

The Studios of Key West

533 Eaton Street
Key West, Florida

TRAFFIC STUDY

prepared for:
Trepanier & Associates, Inc.

KBP CONSULTING, INC.

March 2014

The Studios of Key West

533 Eaton Street

Key West, Florida

Traffic Study

March 2014

Prepared for:

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INTRODUCTION

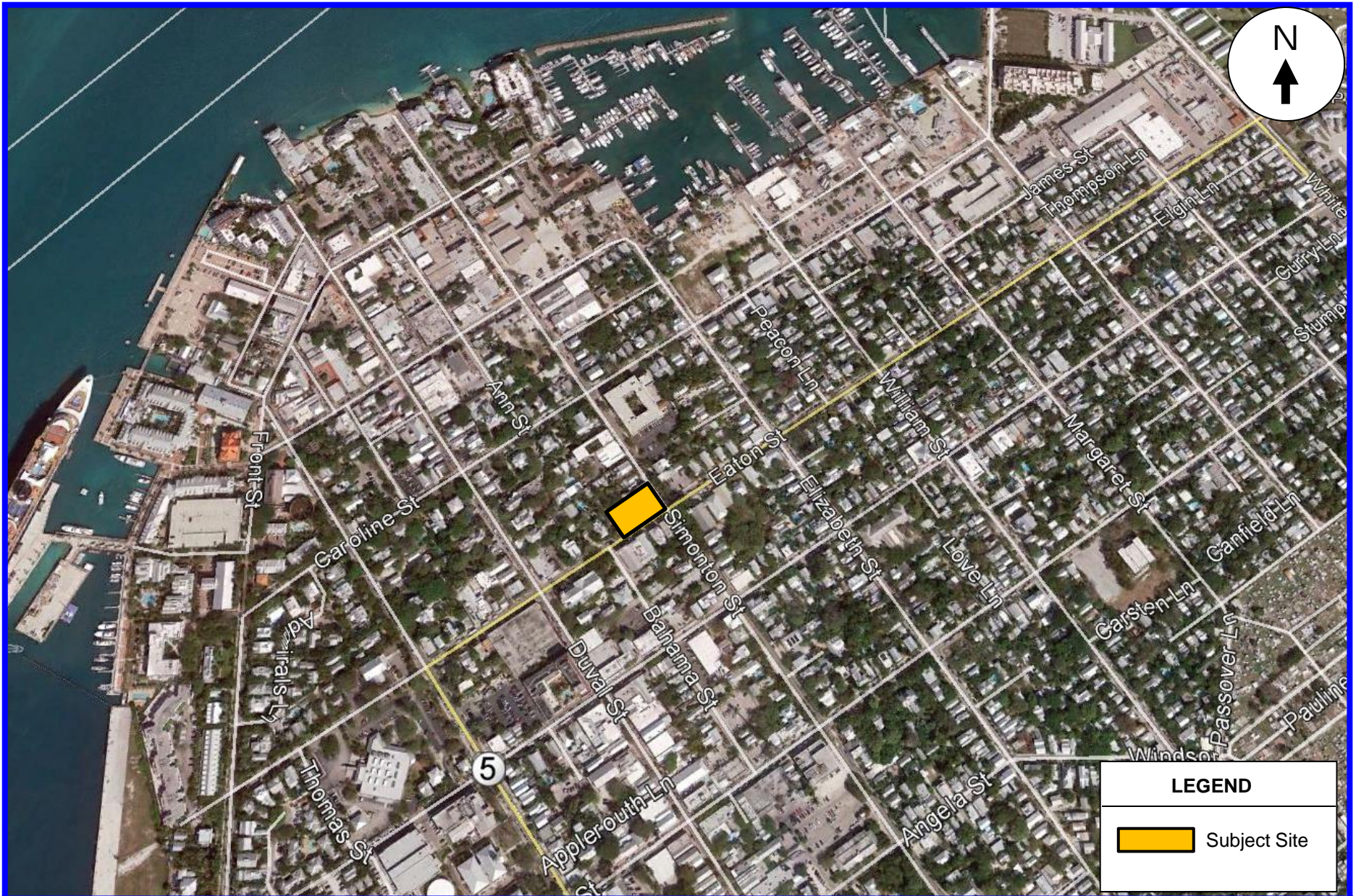
The Studios of Key West is currently located at 600 White Street in Key West, Monroe County, Florida. The subject site is within the southwest quadrant of the intersection at White Street and Southard Street. The subject facility hosts art exhibits, performances and concerts, offers art classes, and provides residencies / studios for area artists.

The Studios of Key West is planning to relocate to 533 Eaton Street which is the current location of the Scottish Rite Masonic Center. There are also presently unrelated retail uses on the first floor of this building. This facility is within the northwest quadrant of the intersection at Eaton Street and Simonton Street and is generally twice the size of the current facility occupied by The Studios of Key West. The location of the proposed site is illustrated graphically in Figure 1 on the following page.

KBP Consulting, Inc. has been retained by Trepanier & Associates, Inc. to prepare a traffic impact study in connection with the proposed relocation of The Studios of Key West. This study addresses trip generation, trip distribution, and the traffic impacts created by the 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 Analyses
7. Summary & Conclusions



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Project Location Map

FIGURE 1
The Studios of Key West
Key West, Florida

INVENTORY

Existing Location for The Studios of Key West

As mentioned previously, The Studios of Key West is presently located in the Key West Armory building at 600 White Street in Key West. This building consists of 7,044 square feet and has a number of different uses including exhibition areas, artist studios, offices, meeting areas, and classrooms.

Proposed Location for The Studios of Key West

The proposed location for The Studios of Key West is at 533 Eaton Street in Key West which is the current location of the Scottish Rite Masonic Center. This building consists of approximately 15,788 square feet. Within this area, the uses include an auditorium, dining area, office space, and various supportive uses including bathrooms, kitchens, lobby space, and utility areas. Within this building, there are 2,864 square feet of retail space on the first floor consisting of a bakery and an art gallery.

Proposed Location and Proposed Uses

The proposed project will utilize the existing facilities at 533 Eaton Street as an art studio. The uses will consist of an auditorium with 205 seats, artist studios, exhibition areas, classrooms, office space, a roof top terrace and a small retail area (i.e. 140 square feet). Additionally there will be approximately 7,200 square feet of supportive uses or kitchens, bathrooms, utility areas, stairways, elevators, lobby, and back-of-house areas. As mentioned previously, the total area of this facility is approximately 15,788 square feet. There will be no change in the footprint or height of the existing building.

The proposed relocation is expected to be completed by late 2014 / early 2105. Appendix A contains the floor plans for The Studios of Key West project.

EXISTING CONDITIONS

This section of the report addresses the transportation system located in the vicinity of the proposed site of The Studios of Key West.

Roadway System

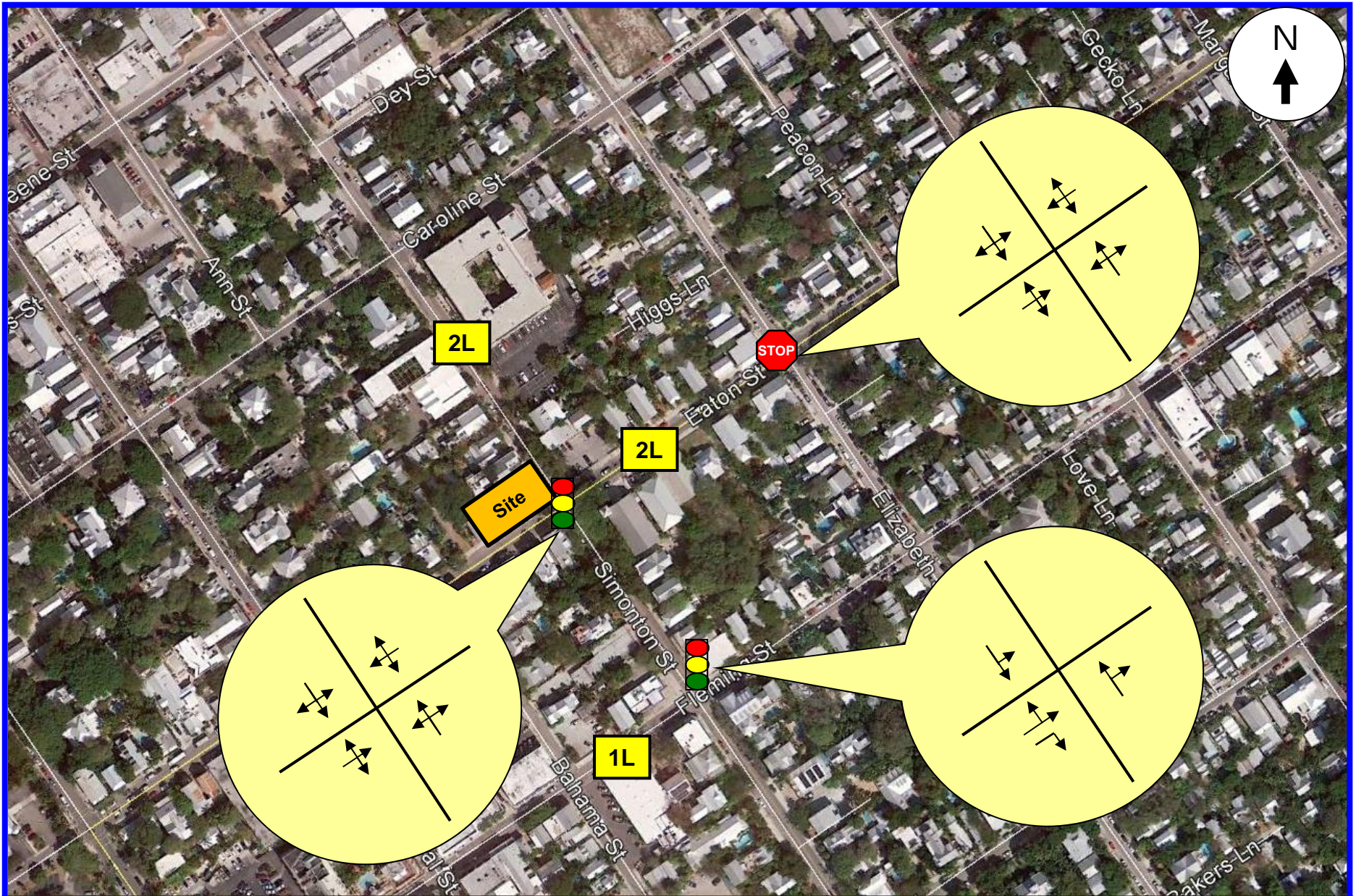
The roadway system located in the general vicinity of the project site consists of a fully developed grid network with roadways generally oriented in the north / south and the east / west directions. The primary roadways in the immediate area include Eaton Street, Simonton Street, and Fleming Street. Within the project study area, Eaton Street and Simonton Street are two-lane facilities with one (1) lane in each direction. Fleming Street is a one-lane / one-way roadway in the eastbound direction. Eaton Street and Simonton Street are two-lane / two-way local streets adjacent to the subject site.

Study Intersections

Three (3) nearby intersections were identified as the locations to be evaluated as part of this traffic impact analysis. These intersections are:

- ❑ Eaton Street and Simonton Street (signalized)
- ❑ Eaton Street and Elizabeth Street (stop-controlled)
- ❑ Simonton Street and Fleming Street (signalized)

Figure 2 depicts the existing lane geometry of the three (3) intersections selected for analysis purposes. The number of through lanes on the street system surrounding the project site is also depicted in this figure.



Existing Lane Geometry

FIGURE 2
The Studios of Key West
Key West, Florida

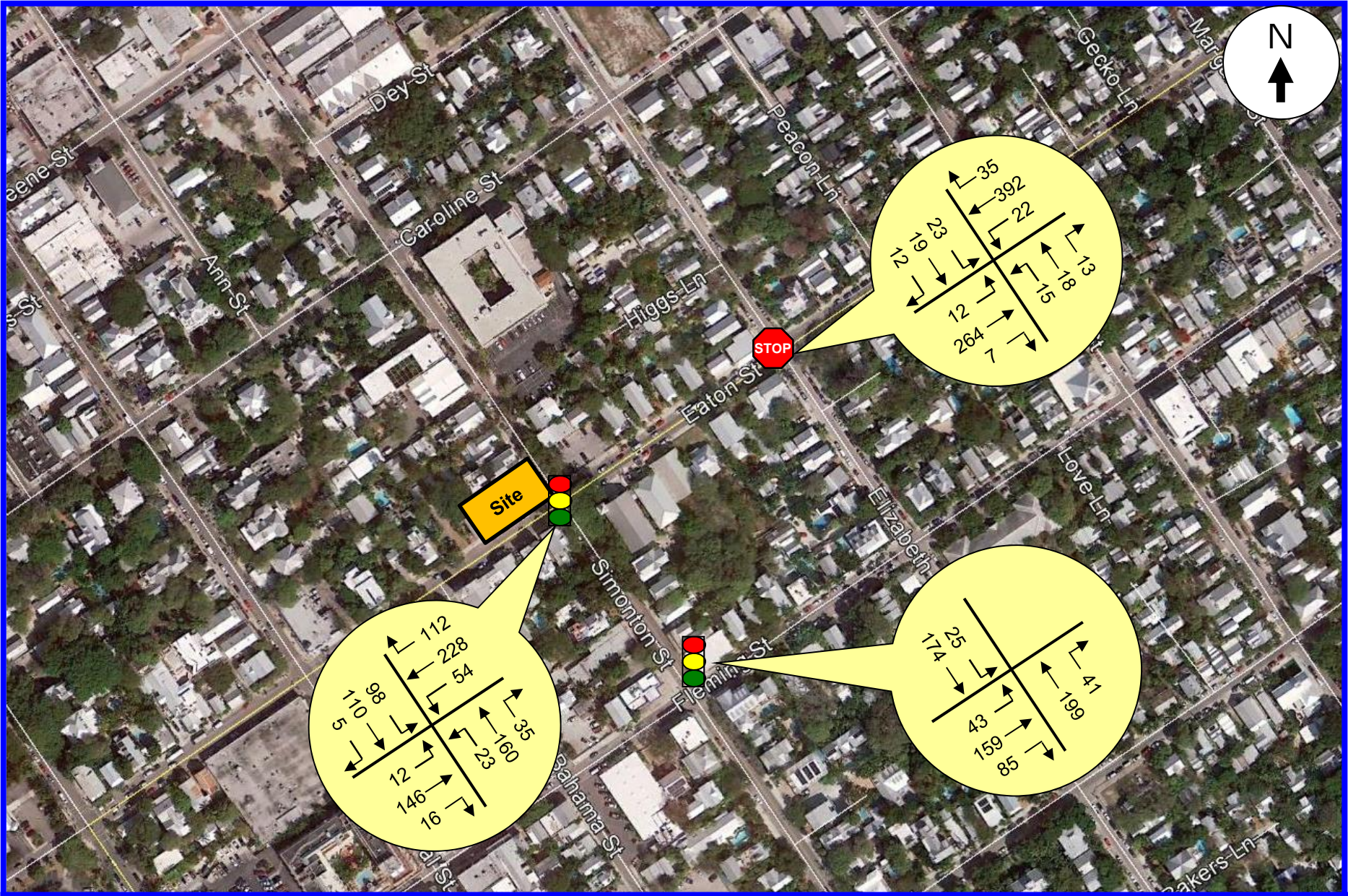
TRAFFIC COUNTS

Intersection Turning Movement Counts

Traf Tech Engineering, Inc., in association with Crossroads Engineering Data, Inc., collected intersection turning movement counts at the following locations:

- Eaton Street and Simonton Street
- Eaton Street and Elizabeth Street
- Simonton Street and Fleming Street

These intersection turning movement counts were collected on Tuesday, February 25, 2014 during the mid-day peak period (11:00 AM to 1:00 PM) and the PM peak period (5:00 PM to 7:00 PM). Figures 3 and 4 summarize the results of this traffic data collection effort. Appendix B contains the traffic data as collected in the field.

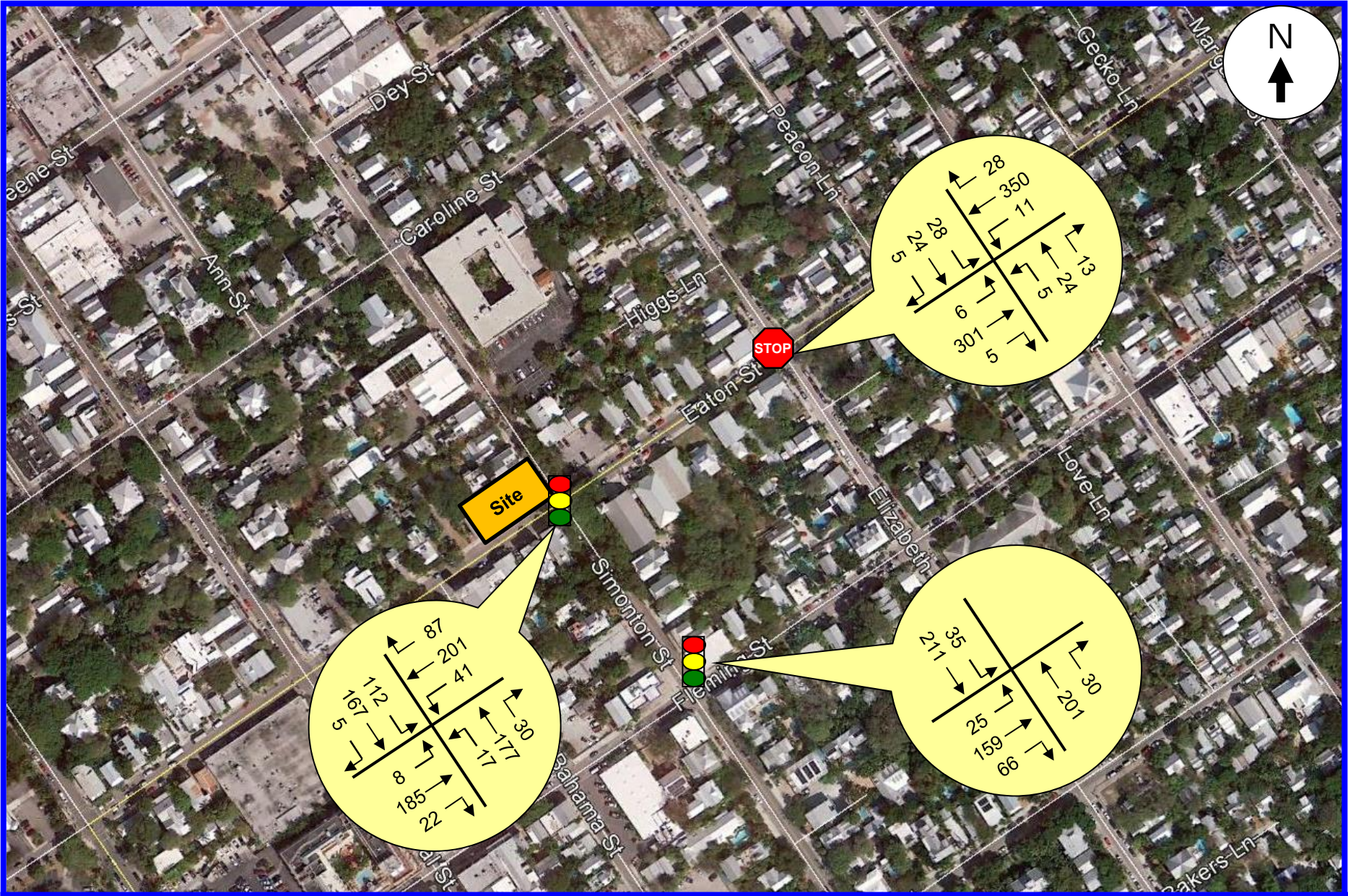


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Existing Mid-Day (11 AM – 1 PM) Peak Hour Traffic Counts

Source: Crossroads Engineering Data, Inc. 2/25/14

FIGURE 3
The Studios of Key West
Key West, Florida



TRIP GENERATION

Given the unique nature of the subject land use, there is an absence of any reliable and published trip generation data that would be directly applicable to The Studios of Key West. As a result, it was determined that the best predictor of future vehicular trip generation at the 533 Eaton Street site would be the vehicular trip generation characteristics exhibited at the 600 White Street site. In order to obtain this information, automobile travel data was collected over a three-day period in early February 2014. These days represent typical days for The Studios of Key West during the peak season.

AM Peak Period

During the typical AM peak period (7:00 AM to 9:00 AM), very little vehicular activity is associated with The Studios of Key West. This characteristic is expected to apply to the proposed location and, as such, an analysis of this time period is not warranted.

Mid-Day Peak Period

From a vehicular standpoint, the mid-day time period (11:00 AM to 1:00 PM) is a relatively active period for employees, artists and patrons. On Thursday, February 6, 2014, there were 16 vehicle trips (8 inbound and 8 outbound) during the time period between 10:00 AM and 4:00 PM. On Friday, February 7, 2014, there were 36 vehicle trips (18 inbound and 18 outbound) between 9:00 AM and 1:00 PM. For the most part, these trips were distributed fairly evenly over the observation time period. However, in order to present a worst-case scenario for traffic impacts, all of these vehicle trips were assumed to occur within a one-hour peak period.

