834
Future Vol, veh/h	0	42	1439	51	0	834
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	89	89	89	89	89	89
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	47	1617	57	0	937

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

Approach	WB	NB	SB
HCM Control Delay, s	18.7	0	0
HCM LOS	C		

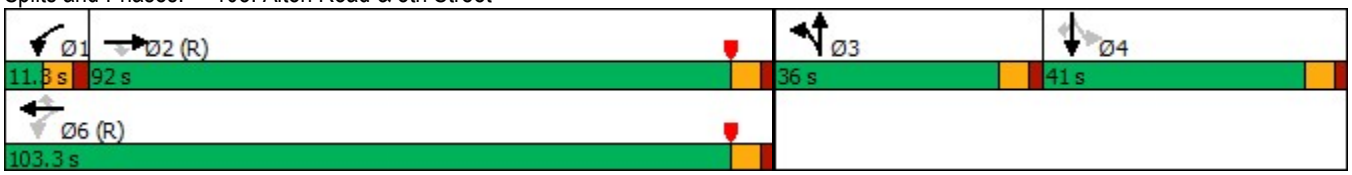
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	310	-
HCM Lane V/C Ratio	-	-	0.152	-
HCM Control Delay (s)	-	-	18.7	-
HCM Lane LOS	-	-	C	-
HCM 95th %tile Q(veh)	-	-	0.5	-

Timings
103: Alton Road & 5th Street

Lane Group	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	1015	478	36	779	113	263	148	83	187	377
Future Volume (vph)	1015	478	36	779	113	263	148	83	187	377
Turn Type	NA	Perm	pm+pt	NA	Perm	Split	NA	Perm	NA	Perm
Protected Phases	2		1	6		3	3		4	
Permitted Phases		2	6		6			4		4
Detector Phase	2	2	1	6	6	3	3	4	4	4
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	35.0	35.0	11.3	35.0	35.0	24.0	24.0	31.0	31.0	31.0
Total Split (s)	92.0	92.0	11.3	103.3	103.3	36.0	36.0	41.0	41.0	41.0
Total Split (%)	51.0%	51.0%	6.3%	57.3%	57.3%	20.0%	20.0%	22.7%	22.7%	22.7%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.3	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	6.0	6.0	6.3	6.0	6.0	6.0	6.0		6.0	6.0
Lead/Lag	Lag	Lag	Lead			Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes			Yes	Yes	Yes	Yes	Yes
Recall Mode	C-Max	C-Max	None	C-Max	C-Max	None	None	None	None	None
Act Effct Green (s)	88.3	88.3	97.0	97.3	97.3	23.3	23.3		41.7	41.7
Actuated g/C Ratio	0.49	0.49	0.54	0.54	0.54	0.13	0.13		0.23	0.23
v/c Ratio	0.68	0.65	0.22	0.47	0.14	0.69	0.78		0.92	0.91
Control Delay	38.4	18.7	22.9	26.8	3.3	83.5	98.4		101.3	66.4
Queue Delay	0.0	0.0	0.0	9.6	0.0	0.0	0.0		0.0	0.0
Total Delay	38.4	18.7	22.9	36.4	3.3	83.5	98.4		101.3	66.4
LOS	D	B	C	D	A	F	F		F	E
Approach Delay	32.1			31.8			89.1		80.9	
Approach LOS	C			C			F		F	

Intersection Summary	
Cycle Length: 180.3	
Actuated Cycle Length: 180.3	
Offset: 114 (63%), Referenced to phase 2:EBT and 6:WBTL, Start of Yellow	
Natural Cycle: 105	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.92	
Intersection Signal Delay: 48.0	Intersection LOS: D
Intersection Capacity Utilization 78.9%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 103: Alton Road & 5th Street



Lane Group	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	1057	498	38	811	118	274	165	281	393
v/c Ratio	0.68	0.65	0.22	0.47	0.14	0.69	0.78	0.92	0.91
Control Delay	38.4	18.7	22.9	26.8	3.3	83.5	98.4	101.3	66.4
Queue Delay	0.0	0.0	0.0	9.6	0.0	0.0	0.0	0.0	0.0
Total Delay	38.4	18.7	22.9	36.4	3.3	83.5	98.4	101.3	66.4
Queue Length 50th (ft)	511	201	21	306	0	162	190	329	310
Queue Length 95th (ft)	593	343	42	363	34	207	270	#579	#570
Internal Link Dist (ft)	283			332			941	820	
Turn Bay Length (ft)		180	125		225	450			
Base Capacity (vph)	1559	765	171	1718	823	514	272	304	434
Starvation Cap Reductn	0	0	0	873	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.68	0.65	0.22	0.96	0.14	0.53	0.61	0.92	0.91

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM Signalized Intersection Capacity Analysis
103: Alton Road & 5th Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1015	478	36	779	113	263	148	11	83	187	377
Future Volume (vph)	0	1015	478	36	779	113	263	148	11	83	187	377
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.0	6.0	6.3	6.0	6.0	6.0	6.0			6.0	6.0
Lane Util. Factor		0.95	1.00	1.00	0.95	1.00	0.97	1.00			1.00	1.00
Frpb, ped/bikes		1.00	0.89	1.00	1.00	1.00	1.00	0.98			1.00	0.98
Flpb, ped/bikes		1.00	1.00	1.00	1.00	1.00	1.00	1.00			0.94	1.00
Frt		1.00	0.85	1.00	1.00	0.85	1.00	0.99			1.00	0.85
Flt Protected		1.00	1.00	0.95	1.00	1.00	0.95	1.00			0.98	1.00
Satd. Flow (prot)		3185	1272	1593	3185	1425	3090	1630			1549	1402
Flt Permitted		1.00	1.00	0.15	1.00	1.00	0.95	1.00			0.84	1.00
Satd. Flow (perm)		3185	1272	249	3185	1425	3090	1630			1316	1402
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	0	1057	498	38	811	118	274	154	11	86	195	393
RTOR Reduction (vph)	0	0	145	0	0	54	0	2	0	0	0	111
Lane Group Flow (vph)	0	1057	353	38	811	64	274	163	0	0	281	282
Confl. Peds. (#/hr)			49	49			2		80	80		2
Confl. Bikes (#/hr)			14						9			
Turn Type		NA	Perm	pm+pt	NA	Perm	Split	NA		Perm	NA	Perm
Protected Phases		2		1	6		3	3			4	
Permitted Phases			2	6		6				4		4
Actuated Green, G (s)		87.0	87.0	97.3	97.3	97.3	23.3	23.3			41.7	41.7
Effective Green, g (s)		87.0	87.0	97.3	97.3	97.3	23.3	23.3			41.7	41.7
Actuated g/C Ratio		0.48	0.48	0.54	0.54	0.54	0.13	0.13			0.23	0.23
Clearance Time (s)		6.0	6.0	6.3	6.0	6.0	6.0	6.0			6.0	6.0
Vehicle Extension (s)		1.0	1.0	2.0	1.0	1.0	3.0	3.0			3.5	3.5
Lane Grp Cap (vph)		1536	613	164	1718	769	399	210			304	324
v/s Ratio Prot		c0.33		0.01	c0.25		0.09	c0.10				
v/s Ratio Perm			0.28	0.12		0.04					c0.21	0.20
v/c Ratio		0.69	0.58	0.23	0.47	0.08	0.69	0.78			0.92	0.87
Uniform Delay, d1		36.1	33.4	24.9	25.6	20.0	75.0	76.0			67.8	66.7
Progression Factor		1.00	1.00	1.00	1.00	1.00	1.00	1.00			1.00	1.00
Incremental Delay, d2		2.5	3.9	0.3	0.9	0.2	4.9	16.4			32.7	22.1
Delay (s)		38.7	37.3	25.2	26.6	20.2	79.9	92.4			100.5	88.8
Level of Service		D	D	C	C	C	E	F			F	F
Approach Delay (s)		38.3			25.7			84.6			93.7	
Approach LOS		D			C			F			F	

Intersection Summary			
HCM 2000 Control Delay	50.8	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	180.3	Sum of lost time (s)	24.3
Intersection Capacity Utilization	78.9%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

HCM 6th Edition methodology expects strict NEMA phasing.

Intersection	
Intersection Delay, s/veh	8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	11	62	62	18	53	5	23	60	8	1	60	14
Future Vol, veh/h	11	62	62	18	53	5	23	60	8	1	60	14
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	12	65	65	19	56	5	24	63	8	1	63	15
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8	8	8.2	7.9
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	25%	8%	24%	1%
Vol Thru, %	66%	46%	70%	80%
Vol Right, %	9%	46%	7%	19%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	91	135	76	75
LT Vol	23	11	18	1
Through Vol	60	62	53	60
RT Vol	8	62	5	14
Lane Flow Rate	96	142	80	79
Geometry Grp	1	1	1	1
Degree of Util (X)	0.12	0.165	0.1	0.097
Departure Headway (Hd)	4.513	4.168	4.495	4.427
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	796	863	798	811
Service Time	2.533	2.185	2.514	2.448
HCM Lane V/C Ratio	0.121	0.165	0.1	0.097
HCM Control Delay	8.2	8	8	7.9
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.4	0.6	0.3	0.3

Intersection	
Intersection Delay, s/veh	8.1
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	15	13	15	18	28	7	18	67	16	8	126	13
Future Vol, veh/h	15	13	15	18	28	7	18	67	16	8	126	13
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	17	15	17	20	32	8	20	76	18	9	143	15
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.8	8	8	8.3
HCM LOS	A	A	A	A

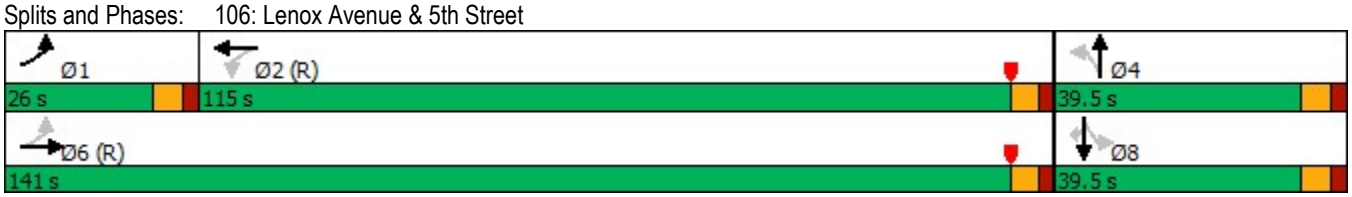
Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	18%	35%	34%	5%
Vol Thru, %	66%	30%	53%	86%
Vol Right, %	16%	35%	13%	9%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	101	43	53	147
LT Vol	18	15	18	8
Through Vol	67	13	28	126
RT Vol	16	15	7	13
Lane Flow Rate	115	49	60	167
Geometry Grp	1	1	1	1
Degree of Util (X)	0.137	0.061	0.077	0.199
Departure Headway (Hd)	4.305	4.491	4.605	4.282
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	836	799	779	844
Service Time	2.32	2.511	2.624	2.282
HCM Lane V/C Ratio	0.138	0.061	0.077	0.198
HCM Control Delay	8	7.8	8	8.3
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.5	0.2	0.2	0.7

Timings
106: Lenox Avenue & 5th Street

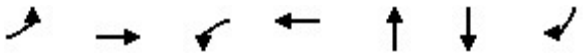
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	152	1004	30	786	18	30	17	55	100
Future Volume (vph)	152	1004	30	786	18	30	17	55	100
Turn Type	pm+pt	NA	Perm	NA	Perm	NA	Perm	NA	Perm
Protected Phases	1	6		2		4		8	
Permitted Phases	6		2		4		8		8
Detector Phase	1	6	2	2	4	4	8	8	8
Switch Phase									
Minimum Initial (s)	5.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	11.0	24.0	24.0	24.0	38.5	38.5	38.5	38.5	38.5
Total Split (s)	26.0	141.0	115.0	115.0	39.5	39.5	39.5	39.5	39.5
Total Split (%)	14.4%	78.1%	63.7%	63.7%	21.9%	21.9%	21.9%	21.9%	21.9%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.5	2.5	2.5	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0		6.5		6.5	6.5
Lead/Lag	Lead		Lag	Lag					
Lead-Lag Optimize?	Yes		Yes	Yes					
Recall Mode	None	C-Max	C-Max	C-Max	None	None	None	None	None
Act Effct Green (s)	152.8	152.8	139.1	139.1		15.2		15.2	15.2
Actuated g/C Ratio	0.85	0.85	0.77	0.77		0.08		0.08	0.08
v/c Ratio	0.34	0.28	0.10	0.24		0.74		0.73	0.54
Control Delay	4.7	3.2	7.3	6.4		101.3		116.1	22.4
Queue Delay	0.0	0.7	0.0	0.0		0.0		0.0	0.0
Total Delay	4.7	3.9	7.3	6.4		101.3		116.1	22.4
LOS	A	A	A	A		F		F	C
Approach Delay		4.0		6.5		101.3		61.7	
Approach LOS		A		A		F		E	

Intersection Summary	
Cycle Length: 180.5	
Actuated Cycle Length: 180.5	
Offset: 137 (76%), Referenced to phase 2:WBTL and 6:EBTL, Start of Yellow	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.74	
Intersection Signal Delay: 12.4	Intersection LOS: B
Intersection Capacity Utilization 83.2%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 106: Lenox Avenue & 5th Street



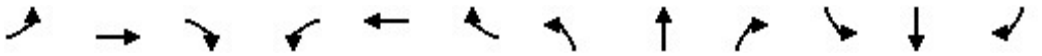
Queues
106: Lenox Avenue & 5th Street



Lane Group	EBL	EBT	WBL	WBT	NBT	SBT	SBR
Lane Group Flow (vph)	158	1093	31	845	79	75	104
v/c Ratio	0.34	0.28	0.10	0.24	0.74	0.73	0.54
Control Delay	4.7	3.2	7.3	6.4	101.3	116.1	22.4
Queue Delay	0.0	0.7	0.0	0.0	0.0	0.0	0.0
Total Delay	4.7	3.9	7.3	6.4	101.3	116.1	22.4
Queue Length 50th (ft)	26	77	8	91	77	88	0
Queue Length 95th (ft)	53	119	24	138	138	147	65
Internal Link Dist (ft)		332		316	454	815	
Turn Bay Length (ft)	225		150				90
Base Capacity (vph)	542	3852	321	3493	217	224	293
Starvation Cap Reductn	0	2249	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.29	0.68	0.10	0.24	0.36	0.33	0.35

Intersection Summary

HCM 6th Signalized Intersection Summary
106: Lenox Avenue & 5th Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	152	1004	45	30	786	25	18	30	28	17	55	100
Future Volume (veh/h)	152	1004	45	30	786	25	18	30	28	17	55	100
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		0.96	0.89		0.81	0.88		0.82
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00	0.90
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683
Adj Flow Rate, veh/h	158	1046	47	31	819	26	19	31	29	18	57	104
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	463	3394	152	354	3101	98	62	90	74	76	219	187
Arrive On Green	0.04	0.75	0.75	0.68	0.68	0.68	0.18	0.18	0.18	0.18	0.18	0.18
Sat Flow, veh/h	1603	4505	202	463	4569	145	212	506	417	286	1237	1056
Grp Volume(v), veh/h	158	711	382	31	549	296	79	0	0	75	0	104
Grp Sat Flow(s),veh/h/ln	1603	1532	1643	463	1532	1650	1135	0	0	1524	0	1056
Q Serve(g_s), s	5.3	13.4	13.4	4.2	12.6	12.7	4.0	0.0	0.0	0.0	0.0	16.2
Cycle Q Clear(g_c), s	5.3	13.4	13.4	4.2	12.6	12.7	10.9	0.0	0.0	7.0	0.0	16.2
Prop In Lane	1.00		0.12	1.00		0.09	0.24		0.37	0.24		1.00
Lane Grp Cap(c), veh/h	463	2308	1238	354	2079	1120	226	0	0	295	0	187
V/C Ratio(X)	0.34	0.31	0.31	0.09	0.26	0.26	0.35	0.00	0.00	0.25	0.00	0.56
Avail Cap(c_a), veh/h	575	2308	1238	354	2079	1120	233	0	0	304	0	194
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)	0.68	0.68	0.68	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	8.0	7.1	7.1	10.0	11.3	11.3	65.2	0.0	0.0	63.8	0.0	67.6
Incr Delay (d2), s/veh	0.1	0.2	0.4	0.5	0.3	0.6	0.7	0.0	0.0	0.3	0.0	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	1.9	4.4	4.8	0.5	4.5	4.9	3.3	0.0	0.0	3.0	0.0	4.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	8.1	7.4	7.6	10.5	11.6	11.9	65.9	0.0	0.0	64.1	0.0	70.2
LnGrp LOS	A	A	A	B	B	B	E	A	A	E	A	E
Approach Vol, veh/h		1251			876			79			179	
Approach Delay, s/veh		7.5			11.7			65.9			67.7	
Approach LOS		A			B			E			E	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	13.5	128.2		38.4		141.6		38.4				
Change Period (Y+Rc), s	6.0	6.0		6.5		6.0		6.5				
Max Green Setting (Gmax), s	20.0	109.0		33.0		135.0		33.0				
Max Q Clear Time (g_c+I1), s	7.3	14.7		12.9		15.4		18.2				
Green Ext Time (p_c), s	0.2	2.5		0.3		3.0		0.5				

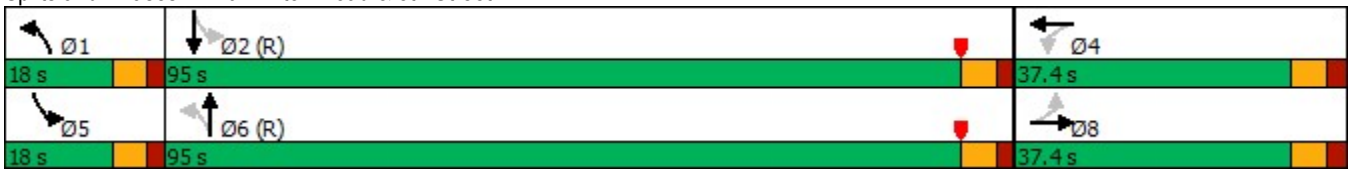
Intersection Summary												
HCM 6th Ctrl Delay			15.5									
HCM 6th LOS			B									

Timings
101: Alton Road & 8th Street

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	17	50	38	37	193	1324	90	705
Future Volume (vph)	17	50	38	37	193	1324	90	705
Turn Type	Perm	NA	Perm	NA	pm+pt	NA	pm+pt	NA
Protected Phases		8		4	1	6	5	2
Permitted Phases	8		4		6		2	
Detector Phase	8	8	4	4	1	6	5	2
Switch Phase								
Minimum Initial (s)	7.0	7.0	7.0	7.0	5.0	16.0	5.0	7.0
Minimum Split (s)	37.4	37.4	37.4	37.4	11.0	24.0	11.0	24.0
Total Split (s)	37.4	37.4	37.4	37.4	18.0	95.0	18.0	95.0
Total Split (%)	24.9%	24.9%	24.9%	24.9%	12.0%	63.2%	12.0%	63.2%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.4	2.4	2.4	2.4	2.0	2.0	2.0	2.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		6.4		6.4	6.0	6.0	6.0	6.0
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)		19.2		19.2	115.5	106.1	110.2	103.5
Actuated g/C Ratio		0.13		0.13	0.77	0.71	0.73	0.69
v/c Ratio		0.64		0.87	0.43	0.66	0.40	0.34
Control Delay		67.6		99.5	7.4	15.1	10.1	11.2
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0
Total Delay		67.6		99.5	7.4	15.1	10.1	11.2
LOS		E		F	A	B	B	B
Approach Delay		67.6		99.5		14.2		11.0
Approach LOS		E		F		B		B

Intersection Summary	
Cycle Length: 150.4	
Actuated Cycle Length: 150.4	
Offset: 25 (17%), Referenced to phase 2:SBTL and 6:NBTL, Start of Yellow	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.87	
Intersection Signal Delay: 19.5	Intersection LOS: B
Intersection Capacity Utilization 87.1%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 101: Alton Road & 8th Street

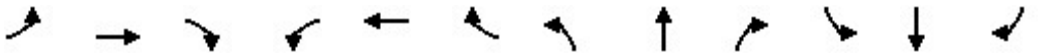


Queues
101: Alton Road & 8th Street

Lane Group	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	112	132	201	1453	94	747
v/c Ratio	0.64	0.87	0.43	0.66	0.40	0.34
Control Delay	67.6	99.5	7.4	15.1	10.1	11.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	67.6	99.5	7.4	15.1	10.1	11.2
Queue Length 50th (ft)	89	110	41	373	18	144
Queue Length 95th (ft)	149	181	83	581	41	236
Internal Link Dist (ft)	1209	320		320		1725
Turn Bay Length (ft)			150		130	
Base Capacity (vph)	271	232	502	2218	288	2175
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.41	0.57	0.40	0.66	0.33	0.34

Intersection Summary

HCM 6th Signalized Intersection Summary
101: Alton Road & 8th Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	17	50	40	38	37	51	193	1324	71	90	705	12
Future Volume (veh/h)	17	50	40	38	37	51	193	1324	71	90	705	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.96		0.91	0.96		0.92	1.00		0.94	1.00		0.94
Parking Bus, Adj	1.00	1.00	0.90	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683
Adj Flow Rate, veh/h	18	52	42	40	39	53	201	1379	74	94	734	12
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	54	131	94	89	81	93	477	2015	108	225	2028	33
Arrive On Green	0.19	0.19	0.19	0.19	0.19	0.19	0.06	0.66	0.66	0.03	0.63	0.63
Sat Flow, veh/h	140	693	500	308	432	496	1603	3076	165	1603	3216	53
Grp Volume(v), veh/h	112	0	0	132	0	0	201	715	738	94	365	381
Grp Sat Flow(s),veh/h/ln	1333	0	0	1235	0	0	1603	1599	1641	1603	1599	1670
Q Serve(g_s), s	0.0	0.0	0.0	3.3	0.0	0.0	6.7	41.8	42.3	3.1	16.4	16.4
Cycle Q Clear(g_c), s	10.8	0.0	0.0	14.1	0.0	0.0	6.7	41.8	42.3	3.1	16.4	16.4
Prop In Lane	0.16		0.37	0.30		0.40	1.00		0.10	1.00		0.03
Lane Grp Cap(c), veh/h	279	0	0	264	0	0	477	1048	1075	225	1008	1053
V/C Ratio(X)	0.40	0.00	0.00	0.50	0.00	0.00	0.42	0.68	0.69	0.42	0.36	0.36
Avail Cap(c_a), veh/h	302	0	0	286	0	0	511	1048	1075	299	1008	1053
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	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.8	0.0	0.0	55.0	0.0	0.0	9.6	16.1	16.2	15.9	13.3	13.3
Incr Delay (d2), s/veh	0.7	0.0	0.0	1.1	0.0	0.0	0.2	3.6	3.6	0.5	1.0	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(50%),veh/ln	3.8	0.0	0.0	4.6	0.0	0.0	2.3	15.9	16.5	1.1	6.2	6.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	54.5	0.0	0.0	56.0	0.0	0.0	9.8	19.7	19.8	16.4	14.3	14.2
LnGrp LOS	D	A	A	E	A	A	A	B	B	B	B	B
Approach Vol, veh/h		112			132			1654			840	
Approach Delay, s/veh		54.5			56.0			18.6			14.5	
Approach LOS		D			E			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	14.8	100.6		34.6	11.1	104.3		34.6				
Change Period (Y+Rc), s	6.0	6.0		6.4	6.0	6.0		6.4				
Max Green Setting (Gmax), s	12.0	89.0		31.0	12.0	89.0		31.0				
Max Q Clear Time (g_c+I1), s	8.7	18.4		16.1	5.1	44.3		12.8				
Green Ext Time (p_c), s	0.1	1.7		0.5	0.1	4.1		0.4				