PM Peak Period

Very little vehicular activity is associated with The Studios of Key West during the typical PM peak period (4:00 PM to 6:00 PM). However, The Studios of Key West does occasionally host special events (i.e. lectures, performances, exhibitions, etc.) during the late afternoon / early evening hours.

A representative event was held on Monday, February 3, 2014 from 6:00 PM to 7:00 PM. This event had a total attendance of 150 people. A majority of those in attendance walked to the event but there were 36 vehicles that transported one or more patrons to the site. All of these vehicles arrived between 5:00 PM and 6:00 PM. There were no outbound vehicles during this same time period. And, although these traffic volumes are not representative of a typical PM peak period during the peak season, these volumes were used for the traffic impact analysis in order to present a worst-case scenario.

Trip Generation Analysis

As stated previously, it is believed that the best predictor of vehicular trip generation at the proposed location is that of the existing location. As such, the following factors were developed for the mid-day and PM peak periods. With an overall increase in building square footage from 7,044 square feet to 15,788 square feet, a factor of approximately 2.5 (i.e. two and one-half times) can be applied to current mid-day peak hour vehicle trips associated with The Studios of Key West in order to estimate the future mid-day peak hour vehicle trips. (This is expected to be a significant overestimation; however, this is consistent with the “worst-case” scenario approach for this analysis.)

For the evening time period, the special event attendance is expected to be the best predictor of vehicular traffic. While the documented event had an attendance of 150 persons, the new auditorium has 205 seats. This would represent a factor of approximately 1.37 to adjust from current PM peak hour volumes to future PM peak hour volumes. However, in order to account for the rare event that may attract more than 205 persons, we have elected to utilize a factor of 2.0 (i.e. two times) for this time period.

Existing Development

The existing facilities at the proposed location (i.e. the Scottish Rite Masonic Center, the bakery, and the art gallery) currently generate vehicle trips that are on the street network.

Customarily, these vehicle trips would be credited to the analysis (or, deducted from the trips generated by the proposed use). But, once again, in order to be overly conservative in this analysis, these vehicle trips are not considered.

Trip Generation Calculations and Summary

The following table summarizes the trip generation calculations and resulting trips projected to be generated by The Studios of Key West at the proposed location on Eaton Street.

Table 1							
Trip Generation Summary							
The Studios of Key West - Monroe County, Florida							
Land Use	Size	Mid-Day Peak Period Trips			PM Peak Hour Trips		
		In	Out	Total	In	Out	Total
<i>Existing Location</i>							
Art Studios	7,044 SF	18	18	36	-	-	-
Special Events	150 Persons	-	-	-	36	0	36
Adjustment Factor		x 2.5	x 2.5	x 2.5	x 2.0	x 2.0	x 2.0
<i>Proposed Location</i>							
Art Studios	15,788 SF	45	45	90	-	-	-
Special Events	300 Persons	-	-	-	72	0	72

Compiled by: KBP Consulting, Inc. (March 2014).

As indicated in Table 1 above, the proposed facilities of The Studios of Key West on Eaton Street are expected (in a “worst-case” scenario) to generate 90 mid-day peak hour vehicle trips (45 inbound and 45 outbound) and 72 PM peak hour vehicle trips (all inbound).

TRIP DISTRIBUTION AND TRAFFIC ASSIGNMENT

The trip distribution for The Studios of Key West is based upon knowledge of the study area, examination of the surrounding roadway network characteristics, review of current traffic volumes, and existing land use patterns. The general trip distribution for the project is summarized below:

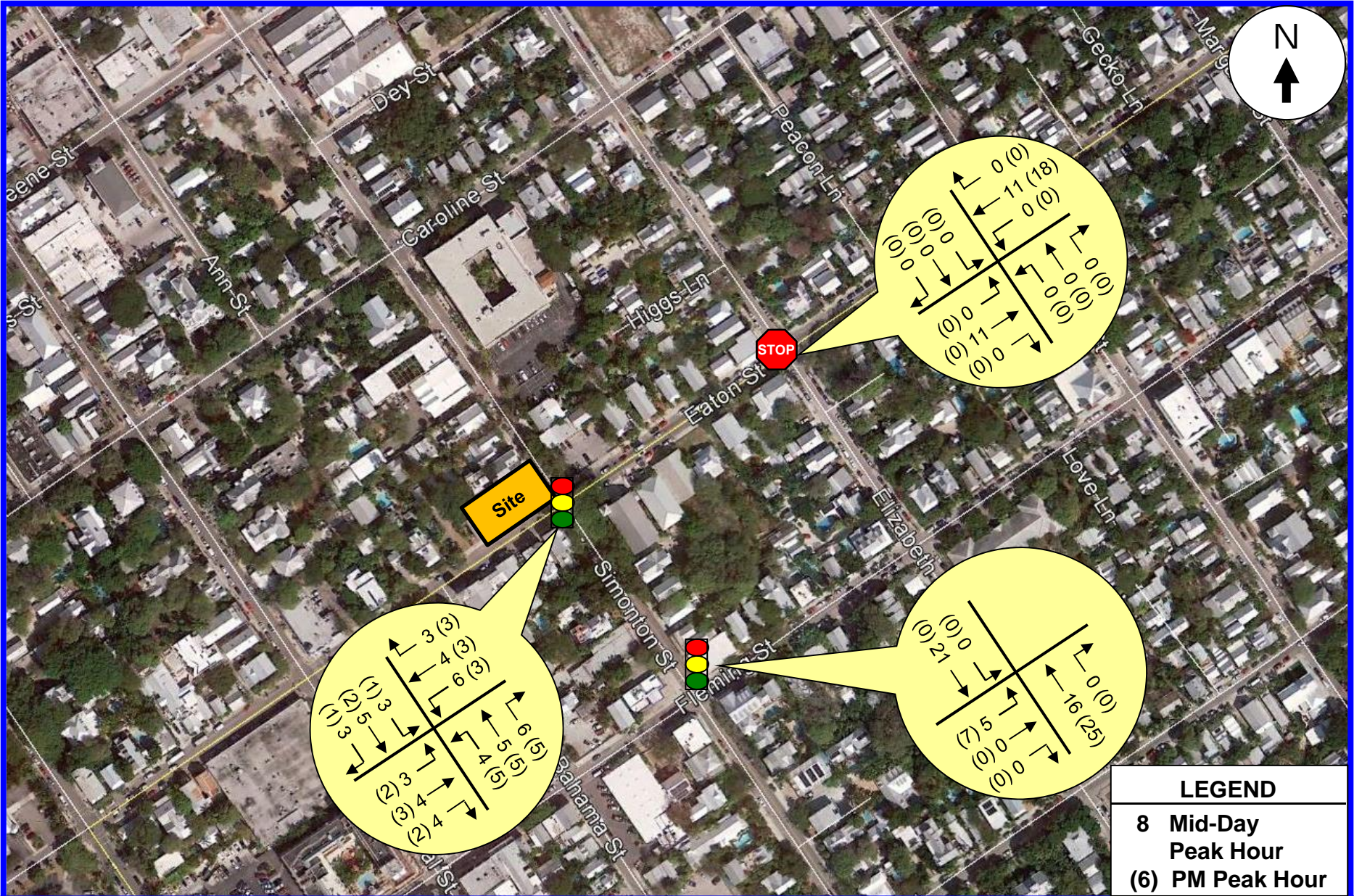
Inbound Vehicles

- 25% from the east via Eaton Street
- 20% from the west via Eaton Street
- 10% from the north via Simonton Street
- 35% from the south via Simonton Street
- 10% from the west via Fleming Street (turning left onto Simonton Street)

Outbound Vehicles

- 25% to the east via Eaton Street
- 20% to the west via Eaton Street
- 10% to the north via Simonton Street
- 45% to the south via Simonton Street (additional 10% is attributed to the one-way eastbound traffic flow on Fleming Street)

The net new mid-day and PM peak hour traffic generated by the project was assigned to the nearby transportation network utilizing this traffic assignment. The resulting mid-day and PM peak hour project traffic assignment is summarized in Figure 5.



TRAFFIC ANALYSES

This section of the study is divided into two (2) primary parts. The first part of this section involves the development of the future (2015) average peak season traffic volumes for the study area. The second part of this section includes level-of-service analyses for existing and future conditions.

Future Conditions Traffic Volumes

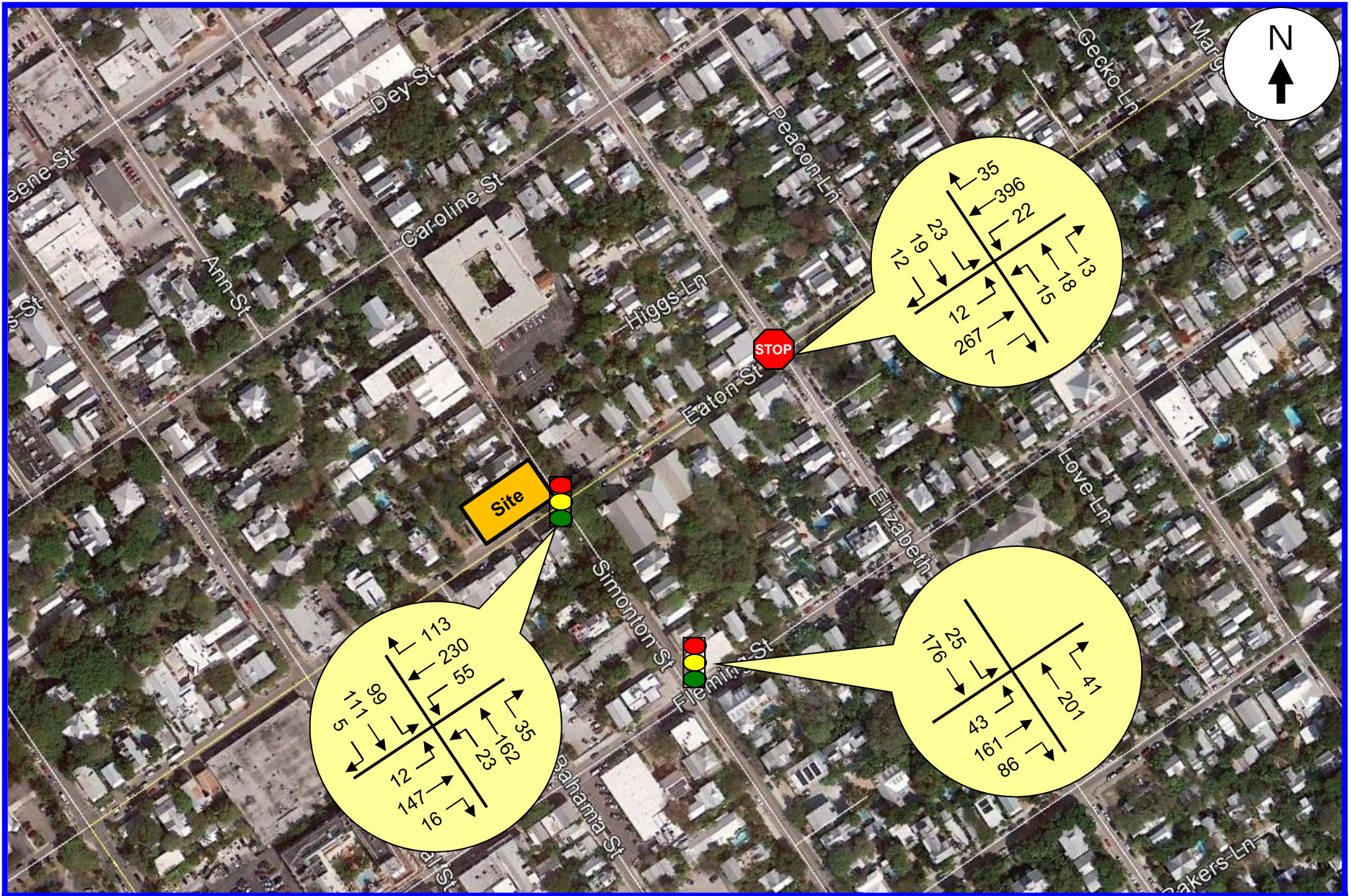
Future, build-out year (2015) traffic volumes were developed for the project study area in the following manner:

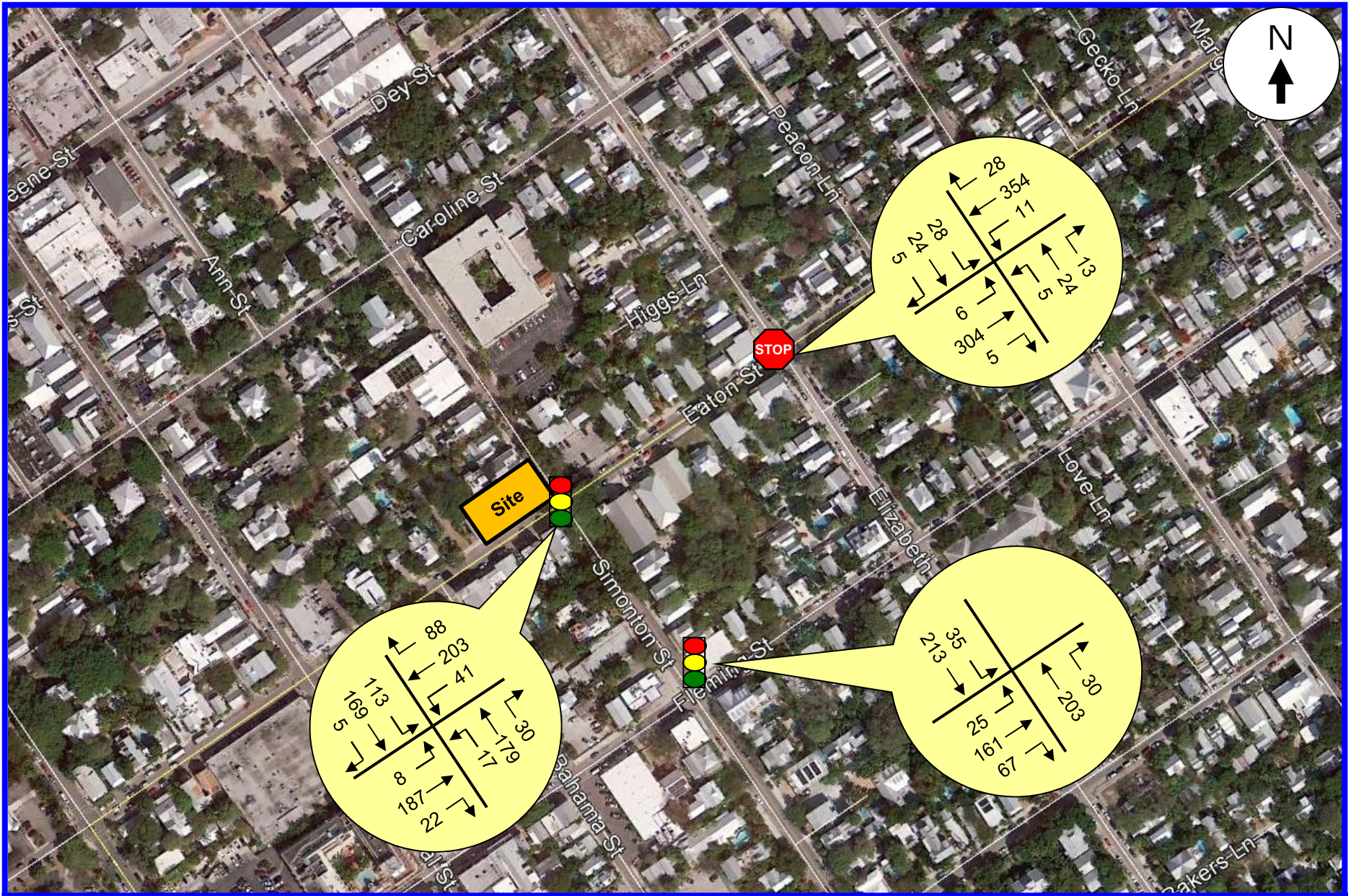
- **Average Peak Season Conversion Factor:** Traffic data collected on February 25, 2014 was reviewed with respect to average peak season conditions. Since the data for this analysis was collected during peak season (i.e. late February), it is not necessary to adjust the traffic counts to reflect the seasonality typically exhibited in Key West. This was confirmed by reviewing the Florida Department of Transportation (FDOT) peak season adjustment factor report for Monroe County. Traffic related counts performed during this time period could be adjusted to average peak season conditions by multiplying the values by 0.99 (see Appendix C). In other words, the data could be decreased by 1% in order to reflect average peak season conditions for the study area. In order to present a conservative analysis, no adjustment (i.e. reduction) has been applied.
- **Historic Traffic Growth:** Research relative to the background traffic growth in the area was conducted. FDOT maintains a traffic count station in the immediate vicinity of the subject project. This location and the annual growth rate exhibited over the five-year period (2007 to 2012) are as follows:
 - Eaton Street – 200 feet west of Duval Street (Site #900020): -1.73%

This data reveals that traffic volumes have generally declined by approximately 1.73% per year over the past five (5) recorded and available years (2007 – 2012). To present a consistent and conservative approach, the traffic counts within the project study area were increased by 1.0% to reflect future (2015) conditions. This historic data is presented in Appendix D.

The future traffic calculations (including peak season adjustments, background traffic growth, and project traffic) for the study intersections are contained in Appendix E in tabular format.

Figures 6 and 7 include future background peak hour intersection traffic only (without the proposed project) and Figures 8 and 9 include the additional peak hour intersection traffic anticipated to be generated by The Studios of Key West project.

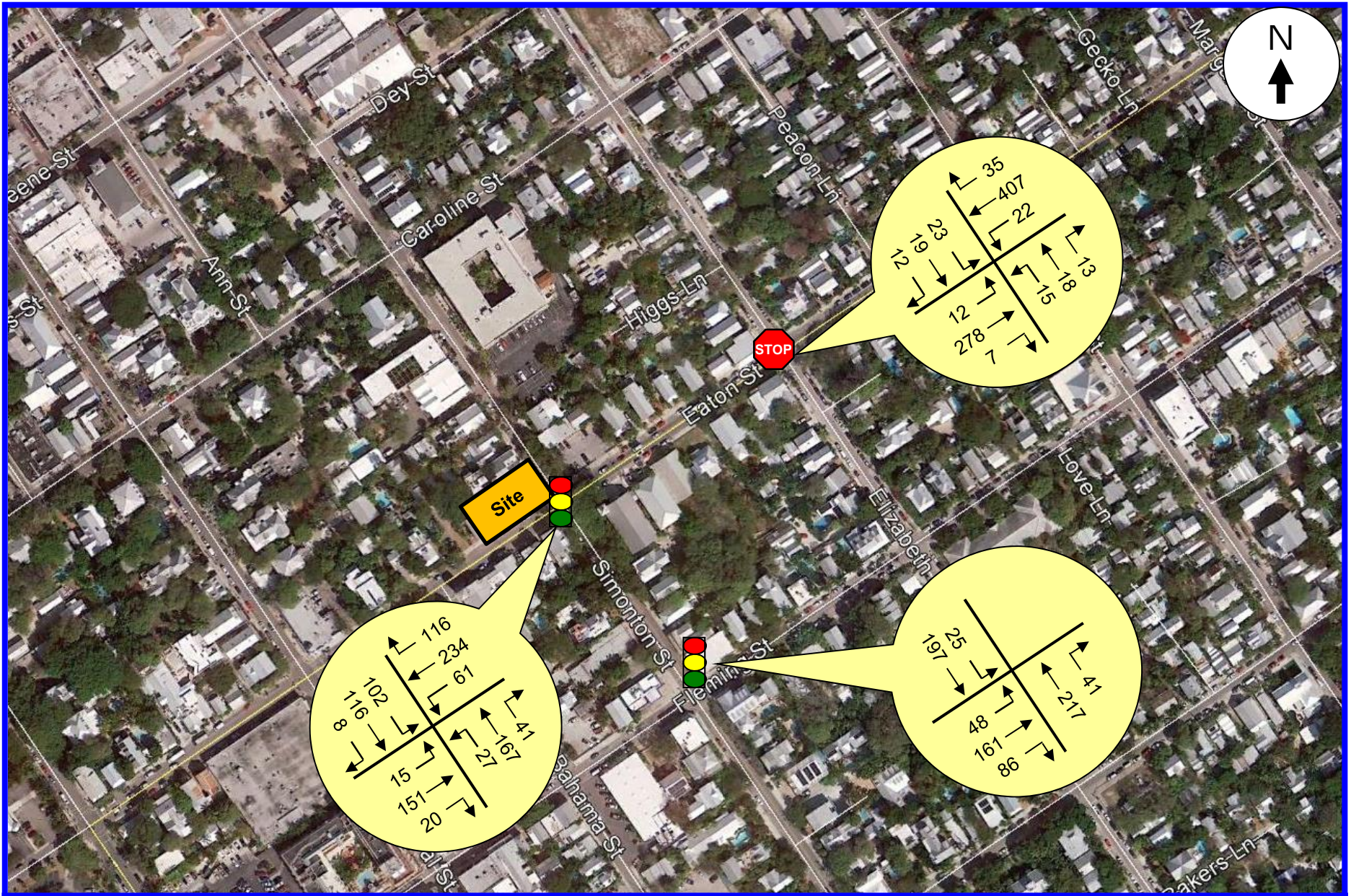




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**Future (2015) Background PM (5:00 – 7:00)
Peak Hour Traffic Volumes**