Intersection Summary												
HCM 6th Ctrl Delay			20.6									
HCM 6th LOS			C									

Intersection	
Int Delay, s/veh	0.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	72	1521	12	0	799
Future Vol, veh/h	0	72	1521	12	0	799
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	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	75	1584	13	0	832

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	799	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	328	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	328	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	328	-
HCM Lane V/C Ratio	-	-	0.229	-
HCM Control Delay (s)	-	-	19.2	-
HCM Lane LOS	-	-	C	-
HCM 95th %tile Q(veh)	-	-	0.9	-

Timings
103: Alton Road & 5th Street

Lane Group	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	1074	451	28	870	105	419	221	43	180	296
Future Volume (vph)	1074	451	28	870	105	419	221	43	180	296
Turn Type	NA	Perm	pm+pt	NA	Perm	Split	NA	Perm	NA	Perm
Protected Phases	2		1	6		3	3		4	
Permitted Phases		2	6		6			4		4
Detector Phase	2	2	1	6	6	3	3	4	4	4
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	35.0	35.0	11.3	35.0	35.0	24.0	24.0	31.0	31.0	31.0
Total Split (s)	65.0	65.0	11.3	76.3	76.3	31.0	31.0	33.0	33.0	33.0
Total Split (%)	46.3%	46.3%	8.1%	54.4%	54.4%	22.1%	22.1%	23.5%	23.5%	23.5%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.3	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	6.0	6.0	6.3	6.0	6.0	6.0	6.0		6.0	6.0
Lead/Lag	Lag	Lag	Lead			Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes			Yes	Yes	Yes	Yes	Yes
Recall Mode	C-Max	C-Max	None	C-Max	C-Max	None	None	None	None	None
Act Effct Green (s)	66.1	66.1	72.6	72.9	72.9	23.8	23.8		25.6	25.6
Actuated g/C Ratio	0.47	0.47	0.52	0.52	0.52	0.17	0.17		0.18	0.18
v/c Ratio	0.75	0.62	0.19	0.55	0.14	0.83	0.89		0.89	0.87
Control Delay	35.9	15.1	20.9	24.8	3.6	70.6	87.8		89.0	58.2
Queue Delay	0.0	0.0	0.0	3.9	0.0	0.0	0.0		0.0	0.0
Total Delay	35.9	15.1	20.9	28.8	3.6	70.6	87.8		89.0	58.2
LOS	D	B	C	C	A	E	F		F	E
Approach Delay	29.8			25.9			76.8		71.5	
Approach LOS	C			C			E		E	

Intersection Summary	
Cycle Length: 140.3	
Actuated Cycle Length: 140.3	
Offset: 57 (41%), Referenced to phase 2:EBT and 6:WBTL, Start of Yellow	
Natural Cycle: 105	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.89	
Intersection Signal Delay: 42.9	Intersection LOS: D
Intersection Capacity Utilization 76.5%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 103: Alton Road & 5th Street

Lane Group	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	1119	470	29	906	109	436	248	233	308
v/c Ratio	0.75	0.62	0.19	0.55	0.14	0.83	0.89	0.89	0.87
Control Delay	35.9	15.1	20.9	24.8	3.6	70.6	87.8	89.0	58.2
Queue Delay	0.0	0.0	0.0	3.9	0.0	0.0	0.0	0.0	0.0
Total Delay	35.9	15.1	20.9	28.8	3.6	70.6	87.8	89.0	58.2
Queue Length 50th (ft)	475	130	13	296	0	198	220	207	174
Queue Length 95th (ft)	572	262	31	361	31	261	#368	#352	#335
Internal Link Dist (ft)	283			332			941	820	
Turn Bay Length (ft)		180	125		225	450			
Base Capacity (vph)	1500	759	152	1653	792	550	293	276	366
Starvation Cap Reductn	0	0	0	645	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.75	0.62	0.19	0.90	0.14	0.79	0.85	0.84	0.84

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM Signalized Intersection Capacity Analysis
103: Alton Road & 5th Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1074	451	28	870	105	419	221	17	43	180	296
Future Volume (vph)	0	1074	451	28	870	105	419	221	17	43	180	296
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.0	6.0	6.3	6.0	6.0	6.0	6.0			6.0	6.0
Lane Util. Factor		0.95	1.00	1.00	0.95	1.00	0.97	1.00			1.00	1.00
Frpb, ped/bikes		1.00	0.90	1.00	1.00	1.00	1.00	0.99			1.00	0.98
Flpb, ped/bikes		1.00	1.00	1.00	1.00	1.00	1.00	1.00			0.98	1.00
Frt		1.00	0.85	1.00	1.00	0.85	1.00	0.99			1.00	0.85
Flt Protected		1.00	1.00	0.95	1.00	1.00	0.95	1.00			0.99	1.00
Satd. Flow (prot)		3185	1288	1593	3185	1425	3090	1638			1625	1403
Flt Permitted		1.00	1.00	0.12	1.00	1.00	0.95	1.00			0.88	1.00
Satd. Flow (perm)		3185	1288	197	3185	1425	3090	1638			1438	1403
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	0	1119	470	29	906	109	436	230	18	45	188	308
RTOR Reduction (vph)	0	0	159	0	0	52	0	2	0	0	0	97
Lane Group Flow (vph)	0	1119	311	29	906	57	436	246	0	0	233	211
Confl. Peds. (#/hr)			52	52					63	63		
Confl. Bikes (#/hr)			23						6			3
Turn Type		NA	Perm	pm+pt	NA	Perm	Split	NA		Perm	NA	Perm
Protected Phases		2		1	6		3	3			4	
Permitted Phases			2	6		6				4		4
Actuated Green, G (s)		63.6	63.6	72.9	72.9	72.9	23.8	23.8			25.6	25.6
Effective Green, g (s)		63.6	63.6	72.9	72.9	72.9	23.8	23.8			25.6	25.6
Actuated g/C Ratio		0.45	0.45	0.52	0.52	0.52	0.17	0.17			0.18	0.18
Clearance Time (s)		6.0	6.0	6.3	6.0	6.0	6.0	6.0			6.0	6.0
Vehicle Extension (s)		1.0	1.0	2.0	1.0	1.0	3.0	3.0			3.5	3.5
Lane Grp Cap (vph)		1443	583	132	1654	740	524	277			262	256
v/s Ratio Prot		c0.35		0.00	c0.28		0.14	c0.15				
v/s Ratio Perm			0.24	0.11		0.04					c0.16	0.15
v/c Ratio		0.78	0.53	0.22	0.55	0.08	0.83	0.89			0.89	0.82
Uniform Delay, d1		32.3	27.7	21.9	22.6	16.9	56.3	57.0			56.0	55.2
Progression Factor		1.00	1.00	1.00	1.00	1.00	1.00	1.00			1.00	1.00
Incremental Delay, d2		4.1	3.5	0.3	1.3	0.2	10.8	27.3			28.9	19.3
Delay (s)		36.5	31.1	22.2	23.9	17.1	67.2	84.2			84.9	74.5
Level of Service		D	C	C	C	B	E	F			F	E
Approach Delay (s)		34.9			23.2			73.3			78.9	
Approach LOS		C			C			E			E	

Intersection Summary			
HCM 2000 Control Delay	44.7	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	140.3	Sum of lost time (s)	24.3
Intersection Capacity Utilization	76.5%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

HCM 6th Edition methodology expects strict NEMA phasing.

Intersection	
Intersection Delay, s/veh	9.6
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	28	150	59	10	75	9	31	136	18	9	84	14
Future Vol, veh/h	28	150	59	10	75	9	31	136	18	9	84	14
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	30	161	63	11	81	10	33	146	19	10	90	15
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	10.1	8.9	9.8	9
HCM LOS	B	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	17%	12%	11%	8%
Vol Thru, %	74%	63%	80%	79%
Vol Right, %	10%	25%	10%	13%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	185	237	94	107
LT Vol	31	28	10	9
Through Vol	136	150	75	84
RT Vol	18	59	9	14
Lane Flow Rate	199	255	101	115
Geometry Grp	1	1	1	1
Degree of Util (X)	0.271	0.333	0.14	0.159
Departure Headway (Hd)	4.912	4.71	4.992	4.988
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	726	759	713	713
Service Time	2.976	2.769	3.064	3.061
HCM Lane V/C Ratio	0.274	0.336	0.142	0.161
HCM Control Delay	9.8	10.1	8.9	9
HCM Lane LOS	A	B	A	A
HCM 95th-tile Q	1.1	1.5	0.5	0.6

Intersection	
Intersection Delay, s/veh	8.7
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	7	8	13	21	39	14	28	164	31	18	123	2
Future Vol, veh/h	7	8	13	21	39	14	28	164	31	18	123	2
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	8	9	14	23	42	15	30	176	33	19	132	2
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.9	8.4	9.1	8.5
HCM LOS	A	A	A	A

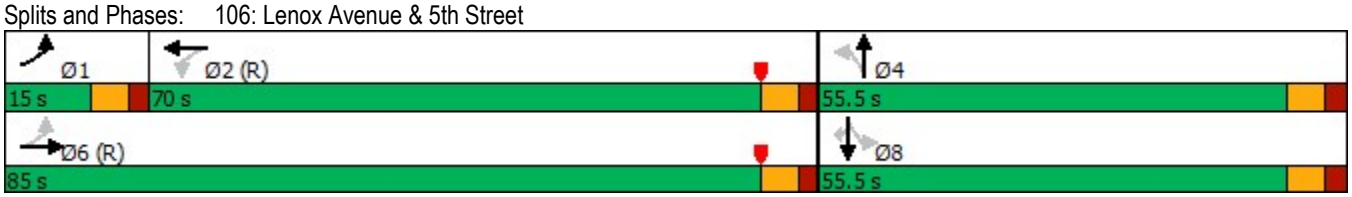
Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	13%	25%	28%	13%
Vol Thru, %	74%	29%	53%	86%
Vol Right, %	14%	46%	19%	1%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	223	28	74	143
LT Vol	28	7	21	18
Through Vol	164	8	39	123
RT Vol	31	13	14	2
Lane Flow Rate	240	30	80	154
Geometry Grp	1	1	1	1
Degree of Util (X)	0.287	0.039	0.106	0.191
Departure Headway (Hd)	4.309	4.687	4.791	4.469
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	834	763	748	804
Service Time	2.329	2.719	2.819	2.491
HCM Lane V/C Ratio	0.288	0.039	0.107	0.192
HCM Control Delay	9.1	7.9	8.4	8.5
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	1.2	0.1	0.4	0.7