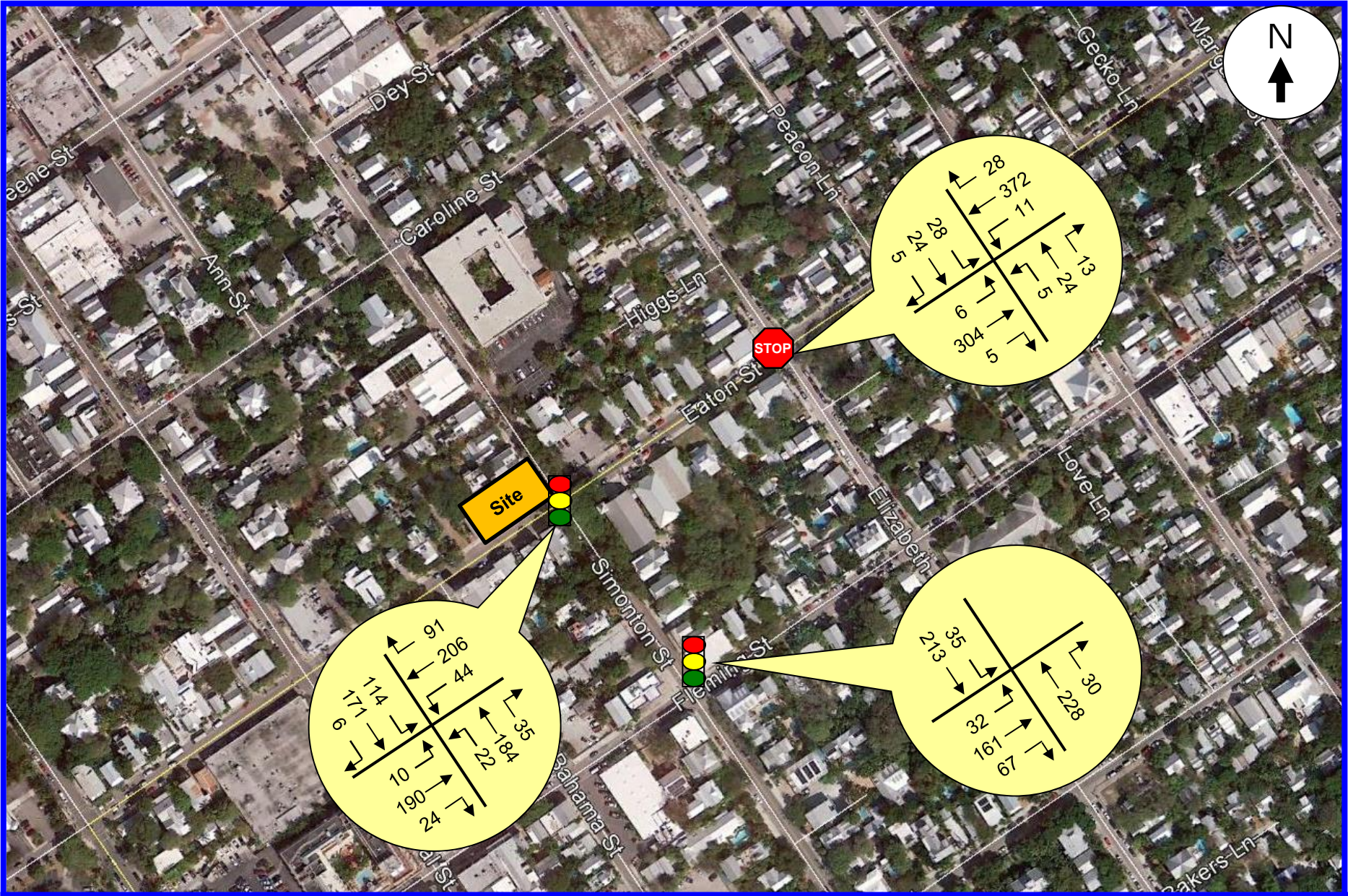
FIGURE 7
The Studios of Key West
Key West, Florida



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**Future (2015) Total Mid-Day (11 AM – 1 PM)
Peak Hour Traffic Volumes**

FIGURE 8
The Studios of Key West
Key West, Florida



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**Future (2015) Total PM (5:00 – 7:00)
Peak Hour Traffic Volumes**

FIGURE 9
The Studios of Key West
Key West, Florida

Level of Service (LOS) Analyses – Intersections

The intersection Level of Service (LOS) analyses were conducted for the three (3) study intersections. These analyses were undertaken following the capacity / level of service procedures outlined in the Highway Capacity Manual (HCM) using the SYNCHRO software. The results of these capacity analyses are summarized in Table 2 below.

	Existing (2014) Conditions		Future (2015) Conditions w/out Project Traffic		Future (2015) Conditions With Project Traffic	
	Mid-Day Peak Hour	PM Peak Hour	Mid-Day Peak Hour	PM Peak Hour	Mid-Day Peak Hour	PM Peak Hour
Intersection						
Eaton St & Simonton St **	B	C	B	C	C	C
Eaton St & Elizabeth St *	C	C	C	C	C	C
Simonton St & Fleming St **	B	B	B	B	B	B

Source: Highway Capacity Manual and SYNCHRO.

* At stop-control intersections, the LOS on the critical side street is documented in this table.

** At signalized intersections, the LOS for the intersection as a whole is documented in this table.

As indicated in Table 2 above, each of the study intersections is presently operating at an acceptable Level of Service (LOS) and will continue to do so in 2015 with the subject project in place. Based upon the relatively low traffic volumes anticipated to be generated by the subject project, the impacts on the surrounding roadway network are considered to be minimal and insignificant. The SYNCHRO output of the intersection capacity analyses are contained in Appendix F.

SUMMARY & CONCLUSIONS

The Studios of Key West is currently located at 600 White Street in Key West, Monroe County, Florida. The subject site is within the southwest quadrant of the intersection at White Street and Southard Street. The Studios of Key West is planning to relocate to 533 Eaton Street which is the current location of the Scottish Rite Masonic Center. There are also presently unrelated retail uses on the first floor of this building. This facility is within the northwest quadrant of the intersection at Eaton Street and Simonton Street and is generally twice the size of the current facility occupied by The Studios of Key West.

The proposed project will utilize the existing facilities at 533 Eaton Street as an art studio. The uses will consist of an auditorium with 205 seats, artist studios, exhibition areas, classrooms, office space, a roof top terrace and a small retail area (i.e. 140 square feet). Additionally there will be approximately 7,200 square feet of supportive uses or kitchens, bathrooms, utility areas, stairways, elevators, lobby, and back-of-house areas. The total area is approximately 15,788 square feet. There will be no change in the footprint or height of the existing building.

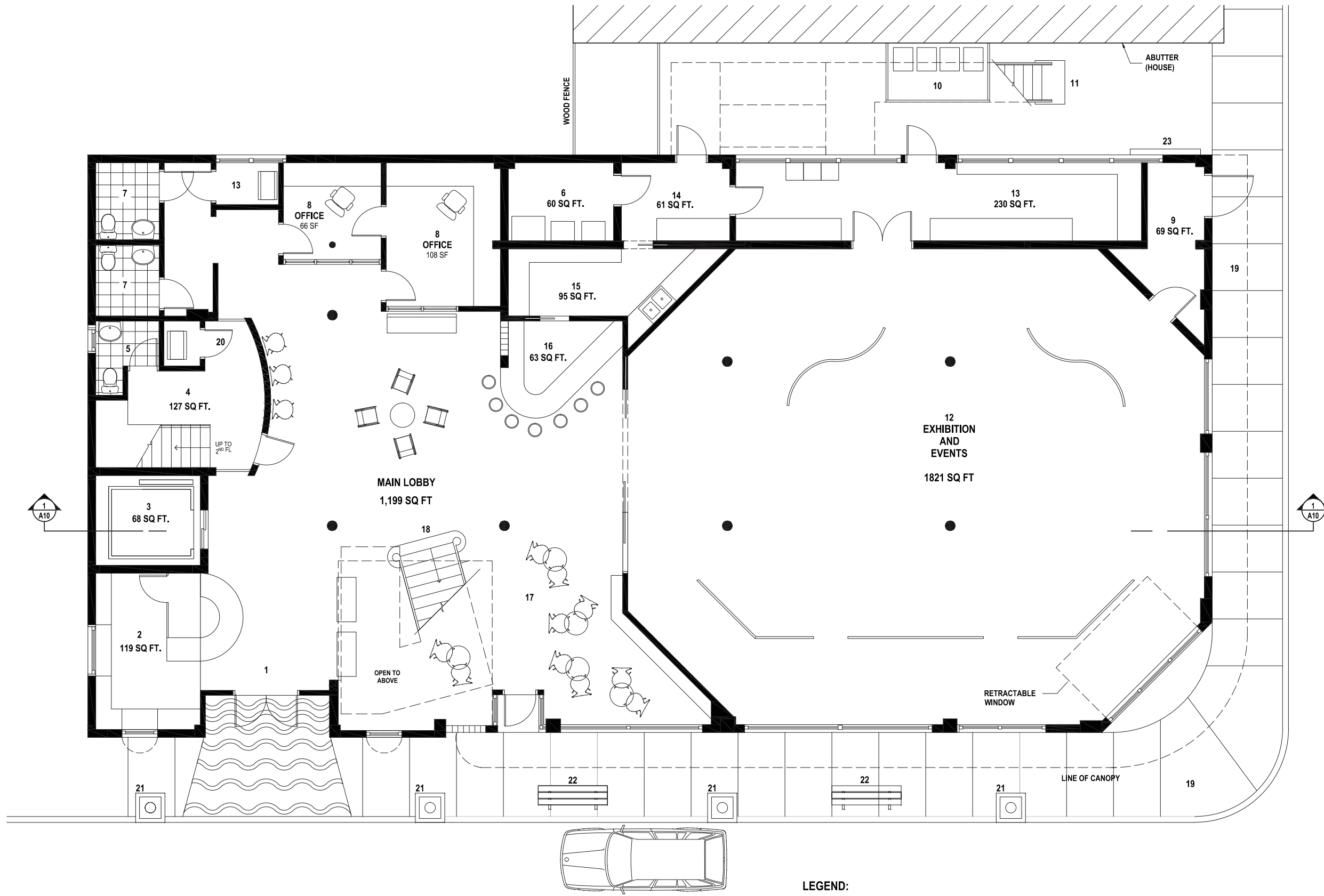
The proposed facilities of The Studios of Key West on Eaton Street are expected (in a “worst-case” scenario) to generate 90 mid-day peak hour vehicle trips (45 inbound and 45 outbound) and 72 PM peak hour vehicle trips (all inbound).

Based upon the foregoing analyses, the transportation network located in the vicinity of the project has ample capacity to absorb the traffic impacts created by the proposed relocation of The Studios of Key West. In other words, the nearby roadway system is currently operating at an acceptable Level of Service (LOS), the traffic impacts associated with the project are considered minimal and insignificant, and the roadway network will continue to operate adequately in 2015 with the subject project in place.

APPENDIX A

The Studios of Key West

Preliminary Floor Plans



FIRST FLOOR PLAN
 SCALE 1/4" = 1'-0"
 4,638 GROSS SQUARE FEET

LEGEND:

- | | | | | |
|----------------------------------|---------------------|--------------------------|--------------------------|--------------------|
| 1 ENTRANCE | 6 ELECTRICAL CLOSET | 11 FIRE ESCAPE (UP) | 15 CATERING KITCHEN | 20 JANITORS CLOSET |
| 2 RECEPTION BOX OFFICE AND GIFTS | 7 BATHROOMS | 12 EXHIBITION AND EVENTS | 16 BAR | 21 PLANTER |
| 3 ELEVATOR | 8 OFFICE | 13 STORAGE | 17 BAR SEATING | 22 BENCHES |
| 4 EGRESS STAIR | 9 FIRE EXIT | 14 OFFICE | 18 STAIR TO 2ND FL LOBBY | 23 ELEC SERVICES |
| 5 BATHROOM | 10 TRASH BINS | | 19 SIDEWALK | |

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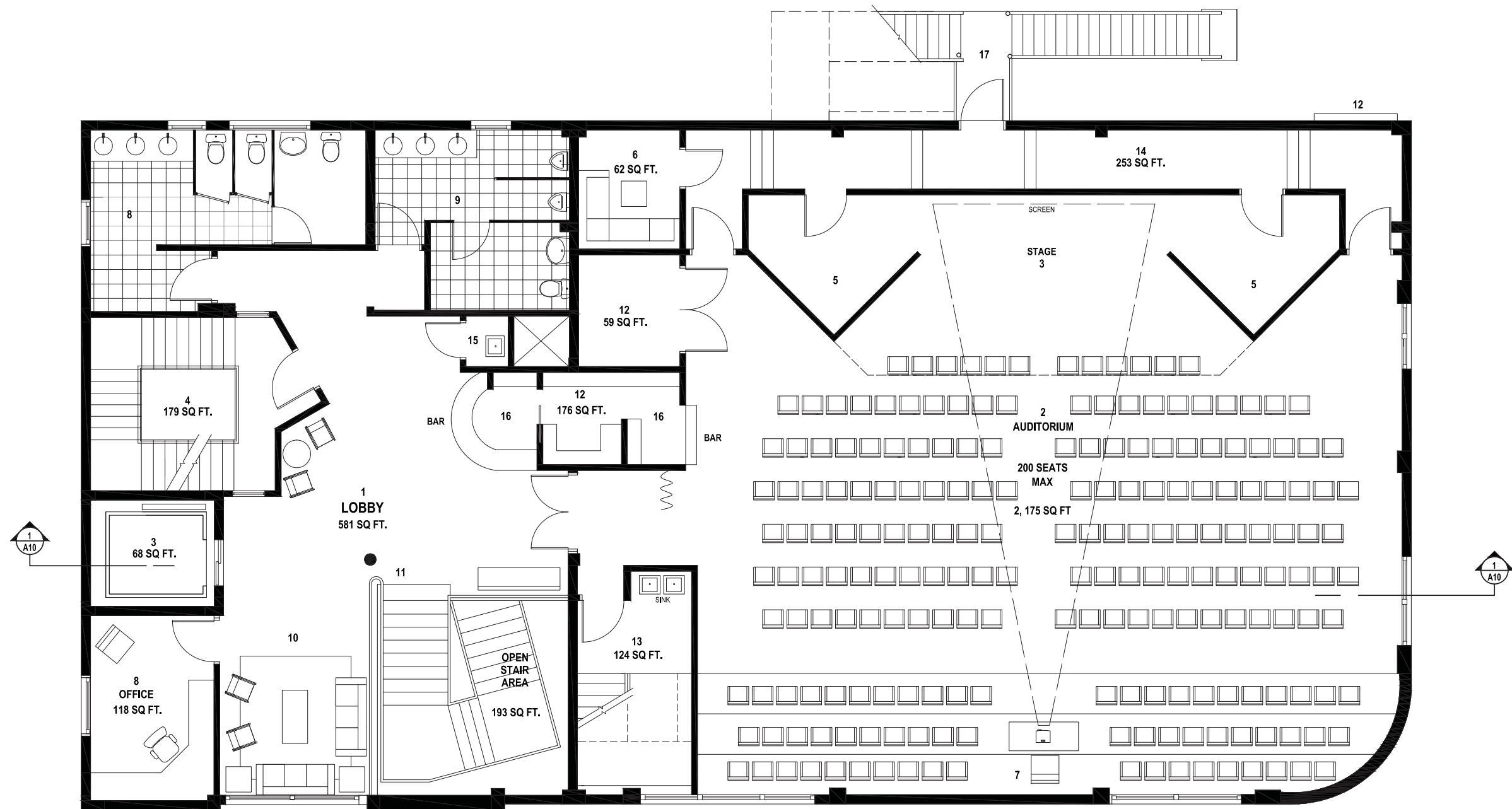
THE STUDIOS OF KEY WEST
 533 EATON STREET
 KEY WEST, FLORIDA

REVISED: 03 / 04 / 14
 DATE: 02 / 05 / 14
 SCALE: AS NOTED
 DRAWN BY: AG
 CHECKED BY: MM
 PROJECT NO: 1306

PROPOSED FIRST FLOOR PLAN

A1

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SECOND FLOOR PLAN
SCALE 1/4" = 1'-0"

4,713 GROSS SQUARE FEET

LEGEND:

- | | | | |
|----------------|--------------------|--|--------------------|
| 1 LOBBY | 7 CONTROL PANEL | 11 STAIR TO FIRST FLOOR LOBBY | 14 EGRESS CORRIDOR |
| 2 AUDITORIUM | 8 WOMEN'S BATHROOM | 12 STORAGE BAR | 15 JANITORS CLOSET |
| 3 STAGE | 9 MEN'S BATHROOM | 13 SINKS AND ACCESS TO MEZZANINE STORAGE | 16 BAR |
| 4 EGRESS STAIR | 10 LOUNGE SEATING | | 17 FIRE ESCAPE |
| 5 SIDE STAGE | | | |
| 6 GREEN ROOM | | | |

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**THE STUDIOS
OF KEY WEST**

533 EATON STREET
KEY WEST, FLORIDA

REVISED: 03-04-14

DATE: 02/05/14

SCALE: AS NOTED

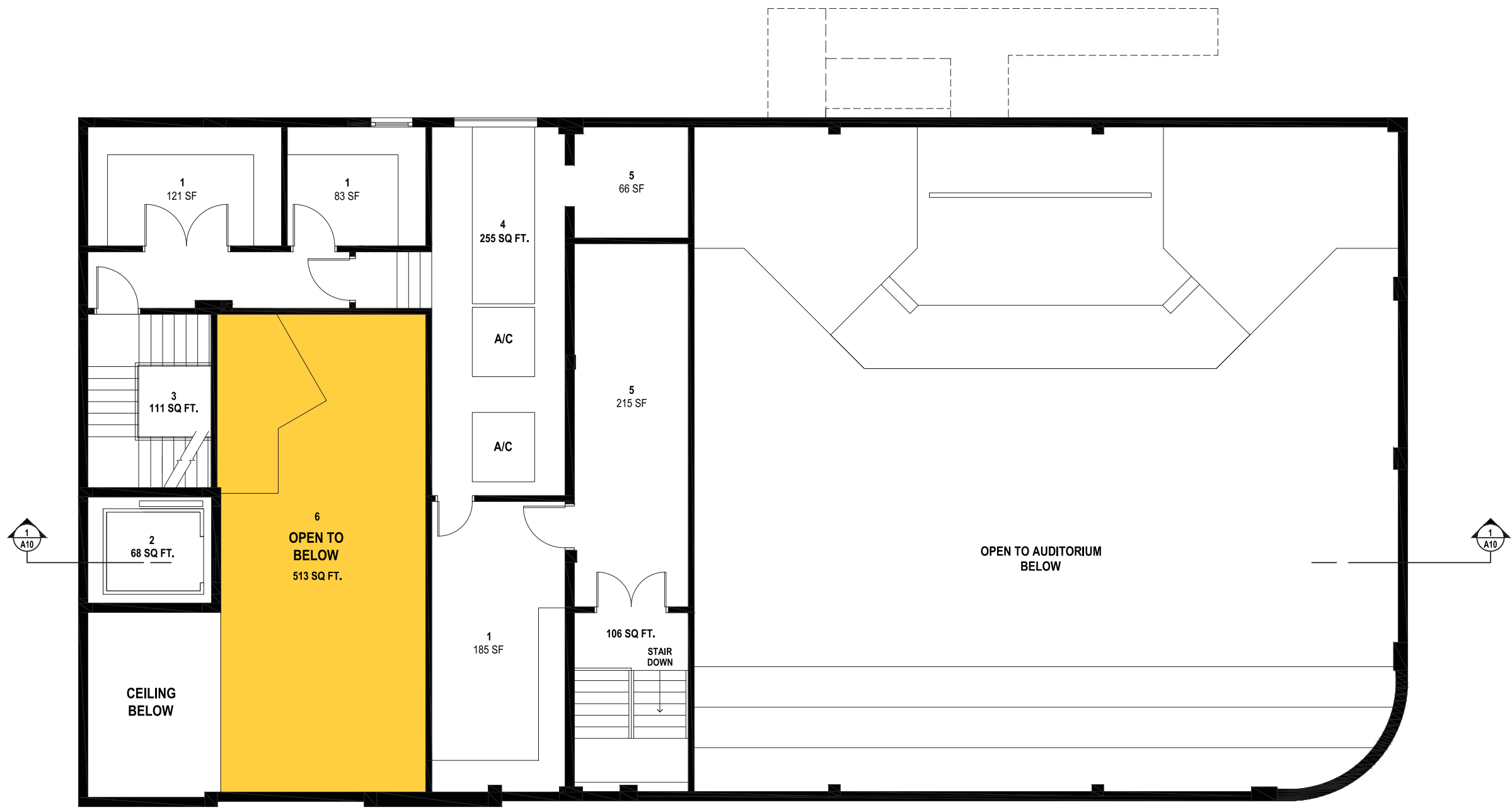
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CHECKED BY: MM

PROJECT NO: 1306

**PROPOSED SECOND
FLOOR PLAN**

A2



SECOND FLOOR MEZZANINE PLAN

SCALE 1/4" = 1'-0"

2,195 GROSS SQUARE FEET

513 SQ FT ADDED TO FLOOR AREA

LEGEND:

- 1 STORAGE
- 2 ELEVATOR
- 3 EGRESS STAIR
- 4 MECHANICAL ROOM
- 5 UNFINISHED STORAGE/MECH ATTIC (CLEAR HEIGHT = 6'-8")

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THE STUDIOS OF KEY WEST

533 EATON STREET
KEY WEST, FLORIDA

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SCALE: AS NOTED

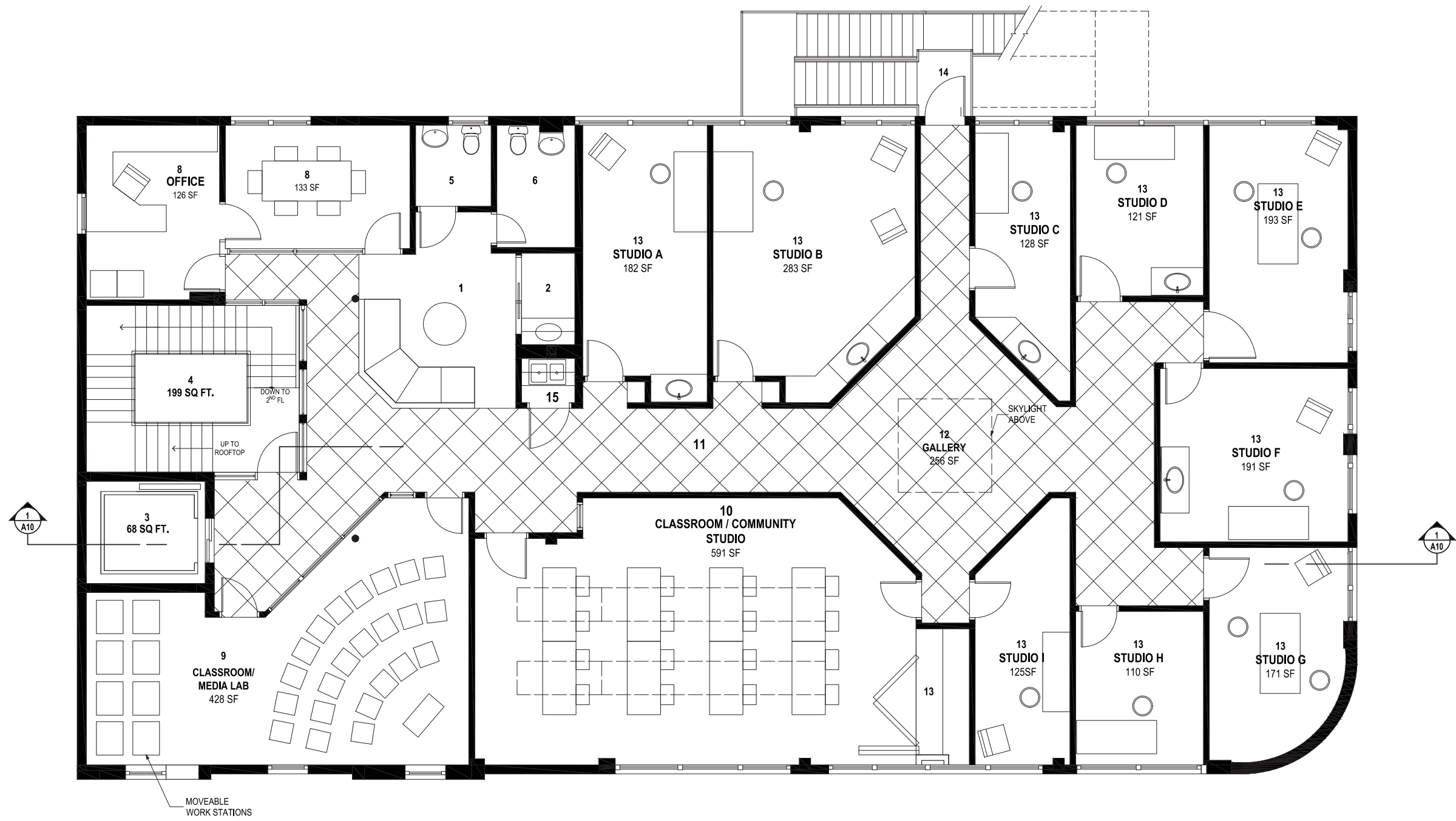
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PROJECT NO: 1306

SECOND FLOOR MEZZANINE PLAN

A3



THIRD FLOOR PLAN
SCALE 1/4" = 1'-0"

4,713 GROSS SQUARE FEET

LEGEND:

- | | | | |
|------------------|---------------------------|----------------------|---------------------|
| 1 LOUNGE | 6 WOMEN'S BATHROOM | 10 STUDIO CLASSROOM | 14 FIRE ESCAPE |
| 2 KITCHENETTE | 7 MEETING ROOM | 11 CORRIDOR/ GALLERY | 15 JANITOR'S CLOSET |
| 3 ELEVATOR | 8 OFFICE | 12 GALLERY | |
| 4 EGRESS STAIR | 9 CLASSROOM AND MEDIA LAB | 13 STUDIO STORAGE | |
| 5 MEN'S BATHROOM | | | |

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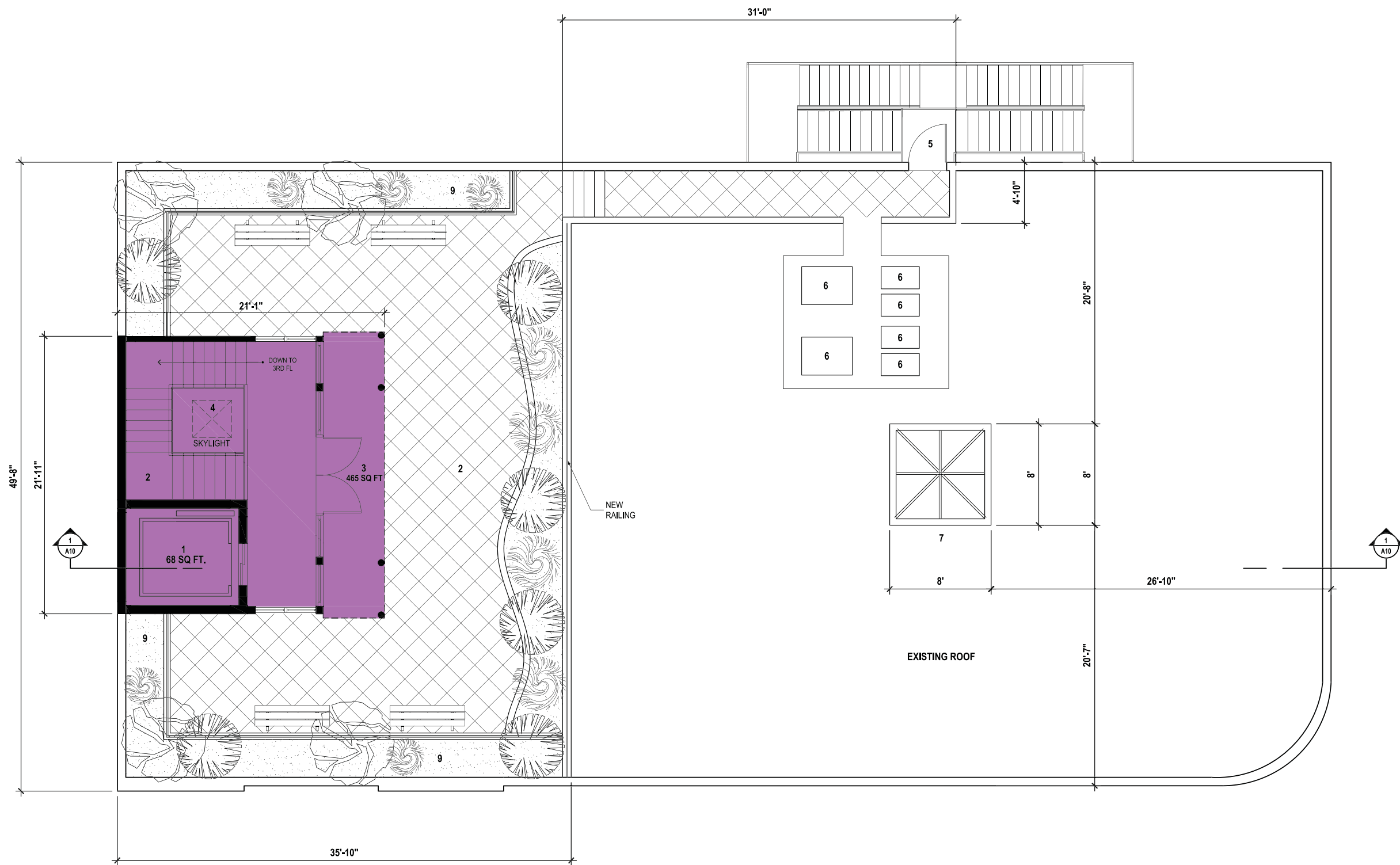
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PROPOSED THIRD FLOOR PLAN

A4

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ROOF GARDEN FLOOR PLAN
SCALE 1/4" = 1'-0"

465 GROSS SQUARE FEET

465 SQ FT ADDED TO FLOOR AREA

- LEGEND:**
- 1 ELEVATOR
 - 2 TERRACE
 - 3 PORCH
 - 4 EGRESS STAIR
 - 5 FIRE ESCAPE

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533 EATON STREET
KEY WEST, FLORIDA

REVISED: 03-04-14

DATE: 02/05/14

SCALE: AS NOTED

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PROJECT NO: 1306

PROPOSED ROOF GARDEN FLOOR PLAN

A5

APPENDIX B

Traffic Counts

Crossroads Engineering

8320 SW 90th Street
Miami, FL 33186
786-236-2857

CLIENT: KBP CONSULTING
JOB NO.: 2014-016
PROJECT: KEY WEST COUNTS
COUNTY: MONROE

File Name : EATON ST @ ELIZABETH ST
Site Code : 00000000
Start Date : 2/25/2014
Page No : 1

Groups Printed- AUTOS - HEAVY VEHICLES

Start Time	ELIZABETH ST From North				EATON ST From East				ELIZABETH ST From South				EATON ST From West				Int. Total
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	
11:00 AM	1	7	3	16	11	98	7	12	5	5	1	16	2	44	5	8	241
11:15 AM	4	5	4	10	11	84	5	5	2	2	3	9	3	71	2	10	230
11:30 AM	1	3	4	13	8	75	6	5	3	6	1	1	0	50	2	4	182
11:45 AM	3	3	5	11	9	98	5	18	5	4	1	3	1	65	1	11	243
Total	9	18	16	50	39	355	23	40	15	17	6	29	6	230	10	33	896
12:00 PM	5	6	4	16	8	112	7	6	2	5	5	3	4	73	2	14	272
12:15 PM	2	6	3	19	11	80	4	5	4	7	2	4	1	48	6	3	205
12:30 PM	2	4	11	33	7	102	6	9	2	2	7	7	1	78	3	7	281
12:45 PM	4	4	5	19	6	94	2	12	8	4	2	0	1	63	0	5	229
Total	13	20	23	87	32	388	19	32	16	18	16	14	7	262	11	29	987
*** BREAK ***																	
05:00 PM	1	5	7	23	9	81	1	13	6	7	1	1	0	87	4	15	261
05:15 PM	0	4	8	24	2	73	5	35	5	2	1	3	1	79	0	6	248
05:30 PM	1	5	4	12	12	88	3	8	0	8	2	2	2	68	1	11	227
05:45 PM	3	10	9	12	5	108	2	12	2	7	1	1	2	67	1	11	253
Total	5	24	28	71	28	350	11	68	13	24	5	7	5	301	6	43	989
06:00 PM	0	6	6	30	9	68	5	32	4	3	2	9	5	67	2	10	258
06:15 PM	1	4	1	9	6	80	1	19	4	4	1	2	1	64	2	6	205
06:30 PM	3	8	11	18	4	43	1	9	0	3	2	2	0	77	0	13	194
06:45 PM	3	3	11	20	4	47	3	9	2	2	1	6	0	63	2	23	199
Total	7	21	29	77	23	238	10	69	10	12	6	19	6	271	6	52	856
Grand Total	34	83	96	285	122	1331	63	209	54	71	33	69	24	1064	33	157	3728
Apprch %	6.8	16.7	19.3	57.2	7.1	77.2	3.7	12.1	23.8	31.3	14.5	30.4	1.9	83.3	2.6	12.3	
Total %	0.9	2.2	2.6	7.6	3.3	35.7	1.7	5.6	1.4	1.9	0.9	1.9	0.6	28.5	0.9	4.2	
AUTOS	34	82	95	285	122	1290	59	209	53	71	32	69	22	1019	33	157	3632
% AUTOS	100	98.8	99	100	100	96.9	93.7	100	98.1	100	97	100	91.7	95.8	100	100	97.4
HEAVY VEHICLES	0	1	1	0	0	41	4	0	1	0	1	0	2	45	0	0	96
% HEAVY VEHICLES	0	1.2	1	0	0	3.1	6.3	0	1.9	0	3	0	8.3	4.2	0	0	2.6

Crossroads Engineering

8320 SW 90th Street
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786-236-2857

CLIENT: KBP CONSULTING
JOB NO.: 2014-016
PROJECT: KEY WEST COUNTS
COUNTY: MONROE

File Name : EATON ST @ ELIZABETH ST
Site Code : 00000000
Start Date : 2/25/2014
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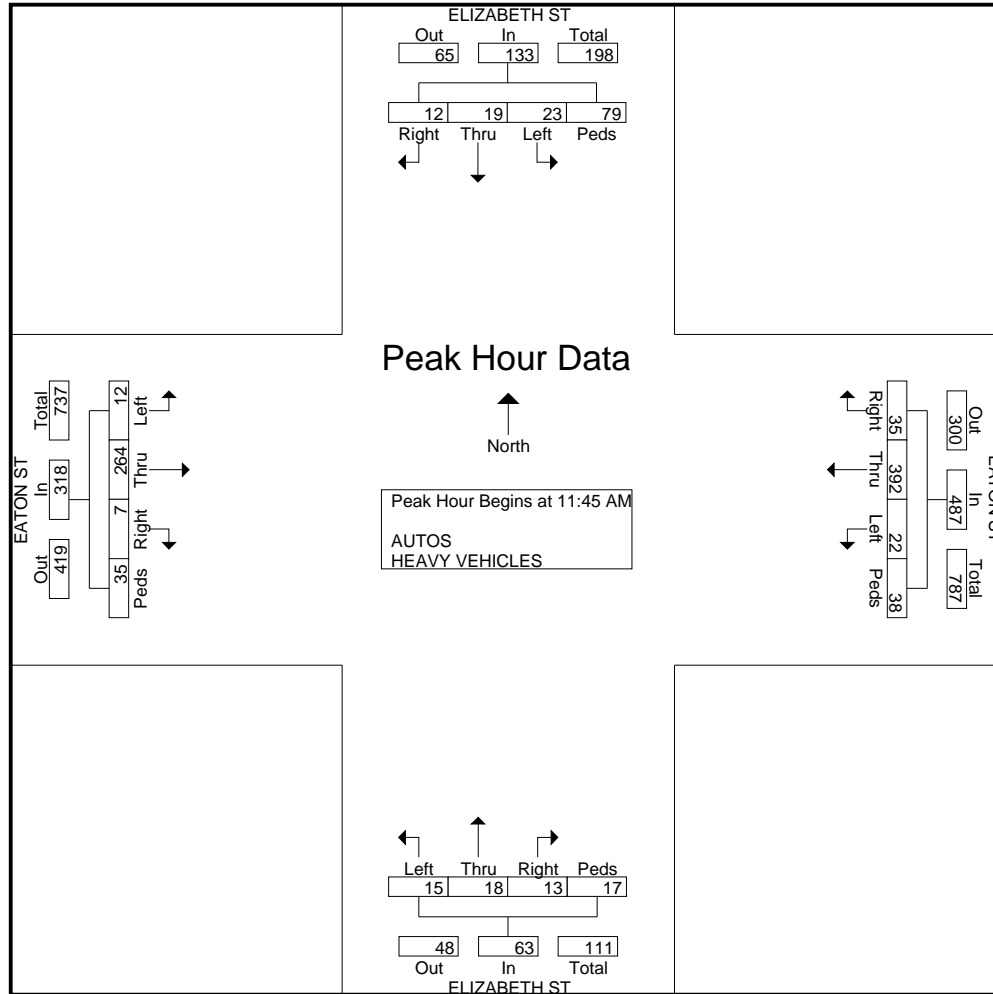
Start Time	ELIZABETH ST From North					EATON ST From East					ELIZABETH ST From South					EATON ST From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 11:45 AM																					
11:45 AM	3	3	5	11	22	9	98	5	18	130	5	4	1	3	13	1	65	1	11	78	243
12:00 PM	5	6	4	16	31	8	112	7	6	133	2	5	5	3	15	4	73	2	14	93	272
12:15 PM	2	6	3	19	30	11	80	4	5	100	4	7	2	4	17	1	48	6	3	58	205
12:30 PM	2	4	11	33	50	7	102	6	9	124	2	2	7	7	18	1	78	3	7	89	281
Total Volume	12	19	23	79	133	35	392	22	38	487	13	18	15	17	63	7	264	12	35	318	1001
% App. Total	9	14.3	17.3	59.4		7.2	80.5	4.5	7.8		20.6	28.6	23.8	27		2.2	83	3.8	11		
PHF	.600	.792	.523	.598	.665	.795	.875	.786	.528	.915	.650	.643	.536	.607	.875	.438	.846	.500	.625	.855	.891

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File Name : EATON ST @ ELIZABETH ST
Site Code : 00000000
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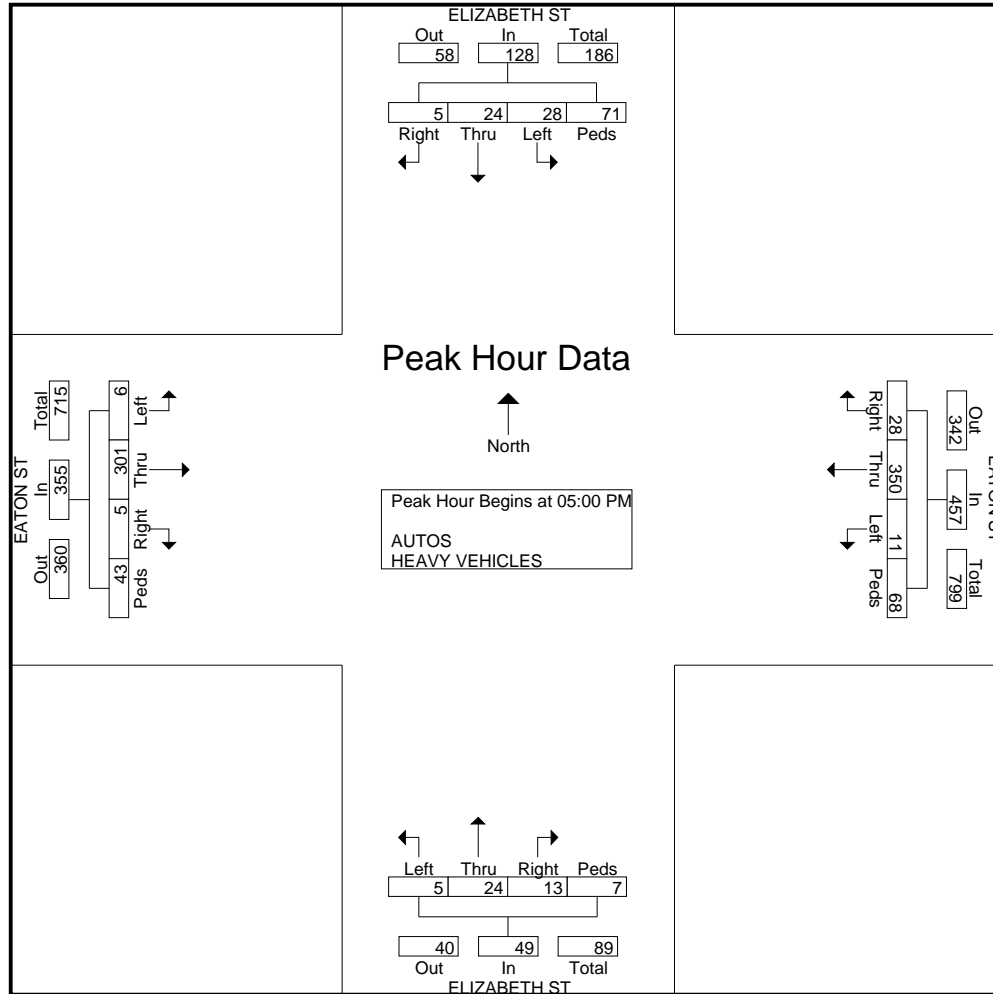
Start Time	ELIZABETH ST From North					EATON ST From East					ELIZABETH ST From South					EATON ST From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 05:00 PM to 06:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	1	5	7	23	36	9	81	1	13	104	6	7	1	1	15	0	87	4	15	106	261
05:15 PM	0	4	8	24	36	2	73	5	35	115	5	2	1	3	11	1	79	0	6	86	248
05:30 PM	1	5	4	12	22	12	88	3	8	111	0	8	2	2	12	2	68	1	11	82	227
05:45 PM	3	10	9	12	34	5	108	2	12	127	2	7	1	1	11	2	67	1	11	81	253
Total Volume	5	24	28	71	128	28	350	11	68	457	13	24	5	7	49	5	301	6	43	355	989
% App. Total	3.9	18.8	21.9	55.5		6.1	76.6	2.4	14.9		26.5	49	10.2	14.3		1.4	84.8	1.7	12.1		
PHF	.417	.600	.778	.740	.889	.583	.810	.550	.486	.900	.542	.750	.625	.583	.817	.625	.865	.375	.717	.837	.947