Timings
106: Lenox Avenue & 5th Street

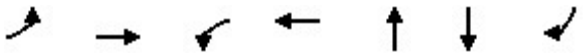
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	152	1039	17	815	33	62	38	44	89
Future Volume (vph)	152	1039	17	815	33	62	38	44	89
Turn Type	pm+pt	NA	Perm	NA	Perm	NA	Perm	NA	Perm
Protected Phases	1	6		2		4		8	
Permitted Phases	6		2		4		8		8
Detector Phase	1	6	2	2	4	4	8	8	8
Switch Phase									
Minimum Initial (s)	5.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	11.0	24.0	24.0	24.0	38.5	38.5	38.5	38.5	38.5
Total Split (s)	15.0	85.0	70.0	70.0	55.5	55.5	55.5	55.5	55.5
Total Split (%)	10.7%	60.5%	49.8%	49.8%	39.5%	39.5%	39.5%	39.5%	39.5%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.5	2.5	2.5	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0		6.5		6.5	6.5
Lead/Lag	Lead		Lag	Lag					
Lead-Lag Optimize?	Yes		Yes	Yes					
Recall Mode	None	C-Max	C-Max	C-Max	None	None	None	None	None
Act Effct Green (s)	110.3	110.3	96.1	96.1		17.7		17.7	17.7
Actuated g/C Ratio	0.79	0.79	0.68	0.68		0.13		0.13	0.13
v/c Ratio	0.39	0.32	0.07	0.30		0.75		0.68	0.41
Control Delay	7.1	5.0	10.5	9.9		81.0		82.5	14.6
Queue Delay	0.0	0.5	0.0	0.0		0.0		0.0	0.0
Total Delay	7.1	5.5	10.5	9.9		81.0		82.5	14.6
LOS	A	A	B	A		F		F	B
Approach Delay		5.7		9.9		81.0		47.1	
Approach LOS		A		A		F		D	

Intersection Summary	
Cycle Length: 140.5	
Actuated Cycle Length: 140.5	
Offset: 56 (40%), Referenced to phase 2:WBTL and 6:EBTL, Start of Yellow	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.75	
Intersection Signal Delay: 13.9	Intersection LOS: B
Intersection Capacity Utilization 78.6%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 106: Lenox Avenue & 5th Street



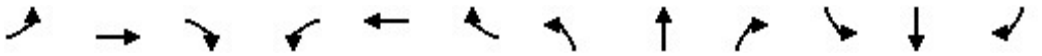
Queues
106: Lenox Avenue & 5th Street



Lane Group	EBL	EBT	WBL	WBT	NBT	SBT	SBR
Lane Group Flow (vph)	163	1136	18	930	124	88	96
v/c Ratio	0.39	0.32	0.07	0.30	0.75	0.68	0.41
Control Delay	7.1	5.0	10.5	9.9	81.0	82.5	14.6
Queue Delay	0.0	0.5	0.0	0.0	0.0	0.0	0.0
Total Delay	7.1	5.5	10.5	9.9	81.0	82.5	14.6
Queue Length 50th (ft)	31	92	5	112	104	78	0
Queue Length 95th (ft)	64	145	19	175	167	131	51
Internal Link Dist (ft)		332		316	454	815	
Turn Bay Length (ft)	225		150				90
Base Capacity (vph)	426	3580	272	3074	442	359	482
Starvation Cap Reductn	0	1835	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.38	0.65	0.07	0.30	0.28	0.25	0.20

Intersection Summary

HCM 6th Signalized Intersection Summary
106: Lenox Avenue & 5th Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	152	1039	18	17	815	50	33	62	20	38	44	89
Future Volume (veh/h)	152	1039	18	17	815	50	33	62	20	38	44	89
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	0.99		0.95	0.96		0.92	0.96		0.92
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00	0.90
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683
Adj Flow Rate, veh/h	163	1117	19	18	876	54	35	67	22	41	47	96
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	408	3246	55	318	2662	163	85	142	42	144	149	252
Arrive On Green	0.05	0.70	0.70	0.60	0.60	0.60	0.21	0.21	0.21	0.21	0.21	0.21
Sat Flow, veh/h	1603	4649	79	443	4410	271	243	667	196	500	702	1184
Grp Volume(v), veh/h	163	736	400	18	608	322	124	0	0	88	0	96
Grp Sat Flow(s),veh/h/ln	1603	1532	1664	443	1532	1618	1106	0	0	1202	0	1184
Q Serve(g_s), s	5.2	13.4	13.4	2.4	13.7	13.8	6.7	0.0	0.0	0.0	0.0	9.7
Cycle Q Clear(g_c), s	5.2	13.4	13.4	2.5	13.7	13.8	16.0	0.0	0.0	9.3	0.0	9.7
Prop In Lane	1.00		0.05	1.00		0.17	0.28		0.18	0.47		1.00
Lane Grp Cap(c), veh/h	408	2139	1162	318	1849	976	268	0	0	293	0	252
V/C Ratio(X)	0.40	0.34	0.34	0.06	0.33	0.33	0.46	0.00	0.00	0.30	0.00	0.38
Avail Cap(c_a), veh/h	428	2139	1162	318	1849	976	440	0	0	481	0	414
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)	0.59	0.59	0.59	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	9.8	8.4	8.4	11.5	13.7	13.7	49.6	0.0	0.0	46.6	0.0	47.2
Incr Delay (d2), s/veh	0.1	0.3	0.5	0.3	0.5	0.9	0.9	0.0	0.0	0.4	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	1.8	4.4	4.8	0.3	4.9	5.3	4.0	0.0	0.0	2.7	0.0	2.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	9.9	8.6	8.9	11.9	14.2	14.6	50.6	0.0	0.0	47.0	0.0	48.0
LnGrp LOS	A	A	A	B	B	B	D	A	A	D	A	D
Approach Vol, veh/h		1299			948			124			184	
Approach Delay, s/veh		8.9			14.3			50.6			47.5	
Approach LOS		A			B			D			D	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	13.3	90.5		36.2		103.8		36.2				
Change Period (Y+Rc), s	6.0	6.0		6.5		6.0		6.5				
Max Green Setting (Gmax), s	9.0	64.0		49.0		79.0		49.0				
Max Q Clear Time (g_c+I1), s	7.2	15.8		18.0		15.4		11.7				
Green Ext Time (p_c), s	0.0	2.7		0.6		3.1		0.7				

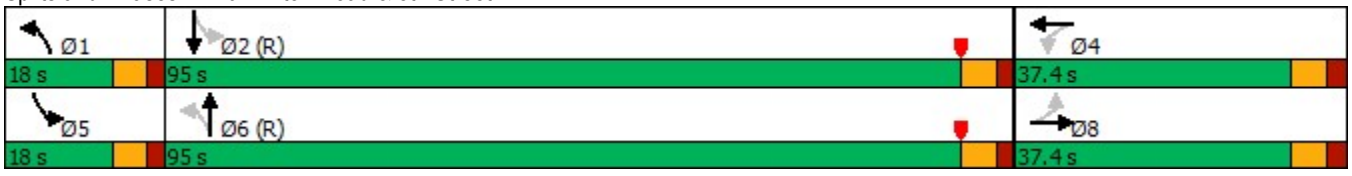
Intersection Summary												
HCM 6th Ctrl Delay			15.7									
HCM 6th LOS			B									

Timings
101: Alton Road & 8th Street

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	53	51	39	85	281	1364	92	756
Future Volume (vph)	53	51	39	85	281	1364	92	756
Turn Type	Perm	NA	Perm	NA	pm+pt	NA	pm+pt	NA
Protected Phases		8		4	1	6	5	2
Permitted Phases	8		4		6		2	
Detector Phase	8	8	4	4	1	6	5	2
Switch Phase								
Minimum Initial (s)	7.0	7.0	7.0	7.0	5.0	16.0	5.0	7.0
Minimum Split (s)	37.4	37.4	37.4	37.4	11.0	24.0	11.0	24.0
Total Split (s)	37.4	37.4	37.4	37.4	18.0	95.0	18.0	95.0
Total Split (%)	24.9%	24.9%	24.9%	24.9%	12.0%	63.2%	12.0%	63.2%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.4	2.4	2.4	2.4	2.0	2.0	2.0	2.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		6.4		6.4	6.0	6.0	6.0	6.0
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)		28.6		28.6	107.3	95.9	99.4	92.0
Actuated g/C Ratio		0.19		0.19	0.71	0.64	0.66	0.61
v/c Ratio		0.89		0.94	0.71	0.75	0.50	0.43
Control Delay		99.5		95.4	18.4	22.6	16.2	16.6
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0
Total Delay		99.5		95.4	18.4	22.6	16.2	16.6
LOS		F		F	B	C	B	B
Approach Delay		99.5		95.4		21.9		16.5
Approach LOS		F		F		C		B

Intersection Summary	
Cycle Length: 150.4	
Actuated Cycle Length: 150.4	
Offset: 25 (17%), Referenced to phase 2:SBTL and 6:NBTL, Start of Yellow	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.94	
Intersection Signal Delay: 29.7	Intersection LOS: C
Intersection Capacity Utilization 89.0%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 101: Alton Road & 8th Street



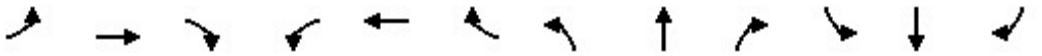
Queues
101: Alton Road & 8th Street

Lane Group	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	151	234	293	1498	96	818
v/c Ratio	0.89	0.94	0.71	0.75	0.50	0.43
Control Delay	99.5	95.4	18.4	22.6	16.2	16.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	99.5	95.4	18.4	22.6	16.2	16.6
Queue Length 50th (ft)	133	204	93	527	27	223
Queue Length 95th (ft)	#263	#361	134	663	46	272
Internal Link Dist (ft)	1209	320		320		1725
Turn Bay Length (ft)			150		130	
Base Capacity (vph)	182	269	417	2004	242	1919
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.83	0.87	0.70	0.75	0.40	0.43

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 6th Signalized Intersection Summary
101: Alton Road & 8th Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	53	51	41	39	85	100	281	1364	74	92	756	29
Future Volume (veh/h)	53	51	41	39	85	100	281	1364	74	92	756	29
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98		0.92	0.97		0.93	1.00		0.94	1.00		0.94
Parking Bus, Adj	1.00	1.00	0.90	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683
Adj Flow Rate, veh/h	55	53	43	41	89	104	293	1421	77	96	788	30
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	82	71	48	61	108	112	469	2039	110	221	1943	74
Arrive On Green	0.21	0.21	0.21	0.21	0.21	0.21	0.08	0.66	0.66	0.03	0.62	0.62
Sat Flow, veh/h	238	343	231	159	522	545	1603	3074	166	1603	3132	119
Grp Volume(v), veh/h	151	0	0	234	0	0	293	737	761	96	402	416
Grp Sat Flow(s),veh/h/ln	812	0	0	1226	0	0	1603	1599	1641	1603	1599	1652
Q Serve(g_s), s	0.3	0.0	0.0	0.0	0.0	0.0	9.7	43.1	43.7	3.3	19.1	19.2
Cycle Q Clear(g_c), s	28.5	0.0	0.0	28.2	0.0	0.0	9.7	43.1	43.7	3.3	19.1	19.2
Prop In Lane	0.36		0.28	0.18		0.44	1.00		0.10	1.00		0.07
Lane Grp Cap(c), veh/h	200	0	0	281	0	0	469	1061	1088	221	992	1025
V/C Ratio(X)	0.75	0.00	0.00	0.83	0.00	0.00	0.62	0.69	0.70	0.43	0.41	0.41
Avail Cap(c_a), veh/h	201	0	0	282	0	0	473	1061	1088	294	992	1025
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	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	57.3	0.0	0.0	58.1	0.0	0.0	10.5	15.8	15.9	16.1	14.4	14.4
Incr Delay (d2), s/veh	14.3	0.0	0.0	18.5	0.0	0.0	1.9	3.8	3.7	0.5	1.2	1.2
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	6.4	0.0	0.0	10.2	0.0	0.0	3.5	16.4	17.0	1.2	7.3	7.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	71.6	0.0	0.0	76.5	0.0	0.0	12.4	19.5	19.6	16.6	15.7	15.6
LnGrp LOS	E	A	A	E	A	A	B	B	B	B	B	B
Approach Vol, veh/h		151			234			1791			914	
Approach Delay, s/veh		71.6			76.5			18.4			15.8	
Approach LOS		E			E			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	17.7	99.1		37.3	11.2	105.5		37.3				
Change Period (Y+Rc), s	6.0	6.0		6.4	6.0	6.0		6.4				
Max Green Setting (Gmax), s	12.0	89.0		31.0	12.0	89.0		31.0				
Max Q Clear Time (g_c+I1), s	11.7	21.2		30.2	5.3	45.7		30.5				
Green Ext Time (p_c), s	0.0	1.9		0.1	0.1	4.3		0.0				

Intersection Summary												
HCM 6th Ctrl Delay			24.6									
HCM 6th LOS			C									

Intersection	
Int Delay, s/veh	0.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	75	1567	13	0	882
Future Vol, veh/h	0	75	1567	13	0	882
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	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	78	1632	14	0	919

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	823	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	317	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	317	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	20	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	317	-
HCM Lane V/C Ratio	-	-	0.246	-
HCM Control Delay (s)	-	-	20	-
HCM Lane LOS	-	-	C	-
HCM 95th %tile Q(veh)	-	-	1	-

Timings
103: Alton Road & 5th Street

Lane Group	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	1107	465	28	896	108	432	228	88	210	320
Future Volume (vph)	1107	465	28	896	108	432	228	88	210	320
Turn Type	NA	Perm	pm+pt	NA	Perm	Split	NA	Perm	NA	Perm
Protected Phases	2		1	6		3	3		4	
Permitted Phases		2	6		6			4		4
Detector Phase	2	2	1	6	6	3	3	4	4	4
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	35.0	35.0	11.3	35.0	35.0	24.0	24.0	31.0	31.0	31.0
Total Split (s)	65.0	65.0	11.3	76.3	76.3	31.0	31.0	33.0	33.0	33.0
Total Split (%)	46.3%	46.3%	8.1%	54.4%	54.4%	22.1%	22.1%	23.5%	23.5%	23.5%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.3	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	6.0	6.0	6.3	6.0	6.0	6.0	6.0		6.0	6.0
Lead/Lag	Lag	Lag	Lead			Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes			Yes	Yes	Yes	Yes	Yes
Recall Mode	C-Max	C-Max	None	C-Max	C-Max	None	None	None	None	None
Act Effct Green (s)	63.5	63.5	70.0	70.3	70.3	24.1	24.1		27.9	27.9
Actuated g/C Ratio	0.45	0.45	0.50	0.50	0.50	0.17	0.17		0.20	0.20
v/c Ratio	0.80	0.65	0.22	0.58	0.15	0.85	0.91		1.19	0.89
Control Delay	39.1	16.6	21.9	26.6	3.5	72.0	91.3		165.4	60.8
Queue Delay	0.0	0.0	0.0	10.4	0.0	0.0	0.0		0.0	0.0
Total Delay	39.1	16.6	21.9	37.0	3.5	72.0	91.3		165.4	60.8
LOS	D	B	C	D	A	E	F		F	E
Approach Delay	32.4			33.1			79.0		111.3	
Approach LOS	C			C			E		F	

Intersection Summary	
Cycle Length: 140.3	
Actuated Cycle Length: 140.3	
Offset: 57 (41%), Referenced to phase 2:EBT and 6:WBTL, Start of Yellow	
Natural Cycle: 115	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.19	
Intersection Signal Delay: 53.2	Intersection LOS: D
Intersection Capacity Utilization 81.6%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 103: Alton Road & 5th Street

Lane Group	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	1153	484	29	933	113	450	257	311	333
v/c Ratio	0.80	0.65	0.22	0.58	0.15	0.85	0.91	1.19	0.89
Control Delay	39.1	16.6	21.9	26.6	3.5	72.0	91.3	165.4	60.8
Queue Delay	0.0	0.0	0.0	10.4	0.0	0.0	0.0	0.0	0.0
Total Delay	39.1	16.6	21.9	37.0	3.5	72.0	91.3	165.4	60.8
Queue Length 50th (ft)	497	143	13	308	0	206	230	~350	203
Queue Length 95th (ft)	598	281	31	376	32	#281	#389	#541	#389
Internal Link Dist (ft)	283			332			941	820	
Turn Bay Length (ft)		180	125		225	450			
Base Capacity (vph)	1441	741	132	1595	770	550	293	261	375
Starvation Cap Reductn	0	0	0	637	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.80	0.65	0.22	0.97	0.15	0.82	0.88	1.19	0.89

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM Signalized Intersection Capacity Analysis
103: Alton Road & 5th Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1107	465	28	896	108	432	228	18	88	210	320
Future Volume (vph)	0	1107	465	28	896	108	432	228	18	88	210	320
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.0	6.0	6.3	6.0	6.0	6.0	6.0			6.0	6.0
Lane Util. Factor		0.95	1.00	1.00	0.95	1.00	0.97	1.00			1.00	1.00
Frpb, ped/bikes		1.00	0.90	1.00	1.00	1.00	1.00	0.99			1.00	0.98
Flpb, ped/bikes		1.00	1.00	1.00	1.00	1.00	1.00	1.00			0.97	1.00
Frt		1.00	0.85	1.00	1.00	0.85	1.00	0.99			1.00	0.85
Flt Protected		1.00	1.00	0.95	1.00	1.00	0.95	1.00			0.99	1.00
Satd. Flow (prot)		3185	1288	1593	3185	1425	3090	1637			1599	1403
Flt Permitted		1.00	1.00	0.10	1.00	1.00	0.95	1.00			0.81	1.00
Satd. Flow (perm)		3185	1288	163	3185	1425	3090	1637			1312	1403
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	0	1153	484	29	933	112	450	238	19	92	219	333
RTOR Reduction (vph)	0	0	164	0	0	56	0	2	0	0	0	95
Lane Group Flow (vph)	0	1153	320	29	933	57	450	255	0	0	311	238
Confl. Peds. (#/hr)			52	52					63	63		
Confl. Bikes (#/hr)			23						6			3
Turn Type		NA	Perm	pm+pt	NA	Perm	Split	NA		Perm	NA	Perm
Protected Phases		2		1	6		3	3			4	
Permitted Phases			2	6		6				4		4
Actuated Green, G (s)		61.0	61.0	70.3	70.3	70.3	24.1	24.1			27.9	27.9
Effective Green, g (s)		61.0	61.0	70.3	70.3	70.3	24.1	24.1			27.9	27.9
Actuated g/C Ratio		0.43	0.43	0.50	0.50	0.50	0.17	0.17			0.20	0.20
Clearance Time (s)		6.0	6.0	6.3	6.0	6.0	6.0	6.0			6.0	6.0
Vehicle Extension (s)		1.0	1.0	2.0	1.0	1.0	3.0	3.0			3.5	3.5
Lane Grp Cap (vph)		1384	560	112	1595	714	530	281			260	279
v/s Ratio Prot		c0.36		0.01	c0.29		0.15	c0.16				
v/s Ratio Perm			0.25	0.12		0.04					c0.24	0.17
v/c Ratio		0.83	0.57	0.26	0.58	0.08	0.85	0.91			1.20	0.85
Uniform Delay, d1		35.1	29.8	24.1	24.7	18.2	56.3	57.0			56.2	54.2
Progression Factor		1.00	1.00	1.00	1.00	1.00	1.00	1.00			1.00	1.00
Incremental Delay, d2		6.0	4.2	0.4	1.6	0.2	12.1	30.7			119.5	21.8
Delay (s)		41.1	34.0	24.6	26.3	18.4	68.4	87.7			175.7	76.0
Level of Service		D	C	C	C	B	E	F			F	E
Approach Delay (s)		39.0			25.4			75.4			124.1	
Approach LOS		D			C			E			F	

Intersection Summary			
HCM 2000 Control Delay	55.3	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	0.95		
Actuated Cycle Length (s)	140.3	Sum of lost time (s)	24.3
Intersection Capacity Utilization	81.6%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

HCM 6th Edition methodology expects strict NEMA phasing.

Intersection	
Intersection Delay, s/veh	10.5
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	28	154	61	11	172	9	32	140	19	9	86	15
Future Vol, veh/h	28	154	61	11	172	9	32	140	19	9	86	15
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	30	166	66	12	185	10	34	151	20	10	92	16
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	10.9	10.4	10.7	9.6
HCM LOS	B	B	B	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	17%	12%	6%	8%
Vol Thru, %	73%	63%	90%	78%
Vol Right, %	10%	25%	5%	14%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	191	243	192	110
LT Vol	32	28	11	9
Through Vol	140	154	172	86
RT Vol	19	61	9	15
Lane Flow Rate	205	261	206	118
Geometry Grp	1	1	1	1
Degree of Util (X)	0.303	0.366	0.298	0.178
Departure Headway (Hd)	5.318	5.037	5.192	5.427
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	676	719	692	660
Service Time	3.352	3.037	3.224	3.466
HCM Lane V/C Ratio	0.303	0.363	0.298	0.179
HCM Control Delay	10.7	10.9	10.4	9.6
HCM Lane LOS	B	B	B	A
HCM 95th-tile Q	1.3	1.7	1.2	0.6

Intersection	
Intersection Delay, s/veh	8.8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	7	8	14	22	40	15	28	169	32	19	127	2
Future Vol, veh/h	7	8	14	22	40	15	28	169	32	19	127	2
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	8	9	15	24	43	16	30	182	34	20	137	2
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.9	8.5	9.2	8.6
HCM LOS	A	A	A	A

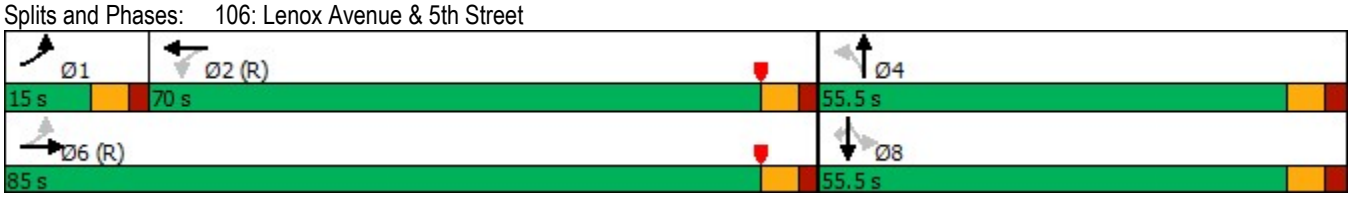
Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	12%	24%	29%	13%
Vol Thru, %	74%	28%	52%	86%
Vol Right, %	14%	48%	19%	1%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	229	29	77	148
LT Vol	28	7	22	19
Through Vol	169	8	40	127
RT Vol	32	14	15	2
Lane Flow Rate	246	31	83	159
Geometry Grp	1	1	1	1
Degree of Util (X)	0.296	0.041	0.111	0.198
Departure Headway (Hd)	4.327	4.706	4.818	4.489
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	832	760	744	800
Service Time	2.348	2.741	2.847	2.514
HCM Lane V/C Ratio	0.296	0.041	0.112	0.199
HCM Control Delay	9.2	7.9	8.5	8.6
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	1.2	0.1	0.4	0.7

Timings
106: Lenox Avenue & 5th Street

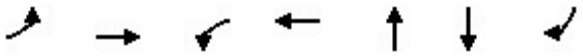
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	157	1115	18	840	34	64	39	45	91
Future Volume (vph)	157	1115	18	840	34	64	39	45	91
Turn Type	pm+pt	NA	Perm	NA	Perm	NA	Perm	NA	Perm
Protected Phases	1	6		2		4		8	
Permitted Phases	6		2		4		8		8
Detector Phase	1	6	2	2	4	4	8	8	8
Switch Phase									
Minimum Initial (s)	5.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	11.0	24.0	24.0	24.0	38.5	38.5	38.5	38.5	38.5
Total Split (s)	15.0	85.0	70.0	70.0	55.5	55.5	55.5	55.5	55.5
Total Split (%)	10.7%	60.5%	49.8%	49.8%	39.5%	39.5%	39.5%	39.5%	39.5%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.5	2.5	2.5	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0		6.5		6.5	6.5
Lead/Lag	Lead		Lag	Lag					
Lead-Lag Optimize?	Yes		Yes	Yes					
Recall Mode	None	C-Max	C-Max	C-Max	None	None	None	None	None
Act Effct Green (s)	109.8	109.8	95.3	95.3		18.2		18.2	18.2
Actuated g/C Ratio	0.78	0.78	0.68	0.68		0.13		0.13	0.13
v/c Ratio	0.42	0.34	0.08	0.31		0.76		0.68	0.41
Control Delay	7.6	5.3	11.2	10.3		80.4		81.8	14.1
Queue Delay	0.0	0.6	0.0	0.0		0.0		0.0	0.0
Total Delay	7.6	5.9	11.2	10.3		80.4		81.8	14.1
LOS	A	A	B	B		F		F	B
Approach Delay		6.1		10.3		80.4		46.5	
Approach LOS		A		B		F		D	