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File Name : EATON ST @ ELIZABETH ST
Site Code : 00000000
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CLIENT: KBP CONSULTING
JOB NO.: 2014-016
PROJECT: KEY WEST COUNTS
COUNTY: MONROE

File Name : EATON ST @ ELIZABETH ST
Site Code : 00000000
Start Date : 2/25/2014
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Groups Printed- HEAVY VEHICLES

Start Time	ELIZABETH ST From North				EATON ST From East				ELIZABETH ST From South				EATON ST From West				Int. Total
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	
11:00 AM	0	0	0	0	0	2	3	0	0	0	0	0	0	2	0	0	7
11:15 AM	0	0	0	0	0	6	0	0	0	0	0	0	0	7	0	0	13
11:30 AM	0	0	0	0	0	2	0	0	0	0	0	0	0	3	0	0	5
11:45 AM	0	0	0	0	0	6	0	0	0	0	0	0	0	1	0	0	7
Total	0	0	0	0	0	16	3	0	0	0	0	0	0	13	0	0	32
12:00 PM	0	0	0	0	0	3	0	0	0	0	1	0	1	3	0	0	8
12:15 PM	0	0	1	0	0	2	0	0	0	0	0	0	0	2	0	0	5
12:30 PM	0	1	0	0	0	4	0	0	0	0	0	0	0	6	0	0	11
12:45 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	5	0	0	7
Total	0	1	1	0	0	11	0	0	0	0	1	0	1	16	0	0	31
*** BREAK ***																	
05:00 PM	0	0	0	0	0	4	0	0	1	0	0	0	0	3	0	0	8
05:15 PM	0	0	0	0	0	2	1	0	0	0	0	0	0	2	0	0	5
05:30 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	2	0	0	4
05:45 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	4	0	0	6
Total	0	0	0	0	0	10	1	0	1	0	0	0	0	11	0	0	23
06:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	2	0	0	3
06:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	3	0	0	4
06:30 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2
06:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	0	0	0	4	0	0	0	0	0	0	1	5	0	0	10
Grand Total	0	1	1	0	0	41	4	0	1	0	1	0	2	45	0	0	96
Apprch %	0	50	50	0	0	91.1	8.9	0	50	0	50	0	4.3	95.7	0	0	
Total %	0	1	1	0	0	42.7	4.2	0	1	0	1	0	2.1	46.9	0	0	

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CLIENT: KBP CONSULTING
JOB NO.: 2014-016
PROJECT: KEY WEST COUNTS
COUNTY: MONROE

File Name : EATON ST @ SIMONTON ST
Site Code : 00000000
Start Date : 2/25/2014
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Groups Printed- AUTOS - HEAVY VEHICLES

Start Time	SIMONTON ST From North				EATON ST From East				SIMONTON ST From South				EATON ST From West				Int. Total
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	
11:00 AM	2	22	20	5	19	50	9	16	7	42	9	29	5	30	4	21	290
11:15 AM	0	38	16	8	20	50	18	26	9	34	7	14	9	51	0	12	312
11:30 AM	5	26	7	5	18	57	12	14	11	35	8	6	2	32	1	20	259
11:45 AM	2	42	22	9	19	65	16	24	12	49	7	13	4	30	5	15	334
Total	9	128	65	27	76	222	55	80	39	160	31	62	20	143	10	68	1195
12:00 PM	1	23	27	2	33	60	14	27	13	46	4	11	2	29	2	11	305
12:15 PM	1	35	17	2	29	55	7	23	7	40	10	9	5	36	1	16	293
12:30 PM	0	18	28	7	25	53	16	17	11	38	5	20	3	48	3	16	308
12:45 PM	3	34	26	8	25	60	17	36	4	36	4	12	6	33	6	33	343
Total	5	110	98	19	112	228	54	103	35	160	23	52	16	146	12	76	1249
*** BREAK ***																	
05:00 PM	1	50	33	8	19	44	12	22	8	36	1	11	5	72	2	37	361
05:15 PM	1	52	30	11	16	47	7	16	8	36	7	5	7	35	4	13	295
05:30 PM	1	29	29	7	27	56	8	29	8	59	6	13	9	36	0	16	333
05:45 PM	2	36	20	6	25	54	14	34	6	46	3	7	1	42	2	34	332
Total	5	167	112	32	87	201	41	101	30	177	17	36	22	185	8	100	1321
06:00 PM	1	23	24	8	21	42	10	23	10	35	7	50	6	36	5	14	315
06:15 PM	0	35	30	7	19	45	11	18	8	23	2	11	3	29	0	27	268
06:30 PM	1	45	45	7	16	22	9	17	9	23	3	9	3	37	3	25	274
06:45 PM	1	30	34	8	21	23	5	20	5	18	3	14	4	24	2	25	237
Total	3	133	133	30	77	132	35	78	32	99	15	84	16	126	10	91	1094
Grand Total	22	538	408	108	352	783	185	362	136	596	86	234	74	600	40	335	4859
Apprch %	2	50	37.9	10	20.9	46.6	11	21.5	12.9	56.7	8.2	22.2	7.1	57.2	3.8	31.9	
Total %	0.5	11.1	8.4	2.2	7.2	16.1	3.8	7.5	2.8	12.3	1.8	4.8	1.5	12.3	0.8	6.9	
AUTOS	20	525	405	108	342	755	181	362	135	569	85	234	72	561	36	335	4725
% AUTOS	90.9	97.6	99.3	100	97.2	96.4	97.8	100	99.3	95.5	98.8	100	97.3	93.5	90	100	97.2
HEAVY VEHICLES	2	13	3	0	10	28	4	0	1	27	1	0	2	39	4	0	134
% HEAVY VEHICLES	9.1	2.4	0.7	0	2.8	3.6	2.2	0	0.7	4.5	1.2	0	2.7	6.5	10	0	2.8

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CLIENT: KBP CONSULTING
JOB NO.: 2014-016
PROJECT: KEY WEST COUNTS
COUNTY: MONROE

File Name : EATON ST @ SIMONTON ST
Site Code : 00000000
Start Date : 2/25/2014
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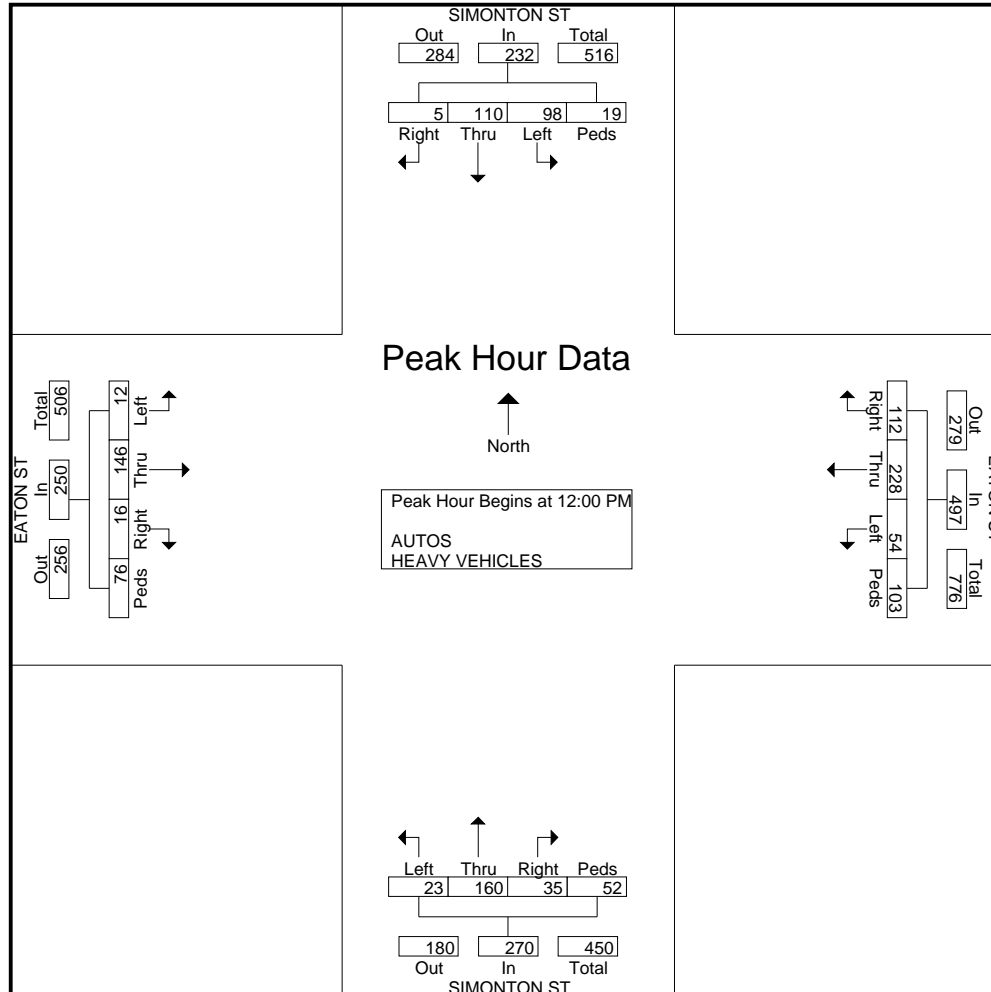
Start Time	SIMONTON ST From North					EATON ST From East					SIMONTON ST From South					EATON ST From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:00 PM																					
12:00 PM	1	23	27	2	53	33	60	14	27	134	13	46	4	11	74	2	29	2	11	44	305
12:15 PM	1	35	17	2	55	29	55	7	23	114	7	40	10	9	66	5	36	1	16	58	293
12:30 PM	0	18	28	7	53	25	53	16	17	111	11	38	5	20	74	3	48	3	16	70	308
12:45 PM	3	34	26	8	71	25	60	17	36	138	4	36	4	12	56	6	33	6	33	78	343
Total Volume	5	110	98	19	232	112	228	54	103	497	35	160	23	52	270	16	146	12	76	250	1249
% App. Total	2.2	47.4	42.2	8.2		22.5	45.9	10.9	20.7		13	59.3	8.5	19.3		6.4	58.4	4.8	30.4		
PHF	.417	.786	.875	.594	.817	.848	.950	.794	.715	.900	.673	.870	.575	.650	.912	.667	.760	.500	.576	.801	.910

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File Name : EATON ST @ SIMONTON ST
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File Name : EATON ST @ SIMONTON ST
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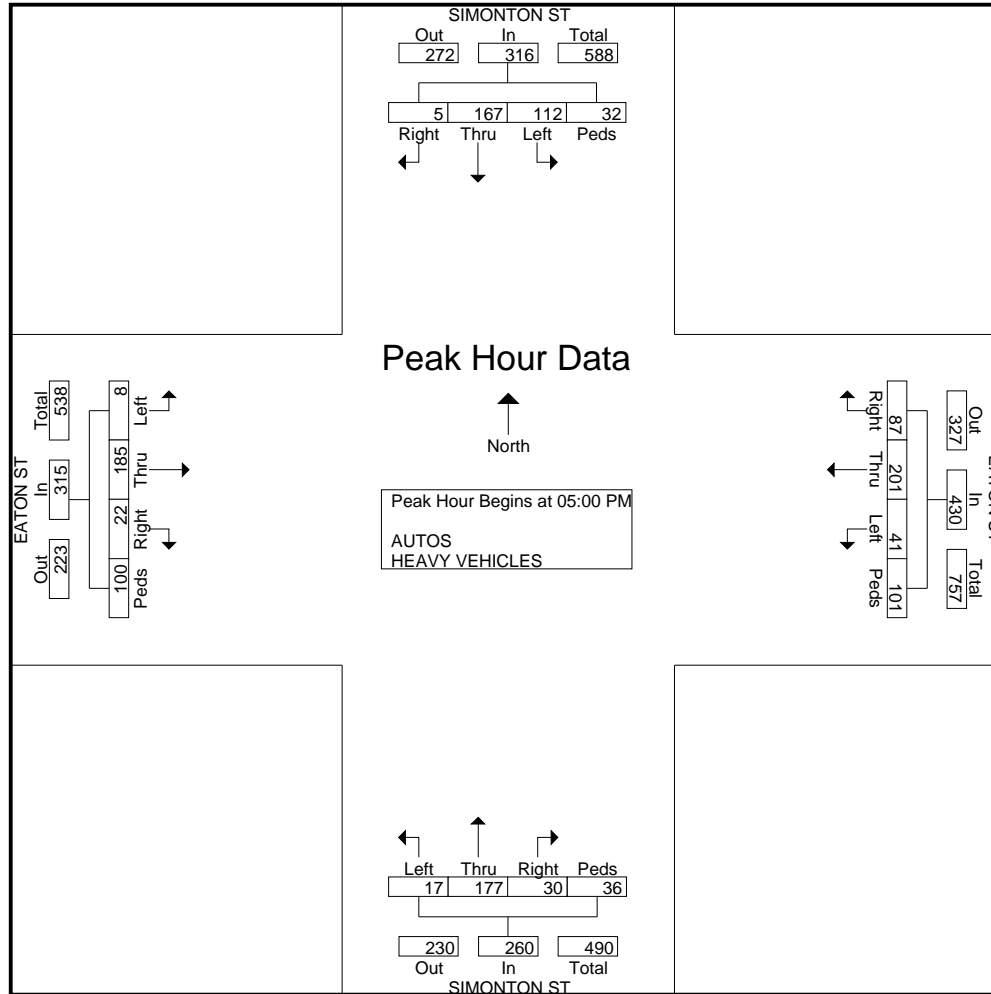
Start Time	SIMONTON ST From North					EATON ST From East					SIMONTON ST From South					EATON ST From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 05:00 PM to 06:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	1	50	33	8	92	19	44	12	22	97	8	36	1	11	56	5	72	2	37	116	361
05:15 PM	1	52	30	11	94	16	47	7	16	86	8	36	7	5	56	7	35	4	13	59	295
05:30 PM	1	29	29	7	66	27	56	8	29	120	8	59	6	13	86	9	36	0	16	61	333
05:45 PM	2	36	20	6	64	25	54	14	34	127	6	46	3	7	62	1	42	2	34	79	332
Total Volume	5	167	112	32	316	87	201	41	101	430	30	177	17	36	260	22	185	8	100	315	1321
% App. Total	1.6	52.8	35.4	10.1		20.2	46.7	9.5	23.5		11.5	68.1	6.5	13.8		7	58.7	2.5	31.7		
PHF	.625	.803	.848	.727	.840	.806	.897	.732	.743	.846	.938	.750	.607	.692	.756	.611	.642	.500	.676	.679	.915

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COUNTY: MONROE

File Name : EATON ST @ SIMONTON ST
Site Code : 00000000
Start Date : 2/25/2014
Page No : 1

Groups Printed- HEAVY VEHICLES

Start Time	SIMONTON ST From North				EATON ST From East				SIMONTON ST From South				EATON ST From West				Int. Total	
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds		
11:00 AM	1	0	0	0	1	1	1	0	0	3	0	0	0	0	0	0	0	7
11:15 AM	0	5	0	0	1	3	1	0	0	2	0	0	0	8	0	0	0	20
11:30 AM	0	1	0	0	0	2	0	0	0	2	0	0	0	2	0	0	0	7
11:45 AM	0	1	0	0	0	6	0	0	0	3	0	0	0	2	0	0	0	12
Total	1	7	0	0	2	12	2	0	0	10	0	0	0	12	0	0	0	46
12:00 PM	1	1	0	0	1	2	0	0	0	3	0	0	0	2	1	0	0	11
12:15 PM	0	2	0	0	1	1	0	0	0	1	0	0	1	2	0	0	0	8
12:30 PM	0	1	0	0	0	3	1	0	0	4	0	0	0	6	1	0	0	16
12:45 PM	0	0	0	0	1	1	0	0	0	4	0	0	0	4	1	0	0	11
Total	1	4	0	0	3	7	1	0	0	12	0	0	1	14	3	0	0	46
*** BREAK ***																		
05:00 PM	0	0	0	0	1	3	1	0	0	1	1	0	0	3	0	0	0	10
05:15 PM	0	0	0	0	2	2	0	0	0	2	0	0	0	2	1	0	0	9
05:30 PM	0	0	1	0	0	1	0	0	0	0	0	0	0	2	0	0	0	4
05:45 PM	0	0	1	0	0	1	0	0	1	0	0	0	0	4	0	0	0	7
Total	0	0	2	0	3	7	1	0	1	3	1	0	0	11	1	0	0	30
06:00 PM	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	2
06:15 PM	0	1	0	0	1	0	0	0	0	1	0	0	1	2	0	0	0	6
06:30 PM	0	1	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	3
06:45 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	2	1	0	2	2	0	0	0	2	0	0	1	2	0	0	0	12
Grand Total	2	13	3	0	10	28	4	0	1	27	1	0	2	39	4	0	0	134
Apprch %	11.1	72.2	16.7	0	23.8	66.7	9.5	0	3.4	93.1	3.4	0	4.4	86.7	8.9	0	0	
Total %	1.5	9.7	2.2	0	7.5	20.9	3	0	0.7	20.1	0.7	0	1.5	29.1	3	0	0	

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CLIENT: KBP CONSULTING
JOB NO.: 2014-016
PROJECT: KEY WEST COUNTS
COUNTY: MONROE

File Name : FLEMING ST @ SIMONTON ST
Site Code : 00000000
Start Date : 2/25/2014
Page No : 1

Groups Printed- AUTOS - HEAVY VEHICLES

Start Time	SIMONTON ST From North				FLEMING ST From East				SIMONTON ST From South				FLEMING ST From West				Int. Total
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	
11:00 AM	0	26	5	17	1	1	0	19	6	45	0	34	19	42	9	17	241
11:15 AM	0	60	6	10	0	0	0	18	13	39	0	31	21	31	9	19	257
11:30 AM	0	38	3	10	0	0	0	15	6	50	0	66	18	37	9	22	274
11:45 AM	0	59	6	8	0	0	0	23	8	64	0	38	22	51	9	8	296
Total	0	183	20	45	1	1	0	75	33	198	0	169	80	161	36	66	1068
12:00 PM	0	32	12	10	0	0	0	26	14	43	0	47	17	37	17	23	278
12:15 PM	0	45	4	24	0	0	0	17	13	42	0	25	28	34	8	22	262
12:30 PM	0	36	2	14	0	0	0	14	13	45	0	35	16	35	9	12	231
12:45 PM	0	47	9	13	0	0	0	26	12	41	0	30	13	31	5	22	249
Total	0	160	27	61	0	0	0	83	52	171	0	137	74	137	39	79	1020
*** BREAK ***																	
05:00 PM	0	68	9	14	0	0	0	15	12	48	0	49	21	52	2	24	314
05:15 PM	0	58	6	24	0	0	0	28	5	45	0	44	21	50	6	4	291
05:30 PM	0	42	10	13	0	0	0	20	8	63	0	40	11	26	8	27	268
05:45 PM	0	43	10	15	0	0	0	33	5	45	0	36	13	31	9	17	257
Total	0	211	35	66	0	0	0	96	30	201	0	169	66	159	25	72	1130
06:00 PM	0	37	6	21	0	0	0	23	6	42	0	46	11	25	9	18	244
06:15 PM	0	42	5	14	0	0	0	15	6	27	0	33	9	35	5	15	206
06:30 PM	0	51	9	10	0	0	0	22	10	33	0	39	13	24	3	18	232
06:45 PM	0	40	0	8	0	0	0	12	3	21	0	30	4	23	2	33	176
Total	0	170	20	53	0	0	0	72	25	123	0	148	37	107	19	84	858
Grand Total	0	724	102	225	1	1	0	326	140	693	0	623	257	564	119	301	4076
Apprch %	0	68.9	9.7	21.4	0.3	0.3	0	99.4	9.6	47.6	0	42.8	20.7	45.4	9.6	24.3	
Total %	0	17.8	2.5	5.5	0	0	0	8	3.4	17	0	15.3	6.3	13.8	2.9	7.4	
AUTOS	0	705	102	225	1	1	0	326	138	666	0	623	250	525	110	301	3973
% AUTOS	0	97.4	100	100	100	100	0	100	98.6	96.1	0	100	97.3	93.1	92.4	100	97.5
HEAVY VEHICLES	0	19	0	0	0	0	0	0	2	27	0	0	7	39	9	0	103
% HEAVY VEHICLES	0	2.6	0	0	0	0	0	0	1.4	3.9	0	0	2.7	6.9	7.6	0	2.5