Intersection Summary	
Cycle Length: 140.5	
Actuated Cycle Length: 140.5	
Offset: 56 (40%), Referenced to phase 2:WBTL and 6:EBTL, Start of Yellow	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.76	
Intersection Signal Delay: 14.0	Intersection LOS: B
Intersection Capacity Utilization 79.3%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 106: Lenox Avenue & 5th Street



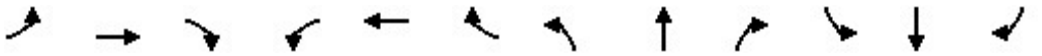
Queues
106: Lenox Avenue & 5th Street



Lane Group	EBL	EBT	WBL	WBT	NBT	SBT	SBR
Lane Group Flow (vph)	169	1219	19	958	129	90	98
v/c Ratio	0.42	0.34	0.08	0.31	0.76	0.68	0.41
Control Delay	7.6	5.3	11.2	10.3	80.4	81.8	14.1
Queue Delay	0.0	0.6	0.0	0.0	0.0	0.0	0.0
Total Delay	7.6	5.9	11.2	10.3	80.4	81.8	14.1
Queue Length 50th (ft)	32	104	5	119	108	80	0
Queue Length 95th (ft)	68	162	21	185	172	134	51
Internal Link Dist (ft)		332		316	454	815	
Turn Bay Length (ft)	225		150				90
Base Capacity (vph)	415	3567	247	3050	442	356	484
Starvation Cap Reductn	0	1780	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.41	0.68	0.08	0.31	0.29	0.25	0.20

Intersection Summary

HCM 6th Signalized Intersection Summary
106: Lenox Avenue & 5th Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	157	1115	19	18	840	51	34	64	21	39	45	91
Future Volume (veh/h)	157	1115	19	18	840	51	34	64	21	39	45	91
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	0.99		0.95	0.96		0.92	0.96		0.92
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00	0.90
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683
Adj Flow Rate, veh/h	169	1199	20	19	903	55	37	69	23	42	48	98
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	399	3241	54	294	2650	161	85	138	41	142	147	253
Arrive On Green	0.05	0.70	0.70	0.60	0.60	0.60	0.21	0.21	0.21	0.21	0.21	0.21
Sat Flow, veh/h	1603	4651	78	410	4414	268	242	646	193	488	687	1184
Grp Volume(v), veh/h	169	790	429	19	626	332	129	0	0	90	0	98
Grp Sat Flow(s),veh/h/ln	1603	1532	1665	410	1532	1618	1080	0	0	1175	0	1184
Q Serve(g_s), s	5.5	14.7	14.8	2.8	14.4	14.4	7.4	0.0	0.0	0.0	0.0	9.9
Cycle Q Clear(g_c), s	5.5	14.7	14.8	4.0	14.4	14.4	17.2	0.0	0.0	9.7	0.0	9.9
Prop In Lane	1.00		0.05	1.00		0.17	0.29		0.18	0.47		1.00
Lane Grp Cap(c), veh/h	399	2135	1160	294	1839	971	264	0	0	289	0	253
V/C Ratio(X)	0.42	0.37	0.37	0.06	0.34	0.34	0.49	0.00	0.00	0.31	0.00	0.39
Avail Cap(c_a), veh/h	417	2135	1160	294	1839	971	434	0	0	475	0	415
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)	0.50	0.50	0.50	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	10.0	8.7	8.7	12.3	14.1	14.1	50.1	0.0	0.0	46.6	0.0	47.2
Incr Delay (d2), s/veh	0.1	0.2	0.5	0.4	0.5	1.0	1.0	0.0	0.0	0.5	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	1.9	4.8	5.3	0.3	5.1	5.5	4.2	0.0	0.0	2.7	0.0	3.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	10.2	8.9	9.1	12.7	14.6	15.0	51.1	0.0	0.0	47.0	0.0	47.9
LnGrp LOS	B	A	A	B	B	B	D	A	A	D	A	D
Approach Vol, veh/h		1388			977			129			188	
Approach Delay, s/veh		9.1			14.7			51.1			47.5	
Approach LOS		A			B			D			D	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	13.5	90.0		36.5		103.5		36.5				
Change Period (Y+Rc), s	6.0	6.0		6.5		6.0		6.5				
Max Green Setting (Gmax), s	9.0	64.0		49.0		79.0		49.0				
Max Q Clear Time (g_c+I1), s	7.5	16.4		19.2		16.8		11.9				
Green Ext Time (p_c), s	0.0	2.8		0.6		3.4		0.7				

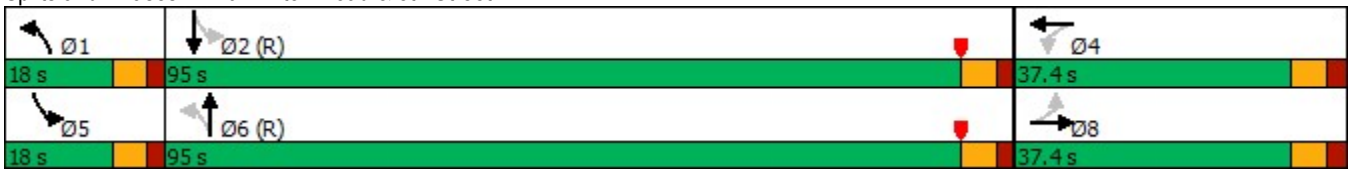
Intersection Summary												
HCM 6th Ctrl Delay			15.9									
HCM 6th LOS			B									

Timings
101: Alton Road & 8th Street

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	53	51	39	85	281	1364	111	756
Future Volume (vph)	53	51	39	85	281	1364	111	756
Turn Type	Perm	NA	Perm	NA	pm+pt	NA	pm+pt	NA
Protected Phases		8		4	1	6	5	2
Permitted Phases	8		4		6		2	
Detector Phase	8	8	4	4	1	6	5	2
Switch Phase								
Minimum Initial (s)	7.0	7.0	7.0	7.0	5.0	16.0	5.0	7.0
Minimum Split (s)	37.4	37.4	37.4	37.4	11.0	24.0	11.0	24.0
Total Split (s)	37.4	37.4	37.4	37.4	18.0	95.0	18.0	95.0
Total Split (%)	24.9%	24.9%	24.9%	24.9%	12.0%	63.2%	12.0%	63.2%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.4	2.4	2.4	2.4	2.0	2.0	2.0	2.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		6.4		6.4	6.0	6.0	6.0	6.0
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)		30.4		30.4	104.8	93.2	98.5	90.1
Actuated g/C Ratio		0.20		0.20	0.70	0.62	0.65	0.60
v/c Ratio		0.87		0.97	0.73	0.78	0.60	0.44
Control Delay		95.2		99.5	19.9	24.9	23.6	17.3
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0
Total Delay		95.2		99.5	19.9	24.9	23.6	17.3
LOS		F		F	B	C	C	B
Approach Delay		95.2		99.5		24.1		18.1
Approach LOS		F		F		C		B

Intersection Summary	
Cycle Length: 150.4	
Actuated Cycle Length: 150.4	
Offset: 25 (17%), Referenced to phase 2:SBTL and 6:NBTL, Start of Yellow	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.97	
Intersection Signal Delay: 32.0	Intersection LOS: C
Intersection Capacity Utilization 91.2%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 101: Alton Road & 8th Street

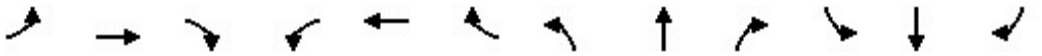


Lane Group	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	151	263	293	1510	116	818
v/c Ratio	0.87	0.97	0.73	0.78	0.60	0.44
Control Delay	95.2	99.5	19.9	24.9	23.6	17.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	95.2	99.5	19.9	24.9	23.6	17.3
Queue Length 50th (ft)	134	231	93	543	33	223
Queue Length 95th (ft)	#270	#418	134	694	69	272
Internal Link Dist (ft)	1209	320		320		1725
Turn Bay Length (ft)			150		130	
Base Capacity (vph)	176	276	408	1946	230	1880
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.86	0.95	0.72	0.78	0.50	0.44

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 6th Signalized Intersection Summary
101: Alton Road & 8th Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	53	51	41	39	85	128	281	1364	85	111	756	29
Future Volume (veh/h)	53	51	41	39	85	128	281	1364	85	111	756	29
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.92	0.98		0.93	1.00		0.94	1.00		0.94
Parking Bus, Adj	1.00	1.00	0.90	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683
Adj Flow Rate, veh/h	55	53	43	41	89	133	293	1421	89	116	788	30
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	76	65	43	57	96	129	473	2021	126	226	1961	75
Arrive On Green	0.21	0.21	0.21	0.21	0.21	0.21	0.08	0.66	0.66	0.04	0.63	0.63
Sat Flow, veh/h	210	315	209	143	466	623	1603	3044	190	1603	3132	119
Grp Volume(v), veh/h	151	0	0	263	0	0	293	743	767	116	402	416
Grp Sat Flow(s),veh/h/ln	734	0	0	1233	0	0	1603	1599	1635	1603	1599	1652
Q Serve(g_s), s	0.0	0.0	0.0	0.2	0.0	0.0	9.6	43.8	44.5	3.9	18.9	18.9
Cycle Q Clear(g_c), s	30.8	0.0	0.0	31.0	0.0	0.0	9.6	43.8	44.5	3.9	18.9	18.9
Prop In Lane	0.36		0.28	0.16		0.51	1.00		0.12	1.00		0.07
Lane Grp Cap(c), veh/h	184	0	0	283	0	0	473	1062	1085	226	1001	1034
V/C Ratio(X)	0.82	0.00	0.00	0.93	0.00	0.00	0.62	0.70	0.71	0.51	0.40	0.40
Avail Cap(c_a), veh/h	184	0	0	283	0	0	477	1062	1085	291	1001	1034
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	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	57.8	0.0	0.0	59.7	0.0	0.0	10.2	15.8	16.0	17.1	14.0	14.0
Incr Delay (d2), s/veh	23.7	0.0	0.0	35.5	0.0	0.0	1.8	3.9	3.9	0.7	1.2	1.2
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	6.9	0.0	0.0	12.9	0.0	0.0	3.4	16.6	17.2	1.5	7.1	7.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	81.6	0.0	0.0	95.2	0.0	0.0	12.0	19.7	19.8	17.7	15.2	15.2
LnGrp LOS	F	A	A	F	A	A	B	B	B	B	B	B
Approach Vol, veh/h		151			263			1803			934	
Approach Delay, s/veh		81.6			95.2			18.5			15.5	
Approach LOS		F			F			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	17.6	99.9		37.4	11.9	105.6		37.4				
Change Period (Y+Rc), s	6.0	6.0		6.4	6.0	6.0		6.4				
Max Green Setting (Gmax), s	12.0	89.0		31.0	12.0	89.0		31.0				
Max Q Clear Time (g_c+I1), s	11.6	20.9		33.0	5.9	46.5		32.8				
Green Ext Time (p_c), s	0.0	1.9		0.0	0.1	4.4		0.0				

Intersection Summary												
HCM 6th Ctrl Delay			27.0									
HCM 6th LOS			C									

Intersection	
Int Delay, s/veh	0.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	75	1567	59	0	882
Future Vol, veh/h	0	75	1567	59	0	882
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	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	78	1632	61	0	919

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	847	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	305	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	305	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	20.8	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	305	-
HCM Lane V/C Ratio	-	-	0.256	-
HCM Control Delay (s)	-	-	20.8	-
HCM Lane LOS	-	-	C	-
HCM 95th %tile Q(veh)	-	-	1	-

Timings
103: Alton Road & 5th Street

Lane Group	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	1107	465	33	912	150	432	232	88	210	320
Future Volume (vph)	1107	465	33	912	150	432	232	88	210	320
Turn Type	NA	Perm	pm+pt	NA	Perm	Split	NA	Perm	NA	Perm
Protected Phases	2		1	6		3	3		4	
Permitted Phases		2	6		6			4		4
Detector Phase	2	2	1	6	6	3	3	4	4	4
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	35.0	35.0	11.3	35.0	35.0	24.0	24.0	31.0	31.0	31.0
Total Split (s)	65.0	65.0	11.3	76.3	76.3	31.0	31.0	33.0	33.0	33.0
Total Split (%)	46.3%	46.3%	8.1%	54.4%	54.4%	22.1%	22.1%	23.5%	23.5%	23.5%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.3	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	6.0	6.0	6.3	6.0	6.0	6.0	6.0		6.0	6.0
Lead/Lag	Lag	Lag	Lead			Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes			Yes	Yes	Yes	Yes	Yes
Recall Mode	C-Max	C-Max	None	C-Max	C-Max	None	None	None	None	None
Act Effct Green (s)	63.5	63.5	70.0	70.3	70.3	24.2	24.2		27.8	27.8
Actuated g/C Ratio	0.45	0.45	0.50	0.50	0.50	0.17	0.17		0.20	0.20
v/c Ratio	0.80	0.65	0.26	0.60	0.20	0.85	0.92		1.20	0.89
Control Delay	39.1	16.6	22.9	26.8	3.3	71.6	93.0		168.4	61.2
Queue Delay	0.0	0.0	0.0	12.5	0.0	0.0	0.0		0.0	0.0
Total Delay	39.1	16.6	22.9	39.4	3.3	71.6	93.0		168.4	61.2
LOS	D	B	C	D	A	E	F		F	E
Approach Delay	32.4			33.9			79.4		112.9	
Approach LOS	C			C			E		F	

Intersection Summary	
Cycle Length: 140.3	
Actuated Cycle Length: 140.3	
Offset: 57 (41%), Referenced to phase 2:EBT and 6:WBTL, Start of Yellow	
Natural Cycle: 115	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.20	
Intersection Signal Delay: 53.5	Intersection LOS: D
Intersection Capacity Utilization 81.8%	ICU Level of Service D
Analysis Period (min) 15	

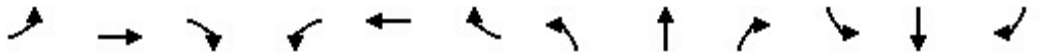
Splits and Phases: 103: Alton Road & 5th Street

Lane Group	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	1153	484	34	950	156	450	261	311	333
v/c Ratio	0.80	0.65	0.26	0.60	0.20	0.85	0.92	1.20	0.89
Control Delay	39.1	16.6	22.9	26.8	3.3	71.6	93.0	168.4	61.2
Queue Delay	0.0	0.0	0.0	12.5	0.0	0.0	0.0	0.0	0.0
Total Delay	39.1	16.6	22.9	39.4	3.3	71.6	93.0	168.4	61.2
Queue Length 50th (ft)	497	143	16	316	0	206	234	~350	203
Queue Length 95th (ft)	598	281	35	385	37	#281	#397	#542	#389
Internal Link Dist (ft)	283			332			941	820	
Turn Bay Length (ft)		180	125		225	450			
Base Capacity (vph)	1441	741	132	1595	791	550	293	259	374
Starvation Cap Reductn	0	0	0	632	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.80	0.65	0.26	0.99	0.20	0.82	0.89	1.20	0.89

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1107	465	33	912	150	432	232	18	88	210	320
Future Volume (vph)	0	1107	465	33	912	150	432	232	18	88	210	320
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.0	6.0	6.3	6.0	6.0	6.0	6.0			6.0	6.0
Lane Util. Factor		0.95	1.00	1.00	0.95	1.00	0.97	1.00			1.00	1.00
Frpb, ped/bikes		1.00	0.90	1.00	1.00	1.00	1.00	0.99			1.00	0.98
Flpb, ped/bikes		1.00	1.00	1.00	1.00	1.00	1.00	1.00			0.97	1.00
Frt		1.00	0.85	1.00	1.00	0.85	1.00	0.99			1.00	0.85
Flt Protected		1.00	1.00	0.95	1.00	1.00	0.95	1.00			0.99	1.00
Satd. Flow (prot)		3185	1288	1593	3185	1425	3090	1638			1599	1403
Flt Permitted		1.00	1.00	0.10	1.00	1.00	0.95	1.00			0.81	1.00
Satd. Flow (perm)		3185	1288	163	3185	1425	3090	1638			1310	1403
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	0	1153	484	34	950	156	450	242	19	92	219	333
RTOR Reduction (vph)	0	0	164	0	0	78	0	2	0	0	0	95
Lane Group Flow (vph)	0	1153	320	34	950	78	450	259	0	0	311	238
Confl. Peds. (#/hr)			52	52					63	63		
Confl. Bikes (#/hr)			23						6			3
Turn Type		NA	Perm	pm+pt	NA	Perm	Split	NA		Perm	NA	Perm
Protected Phases		2		1	6		3	3			4	
Permitted Phases			2	6		6				4		4
Actuated Green, G (s)		61.0	61.0	70.3	70.3	70.3	24.2	24.2			27.8	27.8
Effective Green, g (s)		61.0	61.0	70.3	70.3	70.3	24.2	24.2			27.8	27.8
Actuated g/C Ratio		0.43	0.43	0.50	0.50	0.50	0.17	0.17			0.20	0.20
Clearance Time (s)		6.0	6.0	6.3	6.0	6.0	6.0	6.0			6.0	6.0
Vehicle Extension (s)		1.0	1.0	2.0	1.0	1.0	3.0	3.0			3.5	3.5
Lane Grp Cap (vph)		1384	560	112	1595	714	532	282			259	278
v/s Ratio Prot		c0.36		0.01	c0.30		0.15	c0.16				
v/s Ratio Perm			0.25	0.14		0.05					c0.24	0.17
v/c Ratio		0.83	0.57	0.30	0.60	0.11	0.85	0.92			1.20	0.85
Uniform Delay, d1		35.1	29.8	24.3	24.9	18.5	56.2	57.1			56.3	54.3
Progression Factor		1.00	1.00	1.00	1.00	1.00	1.00	1.00			1.00	1.00
Incremental Delay, d2		6.0	4.2	0.6	1.6	0.3	11.8	32.8			121.3	22.2
Delay (s)		41.1	34.0	24.8	26.5	18.8	68.0	89.9			177.6	76.5
Level of Service		D	C	C	C	B	E	F			F	E
Approach Delay (s)		39.0			25.4			76.1			125.3	
Approach LOS		D			C			E			F	

Intersection Summary			
HCM 2000 Control Delay	55.1	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	0.95		
Actuated Cycle Length (s)	140.3	Sum of lost time (s)	24.3
Intersection Capacity Utilization	81.8%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

HCM 6th Edition methodology expects strict NEMA phasing.

Intersection	
Intersection Delay, s/veh	11.5
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	28	154	91	12	172	9	60	153	21	9	95	15
Future Vol, veh/h	28	154	91	12	172	9	60	153	21	9	95	15
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	30	166	98	13	185	10	65	165	23	10	102	16
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	12	11	12	10.2
HCM LOS	B	B	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	26%	10%	6%	8%
Vol Thru, %	65%	56%	89%	80%
Vol Right, %	9%	33%	5%	13%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	234	273	193	119
LT Vol	60	28	12	9
Through Vol	153	154	172	95
RT Vol	21	91	9	15
Lane Flow Rate	252	294	208	128
Geometry Grp	1	1	1	1
Degree of Util (X)	0.384	0.422	0.315	0.201
Departure Headway (Hd)	5.497	5.17	5.457	5.665
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	654	696	658	632
Service Time	3.542	3.212	3.502	3.718
HCM Lane V/C Ratio	0.385	0.422	0.316	0.203
HCM Control Delay	12	12	11	10.2
HCM Lane LOS	B	B	B	B
HCM 95th-tile Q	1.8	2.1	1.3	0.7

Intersection	
Intersection Delay, s/veh	9.4
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	50	10	37	23	40	15	28	169	32	19	167	2
Future Vol, veh/h	50	10	37	23	40	15	28	169	32	19	167	2
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	54	11	40	25	43	16	30	182	34	20	180	2
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.9	8.8	9.7	9.4
HCM LOS	A	A	A	A

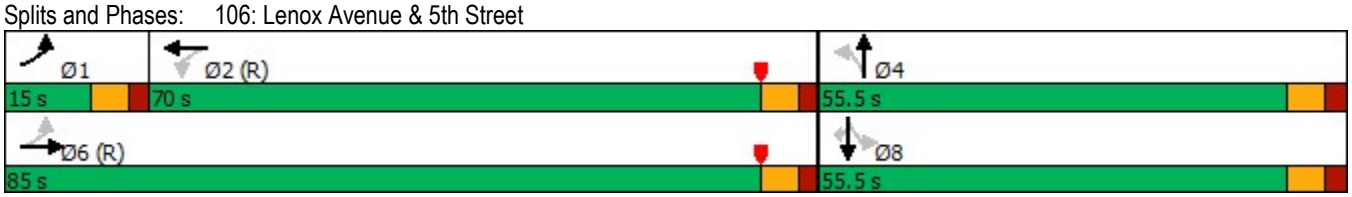
Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	12%	52%	29%	10%
Vol Thru, %	74%	10%	51%	89%
Vol Right, %	14%	38%	19%	1%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	229	97	78	188
LT Vol	28	50	23	19
Through Vol	169	10	40	167
RT Vol	32	37	15	2
Lane Flow Rate	246	104	84	202
Geometry Grp	1	1	1	1
Degree of Util (X)	0.313	0.144	0.118	0.264
Departure Headway (Hd)	4.582	4.957	5.055	4.7
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	781	719	705	760
Service Time	2.63	3.018	3.119	2.751
HCM Lane V/C Ratio	0.315	0.145	0.119	0.266
HCM Control Delay	9.7	8.9	8.8	9.4
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	1.3	0.5	0.4	1.1

Timings
106: Lenox Avenue & 5th Street

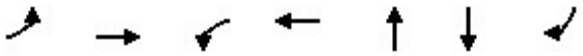
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	157	1115	18	841	34	64	41	45	153
Future Volume (vph)	157	1115	18	841	34	64	41	45	153
Turn Type	pm+pt	NA	Perm	NA	Perm	NA	Perm	NA	Perm
Protected Phases	1	6		2		4		8	
Permitted Phases	6		2		4		8		8
Detector Phase	1	6	2	2	4	4	8	8	8
Switch Phase									
Minimum Initial (s)	5.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	11.0	24.0	24.0	24.0	38.5	38.5	38.5	38.5	38.5
Total Split (s)	15.0	85.0	70.0	70.0	55.5	55.5	55.5	55.5	55.5
Total Split (%)	10.7%	60.5%	49.8%	49.8%	39.5%	39.5%	39.5%	39.5%	39.5%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.5	2.5	2.5	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0		6.5		6.5	6.5
Lead/Lag	Lead		Lag	Lag					
Lead-Lag Optimize?	Yes		Yes	Yes					
Recall Mode	None	C-Max	C-Max	C-Max	None	None	None	None	None
Act Effct Green (s)	109.7	109.7	95.3	95.3		18.3		18.3	18.3
Actuated g/C Ratio	0.78	0.78	0.68	0.68		0.13		0.13	0.13
v/c Ratio	0.42	0.34	0.08	0.31		0.76		0.70	0.55
Control Delay	7.7	5.3	11.2	10.3		80.8		84.0	14.3
Queue Delay	0.0	0.6	0.0	0.0		0.0		0.0	0.0
Total Delay	7.7	5.9	11.2	10.3		80.8		84.0	14.3
LOS	A	A	B	B		F		F	B
Approach Delay		6.1		10.3		80.8		39.3	
Approach LOS		A		B		F		D	