Crossroads Engineering

8320 SW 90th Street
Miami, FL 33186
786-236-2857

CLIENT: KBP CONSULTING
JOB NO.: 2014-016
PROJECT: KEY WEST COUNTS
COUNTY: MONROE

File Name : FLEMING ST @ SIMONTON ST
Site Code : 00000000
Start Date : 2/25/2014
Page No : 2

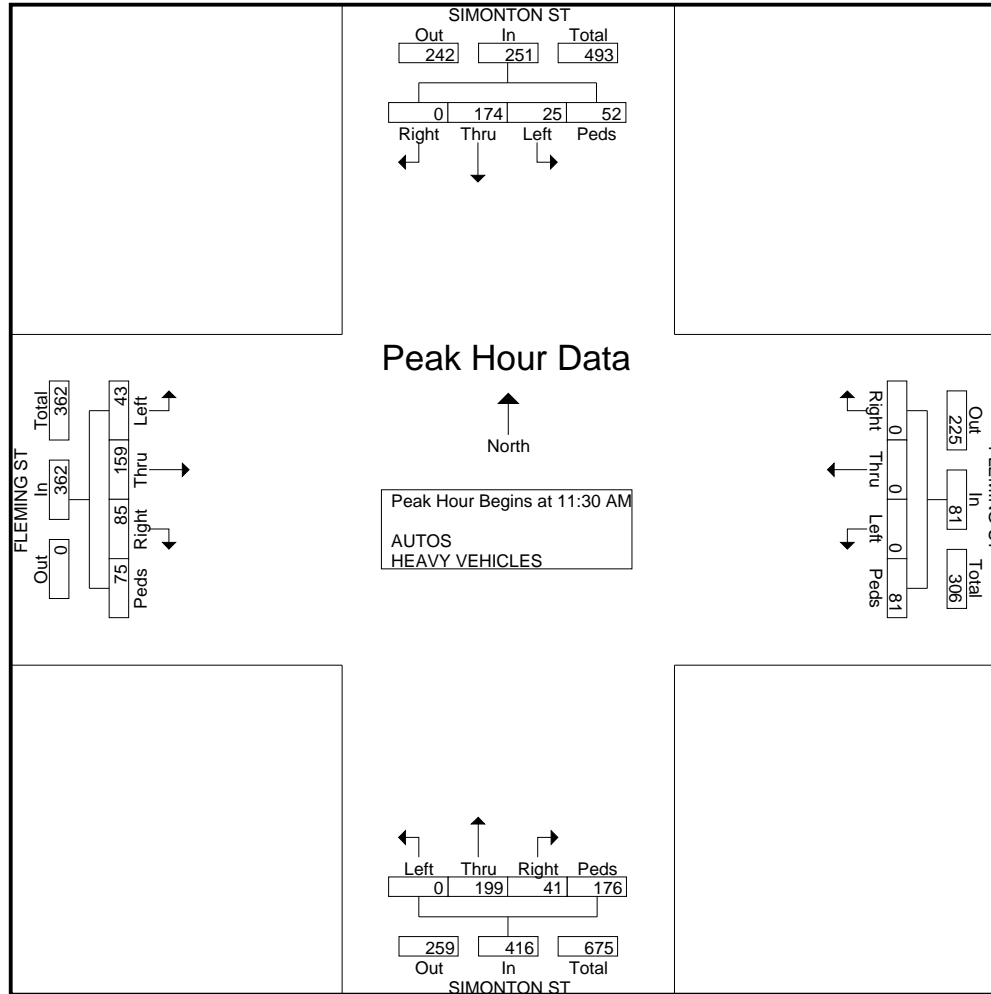
Start Time	SIMONTON ST From North					FLEMING ST From East					SIMONTON ST From South					FLEMING ST From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 11:30 AM																					
11:30 AM	0	38	3	10	51	0	0	0	15	15	6	50	0	66	122	18	37	9	22	86	274
11:45 AM	0	59	6	8	73	0	0	0	23	23	8	64	0	38	110	22	51	9	8	90	296
12:00 PM	0	32	12	10	54	0	0	0	26	26	14	43	0	47	104	17	37	17	23	94	278
12:15 PM	0	45	4	24	73	0	0	0	17	17	13	42	0	25	80	28	34	8	22	92	262
Total Volume	0	174	25	52	251	0	0	0	81	81	41	199	0	176	416	85	159	43	75	362	1110
% App. Total	0	69.3	10	20.7		0	0	0	100		9.9	47.8	0	42.3		23.5	43.9	11.9	20.7		
PHF	.000	.737	.521	.542	.860	.000	.000	.000	.779	.779	.732	.777	.000	.667	.852	.759	.779	.632	.815	.963	.938

Crossroads Engineering

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Miami, FL 33186
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File Name : FLEMING ST @ SIMONTON ST
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Crossroads Engineering

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PROJECT: KEY WEST COUNTS
COUNTY: MONROE

File Name : FLEMING ST @ SIMONTON ST
Site Code : 00000000
Start Date : 2/25/2014
Page No : 4

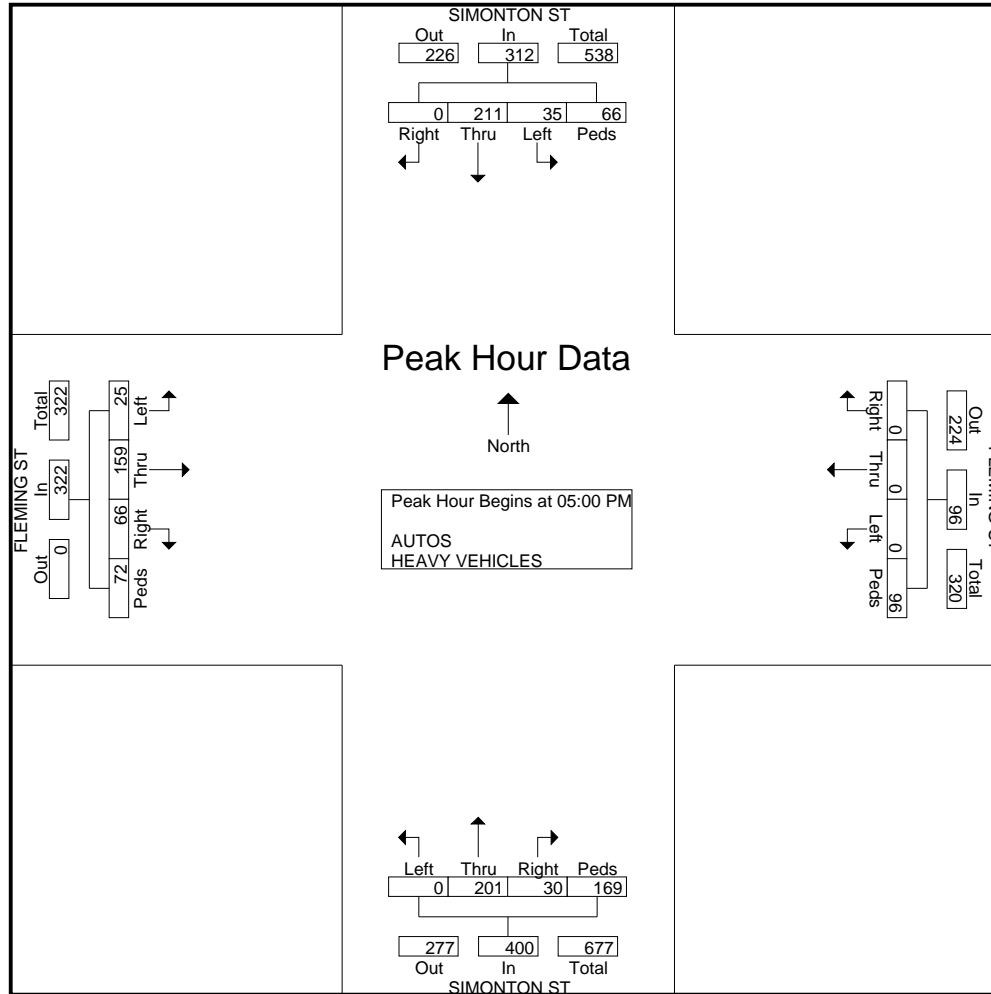
Start Time	SIMONTON ST From North					FLEMING ST From East					SIMONTON ST From South					FLEMING ST From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 05:00 PM to 06:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	0	68	9	14	91	0	0	0	15	15	12	48	0	49	109	21	52	2	24	99	314
05:15 PM	0	58	6	24	88	0	0	0	28	28	5	45	0	44	94	21	50	6	4	81	291
05:30 PM	0	42	10	13	65	0	0	0	20	20	8	63	0	40	111	11	26	8	27	72	268
05:45 PM	0	43	10	15	68	0	0	0	33	33	5	45	0	36	86	13	31	9	17	70	257
Total Volume	0	211	35	66	312	0	0	0	96	96	30	201	0	169	400	66	159	25	72	322	1130
% App. Total	0	67.6	11.2	21.2		0	0	0	100		7.5	50.2	0	42.2		20.5	49.4	7.8	22.4		
PHF	.000	.776	.875	.688	.857	.000	.000	.000	.727	.727	.625	.798	.000	.862	.901	.786	.764	.694	.667	.813	.900

Crossroads Engineering

8320 SW 90th Street
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786-236-2857

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File Name : FLEMING ST @ SIMONTON ST
Site Code : 00000000
Start Date : 2/25/2014
Page No : 5



Crossroads Engineering

8320 SW 90th Street
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CLIENT: KBP CONSULTING
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PROJECT: KEY WEST COUNTS
COUNTY: MONROE

File Name : FLEMING ST @ SIMONTON ST
Site Code : 00000000
Start Date : 2/25/2014
Page No : 1

Groups Printed- HEAVY VEHICLES

Start Time	SIMONTON ST From North				FLEMING ST From East				SIMONTON ST From South				FLEMING ST From West				Int. Total
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	
11:00 AM	0	0	0	0	0	0	0	0	0	3	0	0	0	4	2	0	9
11:15 AM	0	6	0	0	0	0	0	0	1	4	0	0	2	5	0	0	18
11:30 AM	0	1	0	0	0	0	0	0	0	2	0	0	1	3	1	0	8
11:45 AM	0	1	0	0	0	0	0	0	0	3	0	0	0	3	1	0	8
Total	0	8	0	0	0	0	0	0	1	12	0	0	3	15	4	0	43
12:00 PM	0	1	0	0	0	0	0	0	0	2	0	0	1	4	1	0	9
12:15 PM	0	3	0	0	0	0	0	0	0	3	0	0	0	4	0	0	10
12:30 PM	0	2	0	0	0	0	0	0	0	2	0	0	1	4	2	0	11
12:45 PM	0	0	0	0	0	0	0	0	0	4	0	0	1	4	0	0	9
Total	0	6	0	0	0	0	0	0	0	11	0	0	3	16	3	0	39
*** BREAK ***																	
05:00 PM	0	1	0	0	0	0	0	0	0	1	0	0	0	3	0	0	5
05:15 PM	0	1	0	0	0	0	0	0	0	1	0	0	0	1	1	0	4
*** BREAK ***																	
05:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	2	1	0	4
Total	0	2	0	0	0	0	0	0	0	3	0	0	0	6	2	0	13
*** BREAK ***																	
06:15 PM	0	2	0	0	0	0	0	0	0	0	0	0	1	2	0	0	5
06:30 PM	0	1	0	0	0	0	0	0	1	1	0	0	0	0	0	0	3
*** BREAK ***																	
Total	0	3	0	0	0	0	0	0	1	1	0	0	1	2	0	0	8
Grand Total	0	19	0	0	0	0	0	0	2	27	0	0	7	39	9	0	103
Apprch %	0	100	0	0	0	0	0	0	6.9	93.1	0	0	12.7	70.9	16.4	0	
Total %	0	18.4	0	0	0	0	0	0	1.9	26.2	0	0	6.8	37.9	8.7	0	

APPENDIX C

**FDOT Peak Season
Conversion Factor Report**

2012 PEAK SEASON FACTOR CATEGORY REPORT - REPORT TYPE: ALL
 CATEGORY: 9000 MONROE COUNTYWIDE

MOCF: 0.91

WEEK	DATES	SF	PSCF
1	01/01/2012 - 01/07/2012	1.03	1.13
2	01/08/2012 - 01/14/2012	1.00	1.10
3	01/15/2012 - 01/21/2012	0.97	1.06
* 4	01/22/2012 - 01/28/2012	0.95	1.04
* 5	01/29/2012 - 02/04/2012	0.94	1.03
* 6	02/05/2012 - 02/11/2012	0.92	1.01
* 7	02/12/2012 - 02/18/2012	0.91	1.00
* 8	02/19/2012 - 02/25/2012	0.90	0.99
* 9	02/26/2012 - 03/03/2012	0.89	0.97
*10	03/04/2012 - 03/10/2012	0.88	0.96
*11	03/11/2012 - 03/17/2012	0.87	0.95
*12	03/18/2012 - 03/24/2012	0.89	0.97
*13	03/25/2012 - 03/31/2012	0.90	0.99
*14	04/01/2012 - 04/07/2012	0.92	1.01
*15	04/08/2012 - 04/14/2012	0.94	1.03
*16	04/15/2012 - 04/21/2012	0.96	1.05
17	04/22/2012 - 04/28/2012	0.96	1.05
18	04/29/2012 - 05/05/2012	0.97	1.06
19	05/06/2012 - 05/12/2012	0.98	1.07
20	05/13/2012 - 05/19/2012	0.99	1.08
21	05/20/2012 - 05/26/2012	0.99	1.08
22	05/27/2012 - 06/02/2012	1.00	1.10
23	06/03/2012 - 06/09/2012	1.00	1.10
24	06/10/2012 - 06/16/2012	1.01	1.11
25	06/17/2012 - 06/23/2012	1.00	1.10
26	06/24/2012 - 06/30/2012	0.99	1.08
27	07/01/2012 - 07/07/2012	0.98	1.07
28	07/08/2012 - 07/14/2012	0.97	1.06
29	07/15/2012 - 07/21/2012	0.96	1.05
30	07/22/2012 - 07/28/2012	0.99	1.08
31	07/29/2012 - 08/04/2012	1.01	1.11
32	08/05/2012 - 08/11/2012	1.04	1.14
33	08/12/2012 - 08/18/2012	1.07	1.17
34	08/19/2012 - 08/25/2012	1.09	1.19
35	08/26/2012 - 09/01/2012	1.11	1.22
36	09/02/2012 - 09/08/2012	1.13	1.24
37	09/09/2012 - 09/15/2012	1.15	1.26
38	09/16/2012 - 09/22/2012	1.14	1.25
39	09/23/2012 - 09/29/2012	1.13	1.24
40	09/30/2012 - 10/06/2012	1.12	1.23
41	10/07/2012 - 10/13/2012	1.11	1.22
42	10/14/2012 - 10/20/2012	1.10	1.20
43	10/21/2012 - 10/27/2012	1.09	1.19
44	10/28/2012 - 11/03/2012	1.08	1.18
45	11/04/2012 - 11/10/2012	1.07	1.17
46	11/11/2012 - 11/17/2012	1.07	1.17
47	11/18/2012 - 11/24/2012	1.06	1.16
48	11/25/2012 - 12/01/2012	1.05	1.15
49	12/02/2012 - 12/08/2012	1.04	1.14
50	12/09/2012 - 12/15/2012	1.03	1.13
51	12/16/2012 - 12/22/2012	1.01	1.11
52	12/23/2012 - 12/29/2012	0.99	1.08
53	12/30/2012 - 12/31/2012	0.97	1.06

* PEAK SEASON

08-FEB-2013 12:30:18

830UPD [1,0,0,1]

6_9000_PKSEASON.TXT

APPENDIX D

FDOT

Historic Traffic Counts

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2012 HISTORICAL AADT REPORT

COUNTY: 90 - MONROE

SITE: 0020 - EATON ST, 200' W DUVAL ST

YEAR	AADT	DIRECTION 1		DIRECTION 2		*K FACTOR	D FACTOR	T FACTOR
2012	4400 C	W	2200	E	2200	9.00	55.00	8.20
2011	4000 C	W	2000	E	2000	9.00	55.10	8.30
2010	4700 C	W	2300	E	2400	10.26	56.84	10.30
2009	4700 C	W	2400	E	2300	10.23	56.56	8.40
2008	5300 C	N	2700	S	2600	10.45	54.98	8.60
2007	4800 C	N	2200	S	2600	10.00	55.10	9.80
2006	3700 C	N	2100	S	1600	10.08	55.69	12.30
2005	5500 C	N	2200	S	3300	10.40	55.70	2.40
2004	4200 C	N	2100	S	2100	10.00	56.00	3.10
2003	4500 C	N		S		10.10	56.30	4.40
2002	3900 C	N	1800	S	2100	10.00	54.20	5.60
2001	5600 C	N		S		10.00	55.90	6.80
2000	6100 F	N		S		9.90	54.80	6.60
1999	5900 C	N		S		9.50	56.70	4.80
1998	6300 C	N		S		9.50	56.60	2.80
1997	6600 C	N		S		9.60	55.90	3.70

AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE

S = SECOND YEAR ESTIMATE; T = THIRD YEAR ESTIMATE; X = UNKNOWN

*K FACTOR: STARTING WITH YEAR 2011 IS STANDARDK, PRIOR YEARS ARE K30 VALUES

APPENDIX E

Future Traffic Volumes Spreadsheets

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

Eaton Street and Simonton Street Mid-Day Peak Hour

Description	Simonton Street Northbound			Simonton Street Southbound			Eaton Street Eastbound			Eaton Street Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (2/25/2014)	23	160	35	98	110	5	12	146	16	54	228	112
Season Adjustment Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
2014 Peak Season Traffic	23	160	35	98	110	5	12	146	16	54	228	112
Annual Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
2015 Background Traffic	23	162	35	99	111	5	12	147	16	55	230	113
New Project Trips	4	5	6	3	5	3	3	4	4	6	4	3
2015 Total Traffic	27	167	41	102	116	8	15	151	20	61	234	116

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

**Eaton Street and Simonton Street
PM Peak Hour**

Description	Simonton Street Northbound			Simonton Street Southbound			Eaton Street Eastbound			Eaton Street Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (2/25/2014)	17	177	30	112	167	5	8	185	22	41	201	87
Season Adjustment Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
2014 Peak Season Traffic	17	177	30	112	167	5	8	185	22	41	201	87
Annual Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
2015 Background Traffic	17	179	30	113	169	5	8	187	22	41	203	88
New Project Trips	5	5	5	1	2	1	2	3	2	3	3	3
2015 Total Traffic	22	184	35	114	171	6	10	190	24	44	206	91

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

**Eaton Street & Elizabeth Street
Mid-Day Peak Hour**

Description	Elizabeth Street Northbound			Elizabeth Street Southbound			Eaton Street Eastbound			Eaton Street Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (2/25/2014)	15	18	13	23	19	12	12	264	7	22	392	35
Season Adjustment Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
2014 Peak Season Traffic	15	18	13	23	19	12	12	264	7	22	392	35
Annual Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
2015 Background Traffic	15	18	13	23	19	12	12	267	7	22	396	35
New Project Trips								11			11	
2015 Total Traffic	15	18	13	23	19	12	12	278	7	22	407	35

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

**Eaton Street & Elizabeth Street
PM Peak Hour**

Description	Elizabeth Street Northbound			Elizabeth Street Southbound			Eaton Street Eastbound			Eaton Street Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (2/25/2014)	5	24	13	28	24	5	6	301	5	11	350	28
Season Adjustment Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
2014 Peak Season Traffic	5	24	13	28	24	5	6	301	5	11	350	28
Annual Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
2015 Background Traffic	5	24	13	28	24	5	6	304	5	11	354	28
New Project Trips											18	
2015 Total Traffic	5	24	13	28	24	5	6	304	5	11	372	28

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

**Simonton Street & Fleming Street
Mid-Day Peak Hour**

Description	Simonton Street Northbound			Simonton Street Southbound			Fleming Street Eastbound			Fleming Street Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (2/25/2014)	0	199	41	25	174	0	43	159	85	0	0	0
Season Adjustment Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
2014 Peak Season Traffic	0	199	41	25	174	0	43	159	85	0	0	0
Annual Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
2015 Background Traffic	0	201	41	25	176	0	43	161	86	0	0	0
New Project Trips		16			21		5					
2015 Total Traffic	0	217	41	25	197	0	48	161	86	0	0	0

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

**Simonton Street & Fleming Street
PM Peak Hour**

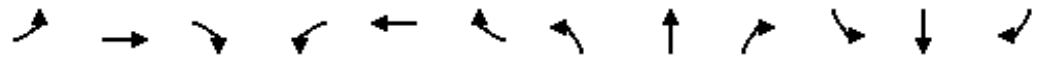
Description	Simonton Street Northbound			Simonton Street Southbound			Fleming Street Eastbound			Fleming Street Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (2/25/2014)	0	201	30	35	211	0	25	159	66	0	0	0
Season Adjustment Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
2014 Peak Season Traffic	0	201	30	35	211	0	25	159	66	0	0	0
Annual Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
2015 Background Traffic	0	203	30	35	213	0	25	161	67	0	0	0
New Project Trips		25					7					
2015 Total Traffic	0	228	30	35	213	0	32	161	67	0	0	0

APPENDIX F
SYNCHRO Output

Existing (2014) Conditions

Lanes, Volumes, Timings
8: Simonton St & Eaton St

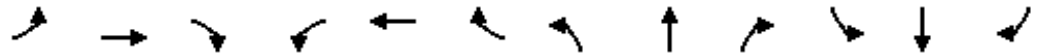
3/14/2014



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Volume (vph)	12	146	16	54	228	112	23	160	35	98	110	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.988			0.962			0.979			0.997	
Flt Protected		0.997			0.993			0.995			0.977	
Satd. Flow (prot)	0	1872	0	0	1815	0	0	1851	0	0	1851	0
Flt Permitted		0.965			0.929			0.954			0.735	
Satd. Flow (perm)	0	1811	0	0	1698	0	0	1775	0	0	1392	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		7			27			11			1	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		235			245			257			275	
Travel Time (s)		5.3			5.6			5.8			6.3	
Peak Hour Factor	0.80	0.80	0.80	0.90	0.90	0.90	0.91	0.91	0.91	0.82	0.82	0.82
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	15	182	20	60	253	124	25	176	38	120	134	6
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	217	0	0	437	0	0	239	0	0	260	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Minimum Split (s)	20.0	20.0		20.0	20.0		20.0	20.0		20.0	20.0	
Total Split (s)	57.0	57.0		57.0	57.0		48.0	48.0		48.0	48.0	
Total Split (%)	54.3%	54.3%		54.3%	54.3%		45.7%	45.7%		45.7%	45.7%	
Maximum Green (s)	53.0	53.0		53.0	53.0		44.0	44.0		44.0	44.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	0.5	0.5		0.5	0.5		0.5	0.5		0.5	0.5	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.0			4.0			4.0			4.0	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)		53.0			53.0			44.0			44.0	
Actuated g/C Ratio		0.50			0.50			0.42			0.42	
v/c Ratio		0.24			0.50			0.32			0.45	
Control Delay		15.0			18.5			20.9			24.8	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		15.0			18.5			20.9			24.8	

Lanes, Volumes, Timings
 8: Simonton St & Eaton St

3/14/2014



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		B			B			C			C	
Approach Delay		15.0			18.5			20.9			24.8	
Approach LOS		B			B			C			C	

Intersection Summary

Area Type:	Other
Cycle Length:	105
Actuated Cycle Length:	105
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle:	40
Control Type:	Pretimed
Maximum v/c Ratio:	0.50
Intersection Signal Delay:	19.8
Intersection Capacity Utilization	67.8%
Analysis Period (min)	15
Intersection LOS:	B
ICU Level of Service	C

Splits and Phases: 8: Simonton St & Eaton St

ø2 (R) 48 s	ø4 57 s
ø6 (R) 48 s	ø8 57 s

HCM Unsignalized Intersection Capacity Analysis

3: Elizabeth St & Eaton St

3/14/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Volume (veh/h)	12	264	7	22	392	35	15	18	13	23	19	12
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.86	0.86	0.86	0.92	0.92	0.92	0.88	0.88	0.88	0.67	0.67	0.67
Hourly flow rate (vph)	14	307	8	24	426	38	17	20	15	34	28	18
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	464			315			864	851	311	857	836	445
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	464			315			864	851	311	857	836	445
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			98			93	93	98	86	90	97
cM capacity (veh/h)	1108			1257			243	290	734	253	296	617

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	329	488	52	81
Volume Left	14	24	17	34
Volume Right	8	38	15	18
cSH	1108	1257	325	309
Volume to Capacity	0.01	0.02	0.16	0.26
Queue Length 95th (ft)	1	1	14	26
Control Delay (s)	0.5	0.6	18.2	20.7
Lane LOS	A	A	C	C
Approach Delay (s)	0.5	0.6	18.2	20.7
Approach LOS			C	C

Intersection Summary			
Average Delay		3.2	
Intersection Capacity Utilization	42.1%		ICU Level of Service
Analysis Period (min)	15		A

Lanes, Volumes, Timings
13: Simonton St & Fleming St

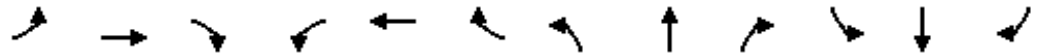
3/14/2014



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↖	↗					↖			↖	
Volume (vph)	43	159	85	0	0	0	0	199	41	25	174	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t			0.850					0.977				
Fl _t Protected		0.989									0.994	
Satd. Flow (prot)	0	1879	1615	0	0	0	0	1856	0	0	1889	0
Fl _t Permitted		0.989									0.941	
Satd. Flow (perm)	0	1879	1615	0	0	0	0	1856	0	0	1788	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			89					15				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		286			262			273			275	
Travel Time (s)		6.5			6.0			6.2			6.3	
Peak Hour Factor	0.96	0.96	0.96	0.92	0.92	0.92	0.85	0.85	0.85	0.86	0.86	0.86
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	45	166	89	0	0	0	0	234	48	29	202	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	211	89	0	0	0	0	282	0	0	231	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA	Perm					NA		Perm	NA	
Protected Phases		4						2			6	
Permitted Phases	4		4							6		
Minimum Split (s)	20.0	20.0	20.0					20.0		20.0	20.0	
Total Split (s)	46.0	46.0	46.0					59.0		59.0	59.0	
Total Split (%)	43.8%	43.8%	43.8%					56.2%		56.2%	56.2%	
Maximum Green (s)	42.0	42.0	42.0					55.0		55.0	55.0	
Yellow Time (s)	3.5	3.5	3.5					3.5		3.5	3.5	
All-Red Time (s)	0.5	0.5	0.5					0.5		0.5	0.5	
Lost Time Adjust (s)		0.0	0.0					0.0		0.0	0.0	
Total Lost Time (s)		4.0	4.0					4.0		4.0	4.0	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	5.0	5.0	5.0					5.0		5.0	5.0	
Flash Dont Walk (s)	11.0	11.0	11.0					11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0	0					0		0	0	
Act Effct Green (s)		42.0	42.0					55.0		55.0	55.0	
Actuated g/C Ratio		0.40	0.40					0.52		0.52	0.52	
v/c Ratio		0.28	0.13					0.29		0.25	0.25	
Control Delay		22.6	4.8					14.2		14.6	14.6	
Queue Delay		0.0	0.0					0.0		0.0	0.0	
Total Delay		22.6	4.8					14.2		14.6	14.6	

Lanes, Volumes, Timings
 13: Simonton St & Fleming St

3/14/2014



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		C	A					B			B	
Approach Delay		17.3						14.2			14.6	
Approach LOS		B						B			B	

Intersection Summary

Area Type:	Other
Cycle Length:	105
Actuated Cycle Length:	105
Offset:	0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Natural Cycle:	40
Control Type:	Pretimed
Maximum v/c Ratio:	0.29
Intersection Signal Delay:	15.4
Intersection Capacity Utilization	44.2%
Analysis Period (min)	15
Intersection LOS:	B
ICU Level of Service	A

Splits and Phases: 13: Simonton St & Fleming St



Lanes, Volumes, Timings
8: Simonton St & Eaton St

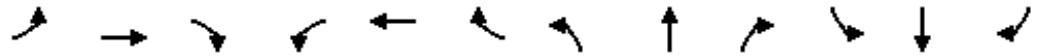
3/14/2014



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Volume (vph)	8	185	22	41	201	87	17	177	30	112	167	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.986			0.964			0.982			0.998	
Flt Protected		0.998			0.994			0.996			0.981	
Satd. Flow (prot)	0	1870	0	0	1821	0	0	1858	0	0	1860	0
Flt Permitted		0.983			0.926			0.962			0.705	
Satd. Flow (perm)	0	1842	0	0	1696	0	0	1795	0	0	1337	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		8			25			9			1	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		235			245			257			275	
Travel Time (s)		5.3			5.6			5.8			6.3	
Peak Hour Factor	0.68	0.68	0.68	0.85	0.85	0.85	0.76	0.76	0.76	0.84	0.84	0.84
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	12	272	32	48	236	102	22	233	39	133	199	6
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	316	0	0	386	0	0	294	0	0	338	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Minimum Split (s)	20.0	20.0		20.0	20.0		20.0	20.0		20.0	20.0	
Total Split (s)	57.0	57.0		57.0	57.0		48.0	48.0		48.0	48.0	
Total Split (%)	54.3%	54.3%		54.3%	54.3%		45.7%	45.7%		45.7%	45.7%	
Maximum Green (s)	53.0	53.0		53.0	53.0		44.0	44.0		44.0	44.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	0.5	0.5		0.5	0.5		0.5	0.5		0.5	0.5	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.0			4.0			4.0			4.0	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)		53.0			53.0			44.0			44.0	
Actuated g/C Ratio		0.50			0.50			0.42			0.42	
v/c Ratio		0.34			0.44			0.39			0.60	
Control Delay		16.4			17.4			22.4			29.2	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		16.4			17.4			22.4			29.2	

Lanes, Volumes, Timings
 8: Simonton St & Eaton St

3/14/2014



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		B			B			C			C	
Approach Delay		16.4			17.4			22.4			29.2	
Approach LOS		B			B			C			C	

Intersection Summary

Area Type:	Other
Cycle Length:	105
Actuated Cycle Length:	105
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle:	40
Control Type:	Pretimed
Maximum v/c Ratio:	0.60
Intersection Signal Delay:	21.3
Intersection LOS:	C
Intersection Capacity Utilization	70.4%
ICU Level of Service	C
Analysis Period (min)	15

Splits and Phases: 8: Simonton St & Eaton St

ø2 (R)	ø4
48 s	57 s
ø6 (R)	ø8
48 s	57 s

HCM Unsignalized Intersection Capacity Analysis

3: Elizabeth St & Eaton St

3/14/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Volume (veh/h)	6	301	5	11	350	28	5	24	13	28	24	5
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.84	0.84	0.84	0.90	0.90	0.90	0.82	0.82	0.82	0.89	0.89	0.89
Hourly flow rate (vph)	7	358	6	12	389	31	6	29	16	31	27	6
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	420			364			824	820	361	835	807	404
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	420			364			824	820	361	835	807	404
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			99			98	90	98	88	91	99
cM capacity (veh/h)	1150			1205			269	307	688	259	312	651

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	371	432	51	64
Volume Left	7	12	6	31
Volume Right	6	31	16	6
cSH	1150	1205	363	296
Volume to Capacity	0.01	0.01	0.14	0.22
Queue Length 95th (ft)	0	1	12	20
Control Delay (s)	0.2	0.3	16.5	20.5
Lane LOS	A	A	C	C
Approach Delay (s)	0.2	0.3	16.5	20.5
Approach LOS			C	C

Intersection Summary			
Average Delay		2.6	
Intersection Capacity Utilization		41.6%	ICU Level of Service A
Analysis Period (min)		15	

Lanes, Volumes, Timings
13: Simonton St & Fleming St

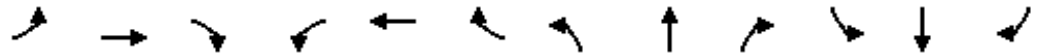
3/14/2014



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↖	↗					↖			↖	
Volume (vph)	25	159	66	0	0	0	0	201	30	35	211	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t			0.850					0.983				
Fl _t Protected		0.993									0.993	
Satd. Flow (prot)	0	1887	1615	0	0	0	0	1868	0	0	1887	0
Fl _t Permitted		0.993									0.929	
Satd. Flow (perm)	0	1887	1615	0	0	0	0	1868	0	0	1765	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			81					11				
Link Speed (mph)		30			30			30				30
Link Distance (ft)		286			262			273				275
Travel Time (s)		6.5			6.0			6.2				6.3
Peak Hour Factor	0.81	0.81	0.81	0.92	0.92	0.92	0.90	0.90	0.90	0.86	0.86	0.86
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	31	196	81	0	0	0	0	223	33	41	245	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	227	81	0	0	0	0	256	0	0	286	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA	Perm					NA		Perm	NA	
Protected Phases		4						2			6	
Permitted Phases	4		4							6		
Minimum Split (s)	20.0	20.0	20.0					20.0		20.0	20.0	
Total Split (s)	46.0	46.0	46.0					59.0		59.0	59.0	
Total Split (%)	43.8%	43.8%	43.8%					56.2%		56.2%	56.2%	
Maximum Green (s)	42.0	42.0	42.0					55.0		55.0	55.0	
Yellow Time (s)	3.5	3.5	3.5					3.5		3.5	3.5	
All-Red Time (s)	0.5	0.5	0.5					0.5		0.5	0.5	
Lost Time Adjust (s)		0.0	0.0					0.0		0.0	0.0	
Total Lost Time (s)		4.0	4.0					4.0		4.0	4.0	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	5.0	5.0	5.0					5.0		5.0	5.0	
Flash Dont Walk (s)	11.0	11.0	11.0					11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0	0					0		0	0	
Act Effct Green (s)		42.0	42.0					55.0		55.0	55.0	
Actuated g/C Ratio		0.40	0.40					0.52		0.52	0.52	
v/c Ratio		0.30	0.12					0.26		0.26	0.31	
Control Delay		22.9	5.0					14.0		14.0	15.4	
Queue Delay		0.0	0.0					0.0		0.0	0.0	
Total Delay		22.9	5.0					14.0		14.0	15.4	

Lanes, Volumes, Timings
 13: Simonton St & Fleming St

3/14/2014



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		C	A					B			B	
Approach Delay		18.2						14.0			15.4	
Approach LOS		B						B			B	

Intersection Summary

Area Type:	Other
Cycle Length:	105
Actuated Cycle Length:	105
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green	
Natural Cycle:	40
Control Type:	Pretimed
Maximum v/c Ratio:	0.31
Intersection Signal Delay:	16.0
Intersection Capacity Utilization	45.2%
Analysis Period (min)	15
Intersection LOS:	B
ICU Level of Service	A

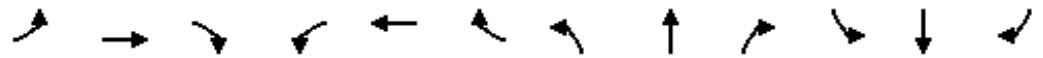
Splits and Phases: 13: Simonton St & Fleming St



Future (2015) Background (w/out Project) Conditions

Lanes, Volumes, Timings
8: Simonton St & Eaton St

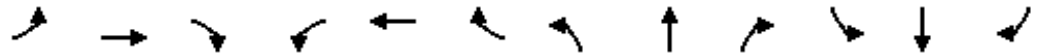
3/14/2014



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Volume (vph)	12	147	16	55	230	113	23	162	35	99	111	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.988			0.962			0.979			0.997	
Flt Protected		0.997			0.993			0.995			0.977	
Satd. Flow (prot)	0	1872	0	0	1815	0	0	1851	0	0	1851	0
Flt Permitted		0.965			0.928			0.954			0.732	
Satd. Flow (perm)	0	1811	0	0	1696	0	0	1775	0	0	1387	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		7			28			11			1	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		235			245			257			275	
Travel Time (s)		5.3			5.6			5.8			6.3	
Peak Hour Factor	0.80	0.80	0.80	0.90	0.90	0.90	0.91	0.91	0.91	0.82	0.82	0.82
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	15	184	20	61	256	126	25	178	38	121	135	6
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	219	0	0	443	0	0	241	0	0	262	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Minimum Split (s)	20.0	20.0		20.0	20.0		20.0	20.0		20.0	20.0	
Total Split (s)	57.0	57.0		57.0	57.0		48.0	48.0		48.0	48.0	
Total Split (%)	54.3%	54.3%		54.3%	54.3%		45.7%	45.7%		45.7%	45.7%	
Maximum Green (s)	53.0	53.0		53.0	53.0		44.0	44.0		44.0	44.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	0.5	0.5		0.5	0.5		0.5	0.5		0.5	0.5	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.0			4.0			4.0			4.0	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)		53.0			53.0			44.0			44.0	
Actuated g/C Ratio		0.50			0.50			0.42			0.42	
v/c Ratio		0.24			0.51			0.32			0.45	
Control Delay		15.0			18.7			21.0			24.9	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		15.0			18.7			21.0			24.9	

Lanes, Volumes, Timings
 8: Simonton St & Eaton St

3/14/2014



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		B			B			C			C	
Approach Delay		15.0			18.7			21.0			24.9	
Approach LOS		B			B			C			C	

Intersection Summary

Area Type:	Other
Cycle Length:	105
Actuated Cycle Length:	105
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle:	40
Control Type:	Pretimed
Maximum v/c Ratio:	0.51
Intersection Signal Delay:	19.9
Intersection LOS:	B
Intersection Capacity Utilization	68.3%
ICU Level of Service	C
Analysis Period (min)	15

Splits and Phases: 8: Simonton St & Eaton St

ø2 (R)	ø4
48 s	57 s
ø6 (R)	ø8
48 s	57 s

HCM Unsignalized Intersection Capacity Analysis

3: Elizabeth St & Eaton St

3/14/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Volume (veh/h)	12	267	7	22	396	35	15	18	13	23	19	12
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.86	0.86	0.86	0.92	0.92	0.92	0.88	0.88	0.88	0.67	0.67	0.67
Hourly flow rate (vph)	14	310	8	24	430	38	17	20	15	34	28	18
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	468			319			872	859	315	865	844	449
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	468			319			872	859	315	865	844	449
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			98			93	93	98	86	90	97
cM capacity (veh/h)	1104			1253			240	287	731	250	293	614

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	333	492	52	81
Volume Left	14	24	17	34
Volume Right	8	38	15	18
cSH	1104	1253	322	306
Volume to Capacity	0.01	0.02	0.16	0.26
Queue Length 95th (ft)	1	1	14	26
Control Delay (s)	0.5	0.6	18.4	20.9
Lane LOS	A	A	C	C
Approach Delay (s)	0.5	0.6	18.4	20.9
Approach LOS			C	C

Intersection Summary

Average Delay	3.2
Intersection Capacity Utilization	42.3%
ICU Level of Service	A
Analysis Period (min)	15

Lanes, Volumes, Timings
13: Simonton St & Fleming St

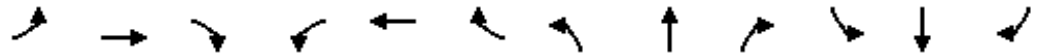
3/14/2014



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	43	161	86	0	0	0	0	201	41	25	176	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t			0.850					0.977				
Fl _t Protected		0.990									0.994	
Satd. Flow (prot)	0	1881	1615	0	0	0	0	1856	0	0	1889	0
Fl _t Permitted		0.990									0.942	
Satd. Flow (perm)	0	1881	1615	0	0	0	0	1856	0	0	1790	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			90					15				
Link Speed (mph)		30			30			30				30
Link Distance (ft)		286			262			273				275
Travel Time (s)		6.5			6.0			6.2				6.3
Peak Hour Factor	0.96	0.96	0.96	0.92	0.92	0.92	0.85	0.85	0.85	0.86	0.86	0.86
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	45	168	90	0	0	0	0	236	48	29	205	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	213	90	0	0	0	0	284	0	0	234	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA	Perm					NA		Perm	NA	
Protected Phases		4						2			6	
Permitted Phases	4		4							6		
Minimum Split (s)	20.0	20.0	20.0					20.0		20.0	20.0	
Total Split (s)	46.0	46.0	46.0					59.0		59.0	59.0	
Total Split (%)	43.8%	43.8%	43.8%					56.2%		56.2%	56.2%	
Maximum Green (s)	42.0	42.0	42.0					55.0		55.0	55.0	
Yellow Time (s)	3.5	3.5	3.5					3.5		3.5	3.5	
All-Red Time (s)	0.5	0.5	0.5					0.5		0.5	0.5	
Lost Time Adjust (s)		0.0	0.0					0.0		0.0	0.0	
Total Lost Time (s)		4.0	4.0					4.0		4.0	4.0	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	5.0	5.0	5.0					5.0		5.0	5.0	
Flash Dont Walk (s)	11.0	11.0	11.0					11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0	0					0		0	0	
Act Effct Green (s)		42.0	42.0					55.0		55.0	55.0	
Actuated g/C Ratio		0.40	0.40					0.52		0.52	0.52	
v/c Ratio		0.28	0.13					0.29		0.25	0.25	
Control Delay		22.6	4.7					14.2		14.6	14.6	
Queue Delay		0.0	0.0					0.0		0.0	0.0	
Total Delay		22.6	4.7					14.2		14.6	14.6	

Lanes, Volumes, Timings
 13: Simonton St & Fleming St

3/14/2014



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		C	A					B			B	
Approach Delay		17.3						14.2			14.6	
Approach LOS		B						B			B	