Intersection Summary	
Cycle Length: 140.5	
Actuated Cycle Length: 140.5	
Offset: 56 (40%), Referenced to phase 2:WBTL and 6:EBTL, Start of Yellow	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.76	
Intersection Signal Delay: 14.2	Intersection LOS: B
Intersection Capacity Utilization 80.6%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 106: Lenox Avenue & 5th Street



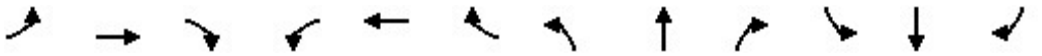
Queues
106: Lenox Avenue & 5th Street



Lane Group	EBL	EBT	WBL	WBT	NBT	SBT	SBR
Lane Group Flow (vph)	169	1219	19	959	129	92	165
v/c Ratio	0.42	0.34	0.08	0.31	0.76	0.70	0.55
Control Delay	7.7	5.3	11.2	10.3	80.8	84.0	14.3
Queue Delay	0.0	0.6	0.0	0.0	0.0	0.0	0.0
Total Delay	7.7	5.9	11.2	10.3	80.8	84.0	14.3
Queue Length 50th (ft)	32	104	5	119	108	82	0
Queue Length 95th (ft)	68	162	21	185	172	137	67
Internal Link Dist (ft)		332		316	454	815	
Turn Bay Length (ft)	225		150				90
Base Capacity (vph)	414	3567	247	3049	440	353	527
Starvation Cap Reductn	0	1780	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.41	0.68	0.08	0.31	0.29	0.26	0.31

Intersection Summary

HCM 6th Signalized Intersection Summary
106: Lenox Avenue & 5th Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	157	1115	19	18	841	51	34	64	21	41	45	153
Future Volume (veh/h)	157	1115	19	18	841	51	34	64	21	41	45	153
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	0.99		0.95	0.96		0.92	0.96		0.92
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00	0.90
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683
Adj Flow Rate, veh/h	169	1199	20	19	904	55	37	69	23	44	48	165
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	399	3236	54	293	2645	160	82	134	40	143	141	255
Arrive On Green	0.05	0.70	0.70	0.60	0.60	0.60	0.22	0.22	0.22	0.22	0.22	0.22
Sat Flow, veh/h	1603	4651	78	410	4414	268	230	623	185	489	655	1185
Grp Volume(v), veh/h	169	790	429	19	627	332	129	0	0	92	0	165
Grp Sat Flow(s),veh/h/ln	1603	1532	1665	410	1532	1618	1037	0	0	1143	0	1185
Q Serve(g_s), s	5.5	14.8	14.8	2.8	14.4	14.5	7.7	0.0	0.0	0.0	0.0	17.8
Cycle Q Clear(g_c), s	5.5	14.8	14.8	4.1	14.4	14.5	18.0	0.0	0.0	10.4	0.0	17.8
Prop In Lane	1.00		0.05	1.00		0.17	0.29		0.18	0.48		1.00
Lane Grp Cap(c), veh/h	399	2131	1158	293	1836	970	256	0	0	284	0	255
V/C Ratio(X)	0.42	0.37	0.37	0.06	0.34	0.34	0.50	0.00	0.00	0.32	0.00	0.65
Avail Cap(c_a), veh/h	416	2131	1158	293	1836	970	421	0	0	468	0	415
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)	0.50	0.50	0.50	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	10.1	8.7	8.7	12.3	14.1	14.2	50.3	0.0	0.0	46.7	0.0	50.1
Incr Delay (d2), s/veh	0.1	0.2	0.5	0.4	0.5	1.0	1.1	0.0	0.0	0.5	0.0	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	1.9	4.8	5.3	0.3	5.1	5.6	4.2	0.0	0.0	2.8	0.0	5.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	10.2	9.0	9.2	12.8	14.6	15.1	51.5	0.0	0.0	47.2	0.0	52.2
LnGrp LOS	B	A	A	B	B	B	D	A	A	D	A	D
Approach Vol, veh/h		1388			978			129			257	
Approach Delay, s/veh		9.2			14.8			51.5			50.4	
Approach LOS		A			B			D			D	

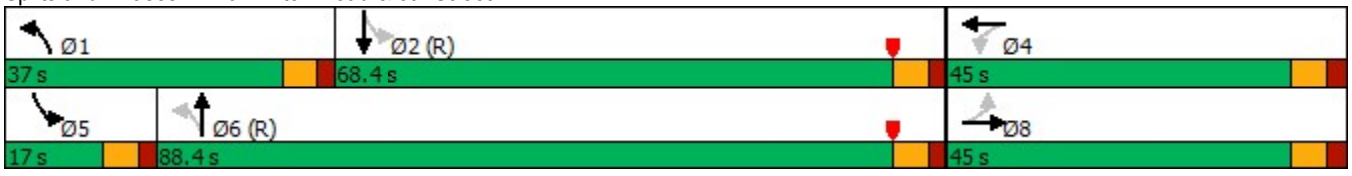
Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	13.5	89.9		36.6		103.4		36.6				
Change Period (Y+Rc), s	6.0	6.0		6.5		6.0		6.5				
Max Green Setting (Gmax), s	9.0	64.0		49.0		79.0		49.0				
Max Q Clear Time (g_c+I1), s	7.5	16.5		20.0		16.8		19.8				
Green Ext Time (p_c), s	0.0	2.8		0.6		3.4		0.9				

Intersection Summary												
HCM 6th Ctrl Delay			17.0									
HCM 6th LOS			B									

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	53	51	39	85	281	1364	111	756
Future Volume (vph)	53	51	39	85	281	1364	111	756
Turn Type	Perm	NA	Perm	NA	pm+pt	NA	pm+pt	NA
Protected Phases		8		4	1	6	5	2
Permitted Phases	8		4		6		2	
Detector Phase	8	8	4	4	1	6	5	2
Switch Phase								
Minimum Initial (s)	7.0	7.0	7.0	7.0	5.0	16.0	5.0	7.0
Minimum Split (s)	37.4	37.4	37.4	37.4	11.0	24.0	11.0	24.0
Total Split (s)	45.0	45.0	45.0	45.0	37.0	88.4	17.0	68.4
Total Split (%)	29.9%	29.9%	29.9%	29.9%	24.6%	58.8%	11.3%	45.5%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.4	2.4	2.4	2.4	2.0	2.0	2.0	2.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		6.4		6.4	6.0	6.0	6.0	6.0
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)		32.2		32.2	105.1	91.4	92.3	83.9
Actuated g/C Ratio		0.21		0.21	0.70	0.61	0.61	0.56
v/c Ratio		0.79		0.91	0.68	0.79	0.63	0.47
Control Delay		77.6		83.7	17.6	27.8	31.1	22.9
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0
Total Delay		77.6		83.7	17.6	27.8	31.1	22.9
LOS		E		F	B	C	C	C
Approach Delay		77.6		83.7		26.2		24.0
Approach LOS		E		F		C		C

Intersection Summary	
Cycle Length: 150.4	
Actuated Cycle Length: 150.4	
Offset: 25 (17%), Referenced to phase 2:SBTL and 6:NBTL, Start of Yellow	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.91	
Intersection Signal Delay: 32.8	Intersection LOS: C
Intersection Capacity Utilization 91.2%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 101: Alton Road & 8th Street



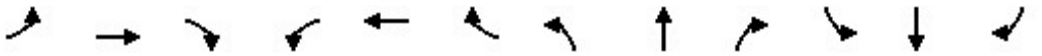
Queues
101: Alton Road & 8th Street

Lane Group	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	151	263	293	1510	116	818
v/c Ratio	0.79	0.91	0.68	0.79	0.63	0.47
Control Delay	77.6	83.7	17.6	27.8	31.1	22.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	77.6	83.7	17.6	27.8	31.1	22.9
Queue Length 50th (ft)	128	223	100	575	35	246
Queue Length 95th (ft)	212	#351	160	776	99	374
Internal Link Dist (ft)	1209	120		570		1725
Turn Bay Length (ft)			150		130	
Base Capacity (vph)	227	339	547	1908	213	1751
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.67	0.78	0.54	0.79	0.54	0.47

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 6th Signalized Intersection Summary
101: Alton Road & 8th Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	53	51	41	39	85	128	281	1364	85	111	756	29
Future Volume (veh/h)	53	51	41	39	85	128	281	1364	85	111	756	29
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.92	0.99		0.93	1.00		0.94	1.00		0.93
Parking Bus, Adj	1.00	1.00	0.90	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683
Adj Flow Rate, veh/h	55	53	43	41	89	133	293	1421	89	116	788	30
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	84	72	49	60	106	142	443	1852	115	201	1760	67
Arrive On Green	0.22	0.22	0.22	0.22	0.22	0.22	0.09	0.61	0.61	0.04	0.56	0.56
Sat Flow, veh/h	226	322	218	145	472	631	1603	3043	190	1603	3131	119
Grp Volume(v), veh/h	151	0	0	263	0	0	293	744	766	116	402	416
Grp Sat Flow(s),veh/h/ln	767	0	0	1248	0	0	1603	1599	1634	1603	1599	1651
Q Serve(g_s), s	0.0	0.0	0.0	1.1	0.0	0.0	11.2	51.0	51.9	4.6	22.1	22.1
Cycle Q Clear(g_c), s	30.0	0.0	0.0	31.1	0.0	0.0	11.2	51.0	51.9	4.6	22.1	22.1
Prop In Lane	0.36		0.28	0.16		0.51	1.00		0.12	1.00		0.07
Lane Grp Cap(c), veh/h	205	0	0	308	0	0	443	973	994	201	899	928
V/C Ratio(X)	0.74	0.00	0.00	0.85	0.00	0.00	0.66	0.76	0.77	0.58	0.45	0.45
Avail Cap(c_a), veh/h	243	0	0	349	0	0	629	973	994	248	899	928
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	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.2	0.0	0.0	56.9	0.0	0.0	14.0	21.5	21.6	23.2	19.2	19.2
Incr Delay (d2), s/veh	8.3	0.0	0.0	16.0	0.0	0.0	0.6	5.7	5.8	1.0	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(50%),veh/ln	6.0	0.0	0.0	11.2	0.0	0.0	4.0	20.2	21.0	1.8	8.7	8.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	63.5	0.0	0.0	72.9	0.0	0.0	14.6	27.2	27.4	24.2	20.8	20.8
LnGrp LOS	E	A	A	E	A	A	B	C	C	C	C	C
Approach Vol, veh/h		151			263			1803			934	
Approach Delay, s/veh		63.5			72.9			25.2			21.2	
Approach LOS		E			E			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	19.6	90.3		40.1	12.6	97.3		40.1				
Change Period (Y+Rc), s	6.0	6.0		6.4	6.0	6.0		6.4				
Max Green Setting (Gmax), s	31.0	62.4		38.6	11.0	82.4		38.6				
Max Q Clear Time (g_c+I1), s	13.2	24.1		33.1	6.6	53.9		32.0				
Green Ext Time (p_c), s	0.4	1.9		0.6	0.1	4.3		0.3				

Intersection Summary			
HCM 6th Ctrl Delay		29.9	
HCM 6th LOS		C	