Intersection Summary

Area Type:	Other
Cycle Length:	105
Actuated Cycle Length:	105
Offset:	0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Natural Cycle:	40
Control Type:	Pretimed
Maximum v/c Ratio:	0.29
Intersection Signal Delay:	15.5
Intersection Capacity Utilization	44.6%
Analysis Period (min)	15
Intersection LOS:	B
ICU Level of Service	A

Splits and Phases: 13: Simonton St & Fleming St



Lanes, Volumes, Timings
8: Simonton St & Eaton St

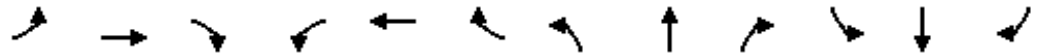
3/14/2014



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Volume (vph)	8	187	22	41	203	88	17	179	30	113	169	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.986			0.964			0.982			0.998	
Flt Protected		0.998			0.994			0.996			0.981	
Satd. Flow (prot)	0	1870	0	0	1821	0	0	1858	0	0	1860	0
Flt Permitted		0.983			0.926			0.962			0.700	
Satd. Flow (perm)	0	1842	0	0	1696	0	0	1795	0	0	1327	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		8			25			9			1	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		235			245			257			275	
Travel Time (s)		5.3			5.6			5.8			6.3	
Peak Hour Factor	0.68	0.68	0.68	0.85	0.85	0.85	0.76	0.76	0.76	0.84	0.84	0.84
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	12	275	32	48	239	104	22	236	39	135	201	6
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	319	0	0	391	0	0	297	0	0	342	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Minimum Split (s)	20.0	20.0		20.0	20.0		20.0	20.0		20.0	20.0	
Total Split (s)	57.0	57.0		57.0	57.0		48.0	48.0		48.0	48.0	
Total Split (%)	54.3%	54.3%		54.3%	54.3%		45.7%	45.7%		45.7%	45.7%	
Maximum Green (s)	53.0	53.0		53.0	53.0		44.0	44.0		44.0	44.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	0.5	0.5		0.5	0.5		0.5	0.5		0.5	0.5	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.0			4.0			4.0			4.0	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)		53.0			53.0			44.0			44.0	
Actuated g/C Ratio		0.50			0.50			0.42			0.42	
v/c Ratio		0.34			0.45			0.39			0.62	
Control Delay		16.4			17.5			22.4			29.7	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		16.4			17.5			22.4			29.7	

Lanes, Volumes, Timings
 8: Simonton St & Eaton St

3/14/2014



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		B			B			C			C	
Approach Delay		16.4			17.5			22.4			29.7	
Approach LOS		B			B			C			C	

Intersection Summary

Area Type:	Other
Cycle Length:	105
Actuated Cycle Length:	105
Offset:	0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle:	40
Control Type:	Pretimed
Maximum v/c Ratio:	0.62
Intersection Signal Delay:	21.4
Intersection LOS:	C
Intersection Capacity Utilization	70.9%
ICU Level of Service	C
Analysis Period (min)	15

Splits and Phases: 8: Simonton St & Eaton St

ø2 (R)	ø4
48 s	57 s
ø6 (R)	ø8
48 s	57 s

HCM Unsignalized Intersection Capacity Analysis

3: Elizabeth St & Eaton St

3/14/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Volume (veh/h)	6	304	5	11	354	28	5	24	13	28	24	5
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.84	0.84	0.84	0.90	0.90	0.90	0.82	0.82	0.82	0.89	0.89	0.89
Hourly flow rate (vph)	7	362	6	12	393	31	6	29	16	31	27	6
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	424			368			832	828	365	843	815	409
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	424			368			832	828	365	843	815	409
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			99			98	90	98	88	91	99
cM capacity (veh/h)	1146			1202			266	304	685	255	309	647

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	375	437	51	64
Volume Left	7	12	6	31
Volume Right	6	31	16	6
cSH	1146	1202	359	292
Volume to Capacity	0.01	0.01	0.14	0.22
Queue Length 95th (ft)	0	1	12	20
Control Delay (s)	0.2	0.3	16.7	20.7
Lane LOS	A	A	C	C
Approach Delay (s)	0.2	0.3	16.7	20.7
Approach LOS			C	C

Intersection Summary			
Average Delay		2.6	
Intersection Capacity Utilization	41.8%		ICU Level of Service
Analysis Period (min)		15	A

Lanes, Volumes, Timings
13: Simonton St & Fleming St

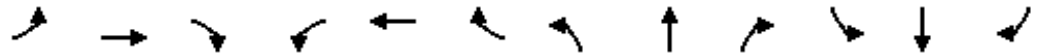
3/14/2014



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↖	↗					↖			↖	
Volume (vph)	25	161	67	0	0	0	0	203	30	35	213	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t			0.850					0.983				
Fl _t Protected		0.993									0.993	
Satd. Flow (prot)	0	1887	1615	0	0	0	0	1868	0	0	1887	0
Fl _t Permitted		0.993									0.929	
Satd. Flow (perm)	0	1887	1615	0	0	0	0	1868	0	0	1765	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			83					11				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		286			262			273			275	
Travel Time (s)		6.5			6.0			6.2			6.3	
Peak Hour Factor	0.81	0.81	0.81	0.92	0.92	0.92	0.90	0.90	0.90	0.86	0.86	0.86
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	31	199	83	0	0	0	0	226	33	41	248	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	230	83	0	0	0	0	259	0	0	289	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA	Perm					NA		Perm	NA	
Protected Phases		4						2			6	
Permitted Phases	4		4							6		
Minimum Split (s)	20.0	20.0	20.0					20.0		20.0	20.0	
Total Split (s)	46.0	46.0	46.0					59.0		59.0	59.0	
Total Split (%)	43.8%	43.8%	43.8%					56.2%		56.2%	56.2%	
Maximum Green (s)	42.0	42.0	42.0					55.0		55.0	55.0	
Yellow Time (s)	3.5	3.5	3.5					3.5		3.5	3.5	
All-Red Time (s)	0.5	0.5	0.5					0.5		0.5	0.5	
Lost Time Adjust (s)		0.0	0.0					0.0		0.0	0.0	
Total Lost Time (s)		4.0	4.0					4.0		4.0	4.0	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	5.0	5.0	5.0					5.0		5.0	5.0	
Flash Dont Walk (s)	11.0	11.0	11.0					11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0	0					0		0	0	
Act Effct Green (s)		42.0	42.0					55.0		55.0	55.0	
Actuated g/C Ratio		0.40	0.40					0.52		0.52	0.52	
v/c Ratio		0.31	0.12					0.26		0.26	0.31	
Control Delay		22.9	4.9					14.1		14.1	15.4	
Queue Delay		0.0	0.0					0.0		0.0	0.0	
Total Delay		22.9	4.9					14.1		14.1	15.4	

Lanes, Volumes, Timings
 13: Simonton St & Fleming St

3/14/2014



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		C	A					B			B	
Approach Delay		18.2						14.1			15.4	
Approach LOS		B						B			B	

Intersection Summary

Area Type:	Other
Cycle Length:	105
Actuated Cycle Length:	105
Offset:	0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Natural Cycle:	40
Control Type:	Pretimed
Maximum v/c Ratio:	0.31
Intersection Signal Delay:	16.0
Intersection Capacity Utilization	45.5%
Analysis Period (min)	15
Intersection LOS:	B
ICU Level of Service	A

Splits and Phases: 13: Simonton St & Fleming St



Future (2015) Total (w/ Project Traffic) Conditions

Lanes, Volumes, Timings
8: Simonton St & Eaton St

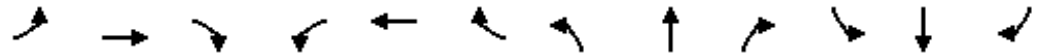
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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Volume (vph)	15	151	20	61	234	116	27	167	41	102	116	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.986			0.962			0.977			0.995	
Flt Protected		0.996			0.993			0.994			0.978	
Satd. Flow (prot)	0	1866	0	0	1815	0	0	1845	0	0	1849	0
Flt Permitted		0.953			0.918			0.944			0.719	
Satd. Flow (perm)	0	1785	0	0	1678	0	0	1752	0	0	1359	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		8			27			12			2	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		235			245			257			275	
Travel Time (s)		5.3			5.6			5.8			6.3	
Peak Hour Factor	0.80	0.80	0.80	0.90	0.90	0.90	0.91	0.91	0.91	0.82	0.82	0.82
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	19	189	25	68	260	129	30	184	45	124	141	10
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	233	0	0	457	0	0	259	0	0	275	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Minimum Split (s)	20.0	20.0		20.0	20.0		20.0	20.0		20.0	20.0	
Total Split (s)	57.0	57.0		57.0	57.0		48.0	48.0		48.0	48.0	
Total Split (%)	54.3%	54.3%		54.3%	54.3%		45.7%	45.7%		45.7%	45.7%	
Maximum Green (s)	53.0	53.0		53.0	53.0		44.0	44.0		44.0	44.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	0.5	0.5		0.5	0.5		0.5	0.5		0.5	0.5	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.0			4.0			4.0			4.0	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)		53.0			53.0			44.0			44.0	
Actuated g/C Ratio		0.50			0.50			0.42			0.42	
v/c Ratio		0.26			0.53			0.35			0.48	
Control Delay		15.2			19.2			21.4			25.6	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		15.2			19.2			21.4			25.6	

Lanes, Volumes, Timings
 8: Simonton St & Eaton St

3/14/2014



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		B			B			C			C	
Approach Delay		15.2			19.2			21.4			25.6	
Approach LOS		B			B			C			C	

Intersection Summary

Area Type:	Other
Cycle Length:	105
Actuated Cycle Length:	105
Offset:	0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle:	40
Control Type:	Pretimed
Maximum v/c Ratio:	0.53
Intersection Signal Delay:	20.4
Intersection LOS:	C
Intersection Capacity Utilization	71.1%
ICU Level of Service	C
Analysis Period (min)	15

Splits and Phases: 8: Simonton St & Eaton St

ø2 (R)	ø4
48 s	57 s
ø6 (R)	ø8
48 s	57 s

HCM Unsignalized Intersection Capacity Analysis

3: Elizabeth St & Eaton St

3/14/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Volume (veh/h)	12	278	7	22	407	35	15	18	13	23	19	12
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.86	0.86	0.86	0.92	0.92	0.92	0.88	0.88	0.88	0.67	0.67	0.67
Hourly flow rate (vph)	14	323	8	24	442	38	17	20	15	34	28	18
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	480			331			897	883	327	889	869	461
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	480			331			897	883	327	889	869	461
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			98			93	93	98	86	90	97
cM capacity (veh/h)	1093			1239			230	278	719	240	283	604

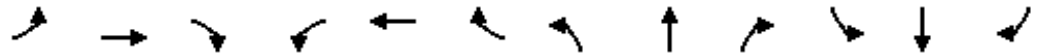
Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	345	504	52	81
Volume Left	14	24	17	34
Volume Right	8	38	15	18
cSH	1093	1239	310	295
Volume to Capacity	0.01	0.02	0.17	0.27
Queue Length 95th (ft)	1	1	15	27
Control Delay (s)	0.5	0.6	18.9	21.7
Lane LOS	A	A	C	C
Approach Delay (s)	0.5	0.6	18.9	21.7
Approach LOS			C	C

Intersection Summary

Average Delay	3.2
Intersection Capacity Utilization	43.0%
ICU Level of Service	A
Analysis Period (min)	15

Lanes, Volumes, Timings
 13: Simonton St & Fleming St

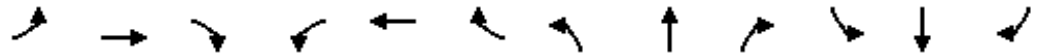
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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↖	↗					↖			↖	
Volume (vph)	48	161	86	0	0	0	0	217	41	25	197	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t			0.850					0.979				
Fl _t Protected		0.989									0.994	
Satd. Flow (prot)	0	1879	1615	0	0	0	0	1860	0	0	1889	0
Fl _t Permitted		0.989									0.945	
Satd. Flow (perm)	0	1879	1615	0	0	0	0	1860	0	0	1796	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			90					14				
Link Speed (mph)		30			30			30				30
Link Distance (ft)		286			262			273				275
Travel Time (s)		6.5			6.0			6.2				6.3
Peak Hour Factor	0.96	0.96	0.96	0.92	0.92	0.92	0.85	0.85	0.85	0.86	0.86	0.86
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	50	168	90	0	0	0	0	255	48	29	229	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	218	90	0	0	0	0	303	0	0	258	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA	Perm					NA		Perm		NA
Protected Phases		4						2				6
Permitted Phases	4		4							6		
Minimum Split (s)	20.0	20.0	20.0					20.0		20.0		20.0
Total Split (s)	46.0	46.0	46.0					59.0		59.0		59.0
Total Split (%)	43.8%	43.8%	43.8%					56.2%		56.2%		56.2%
Maximum Green (s)	42.0	42.0	42.0					55.0		55.0		55.0
Yellow Time (s)	3.5	3.5	3.5					3.5		3.5		3.5
All-Red Time (s)	0.5	0.5	0.5					0.5		0.5		0.5
Lost Time Adjust (s)		0.0	0.0					0.0		0.0		0.0
Total Lost Time (s)		4.0	4.0					4.0		4.0		4.0
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	5.0	5.0	5.0					5.0		5.0		5.0
Flash Dont Walk (s)	11.0	11.0	11.0					11.0		11.0		11.0
Pedestrian Calls (#/hr)	0	0	0					0		0		0
Act Effct Green (s)		42.0	42.0					55.0		55.0		55.0
Actuated g/C Ratio		0.40	0.40					0.52		0.52		0.52
v/c Ratio		0.29	0.13					0.31		0.27		0.27
Control Delay		22.7	4.7					14.6		14.9		14.9
Queue Delay		0.0	0.0					0.0		0.0		0.0
Total Delay		22.7	4.7					14.6		14.9		14.9

Lanes, Volumes, Timings
 13: Simonton St & Fleming St

3/14/2014



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		C	A					B			B	
Approach Delay		17.5						14.6			14.9	
Approach LOS		B						B			B	

Intersection Summary

Area Type:	Other
Cycle Length:	105
Actuated Cycle Length:	105
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green	
Natural Cycle:	40
Control Type:	Pretimed
Maximum v/c Ratio:	0.31
Intersection Signal Delay:	15.7
Intersection LOS:	B
Intersection Capacity Utilization	46.8%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 13: Simonton St & Fleming St



Lanes, Volumes, Timings
8: Simonton St & Eaton St

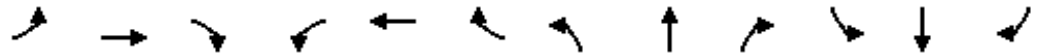
3/14/2014



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Volume (vph)	10	190	24	44	206	91	22	184	35	114	171	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.986			0.964			0.980			0.997	
Flt Protected		0.998			0.994			0.995			0.981	
Satd. Flow (prot)	0	1870	0	0	1821	0	0	1853	0	0	1858	0
Flt Permitted		0.978			0.919			0.949			0.687	
Satd. Flow (perm)	0	1832	0	0	1683	0	0	1767	0	0	1301	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		8			25			10			1	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		235			245			257			275	
Travel Time (s)		5.3			5.6			5.8			6.3	
Peak Hour Factor	0.68	0.68	0.68	0.85	0.85	0.85	0.76	0.76	0.76	0.84	0.84	0.84
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	15	279	35	52	242	107	29	242	46	136	204	7
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	329	0	0	401	0	0	317	0	0	347	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Minimum Split (s)	20.0	20.0		20.0	20.0		20.0	20.0		20.0	20.0	
Total Split (s)	57.0	57.0		57.0	57.0		48.0	48.0		48.0	48.0	
Total Split (%)	54.3%	54.3%		54.3%	54.3%		45.7%	45.7%		45.7%	45.7%	
Maximum Green (s)	53.0	53.0		53.0	53.0		44.0	44.0		44.0	44.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	0.5	0.5		0.5	0.5		0.5	0.5		0.5	0.5	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.0			4.0			4.0			4.0	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)		53.0			53.0			44.0			44.0	
Actuated g/C Ratio		0.50			0.50			0.42			0.42	
v/c Ratio		0.35			0.47			0.42			0.64	
Control Delay		16.6			17.9			23.0			30.6	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		16.6			17.9			23.0			30.6	

Lanes, Volumes, Timings
 8: Simonton St & Eaton St

3/14/2014



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		B			B			C			C	
Approach Delay		16.6			17.9			23.0			30.6	
Approach LOS		B			B			C			C	

Intersection Summary

Area Type:	Other
Cycle Length:	105
Actuated Cycle Length:	105
Offset:	0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle:	40
Control Type:	Pretimed
Maximum v/c Ratio:	0.64
Intersection Signal Delay:	21.9
Intersection Capacity Utilization	72.7%
Analysis Period (min)	15
Intersection LOS:	C
ICU Level of Service	C

Splits and Phases: 8: Simonton St & Eaton St

ø2 (R)	ø4
48 s	57 s
ø6 (R)	ø8
48 s	57 s

HCM Unsignalized Intersection Capacity Analysis

3: Elizabeth St & Eaton St

3/14/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Volume (veh/h)	6	304	5	11	372	28	5	24	13	28	24	5
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.84	0.84	0.84	0.90	0.90	0.90	0.82	0.82	0.82	0.89	0.89	0.89
Hourly flow rate (vph)	7	362	6	12	413	31	6	29	16	31	27	6
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	444			368			852	848	365	863	835	429
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	444			368			852	848	365	863	835	429
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			99			98	90	98	87	91	99
cM capacity (veh/h)	1126			1202			257	296	685	247	301	630

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	375	457	51	64
Volume Left	7	12	6	31
Volume Right	6	31	16	6
cSH	1126	1202	351	283
Volume to Capacity	0.01	0.01	0.15	0.23
Queue Length 95th (ft)	0	1	13	21
Control Delay (s)	0.2	0.3	17.0	21.4
Lane LOS	A	A	C	C
Approach Delay (s)	0.2	0.3	17.0	21.4
Approach LOS			C	C

Intersection Summary

Average Delay	2.6
Intersection Capacity Utilization	42.7%
ICU Level of Service	A
Analysis Period (min)	15

Lanes, Volumes, Timings
13: Simonton St & Fleming St

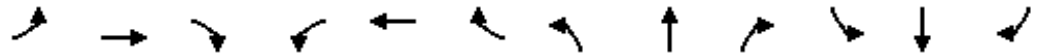
3/14/2014



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	32	161	67	0	0	0	0	228	30	35	213	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t			0.850					0.984				
Fl _t Protected		0.992									0.993	
Satd. Flow (prot)	0	1885	1615	0	0	0	0	1870	0	0	1887	0
Fl _t Permitted		0.992									0.925	
Satd. Flow (perm)	0	1885	1615	0	0	0	0	1870	0	0	1758	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			83					9				
Link Speed (mph)		30			30			30				30
Link Distance (ft)		286			262			273				275
Travel Time (s)		6.5			6.0			6.2				6.3
Peak Hour Factor	0.81	0.81	0.81	0.92	0.92	0.92	0.90	0.90	0.90	0.86	0.86	0.86
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	40	199	83	0	0	0	0	253	33	41	248	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	239	83	0	0	0	0	286	0	0	289	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA	Perm					NA		Perm	NA	
Protected Phases		4						2			6	
Permitted Phases	4		4							6		
Minimum Split (s)	20.0	20.0	20.0					20.0		20.0	20.0	
Total Split (s)	46.0	46.0	46.0					59.0		59.0	59.0	
Total Split (%)	43.8%	43.8%	43.8%					56.2%		56.2%	56.2%	
Maximum Green (s)	42.0	42.0	42.0					55.0		55.0	55.0	
Yellow Time (s)	3.5	3.5	3.5					3.5		3.5	3.5	
All-Red Time (s)	0.5	0.5	0.5					0.5		0.5	0.5	
Lost Time Adjust (s)		0.0	0.0					0.0		0.0	0.0	
Total Lost Time (s)		4.0	4.0					4.0		4.0	4.0	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	5.0	5.0	5.0					5.0		5.0	5.0	
Flash Dont Walk (s)	11.0	11.0	11.0					11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0	0					0		0	0	
Act Effct Green (s)		42.0	42.0					55.0		55.0	55.0	
Actuated g/C Ratio		0.40	0.40					0.52		0.52	0.52	
v/c Ratio		0.32	0.12					0.29		0.31	0.31	
Control Delay		23.1	4.9					14.6		15.4	15.4	
Queue Delay		0.0	0.0					0.0		0.0	0.0	
Total Delay		23.1	4.9					14.6		15.4	15.4	

Lanes, Volumes, Timings
 13: Simonton St & Fleming St

3/14/2014



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		C	A					B			B	
Approach Delay		18.4						14.6			15.4	
Approach LOS		B						B			B	

Intersection Summary

Area Type:	Other
Cycle Length:	105
Actuated Cycle Length:	105
Offset:	0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Natural Cycle:	40
Control Type:	Pretimed
Maximum v/c Ratio:	0.32
Intersection Signal Delay:	16.2
Intersection Capacity Utilization	47.2%
Analysis Period (min)	15
Intersection LOS:	B
ICU Level of Service	A

Splits and Phases: 13: Simonton St & Fleming St

